



M O R G A N
W O R L D W I D E

February 24, 2012

Chairman Doc Hastings
Subcommittee Chairman Doug Lamborn
Committee on Natural Resources
U.S. House of Representatives
1324 Longworth House Office Building
Washington, D.C. 20515

Dear Chairman Hastings and Subcommittee Chairman Lamborn:

Morgan Worldwide Consultants, Inc. (MWC) received your letter of February 2, 2012, requesting information regarding the Office of Surface Mining Reclamation and Enforcement's (OSM) rewrite of the 2008 Stream Buffer Zone Rule. MWC appreciates the Committee's generous extension of time to respond to this request. After a brief review of MWC's role in this project, a response to each of the seven numbered requests is provided.

Morgan Worldwide worked on this project in two separate capacities. First, MWC worked as a subcontractor to Polu Kai Services, LLC under Contract Number S10PC00060 from June 14, 2010, to March 23, 2011. In this capacity, MWC was mainly responsible for EIS sections related to "mineral resources" and "topography" and had a QA/QC role on several other EIS sections and the RIA. All contract documents, including MWC's original contract and scope of work with PKS and the four contract modifications, are attached as responses to Question No. 5.

MWC's second role in this project is as a current subcontractor to Industrial Economics, Inc. (IEc) in relation to Contract No. S11PC00011. The period of performance on MWC's subcontract with IEc is June 17, 2011, through June 30, 2012. Upon receiving the Committee's letter, MWC contacted IEc to discuss MWC's contractual obligations regarding document disclosure and confidentiality under its contract and how those obligations related to this request. IEc contacted OSM and on February 17, 2012, OSM sent a letter to IEc (attached), and which IEc forwarded to MWC by email on February 20, 2012. This letter informed IEc that this Committee's request fell within the scope of two provisions in Contract No. S11PC00011 and asked that IEc deliver any documents responsive to this request to the Contracting Officer. In addition, the letter stated that "The OSM thereafter will advise you of further steps necessary to address this or any other request that you may receive for documents or information covered by the contract."

The relevant contract provisions identified by OSM are as follows:

Clause F.3.1, Disclosure [of] Information:

Information made available to the contractor by the Government for the performance or administration of this effort shall be used only for those purposes and shall not be used in any other way without the written agreement of the Contracting Officer. The contractor agrees to assume responsibility for protecting the confidentiality of Government records, which are not public information.

Clause F.3.2, Limited Use of Data:

Contractor shall not divulge or release data or information developed or obtained in the performance of this effort, until made public by the Government, except to authorize[d] Government, except to authorize[d] Government personnel or upon written approval of the Contracting Officer.

In addition, Section 15 of the Subcontract Agreement between Industrial Economics, Inc. and Morgan Worldwide Consultants, Inc. states:

Subcontractor [MWC] shall not disclose information concerning work under this Agreement to any third party without IEc's prior written consent, expressly and specifically given. No news release, public announcement, denial or confirmation of any part of the subject matter of this Agreement, or any phase of any program hereunder shall be made without such prior written consent.

At this time, MWC has not received authorization to disclose any information under its current contract with IEc from either IEc or OSM. Thus, MWC appears to have a contractual obligation and duty to maintain the confidentiality of its records under one branch of government, but is being asked to disclose these records by a Committee originating from another branch of government. MWC is willing to assist the Congress in any way it can; however, MWC is unsure how this Committee's request affects its contractual obligations with IEc and OSM. MWC is in an abstruse position and does not want to forego its obligation to either party. As a result, MWC has compiled the requested data under Contract No. S10PC00060 that are responsive to this request, but finds it necessary to await further direction from OSM and this Committee before disclosing this information to either party. Responses to this request under MWC's former contract with PKS are outlined in full below, with associated documents attached.

MWC's Responses to Documents and Items to Be Produced

MWC's responses to the seven numbered data requests are below and relevant documents are attached hereto and organized by question number. Where applicable, documents are organized chronologically. As described above and unless otherwise noted, these responses only apply to documents and items related to Contract No. S10PC00060, in which MWC was a subcontractor to PKS.

1. MWC is in the possession of two sets of documents responsive to this request. First, OSM issued PKS a Cure Notice on February 8, 2011, alleging that PKS was in noncompliance with the prime contract (Contract No. S10PC00060). Although not directly related to the quality of MWC's work, PKS sent MWC a letter dated February 15, 2011, requesting that MWC respond to the allegations in the Cure Notice, which MWC did by letter dated February 17, 2011. The Cure Notice, PKS's letter to MWC, and MWC's response are attached.

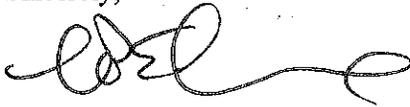
In addition, MWC is in the possession of one document from OSM that contains comments from various OSM employees on Section 3.1 of a draft EIS document related to mining and mineral resources. While MWC does not know the EIS draft version that these comments pertain or the date of the comments, it believes that these comments are relevant to its work on that part of the section relating to mineral resources (as opposed to mining methods) and/or are those comments that have been checked.

2. MWC does not possess and has not listened to any recordings of any meetings related to this project, under either the original Contract No. S10PC00060 or under its current contract with IEC.
3. MWC does not possess and has not seen any transcripts of any meetings related to this project, under either the original Contract No. S10PC00060 or under its current contract with IEC.
4. The majority of the documents MWC possesses related to the economic impacts and/or potential job loss estimates or figures are in relation to its QA/QC role on the RIA. These documents are attached in chronological order.
5. MWC's role in the preparation of the EIS for the Stream Protection Rule was defined by its subcontract agreement with PKS, which is attached. In addition, MWC's original contract was modified through three separate change orders to add work regarding attendance at two scoping meetings and work involving Chapter 1 and Chapter 2 of the EIS. A final contract modification was also agreed to by PKS and MWC, which changed the ending date of the contract. These four modifications are also attached. For reference, MWC notes that in comparison to PKS and the other three subcontractors (MACTEC, ECSI, and Plexus), MWC had a small role in the overall project. Of the final total contract price of \$3,475,269, MWC was paid \$216,687.07, or about six percent of the budget of the entire project.
6. Information MWC possesses that is responsive to Question 6 is somewhat overlapping. Documents responsive to Questions 6d and 6g would be part of the baseline parameters provided to the contractor teams that are requested in Questions 6a and 6b. MWC does not have any documents in its possession that are responsive to Question 6b in relation to Contract No. S10PC00060. Thus, responses to Questions 6d and 6g are contained within the responses to Questions 6a and no responses are included for 6b. All other responses to the subparts of Question 6 are organized by appropriate subpart.

7. The relevant agreements to maintain confidentiality under MWC's current contract are quoted on Page 2 of this letter. MWC also attached Section 15 of its subcontract with IEc in full. In relation to its former contract with PKS, MWC's final contract modification, attached as part of Question 5, contains a clause related to confidentiality, but allows disclosure of information in response to a Congressional investigation.

MWC believes that the above responses are complete in regards to its work on this project under the PKS contract and recognizes its continuing obligation to supplement this response if additional information becomes available. In relation to MWC's current contract with IEc, MWC emphasizes its willingness to aid in this Committee's investigation in whatever way it can and does have documents responsive to this request. However, MWC remains concerned that disclosing these documents may constitute a breach of its contractual obligations with IEc and/or OSM. MWC is committed to working with all parties to determine how best to handle this situation. Please contact us if you have questions. We look forward to working with you.

Sincerely,



Liz Darling Edmondson
Staff Attorney
Morgan Worldwide Consultants, Inc.

Enclosures

cc: Mr. Robert Unsworth, Industrial Economics, Inc. – electronic scan of letter, no attachments

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U.S. House of Representatives
Committee on Natural Resources
Washington, DC 20515

February 2, 2012

JEFFREY DUNCAN
DEMOCRATIC STAFF DIRECTOR

TODD YOUNG
CHIEF OF STAFF

John Morgan
President
Morgan Worldwide
122 East Third Street
Lexington, KY 40508

RECEIVED
FEB 06 2012

Dear Mr. Morgan:

BY:.....

The Committee on Natural Resources ("Committee") is actively investigating issues surrounding the Department of the Interior's Office of Surface Mining, Reclamation and Enforcement ("OSM") rewrite of the 2008 Stream Buffer Zone Rule ("Rule"). Through this letter, we request information and cooperation regarding communication between The Department of the Interior ("DOI") and Morgan Worldwide, and any of its subcontractors. Your response on behalf of Morgan Worldwide is important for the Committee to carry out its oversight and legislative responsibilities and to ensure that the rewrite of the Rule is consistent with federal law.

Based on statements made by DOI officials, DOI expressed concerns about the quality of Polu Kai Services' work, and information is sought to determine whether such concerns were expressed before, or only after, job loss impact information became publicly known through media reports. We also understand that as part of Morgan Worldwide's scope of work, Morgan Worldwide analyzed several different economic impact scenarios including the effect on coal mining and job loss at risk from the proposed Rule.

We expect a complete written response to be provided to the Committee no later than February 17, 2012.

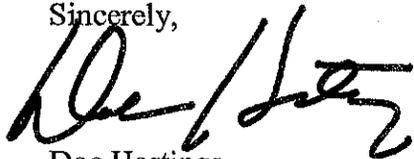
Documents and Items to Be Produced

1. Any and all documents and communication relating to concerns, discussions, comments, or questions regarding the quality of Morgan Worldwide's or any of its sub-contractor's work from May 1, 2010 to the present.
2. Any and all recordings of meetings attended by Morgan Worldwide, other contractors or sub-contractors, OSM, and/or DOI.

3. Any and all transcripts of meeting recordings between Morgan Worldwide, other contractors or sub-contractors, OSM, and DOI.
4. Any and all documents and communications relating to the economic impact or potential job loss estimates or figures from October 1, 2010 to the present.
5. Any and all documents related to Morgan Worldwide's role in the preparation of the Environmental Impact Statement for the proposed Stream Protection Rule, including but not limited to any descriptions of which portions of the EIS Morgan Worldwide was responsible for.
6. Any and all documents and communications relating to the baseline parameters provided by the DOI or OSM including but not limited to:
 - a. The baseline parameters that were provided to the contractor teams prior to and including February 2011
 - b. The baselines and parameters provided to the contractors after February 2011.
 - c. The decision to expand the scoping opportunities for the re-write of the Rule.
 - d. The decision to use the 2008 coal production numbers, the 2010 coal production numbers, or an average of the three years combined in creating the assumption for the EIS or the RIA.
 - e. Whether the proposed rule would cover only surface mining or surface and underground mining;
 - f. The implementation timeline for the Stream Protection Rule.
 - g. Assumptions that the 2008 Rule was in effect and being enforced across the United States.
7. Copies of any and all agreements to maintain confidentiality including but not limited to "gag" or suppression orders or agreements and related conditions associated with such orders or agreements.

An attachment to this letter provides additional information about responding to the Committee's request, including definitions and instructions for compliance. Please contact Machalagh Carr, Counsel, Office of Oversight and Investigations, at 202-225-2761 with any questions regarding this request, or to make arrangements for the production. Thank you for your prompt and personal attention to this matter.

Sincerely,



Doc Hastings
Chairman
Natural Resources Committee



Doug Lamborn
Subcommittee Chairman
Energy and Mineral Resources

Responding to Committee Document Requests

A. Definitions

1. The term “document” means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, and whether original or copy, including, but not limited to, the following: memoranda, reports, recorded notes, letters, notices, confirmations, receipts, checks, envelopes, presentations, pamphlets, brochures, interoffice and intra office communications, electronic mails (e-mails), notations of any type of conversation, telephone call, voice mail, phone mail, meeting or other communication, diaries, analyses, summaries, messages, correspondence, circulars, opinions, work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto), and electronic, mechanical, and electric records or representations of any kind, and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk, videotape, or otherwise.
2. The term “communication” means each manner or means of disclosure or exchange of information, regardless of means utilized, whether oral, electronic, by document or otherwise, and whether face-to-face, in a meeting, by telephone, mail, e-mail, discussions, releases, personal delivery, or otherwise.
3. The terms “and” and “or” shall be construed broadly and either conjunctively or disjunctively to bring within the scope of this document request. The singular includes the plural. The masculine includes the feminine.
4. As used herein, “referring” or “relating” means and includes “constituting,” “pertaining,” “evidencing,” “reflecting,” “describing,” or “having anything to do with,” and in each instance, directly or indirectly. These terms mean, without limitation, any reference or relationship which either (a) provides information with respect to the subject of the inquiry, or (b) might lead to individuals who, or documents which, might possess or contain information with respect to the subject of the inquiry.

B. Instructions

1. In complying with this document request, you are required to produce all responsive documents, materials, or items that are in your possession, custody, or control, whether held by you or your past or present agents, employees, representatives, subsidiaries, affiliates, divisions, partnerships, and departments acting on your behalf. You are also

required to produce documents that you have a legal right to obtain, that you have a right to copy or to which you have access, as well as documents that you have placed in the temporary possession, custody, or control of any third party. No records, documents, data or information called for by this request shall be destroyed, modified, removed, transferred or otherwise made inaccessible to the Committee.

2. In the event that any entity, organization or individual denoted in this document request has been, or is also known by any other name than that herein denoted, the document request shall be read also to include them under that alternative identification.
3. Each document produced shall be produced in a form that renders that document capable of being printed or copied.
4. Documents produced in response to this document request shall be produced together with copies of file labels, dividers, envelopes, or identifying markers with which they were associated when this document request was served. Documents produced to this document request shall also identify to which paragraph from the document request such documents are responsive. Moreover, please include with your response, an index identifying each record and label (preferably by bates stamping) the documents. The Committee prefers, if possible, to receive all documents in electronic format.
5. It shall not be a basis for refusal to produce documents that any other person or entity also possesses documents that are non-identical or identical copies of the same document.
6. If any of the requested information is available in machine-readable or electronic form (such as on a computer server, hard drive, CD, DVD, memory stick, or computer back-up tape), state the form in which it is available and provide sufficient detail to allow the information to be copied to a readable format. If the information requested is stored in a computer, indicate whether you have an existing program that will print the records in a readable form.
7. If compliance with the document request cannot be made in full, compliance shall be made to the extent possible and shall include a written explanation of why full compliance is not possible.
8. In the event that a document is withheld, in whole or in part, based on a claim of privilege, provide the following information concerning any such document: (a) the privilege asserted; (b) the type of document; (c) the general subject matter of the document; (d) the date, author and any recipients; and (e) the relationship of the author and recipients to each other. Claims of privileges are considered under Committee on

Natural Resources Rule 4(h) and, similar to all common-law privileges, are recognized only at to the discretion of the Committee.

9. If any document responsive to this document request was, but no longer is, in your possession, custody, or control, identify the document (stating its date, author, subject and recipients) and explain the circumstances by which the document ceased to be in your possession, custody, or control.
10. If a date or other descriptive detail set forth in this document request referring to a document is inaccurate, but the actual date or other descriptive detail is known to you or is otherwise apparent from the context of the request, you should produce all documents which would be responsive as if the date or other descriptive detail were correct.
11. This request is continuing in nature and applies to any newly-discovered information. Any record, document, compilation of data or information, not produced because it has not been located or discovered by the return date, shall be produced immediately upon location or discovery subsequent thereto.
12. Send all responsive documents and records to:

Committee on Natural Resources
U.S. House of Representatives
1324 Longworth House Office Building
Washington, D.C. 20515

Linda Carroll

From: John Morgan
Sent: Monday, February 20, 2012 9:30 AM
To: Linda Carroll; Liz Edmondson
Subject: FW: Response to HRC
Attachments: PITscanner_osmre_gov_20120217_175045.pdf

The OSM letter

-----Original Message-----

From: Leslie Genova [<mailto:LGenova@indecon.com>]
Sent: Monday, February 20, 2012 9:26 AM
To: John Morgan
Cc: Robert Unsworth
Subject: Response to HRC

John,
Please see attached direction from OSM regarding materials associated with our contract with you.

Best,
Leslie Genova

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United States Department of the Interior

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Appalachian Region
Three Parkway Center
Pittsburgh, Pennsylvania 15220

FEB 17 2012

Mr. Robert E. Unsworth
Industrial Economics, Incorporated
2067 Massachusetts Avenue
Cambridge, MA 02140

Subject: Contract No. S11PC00011

Dear Mr. Unsworth

Thank you for notifying the Office of Surface Mining (OSM) of the receipt by your subcontractor, Morgan Worldwide, of a February 2, 2012 letter from the U.S. House of Representatives Committee on Natural Resources ("Committee"). The letter requests "any and all documents" in seven categories relating to the subcontractor's work under contract no. S11PC00011 between IEc and OSM for "Support of Stream Protection Rulemaking."

I call your attention to the following relevant sections of two clauses of this contract:

Clause F.3.1, Disclosure [of] Information:

Information made available to the contractor by the Government for the performance or administration of this effort shall be used only for those purposes and shall not be used in any other way without the written agreement of the Contracting Officer. The contractor agrees to assume responsibility for protecting the confidentiality of Government records, which are not public information.

Clause F.3.2, Limited Use of Data:

Contractor shall not divulge or release data or information developed or obtained in the performance of this effort, until made public by the Government, except to authorize[d] Government personnel or upon written approval of the Contracting Officer.

The documents requested by the Committee are within the scope of these contract provisions. Pursuant to these provisions, you are directed to provide to me electronic copies of any documents that you believe to be responsive to any request for documents or information under

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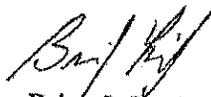
Mr. Robert E. Unsworth

2

this contract. The OSM thereafter will advise you of further steps necessary to address this or any other request that you may receive for documents or information covered by the contract.

Please contact me at 412-937-2837 if you have any questions.

Sincerely yours,



Brian J. Luzik
Contracting Officer

financial or other interest that could impair the individual's objectivity or could create an unfair competitive advantage.

Subcontractor agrees that if an actual, apparent or potential organizational conflict of interest is identified during performance, Subcontractor shall immediately make a full disclosure in writing to IEC. This disclosure shall include a description of actions which the Subcontractor has taken or proposes to take, after consultation with IEC, to avoid, mitigate, or neutralize the actual, apparent or potential conflict of interest. The Subcontractor shall continue performance until notified by IEC of any contrary action to be taken.

13. TECHNICAL DIRECTION

The IEC Program Manager or IEC designee are the only persons authorized to provide technical direction on performance.

14. CLAUSES INCORPORATED BY REFERENCE AND IN FULL TEXT

This Agreement incorporates by reference the clauses set forth at the citations listed in Attachment 3. These Clauses have the same force and effect as if they were given in full text. Subcontractor hereby acknowledges that Subcontractor has copies of these clauses and is familiar with them. Additional clauses are incorporated into this Agreement in full text as contained in Attachment 4. For purposes of interpreting these clauses, references to "Contractor" shall mean "Subcontractor" and references to the "Government", "Agency" or the representatives of either including the "Contracting Officer," shall mean IEC, where necessary or desirable for IEC to carry out its obligations thereunder, except for FAR clause 52.215-2 where the term "Contracting Officer" is not changed. References to the "Contract" shall mean this Agreement.

15. NONDISCLOSURE

Subcontractor shall not disclose information concerning work under this Agreement to any third party without IEC's prior written consent, expressly and specifically given. No news release, public announcement, denial or confirmation of any part of the subject matter of this Agreement, or any phase of any program hereunder shall be made without such prior written consent.

For the purposes of this Article the term "information" includes, but is not limited to, planning documents, strategies, research proposals, data, results, preliminary conclusions, field notes, computer files or data, designs, equipment, photographic or video media, or conversations related to this Agreement.

The conditions of this Article shall continue in effect upon completion, expiration, or termination of this Agreement. Failure to comply with the provisions of this Article may be cause for IEC's termination of this Agreement for default.

16. INSURANCE

The Subcontractor shall be solely responsible for any and all third party liability incurred by it in connection with the performance of this Subcontract. The Subcontractor agrees to procure and thereafter maintain workmen's compensation and employer's liability insurance, comprehensive general liability insurance, comprehensive automobile liability and such other insurance as may be required to adequately protect it against such liability.



February 15, 2011

Sent via Email Only

John S. L. Morgan
President
Morgan Worldwide
P.O. Box 888
Lexington, KY 40588

Re: Consulting Agreement No. 10-092-0023; OSM Cure Notice issued under Contract No. S10PCC00060

Dear Mr. Morgan:

Polu Kai Services, LLC ("PKS") previously provided Morgan Worldwide ("Morgan Worldwide") a copy of a Cure Notice received from the U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement ("OSM"). The Cure Notice alleges that PKS is in noncompliance with the prime contract and demands a revised EIS by February 23, 2011. Otherwise, the contract could be terminated for default.

Our response to the Cure Notice must be twofold. First, the EIS should be revised to the maximum extent possible to address the items mentioned in the Cure Notice and further discussed during last week's meeting. We cannot assume that OSM will provide PKS additional time beyond February 23, 2011 to revise the EIS. Second, with respect to items that cannot be addressed by that date, the response to the Cure Notice will include a plan detailing what actions will be done to further develop the EIS and other deliverables.

PKS expects Morgan Worldwide to dedicate the necessary resources to revise the EIS to satisfy OSM's demands by February 23, 2011. If not possible, Morgan Worldwide must be prepared to defend against a possible termination for default to avoid liability.

If your company believes that OSM's actions require out-of-scope work, you must follow the procedures in Paragraph 17 of the Subcontract, "Claims Involving the Owner – Federal Government Contract Disputes" and Paragraph 52.243-1 of the Prime Contract, "Changes – Fixed Price – Alternate 1 (APR 1984)." PKS will forward any such requests for additional compensation to OSM.

Nothing in this letter represents an admission by PKS that OSM would be justified in terminating the contract for default. PKS stands by its subcontractors in asserting all of its defenses to a possible termination for default, including but not limited to, why the alleged deficiencies are not the responsibility or fault of Morgan Worldwide. Any information to be included in PKS's response to the Cure Notice in defense of Morgan Worldwide should be submitted to PKS no later than Thursday, February 17, 2011.

Sincerely,
Polu Kai Services, LLC

A handwritten signature in black ink, appearing to read 'Jose Sosa'.

Jose Sosa
Executive Vice President

cc: John Manfredonia, Esq.

Southeast Region
6911 Pistol Range Rd., Ste 101E, Tampa, Florida 33635
Phone (813) 749-8624 Fax (813) 886-8483



United States Department of the Interior

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Washington, D.C. 20240

February 8, 2011

Mr. José J. Sosa
Executive Vice President
Polu Kai Services, LLC
6911 Pistol Range Road, Suite 101E
Tampa, Florida 33635

Subject: Cure Notice for Contract Number S10PC00060 with Polu Kai Services, LLC, Environmental Impact Statement and Regulatory Impact Analysis for Proposed Stream Protection Rule.

Dear Mr. Sosa:

This letter is notice that the Office of Surface Mining Reclamation and Enforcement (OSM or the Government) considers Polu Kai Services, LLC's (PKS) failure to deliver working draft chapters of the Environmental Impact Statement (EIS) and Regulatory Impact Analysis (RIA) that meet the requirements of the contract to endanger performance of the subject contract to such a degree that the entire EIS project is in jeopardy. Unless PKS submits a Preliminary Draft EIS and RIA that cures the deficiencies identified and meets the requirements of the SOW by February 23, 2011, the Government may elect to terminate for default under the terms and conditions of Section I, 52.249-8 of this contract.

Throughout this process, OSM provided voluminous comments to PKS that document many of the deficiencies in working draft chapters 1 through 4 of the EIS, and with the December 2010 draft RIA prepared by PKS. In addition to these prior written comments, attached is a list of examples that further illustrate the deficiencies identified by OSM staff. This list and the prior written comment provided to PKS, which are incorporated by reference here, is intended to be representative of deficiencies and is not all-inclusive. OSM will evaluate the February 23, 2011, deliverables against the requirements set forth in the contract.

In responding to this cure notice you are required to tell the Contracting Officer what actions you will take to remedy your performance - specifically, (1) how PKS will fully implement the requirements for the EIS which are set out in the contract; (2) how PKS plans to bring into conformance the preliminary Draft EIS and RIA in light of the failure of the working draft chapters and the draft RIA to meet contract performance standards; and (3) how PKS will prevent any similar reoccurrence of deficient performance. It is your responsibility to correct your performance to meet the requirements of the contract and cure these deficiencies no later

than February 23, 2011. Failure to correct performance may result in the termination of the contract.

Please acknowledge receipt of this notice in writing within 24 hours of receipt. If you have any questions or concerns regarding this cure notice letter, please do not hesitate to call me. I can be contacted at (202-208-2902) or via email at nsloanhoffer@osmre.gov.

Respectfully,



Nancy E. Sloanhoffer
Contracting Officer

Cc: US Small Business Administration
409 3rd Street, SW
Washington, DC 20416

Attachment

ATTACHMENT

I. Environmental Impact Statement (SOW 2.0 Background)

The SOW for the preparation of the EIS provides: "The EISs and the processes for their preparation must be consistent with and meet all requirements of NEPA and implementing CEQ regulations (hereafter referred to as the CEQ regulations) and guidance. These requirements are referred to collectively hereafter as the federal NEPA requirements, or simply NEPA. Contractor data collection, analysis, and documentation will identify and evaluate all relevant impacts, conditions, and issues associated with the proposed action, and the alternatives in accordance with NEPA."

According to page 7 of the PKS technical proposal submitted in response to the SOW under the heading *Expert Knowledge of Environmental Impact Statement Development Process and this Statement of Work* states, "This NEPA analysis and documentation applies to a proposed federal rule ... NEPA established a requirement for federal decision makers to fully understand the environmental ramifications of their decisions and include this knowledge, along with traditional economic and technical (and political) considerations, into the trade-off analysis and comparisons associated with sound decisions." The working draft EIS chapters fail to provide the information required by the SOW, do not comply with NEPA, and are not acceptable. In order to cure the deficiencies, PKS must submit a Preliminary Draft EIS which meets the requirements of the SOW. OSM provided detailed comments to PKS on each of the working draft EIS chapters, which identify deficiencies and inaccuracies in those chapters. The following are examples of some of the fundamental deficiencies that OSM's comments identified in the working draft Chapters 3 and 4 of the EIS:

- **Misrepresentation of regulations. (SOW A, 3.2 F and J (2)(e))**

Working draft chapters 3 and 4 fail to accurately characterize relevant provisions of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) and current regulations at 30 C.F.R. Chapter VII. We are particularly concerned about numerous errors regarding the 2008 Stream Buffer Zone Rule, 30 C.F.R. Parts 780, 784, 816, and 817; the Advance Notice of Proposed Rulemaking (ANPR) for the proposed Stream Protection Rule (SPR), 74 Fed. Reg. 62664 (November 20, 2009); and statutory requirements relating to "material damage." 30 U.S.C. § 1260(b)(3), which are found throughout draft EIS chapters. The draft EIS is fundamentally flawed because the draft impact assessment relies on these mischaracterizations and erroneous interpretations of SMCRA, 30 C.F.R. Chapter VII, and OSM's preferred alternative.

- **Baseline condition. (SOW A, 3.2 J (1))**

Working draft chapter 4 of the EIS fails to use 30 C.F.R. Chapter VII in its entirety as the baseline for all comparisons of the impacts of action alternatives. Further, draft chapter 4 inappropriately relies on 2008 coal production data, the highest coal production ever in the

history of the US, as the basis for drawing conclusions, thereby failing to account for the impact of supply and demand economics.

- **No description of current mining and reclamation regulations and practice. (SOW A, 3.2 C)**

The EIS fails to contain a description of the current regulatory structure and practice for each of the major elements in the EIS under all alternatives.

- **Inconsistent level of detail across regions. (SOW A, 3.2 D and J (2)(d))**

Working draft chapter 4 of the EIS fails to provide an appropriate level of detail in evaluating impacts for all coal regions and the analysis of impacts of the proposed action is skewed to focus disproportionately on one region (i.e., the Appalachian Basin).

- **Impact Analysis. (SOW A, 3.2 D and G)**

A crucial shortcoming of working draft chapter 4 is that the draft does not include an adequate analysis of the environmental impacts of key aspects of the action alternatives. Instead, it effectively focuses on the impacts of different levels of coal production, as a surrogate for analysis of environmental impacts of key aspects. As a result, the EIS fails to provide the most fundamental and important type of analysis required under NEPA. By the same token, while some discussion of costs and other impacts on mining operations may be appropriate, it belongs in a discussion of socio-economic impacts, and not in the primary discussion of environmental impacts.

Another critical shortcoming of working draft chapter 4 is that the draft does not provide a comparative discussion of the most important impacts of each key element of each alternative, so that a decision maker can decide whether to retain, reject, or modify particular elements when acting on the rulemaking. The most important impacts would include any important costs and benefits that should be considered. For example, draft chapter 4 does not provide sufficient information to enable a decision maker to determine the costs of the key elements of the preferred alternative or any other alternative. And the lack of this information renders the EIS useless for purposes of assessing and perhaps modifying the alternatives.

The draft EIS fails to include or reference a cost-benefit analysis of the probable costs of the proposed rulemaking, and a monetized benefit equivalent, to evaluate the overall net impact of the rulemaking. It is OSM's understanding that an underpinning of the impact analysis in the

draft EIS is the Appendix -L to the RIA which contained "placeholder" cost data intended to be illustrative of the methodology only and should not have formed the basis of all cost and impact assumptions in chapter 4.

The EIS working draft chapter 4 lacks an analysis of the increased compliance cost on the coal equilibrium supply and demand model and fails to explain the impacts of the price increase on important model outputs such as jobs, electricity supply and demand, and other important impacts.

- **Environmental Impact Assessment. (SOW A, 3.2 J)**

The EIS working draft chapter 4 fails to provide the underlying assumptions and calculations to support the 'Expert Elicitation' process used to arrive at the impact metric; it fails to provide the assumptions and thresholds used in the metrics that quantify the impact of the various alternatives in each of the coal regions; and it fails to thoroughly vet all variables and provide clear foundational support in the numerical analysis.

- **Cumulative impacts analysis. (SOW A, 3.2 J (4)(r))**

The EIS fails to include a cumulative impact analysis for impacts on ground water or an explanation of why an analysis is not needed or provided; the cumulative impact tables fail to provide a more complete, summarized description of the cumulative impacts; and the cumulative impact tables fail to differentiate by regions. The lack of adequate cumulative impact analysis is one of the more frequently cited serious shortcomings for an EIS under NEPA, and it is crucial to provide sufficient analysis of such impacts.

- **Coal production shifts. (SOW A, 3.2 D and J)**

Working draft chapter 4 of the EIS fails to consider the fact that anthracite coal production in the Appalachian Region cannot be "offset" by bituminous coal production in the western US and that therefore offsets for metallurgical coal production impacts may not be achievable under the assumptions used for coal production shifts.

- **Production shift methodology. (SOW A, 3.2 D and J)**

The EIS fails to include an analysis using a numeric method to support the production shift model and associated conclusions drawn in chapter 4.7 and discussed throughout chapter 4.

II. Regulatory Impact Analysis (SOW Section A, 3.2 H and J)

The EIS shall contain a Regulatory Impact Analysis (RIA) with cost-benefit data that fulfills the requirements of sections 6(a)(3) (B) and (C) of Executive Order 12866, 40 CFR 1502.23, OMB Circular A-4 and the Regulatory Flexibility Act (5 U.S.C.601) and provides documentary support for the analysis. The document submitted by PKS in December 2010, fails to comply with the requirements referenced in the SOW.

In order to cure the deficiencies, PKS must submit a revised RIA which meets the requirements of the SOW, and at a minimum:

- Discusses in conceptual terms how the economic analysis is approached, how costs and benefits are estimated, and how they are evaluated for this analysis;
- Discusses the need for the regulation, specifically addressing the extent to which market failures or information asymmetries are present. Discusses the necessity for the rule with regard to the conditions that indicate that a regulatory approach is appropriate;
- Corrects the numbers in Appendix-L to the RIA that were only intended to serve as "placeholders" to illustrate the cost impacts of the Stream Protection Rule (SPR) and that PKS later erroneously retained in its cost/benefit analysis;
- Includes a side-by-side table to facilitate a comparison among costs and benefits of three alternatives compared to conditions under OSM's 1983 rules (attributed to be zero): costs and benefits of the baseline 2008 rule, the most environmentally protective alternative, and the proposed regulation;
- Includes a side-by-side table to facilitate a comparison between the status quo and the proposed regulation;
- Discusses the methods and models used in the analysis in addition to providing the data sources;
- Includes a section on distributional issues related to coal production ;
- Clearly distinguishes between economic benefits and costs, transfer payments, and economic impacts; PKS was repeatedly warned *that impact analysis should not be the primary tool used for the regulatory impact analysis* and that reliance on the IMPLAN economic model was inappropriate for a cost/benefit analysis;
- Clearly states that the goal of the analysis is to evaluate net economic benefits from a national perspective;
- Defines the regulatory base line against which the net benefits will be evaluated;

- Defines the period of analysis and justifies the selection of this period;
- Discusses the anticipated pattern of implementation over time and how this might impact the accrual of the benefits and costs over time;
- Defines cost categories and explains how all costs were derived (e.g., compliance costs, OSM administrative costs, foregone production, increased electricity costs to consumers);
- Defines the benefit categories (e.g., water quality improvements, recreation benefits, health/safety, and visibility/noise reductions);
- Explains specifically how the regulation would be anticipated to affect each type of benefit in physical/biological terms and discusses how these effects might be monetized;
- Includes avoided costs as a measure of benefits and a justification for this approach and discounts costs and monetized benefits to the present; and
- Focuses on the net economic benefits to the nation rather than by region.

Liz Edmondson

From: Joe Zaluski [jzaluski@engrservices.com]
Sent: Thursday, February 03, 2011 3:57 PM
To: 'Jose Sosa'; 'Jenkins, Josh'; 'Shortelle, Ann'; 'Randy Sosa'; 'Caroline Bari'
Cc: Liz Edmondson; 'dbell@plexsci.com'; John Morgan; 'jsgardner@engrservices.com'; 'John Maxwell'; 'Mike Stanwood'
Subject: RE: SOLUTION

Here's the spin:

OSM orders consultants to consider the impacts of all regulatory agencies on future coal production.

Joe Zaluski
Executive Vice-President
ECS, LLC
Civil – Environmental – Mining
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-312-4209 (mobile)
jzaluski@engrservices.com
www.engrservices.com

From: Jose Sosa [<mailto:jose@polukaiservices.com>]
Sent: Thursday, February 03, 2011 3:49 PM
To: Joe Zaluski; Jenkins, Josh; Shortelle, Ann; Randy Sosa; Caroline Bari
Cc: 'Liz Edmondson'; 'dbell@plexsci.com'; 'John Morgan'; 'jsgardner@engrservices.com'; John Maxwell; Mike Stanwood
Subject: RE: SOLUTION

All:

Do we have minutes of the meetings in Lexington where a lot of criteria for the development of the EIS was put together with input from OSM?

They claim that we didn't provide quality work but as we discussed earlier today, OSM had their SME's embedded with our experts. We need to have all the documentation ready to present to OSM and in case that we officially get hit with a cure notice/non-performance letter and/or given the change in technical management at OSM.

Jose

From: Joe Zaluski [<mailto:jzaluski@engrservices.com>]
Sent: Thursday, February 03, 2011 3:39 PM
To: Jose Sosa
Cc: 'Liz Edmondson'; 'dbell@plexsci.com'; 'John Morgan'; 'jsgardner@engrservices.com'; Jose Sosa; John Maxwell; Mike Stanwood
Subject: SOLUTION
Importance: High

Liz and I have been talking and if you would like to talk in a small group (see above) we may have a solution. In sum – if we craft EIS language that the 2008 production was done with the EPA and Corps enforcement in place (which contains a lot of the meat of the SPR) then the incremental change to the SPR would not be as significant. Please note – we were

specifically told to ignore the EPA and Corps throughout our analysis. If we now bring them in – it would soften the impact of the SPR.

THIS IS ONLY A TENTATIVE POSSIBLE SOLUTION

Joe Zaluski
Executive Vice-President
ECSI, LLC
Civil – Environmental – Mining
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-312-4209 (mobile)
jzaluski@engrservices.com
www.engrservices.com

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February 17, 2011

Mr. Jose Sosa
Executive Vice President
Polu Kai Services, LLC
6911 Pistol Range Rd., Suite 101E
Tampa, FL 33635

Sent Via Email Only

RE: Consulting Agreement No. 10-092-0023; OSM Cure Notice Issued Under Contract No. S10PCC00060

Dear Mr. Sosa,

On February 15, 2011, Polu Kai Services, LLC (PKS) sent by email a letter to Morgan Worldwide Consultants (MW) acknowledging its receipt of a Cure Notice from the Office of Surface Mining Reclamation and Enforcement (OSM). PKS requested that MW revise the EIS to address the issues raised in the Cure Notice by OSM's deadline of February 23, 2011, to provide any information related to why the alleged deficiencies are not the fault or responsibility of MW, and to alert PKS of any out-of-scope work requested by OSM.

In response, MW will submit its revised portions of the EIS to PKS on or before February 23, 2011, as requested in PKS's February 15, 2011 letter. These deliverables will be consistent with and will address OSM comments in the Cure Notice and agency comments on Chapter 3 and 4.

In regard to the deficiencies identified in the Cure Notice and otherwise by OSM, MW notes that its scope of work in this project is limited and most of these deficiencies are inapplicable to it. As described in more detail below, although MW participated in developing the production shift methodology, this was done in a QA/QC role in order to remedy the lack of appropriate methodology and the use of arbitrary numbers in the RIA, and was far outside its scope of work in relation to either the RIA or the EIS. Section I of this letter addresses why the deficiencies in the Cure Notice are not the fault or responsibility of MW, and where applicable, makes suggestions for how these deficiencies can be remedied by PKS.

In addition, in the interest of providing PKS suggestions for moving forward in developing an EIS that is acceptable and complies with its contract, MW provides additional recommendations in Section II in a QA/QC capacity. This section also contains, as requested in PKS's February 15, 2011 letter, actions MW believes would be outside the scope of the prime contract that seem to now be required by OSM.

I. Cure Notice

Explanations as to why each deficiency alleged in the Cure Notice are not the fault or responsibility of MW are provided below for each item.

Environmental Impact Statement (SOW 2.0 Background)

Chapter 3 and 4 comments from OSM and MW's own internal review of its sections do not demonstrate any lack of compliance with NEPA or its scope of work. As no detail is given as to how the document does not comply with NEPA, MW cannot provide a response to this assertion.

In relation to OSM's assertion that the EIS fails to provide the information required by the statement of work in PKS's contract with OSM, MW has repeatedly expressed this same concern to PKS. Several months ago at the Atlanta meeting, MW pointed out that the EIS may not contain all the items required to be included by the statement of work, and repeatedly recommended that PKS go through the statement of work in the contract and ensure that each item is included in the EIS. MW again suggests that in order to guarantee that the EIS complies with the statement of work in the contract, that PKS make sure the document contains the required information. This is particularly important since the Cure Notice PKS received from OSM states, "OSM will evaluate the February 23, 2011 deliverables against the requirements set forth in the contract." Upon request, MW will provide PKS with the items in the statement of work that are included within its sections and the location of those discussions.

In addition, MW notes that the current structure of the subcontracts makes defining the responsibilities for complying with each item in the contract nearly impossible. Attachment A to the subcontract specifies the roles assigned to each contractor in the form of resource areas and were assigned by PKS without any input or submission of a separate scope of work from the subcontractors. Although each subcontractor is responsible for a specific resource area, the items required to be included in the EIS were not assigned to any subcontractor and it remains unclear who, if any party, is responsible for including these items in its section, since often these items do not fit, either neatly or at all, into a defined resource category. MW requests that any revised scope of work or work plan, with input from the subcontractors, clearly identify the roles and responsibilities for completing each item required by the contract, along with a revised timeline and budget for doing this.

Misrepresentation of Regulations (SOW A, 3.2 F and J (2)(e))

MW disagrees with any assertion that descriptions of laws or regulations were misrepresented in its sections. Since the Cure Notice does not identify any specific examples of where these misrepresentations occur, MW assumes that

any perceived misrepresentation would be included within the agency comments on Chapter 3 and 4. MW will ensure that its sections represent all laws and regulations accurately and will do the same for those sections for which it has QA/QC responsibility.

Baseline Condition (SOW A, 3.2 J (1))

Section 3.2 J (1) of the contract provides that the analysis of alternatives should be set against the base of No Action. In an email dated February 15, 2011, relating to next steps going forward, MW recommended that PKS highlight in its work plan that all alternatives will consistently be compared to Alternative 1. In this regard, MW will ensure that its sections in Chapter 4 are consistent with this requirement and compare the impacts of each alternative to No Action.

No Description of Current Mining and Reclamation Regulations and Practice (SOW A, 3.2 C)

In response to this statement, Chapter 3 contains a thorough description of current mining practices and was approved by OSM. Chapter 2 contains a description of the No Action Alternative, which represents the current regulations under consideration. This Chapter was also approved by OSM.

However, as MW has previously stated on multiple occasions, MW remains concerned that there is no description of the current regulatory environment in the document that describes the coal mine permitting, mining, and reclamation process and requirements, including requirements by other agencies and recent policy changes and guidance from the Environmental Protection Agency and Army Corps of Engineers that have changed the way permits are issued in the Appalachian Basin. Without a clear description in the document of how the regulations at issue operate on the ground and how other programs and requirements affect mining operations, the reader cannot determine how the alternatives under analysis will change current conditions. MW reiterates its recommendation to PKS that a section on the current regulatory environment, including other agency requirements that relate to mining operations, be included in Chapter 3. MW also notes that this item is outside its scope of work and makes this suggestion solely in a QA/QC role. Descriptions of laws and regulations relevant to its scope of work are contained within the sections for which MW is responsible.

Inconsistent Level of Detail Across Regions (SOW A, 3.2 D and J (2)(d))

As stated in the email MW sent to the PKS team on February 15, 2011, which describes its recommendations for a work plan moving forward, MW recommends that where information is unavailable that the document comply with NEPA by following 40 CFR 1502.22(b). In addition, MW will ensure that its sections make clear to the reader that where inconsistent detail across regions

exists, for example, when discussing valley fills, which occur predominantly in the Appalachian Basin, that an explanation is given that describes the inapplicability of these concepts to other regions.

Impact Analysis (SOW A, 3.2 D and G)

MW disputes the assertion that the EIS must contain a cost-benefit analysis distinct from the RIA. MW previously sent David Bell case law and citations to CEQ regulations supporting the proposition that a cost-benefit analysis as part of an EIS is not required by NEPA.

MW feels that its sections adequately describe all relevant environmental benefits and impacts, both in terms of avoided impacts from production shifts and environmental benefits and impacts to its resource areas resulting from changes in mining practices. MW will revise its sections in accordance with Chapter 4 comments from the agency and with the comments contained within this item of the Cure Notice, as applicable. In addition, as described in its email sent to the PKS team on February 15, 2011, MW recommends that PKS employ an organizational structure in Chapter 4 that allows the reader to clearly distinguish between the avoided impacts and the actual impacts and benefits from implementation of the elements of the alternatives. MW also recommends that the methodology section be revised to more clearly indicate that two separate analyses are relevant to this EIS and why.

In relation to the last paragraph of this section, MW notes that any impacts that were specifically directed **not** to be included in the EIS analysis by OSM would require additional time and budget in order to now analyze, since these factors were specifically left out of the analysis at OSM's direction. For example, OSM specifically directed the PKS team not to consider whether the transportation infrastructure was in place to allow coal from the Powder River Basin to make up for some of the lost production in the Appalachian Basin. Upon request, MW will provide to PKS any documentation in its possession that includes a directive from OSM not to consider a certain type of impact.

Environmental Impact Assessment (SOW A, 3.2 J)

OSM approved the production shift methodology approach in an email sent by Stephanie Varvell dated December 20, 2010, that MW forwarded to PKS. OSM was aware of the details and process involved in the approach. In addition, the production shift methodology developed jointly by ECSI and MW has been discussed extensively with OSM, including at recent face-to-face meetings in Lexington where MW and ECSI described to OSM the approach to remedy the concerns stated in OSM's Cure Notice. MW and ECSI have not undertaken steps to address this concern and provide supporting documentation to its

methodology since OSM now disputes the use of 2008 production data, which made up the basis of that model and which OSM previously approved.

Although the concerns expressed in this item can be addressed and the means for addressing these concerns have been described to OSM, MW developed a separate method for modeling the production shifts under each alternative that uses EIA's Annual Energy Outlook as the baseline and would take into account production shifts already occurring as a result of other forces. This dynamic model would address OSM's concerns with the use of 2008 data. This method has been received positively by OSM, but not approved.

Regardless of what method is used to analyze production shifts, MW feels it is essential to receive the contracting officer's, the contracting officer's representative's, and the project manager's approval of the methodology and to establish milestones that OSM would sign off on as the modeling progressed. This should be incorporated into PKS's work plan that is submitted to OSM.

In addition, since OSM approved of the previous model using 2008 production data and that model was developed under its direction and approval, a change in the methodology at this time would change the scope of PKS's contract and would require a contract modification that included additional time and budget. As described in more detail below, developing a comprehensive methodology to analyze production shifts and associated metrics for each alternative is far outside MW's very limited scope of work for this project. Any additional work in this respect would also require a change order to MW's contract, as well as additional time and budget.

Cumulative Impacts Analysis (SOW A, 3.2 J (4)(r))

Although the cumulative impacts analysis is not contained within MW's scope, MW shares OSM's concern regarding this section.

First, MW is concerned that there is no explanation or support for the cumulative impacts contained within the tables and many of the impacts appear to be incorrect or inconsistent across resource areas. For example, the PHC and CHIA requirements are mentioned as high positive for surface water flow, yet they are unmentioned for surface water quality. This is problematic for two reasons. First, some would argue that the PHC and CHIA requirements have been largely ineffective, at least in some regions. An explanation for how these requirements have resulted in a high positive for surface water flow is essential. Second, even if PHC and CHIA requirements resulted in high positive for water flow, it seems since they apply to water quality, as well, and that they would also have a high effect on that resource area. A thorough and well supported explanation of how each impact was derived seems to be needed in this section.

In addition, MW shares OSM's concern that the impact tables fail to differentiate by regions. For example, for the CWA Section 404 Program, the tables note for present and future impacts that an independent cumulative review occurs. This is only true in the Appalachian Basin, not for all regions.

MW also notes that in analyzing cumulative impacts, several important actions are not included in the analysis. Examples include recent EPA guidance in the Appalachian Basin, the CWA Section 401 Program, relevant state policies or regulations, and coal production trends that are already occurring. An explanation as to why only some resource areas are analyzed and not others should also be included if all resource areas will not be analyzed.

Finally, PKS should ensure that the cumulative impacts section complies with the statement of work by including each item listed in SOW A, 3.2 J (4)(r) in the analysis.

Coal Production Shifts (SOW A, 3.2 D and J)

Metallurgical coal production will be considered in the production shift analysis.

Production Shift Methodology (SOW A, 3.2 D and J)

As described above under the heading "Environmental Impact Assessment," OSM approved the use of the production shift methodology, which was discussed in detail on multiple occasions with OSM.

MW notes that development of a production shift methodology for use by the entire team in analyzing avoided impacts was not in any way contemplated by its contract. Instead, the development of the production shift methodology was premised on MW's role in the QA/QC of the RIA. Upon its initial review of the RIA in October, MW disagreed with the use of the IMPLAN modeling and the use of arbitrary numbers to analyze production impacts. MW recommended not using IMPLAN modeling in the RIA, and developed Appendix L to the RIA as a placeholder for a more detailed and fully supported analysis, since Appendix L was developed prior to Chapter 4 of the EIS. After developing Appendix L, MW and ECSI agreed that this approach could be used to develop the production shift methodology so that defined metrics such as acreage impacts, stream length impacts, and jobs could be used in the EIS analysis.

MW feels that its work on the production shift methodology went far beyond the limited scope of its contract. Any additional work on a production shift methodology for the EIS or RIA would require a change order. In addition, the Cure Notice indicates that OSM now disapproves of the previously approved methodology. Thus, any new direction on the production shift methodology would require additional time and budget to complete, since significant resources

have already been expended in developing the original methodology, which was approved for use in the EIS by OSM.

Regulatory Impact Analysis (SOW Section A, 3.2 H and J)

As mentioned above, MW's scope of work in relation to the RIA was strictly from a QA/QC standpoint. MW went well beyond its scope of work in developing Appendix L for the RIA. Any additional substantive work, other than QA/QC, in relation to the RIA would require a change order to MW's contract and additional time and budget.

In reference to some of the concerns expressed by OSM in the Cure Notice regarding the RIA, MW notes that it disagreed with the use of IMPLAN modeling upon its first review of the RIA and recommended the removal of this methodology from the document at that time. In addition, MW expressed concerns over the numbers used to analyze production impacts, since these numbers were arbitrary. Although not required by its contract, MW developed Appendix L as a placeholder to address these concerns and provide an appropriate methodology. Against the recommendation of MW, the IMPLAN analysis was retained in the document that was submitted to OSM in December of 2010.

II. Plan Moving Forward

The Cure Notice PKS received on February 8, 2011 requests that PKS, in responding to the Cure Notice, tell the Contracting Officer what actions it will take to remedy its performance, including how it will bring the EIS and RIA in compliance with the contract. Although MW has previously recommended various actions in this regard, MW again lists several suggestions below in response to concerns expressed by OSM. More detail on these items can be found in MW's February 15, 2011 email outlining thoughts on a work plan and the Cure Notice.

Compliance with the Contract

Most importantly, the Cure Notice explicitly states that "OSM will evaluate the February 23, 2011, deliverables against the requirements set forth in the contract." To MW's knowledge, despite repeatedly expressing its concerns regarding compliance with the contract to PKS, PKS has not reviewed the EIS in its entirety to determine if it includes each item required by the contract. Upon request, MW will submit to PKS a list of those items in the statement of work it included in its sections. However, it recommends that in order to comply with the Cure Notice, PKS identify what items from the statement of work are not included in the EIS and express to OSM how PKS will fully implement those requirements. MW suggests that this action include a revision to the scope of work of the

subcontractors, with their input and including time and budget revisions, that would clearly assign roles and responsibilities for completing these tasks.

Work Plan

In addition to its specific comments related to the items in the Cure Notice, MW suggests that any work plan prepared by PKS should include and describe in detail the following items:

- Addition of transition and introductory sections for each Alternative and each resource area (See email from MW dated February 3, 2011)
- A new section in Chapter 3 on the current regulatory environment
- A new section in the introduction to Chapter 4 describing the analysis of Alternative 1 in light of the fact that the No Action alternative has not been implemented by the states
- A revision of Chapter 2 to remove inconsistencies, clarify meaning, and ensure that all alternatives are described with the same level of detail
- Finalize production shift methodology either by completing analysis using the current model, or creating a new dynamic model based on EIA forecasting
- Clarify the use of two separate impact analyses (avoided and actual) and organize sections accordingly to avoid confusion between the two and to focus on the environmental benefits (actual impacts)
- Ensure that impacts/benefits for each alternative are consistently compared to Alternative 1
- Complete matrices for Alternatives 3 and 4 on environmental benefits and impacts as done for Alternative 2 in last week's meeting with OSM in Lexington and incorporate these ideas into the Chapter 4 analysis
- Inclusion of all items contained within the statement of work from the contract
- The use of representative mines from each region in the analysis of Chapter 4

MW notes that many of the items suggested above would be outside its scope of work under its contract with PKS, but provides these suggestions to aid PKS in its response to the Cure Notice, which PKS indicated would include a work plan. MW also requests that any work plan provided to OSM by PKS include a clear indication of any additional time and costs necessary to comply with the work plan. At PKS's request and once PKS develops a work plan to submit to OSM, MW can provide input on time and budget issues in relation to any items in the work plan that would be contained within its scope of work.

Out-of-Scope Work Required by OSM's Actions

PKS requested in its Cure Notice Letter to MW dated February 15, 2011, that MW make any claims for equitable adjustment related to OSM directives that

have materially changed the scope of work at this time. As stated above, MW is of the opinion that the development of a production shift methodology is not contained within its limited scope of work, and therefore, any additional work on the production shift methodology would require a change order from PKS, and not OSM. However, MW offers the following comments in relation to OSM statements in the Cure Notice that may require out-of-scope work in relation to the project as a whole:

- OSM approved the use of the static production shift methodology described in the current EIS document that was based on 2008 coal production data in an email sent by Stephanie Varvell on December 20, 2010. Any direction from OSM to change this methodology, including the use of different baseline data or a wholly new analysis, would require an adjustment to the contract and additional time and budget since that would represent a change from previous direction.
- Similarly, since OSM previously approved the production shift methodology, any direction by OSM to undertake the additional analysis involving the use of representative mines to analyze impacts and benefits would require additional time and budget.
- Any directive from OSM to monetize environmental costs or benefits or to provide a cost-benefit analysis separate from the RIA would be outside the scope of the prime contract and would require adjustment to the contract, plus additional time and budget.
- Any directive from OSM to analyze indirect effects not required by the statement of work and for which the PKS team was previously directed **not** to consider as outside the scope of this EIS, would require additional time and budget. Examples include the availability of transportation of western coal to make up for decreased production in the east, and any cost increases to electricity consumers as a result of increased costs of production.
- To the extent that Chapters 1, 2 and 3 were approved by OSM and finalized consistent with OSM comments, any directive to rework those chapters would require adjustment to the contract and additional time and budget.

III. Conclusion

MW reiterates that any alleged deficiencies contained in the Cure Notice are outside its scope of work, involve a change of direction and scope by OSM, or will be addressed in its February 23, 2011 submission to PKS. In addition, MW has provided PKS, in previous emails, conversations, and in this letter, suggestions for items to include in a work plan going forward. At PKS's request, MW also outlined any new directives OSM seems to be contemplating that may be outside the current scope of work of the PKS team and that would require additional time and budget to complete.

In conclusion, MW would encourage PKS to immediately provide its subcontractors with definitive direction in response to OSM's Cure Notice to PKS. This should include a comprehensive revised scope of work that will address the issues raised by OSM to date and provide the timeline and budget necessary to complete an EIS that complies with the prime contract. Each subcontractor has already provided PKS with numerous suggestions in regard to this issue. However, without leadership from PKS, each subcontractor is limited to issues contained within its scope of work, which impedes the ability of the entire team to address items in the contract and issues raised by OSM, in the Cure Notice and otherwise, that cut across resource areas. As such, any revised scope of work, unlike the current Attachment A that specifies responsibilities solely by resource area, should include input from the subcontractors and clearly define roles and responsibilities for addressing each item contained within the prime contract.

In this regard, MW looks forward to receiving a revised scope of work and work plan from PKS that provides a clear path for moving forward on the this project while addressing the concerns recently raised by OSM.

Sincerely,

John S.L. Morgan
President
Morgan Worldwide Consultants, Inc.

Comment Form

Title of Document	Chapter 3.1 Mineral Resource and Mining
Name	Contact Information
Telephone Number	
Email	

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
Introduction	i, ii		Insert space between heading & numbers. Change to "3.1.1 Coal" or "3.1.3 Mining"	KJass	Accept ✓
3.1	3-5	Figure 3.1-1	Why not use the actual USGS map rather than scan in a page from an EIA document? It will eliminate text at the bottom.	KJass-OSM	Accept ✓
3.1.1	3-6 to 10	n/a	No discussion of metallurgical coal versus steam/power generation. Also, 3rd category; chemical basestock (Eastman)?	VA	Expand discussion of coal usage to include both metallurgical and other minor uses, including chemical feedstock. ✓
3.1	3-6	Figure 3.1-2	1) Can the colors be labels showing the regions? 2) Should symbols be better used so that B&W copies clearly can be read? 3) Who/what is Lupper 2009? No footnote to document source of information AND the name/date not coming up when google	KJass	Accept 1 and 2 as valid concerns. Believe that "Lupper" should be "Luppens", but double check reference. ✓
3.1	3-6	Par "In 2008..."	Why not use more current information - 2009 available on EIA site www.eia.gov/crea/coa/page/acr/table1.pdf this table show by state production UG & surface forings. EIA website says 488 billion short tons DRB NOT 489 bsh Also, EIA says 261 bst (55.48%) estimated recoverable reserves NOT 263 bsh	KJass	Agree. Use most current data to extent feasible.
3.1.1.2 3.1.1.5	3-7 3-10		The actual EIA numbers from their current website (10/25/10) are shown in Figure 3.1-5, page 3-11. The	KJass	Agree. ✓ addressed in document ✓

Source 1 shows "Lupper" category

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.1.3	3-8	19	<i>numbers above need to be corrected.</i>		
3.1.1.3	3-8	25	Change "technological" to "technology".	Barclay-OSM	Accept.
3.1.1.3	3-8	30-31	BLM-Utah reported a maximum depth of 2800 – 3000 ft. at the Utah Coal Symposium at the Western Energy Training Center, Helper UT (10/27/2010.), although limited coal mining deeper than 3000 feet has occurred in Utah.	UT	Accept. Change to reflect correct depths.
3.1.1.3	3-8	30-31	"...very thick coal bed with a shallow depth would be more economical to mine than a very thin shallow-coal bed with a greater depth."	UT	Accept.
3.1.2	3-9 3-14	Last par. 1 st par	<i>Inconsistent use of Western U.S. vs. western U.S. Cap - on page 3-9. Not on page 3-14.</i>	Klass	Make usage consistent.
3.1.1.2	3-9	12-17	Additionally, environmental regulations could reduce the ability to mine coal in particular areas. This does not appear to be addressed by this section as written.	EPA	Accept. Please refer to the role of environmental regulations.
			We look forward to evaluating Table 3.1-3, which currently is not included in the text.		
3.1.1.3	3-9	18-19	Consider both sides of technology. Technological developments expand resources; restrictions limit them. The development of the longwall is one obvious example of technology that expanded reserves dramatically in underground mining because it increased recovery.	UT	Accept.
3.1.1.3	3-9	32-33	Suggested modification: "Technological Restrictions: In addition, technological restrictions and developments also either limit or expand resource recovery, primarily in relation to underground mining." "Inclusion of dilution and partings material lowers le-tow-ir Btus/lb and thus decreases the quality of the mined coal."	UT	Accept.
3.1.1.3	3-9	"Finally..."	Last sentence should be modified to "...sulfur content, common in the east, mid-west and NW (WA & AK) coal results...."	Klass	Accept.
3.1.1.3	3-9	footnote 3	"These include ... National Forests, ..." This is unclear, coal mining is generally <u>not</u> excluded on National Forest lands.	UT	Revise text to say that coal mining is allowed in National forests if determined to be compatible with the management plan. This usually restricts the mining to underground

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.1.5	3-10	10	"the <u>DBR DRB</u> to measure..."	UT	operations. Accept.
3.1.2 Types of Coal and Extraction Methods	3-11	9	The price per ton of sub-bituminous coal does not appear correct.	TX	Accept. Use updated price values with date stamps.
3.1.2	3-13	Figure 3.1-6	Anthracite shown in legend, but not actually used in graph, so need to explain why. Again - if printed in b&w, colors won't show up. Use symbols instead.	KJass	Accept.
3.1	3-14 through 3-59		This section, 3.1, contains many inaccuracies relating to mining practices and departures from regulatory terminology. The writers seem to have little knowledge of Appalachian mining practices (and overall surface mining practices) and the Statutory and Regulatory requirements. This should be rewritten by professional engineers, geologists and regulatory experts with a working knowledge of the subject matter. This is a DOI/OSM document and in its present form suggests that the Department and Agency lack regulatory and mining knowledge. This may also be the case for the other sections of the document not reviewed by this reviewer.	Lane-OSM	Agree. This section should be carefully reviewed by ECSI and Morgan Worldwide to ensure consistency with coal mining industry and regulatory program terminology and practice.
3.1.2	3-14	8-9	"Of the estimated demonstrated coal reserves in the of U.S., approximately 68% is are mineable by underground methods, while the remaining 32% are mineable by surface methods." Also, "estimated demonstrated" sounds contradictory.	UT	Accept.
3.1.3.1.	3-14	29-32	Underground mining is not really an alternative to surface mining. The method utilized will be dependent on (feet of) cover and seam thickness rather than ownership issues.	KY	Accept. ECSI/Morgan review should catch these technical issues.
3.1.3.1	3-14	3 rd from bottom of page	Change "presents" to "present".	Barclay-OSM	Accept
3.1.3.1	3-15	Figure 3.1-8	Again B&W won't show difference in colors red & blue. Also, red & blue colors not defined - which UG, which surface mined? Also - why not use current (2009) production numbers from	KJass	Agree with concern

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			EIA - www.eia.gov/nea/coal/page/acr/table1.pdf		
Figure 3.1-8	3-15		Histogram is divided by different colors representing "underground mining types," which are not indicated in legend	Mike R OSM	Duplicate
3.1.3.1	3-15	1	Figure 3.1-8 is supposed to show underground mining by type but the legend only shows one category, "Other" and does not tell you what types are represented by the red and blue colors.	VA	Duplicate
3.1.3.1	3-15	1	Figure 3.1-8 is missing a key for what the colors mean.	EPA	Duplicate
3.1.3.1	3-15	Fig 3.1-8	The different types of underground mining are not, but should be, specified. The legend for this bar graph (only one entry - orange) does not correspond to the bar colors in the graph (blue and red). Also, this figure should be updated to agree with and present each of the 7 coal producing regions described in this chapter. The graph also needs a label for the y-axis.	UT	Duplicate
Figure 3.1-8	3-15	-----	The legend of the graph is incomplete and does not show extraction methods.	KY	Duplicate
3.1.3.1	3-15	Fig 3.1-8	The legend in the bar graph needs to be expanded. Only shows other. Need to show the main categories as well.	Garnett-OSM	Duplicate
3.1.3.1	3-16	Fig 3.1-9	Figure title should be "Typical Cross Section", not "Type Cross Section"	UT	Accept
3.1.3.1	3-16	Figure 3.1-9	Figure 3.1-9 is described as showing a cross section depicting the different types of extraction methods. Legend is unclear and figure overall is not clear.	EPA	Duplicate
Figure 3.1-9	3-16		Credit CONSOL Energy for drawing in header	Mike R OSM	Accept
3.1.3.1	3-16	Figure 3.1-9	Consol drawing, though retrieved from KY website. Proper credit needed to CONSOL. This is obviously a scanned in document, where clarity is an issue (legend and inserts) blurry, illegible. Contact CONSOL for digital or original map for scanning. Also, Kewal Kohli in ARCC has a hard copy of this map if needed.	KJass	Accept
3.1.3.2	3-16	6-8	This paragraph should be moved under 3.1-10 on page 3-17 for improved clarification.	KY	Agree. Please move.
3.1.3.2	3-16	Par 2	Last word is overburden, which has not been defined. Change sentence to "... in excavation in to the overlying	KJass	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			strata, or overburden."		
3.1.3.2 ACCESS	Start 3-16	Whole section	<p>This section explains a number of types of mine access methods, but there is no header to indicate a change to a new type. Suggest simple headers be added in this section (example: Drift Mine, Slope Mine) to show and introduce next type discussion. A prime example of confusing presentation is on page 3-17 where the drift mine drawing is directly over and not separated from the box cut discussion.</p> <p>Also, never head of a box cut access – it is simply faced up transition area from a surface mine to an underground mine – but it still utilizes a drift (horizontal) or slope (angled) access to the coal. I don't think this is a commonly identified type of access to the coal and should be removed.</p> <p>Finally, I don't think each drawing in this section needs to include "Underground Mining Methods". It is in the UG mining method section & the drawing should make it obvious it is to access the UG coal.</p>	KJass	Accept
Figure 3.1-10	3-17		<p>Not sure what the vertically "striped" area at the outcrop represents—a load out? If that is what is supposed to represent, suggest making it similar to line drawing for prep. plant or simply deleting. Also would suggest that rail cars be located beside prep plant instead of looking like they are within the mountain.</p>	Mike R OSM	Accept
Figures 3.1-10 & 3.1-11	3-17, -18		<p>The pattern used to represent a cross-section through rock should be changed or oriented so that the implied "layers" run horizontally as would sedimentary rock. Label cross-section A-A' and put on drawing; orient direction of and label pictures 1 and 2 on drawing</p>	Mike R OSM	Accept
3.1.3.2	3-17	Figure 3.1-10	<p>Drift drawing. 1) what are the black boxes outside the portal area? 2) what are the white boxes inside the mine entry? 3) why are the coal cars shown below the coal seam, within the coal? This picture is actually more representative of a hardrock stope mine where the track/haulage level is below the actual mining area.</p>	KJass	Duplicate
3.1.3.2	3-17	Par 1	<p>A box cut mine if this must be used (see comment above regarding unknown term), written as "generally with a</p>	KJass	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.3.2	3-17	8	<p>sloping road into the box cut". This should be changed to "generally with a road sloping down through the former surface mine box cut to the coal seam or after facing up a hillside operation to access the coal directly with a horizontal drift into the coal seam"</p> <p>Should list as temporary spoil storage area instead of excess spoil area</p>	VA	Accept
3.1.3.2	3-18	2	<p>Top portion of Box Cut Cross Section Figure 3.1-11 the drawing on the top left appears to be supported by nothing additional labeling recommended</p>	VA	Accept
3.1.3.2	3-18		<p>Box cut figure, but w/ 4 parts inside the figure – none of them labeled.</p> <p>Top – drift mines on both sides of valley. Why is this a box cut?</p> <p>Left – true box cut – remnant of surface mine used to face up highwall of underground mine.. In this case, the road accessing the bottom of what was the pit is steeply sloped.</p> <p>Right – have no idea what this is supposed to be.</p> <p>Bottom – caricature of box cut opening to faced up underground mine. Also, showing sloped access down to the coal. Have no idea what the section line is for.</p>	KJass	Accept
3.1.3.2	3-19	Par 1 – slope	<p>1st sentence - if it was an outcrop it would be on the surface. This should read if the "...coal seam (not outcrop) cannot..."</p> <p>2nd sentence "in order to facilitate conveyor haulage or other equipment (slope track hoist for example), and must tunnel through the rock [ADD overlying strata and] rock above the coal, or overburden, to achieve this access</p>	KJass	Accept.
3.1.3.2	3-19	Par 1, "A shaft mine"	<p>This section is for shaft mines, but nowhere in the discussion does it explain what a shaft is or how it's used.</p> <p>2nd sentence should be changed to "Once a shaft is drilled or constructed, an elevator arrangement is constructed</p>	KJass	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			within the shaft, is used to... Remove, "known as a hoist", as the hoist is the cable apparatus that moves up the cage within the shaft.		
Figure 3.1-12 & -13	3-19, -20		Ditto comment on stippling above to look more like sedimentary rock. Cross section of seam in these 2 drawings should use solid blocks of black coal to represent pillars as opposed to the thin lines currently shown.	Mike R OSM	Accept
3.1.3.3	3-20		1 st paragraph 1 st sentence: "...which are explained in detail below."	UT	Accept
3.1.3.3	3-20	Par 2 "R&P mining..."	REPLACE "place to support the mine roof while coal is extracted" WITH "support the overlying strata and main mine roof while..." Pillars do not support the immediate mine roof (thus the requirement for supplement roof control during mining activities). "...grid-like pattern (INSERT: see figure 3.1-9) in a panel of coal."	KJass	Accept
3.1.3.3	3-20	Par 2 "R&P mining..."	REMOVE: "which can be more than 400 feet wide and half a mile long" as this is a generalized comment that isn't necessarily correct in the western mines. "????? Jeff - coal pillars are generally "20 to 90" feet wide - this is not completely true with the minimum pillar width - this may be true in the east for RETREAT mining only but it is NEVER allowed in the west. In addition, the maximum size of pillars in the west may be up to 200' (these per MSHA, Dist 9 Vent). Also there is no average or maximum length it depends on the coal strength & overburden material analysis-	KJass	Accept. Please have ECSI/Morgan review for consistency with mining industry practice.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			<p>though that is also limited by MSHA regs that require a maximum distance between mandoor access through cross cuts at 300' or 600' depending on coal height.</p> <p>"entries average 20 to 30 feet wide" is an incorrect statement. MSHA regulations specify the maximum entry width in an underground coal mine is 20' (16' on a curve).</p>		
3.1.3.3	3-20	3 rd para.	<p>The discussion of room-and-pillar mining type should mention/indicate the general size of reserve block ("relatively small" is not very descriptive) that must exist to make for a viable mine—similar to what was provided in the longwall discussion. (50 mT).</p>	Mike R OSM	Accept
3.1.3.3	3-20	Par 3 "R&P mines..."	<p>CHANGE "After a panel has been fully developed" TO "After the maximum extent of a panel has been fully developed..."</p> <p>"...the mining direction is usually reversed for retreat or secondary extraction [ADD "with the using the same mining equipment"]."</p>	KJass	Accept
3.1.3.3	Start 3-20		<p>This section 3.1.3.3 room and pillar mining should be the head of section which includes conventional R&P and continuous miner r&p. The difference between these two mining types is simply the equipment used – the design is identical. There for, section 3.1.3.4 (conv ming) and 3.1.3.5 (contin MINER) should be sections under R&P heading, not separate sections</p> <p>Sentence 1 – "conventional room and pillar and continuous [ADD – miner or mining machine] room and pillar which are explained in</p>	KJass	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			detail below"		
			<i>This section should be entitled "Continuous Mining Machine Room & Pillar" referring to the type of mining machine used. Until reading this section, I had no idea what a continuous mining R&P method was referring to.</i>		
3.1.3.5	3-21	Heading & Par.	2 nd sentence "mechanically break". Continuous Mining machines cut coal with bits on a rotating head, not break it. 3 rd sentence – "machinery works from the back side of the mine moving toward the Entrance" should be changed to "machinery works from the from the most developed mining area back toward the surface opening or shaft."	KJass-OSM	Accept
3.1.5	3-21	multiple	Suboleski, 1999b – this, as w/ earlier Luppen cite, is referenced a number of times, but there is no footnote to clearly indicate what document what the reference is to.	KJass	Double check on the reference.
3.1.3.4	3-21	11	"Cutting of the coal allows an open face"	VA	Accept
3.1.3.4	3-21	12	"coal can be blasted", instead of rock.	VA	Accept UT comment below
3.1.3.4	3-21	15	Coal doesn't always need to be blasted. Clarify this: "The cut coal face may be blasted if necessary to free the coal..."	UT	Accept and use.
3.1.3.5	3-21	28	Need a period after surface.	VA	Accept
3.1.3.6 & 3.1.3.7	3-22	Par 1 remainder	"during the room and pillar [ADD: advance or developmental] sequence" Both pillar extraction room and pillar mining and longwall mining ARE technically retreat mining. As above, w/ R&P mining methods, both of these retreat types mining can be listed under a Retreat Mining heading but should not be separately numbered headings -- simply described.	KJass	Accept

Section	Page #s	Line #s	Comment	Proposed Disposition
			<p>Also – in lieu of referring to R&P removal as simply retreat mining, perhaps it is more clearly descriptive of this activity to state it is doing pillar removal or <u>pillar extraction</u>.</p> <p>In 3.1.3.6, the activity of retreat mining should be explained as the mining process that extracts coal from large blocks of the mine once access has been developed and established into these areas. Thus the term retreat, extracting coal as the operation is backing out towards the surface.</p> <p>Also, in 3.1.3.6 “allowing the roof to collapse in a predictable manner” should be instead “allowing the roof to collapse in the manner predicted by analysis of the coal and overburden material.” – there is a science to this.</p>	
3.1.3.7	3-23	1 st Par	<p>“to create a panel” should be changed to “to create the coal panel to be mined”</p> <p>“... two or three parallel entries are made into the coal seam” CHANGE TO “two or 3 // entries are made on either side of the coal panel to create the coal face to be cut..”</p> <p>The widths indicated are now not the maximum sizes.</p> <p>Change to “cutting 30 to 42 inches [ADD into the] coal per pass”</p> <p><i>This figure is a good opportunity to label the coal face, the shields and the shearer.</i></p> <p>“the cutting direction is reversed and the longwall</p>	<p>K/ass-OSM</p> <p>Accept</p>
		Par 2		
		Figure 3.1-15		
		Par 3		

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			<p>miner moves in the opposite direction." This is better stated here than in paragraph 2 above which states "working backwards towards the origin of the panel. This process can be stated in only 1 location.</p> <p>"As the shields advance [ADD: with the cutting and removal of coal], overhead stresses [ADD: and gravity] cause..."</p> <p>"Cracks resulting from the mine roof collapse do not generally propagate to the surface [depending on the mine depth and geology, but"</p>		
3.1.3.8	3-24	24-26	<p>KYDNR believes attributing most surface subsidence to coal mining in the U.S. is inaccurate. Subsidence features in Florida and central Kentucky, for examples, are not coal-related.</p>	KY	Agree. Please revise to indicate that coal mining subsidence is an issue, but there are other causes of surface subsidence. See VA comment below.
3.1.3.8	3-24	24	<p>"Most surface subsidence in the United States has been attributed to the underground mining of coal." This statement is not true. Subsidence can be a result of natural karst processes, oil extraction, aquifer compaction, etc.</p>	VA	Agree. See comment above.
3.1.3.7	3=24	<p>Par 2 - "Longwall mining has...</p> <p>Par 3 -- "Longwall mines are..."</p>	<p>"Longwall mining is the only [REPLACE "only" with "MOST"] practical method for seams of [ADD: LOCATED] greater than..."</p> <p>"generally safer...., provide better subsidence control over local pillar removal,"</p> <p>what does this mean --should it state provide</p>	KJass-OSM	Accept

Section	Page #s	Line #s	Comment	Proposed Disposition	Incorporate (Yes/No)
			<p>better subsidence control over removal of pillars in pillar extraction mining? Also – what exactly does subsidence have to do with the SAFETY of the miners in this sentence – it is a surface affect?</p> <p>“have lower [ADD supplemental roof] support requirements.”</p> <p>“moving equipment between panels” CHANGE</p> <p>“to moving equipment from a mined out to a new panel” - this clarifies why you would move between panels for those that don't know mining.</p> <p>NO TRUE as written: “The equipment is also specific to the mine and may not be transferable to other sites after mining is completed”.</p> <p>CHANGE to: “The equipment is also DESIGNED specifically FOR the mine GEOLOGY and may not be transferable to other sites after mining is completed, HOWEVER COAL COMPANIES HAVE MOVED EQUIPMENT FROM A DEPLETED OPERATKION TO ANOTHER IF IT IS LOCATED IN THE SAME SEAM IN AN ADJACENT AREA WITH THE SAME STRESSES AND GEOLOGY.</p> <p>“some of the irregular areas remaining” – REMOVE REMAINING.</p>		

*Blaine Roof
Blaine in
Section*

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			Some room and pillar mining is usually associated with longwall mining to extract coal reserves to form the longwall panels "has essentially already stated above (page 3-23, 1 st line on page) as "In the longwall mining method, two or three parallel entries are made into the coal seam like continuous room and pillar methods"		
3.1.3.8	3-25	3	"Many new longwall mines are operating or being developed in the Illinois Basin." Why is this in here, is this the only place in the US that there is new development?	VA	See above
3.1.3.8	3-25	6	"Two types of surface features caused by mine subsidence are sinkholes and troughs." This implies that these features are only caused by mining subsidence, which is not the case, as these are also natural features in karst landscapes. AS referenced in Section 3.1.3.8, page 3-24, line 24.	VA	Accept
3.1.3.8	3-25	Figure 3.1-16 Par 1	Reduce length of arrow between sections of drawing "into a [ADD larger] mined-out area"	KJass-OSM	Accept
3.1.3.8	3-26	1 st para.	Should indicate that hydrologic effects and other surface damage has been documented beyond the angle of draw dependent on the site specific conditions.	Mike R OSM	Accept
3.1.4	3-26	General	This section may give the wrong impression that backstowing of waste underground is a common practice.	Mike R OSM	Accept. Add qualifier in text to indicate this happens infrequently. Add discussion of dilution as a result of taking rock due to mining equipment constraints and the presence of partings (rock inclusions) in the coal seams. Have ECSI and Morgan review this section.
3.1.4			The underground mining waste disposal discussion here does not seem to recognize what you call dilution or partings.	WV	

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.5	3-26	1 st para.	Some states regulate auger mining as underground mining and some as surface mining.	Mike R OSM	Accept. Please add discussion to text indicating that different programs regulate these operations differently.
3.1.3.8	3-26	4	Add the following sentence: "Subsidence can also affect the hydrologic balance above and adjacent to mined areas by altering surface water and groundwater conditions." In the western states, potential impacts to hydrologic features (like Springs) from subsidence are of significant concern.	UT	Accept.
3.1.4	3-26	13-17	Sections 3.1.7.8, 3.1.7.9, 3.1.7.10 should be inserted here as they are closely related to, and a necessary attribute, underground mining methods.	KY	Accept. Please move sections.
3.1.4	3-26	13-17	This Section on surface disposal of waste from underground mines is extremely cursory. It lacks any references to the fact that filling underground operations may be similar to those described in the next section on surface mining. More detail and cross-references would significantly improve the discussion.	EPA	Please address through the changes suggested in other comments.
3.1.4	3-26	13-17	I suggest this section be titled "Coal Mine Waste" rather than "Underground Mine Waste Disposal" to be consistent with §701.5 definition. Also the paragraph could be structured to be consistent with §701.5 and §816/17.8 in both language and content. For example, rather than beginning the paragraph with "Underground mine development waste", it could begin with "Underground development waste" by definition. §701.5 means waste rock mixtures of coal shale, claystone, siltstone, limestone, or related materials that are excavated, moved, and disposed of from underground working in connection with underground mining activities.	Lane	Agree and accept changes.
3.1.4	3-26	18	The title of this section may lead one to believe that it describes disposal of wastes such as coal processing slurry and AMD, rather than sludge or fly ash. It appears that the intent is to describe scaling rock and gob. This ambiguity should be resolved.	VA	Duplicate. See response above.
3.1.5	3-26	25-26	It should be noted that an auger method can be employed instead of underground mine	KY	Agree. Please revise to reflect comment.

Robert M. [unclear]

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.5	3-21	Multiple	<p>entries when limits of surface mining are reached.</p> <p>As w/ the underground mining, the types of mining are limited but the range of equipment used doesn't necessarily make that method new. There are basically 3 types of surface mining - area, contour and IMTR. Use of exclusive dragline or scrapers doesn't warrant these being separate types of mining or being a stand-alone headings - they can be listed under area mining under subheadings. Same w/ Open pit mining - it is still a surface mine, just a pit inside a small area.</p>	KJass-OSM	Disagree. No changes necessary.
3.1.5	3-26	Par 4	<p>Sentence 1 - REMOVE: "although surface mines may also employ surface-directed underground equipment, called augers or highwall miners, for secondary extraction of coal without overburden removal" as it is better stated in the next sentence discussing 2ndary mining "Secondary extraction associated with surface mining, collectively known as highwall mining [ADD: using augers or highwall miners], occurs after the final highwall limits have been reached.</p>	KJass-OSM	Agree. Accept changes.
3.1.5	3-27	4)	<p>"equipment access for removal and haulage [ADD: of mined coal]"</p>	KJass	Accept.
3.1.5	3-28	Par 2	<p>Surface [ADD: disturbance of] mine limits will be fully accounted for. The boundaries must stay MOC. Areas of UGAs within the surface coal mining operations.</p> <p>SMCRA - has this been defined yet? Also, Section 701(2) should be liked w/ SMCRA or whatever it is cited from.</p>	KJass	Accept.

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3.1.5.1	3-28	35	The statement that "spoil from almost all succeeding cuts must be disposed in fills" is incorrect. Usually, the first cut must be placed in a fill and spoil is backfilled on the contour behind the progressing operation to ensure contemporaneous reclamation.	KY	Accept. Please revise as per comment below.
3.1.5.1	3-28	36	I suggest replacing "On steep-sloped sites... disposed of in fills as well" with "On steep-sloped sites... disposed of in excess spoil disposal areas" to be consistent with §816/817.71	Lane	Accept.
3.1.5.1	3-28	39	"Wheel tractor scrapers" is suggested to replace "Pan scrapers".	Lane	Accept
3.1.5	3-28	Last para.	Suggest: "When these conditions are not met in steep slope areas due to a desire to create an equal or better post-mining land use, or in other terrain due to the presence of thick overburden, an AOC variance is necessary."	Mike R OSM	Accept. This addresses comment above.
3.1.5.1	3-28	Par 5 - "Contour mining takes	"due to property ownership conflicts [ADD or topographical layout of the property]..." - I'm getting at isolation of an area where impractical to get to another mtn to dispose of mat'ls. "The lateral movement, or haulback, technique is the most common contour mining style." Pls clarify this statement. I don't know what haulback is, does it mean hauling of material to mined out areas to backfill and recreate the premining contour?	Klass	Accept first comment. Reject second...no change necessary. Reject comments on excess spoil disposal area and below.
		Par 6 "To begin a...	"but is usually hauled to an excess spoil disposal area." Use of a new term, one w/ an exact		

in the context of the section
 ✓
 ✓

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			definition under law. Change to "hauling to a spoil disposal area outside of the area of mining." "disposed of in fills as well" Again use of new term - one w/ a legal definition. Because this sentence refers to mountainous terrain, more explanation that the designated fill is off the mountain in a designated valley and constructed for disposal, should be provided. "The selective placement of spoil by trucks allows" should clearly state that it is moved out of the way to allow for 2ndary mining & disposed of either in temp stockpile or in a permanent disposal site.		
3.1.5.1	3-28	Last para.	Should explain here why there is "excess spoil" due to bulking.	Mike R OSM	Accept. Include a new paragraph or sentences to describe how excess spoil results from the bulking of rock when it breaks.
Figure 3.1-17	3-29		Pattern used to represent overlying strata should either be reoriented to show horizontal strations or replaced with pattern that looks more like stratigraphic column.	Mike R OSM	Accept.
3.1.5.1	3-29	1 st para.	Introduce the term "valley fill" for first time without explaining that they are excess spoil disposal. Should also introduce the concept that "second cuts on prelaw" is termed "remining."	Mike R OSM	Accept. Include additional language to clarify that valley fills are a
3.1.5.1	3-29	Figure 3.1-17 Par 2	<i>This figure should also show where the material is being placed - stockpiles and perm. disposal sites (excess spoil disposal) - particularly as much as made of the logistics in a limited area, required in this type of mining</i> "This method is not suitable for large coal reserves and does require a disposal area for spoil on steep-sloped sites." This is mentioned in the	KJass-OSM	Accept

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			<p>LAST paragraph of contour mining – though it is alluded to in several locations earlier. I have other comments indicating this should be addressed where it first mentioned, rather than at the end where I just found the statement.</p> <p>Also “Second cut or more operations can take place on prelaw mine areas where preexisting contour cuts are used for...” This brings up the new use of lands previously mined – but it doesn’t clarify that they are now part of the active mining operation and now have the same environmental requirements.</p>	<p><i>protected</i></p>	<p><i>protected</i></p>
3.1.5.1	3-29	7	I suggest revising the “Berm” to an “Outcrop Barrier” or leaving this feature unlabeled.	Lane	Accept
3.1.7.3	3-29	12-13	More commonly use sand or salt filters	VA	Reject. Not sure that is universal
3.1.5.1	3-29	15	I suggest replacing “a disposal area for spoil” with “an excess spoil disposal area” to be consistent with §701.5 and 816/817.71. Spoil can be disposed of in either the mined out area or excess spoil disposal areas.	Lane	Accept
3.1.5.2.	3-30	2	Please delete “separate entity” and replace with “different mining type.”	KY	Accept
3.1.5.2	3-30	2	I suggest replacing “mountaintop removal” with “mountaintop removal mining” to be consistent with §785.14 and 824.	Lane	Accept
		Line 2, top Par	“Although area mining may affect an entire mountaintop or ridge line, it is considered a separate entity from mountaintop” this sentence and the figure 3.1-18 both refer to MTR, but there is NOT discussion exactly what the difference is. Please do so, as it doesn’t appear to be discussed in	KJass	Duplicate.
3.1.5.2	3-30				

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		Par 3 – "Area mines may..."	this immediate section of text. The activity in the paragraph would be best described with a 3-d drawing showing the cut and movement of material & equipment, rather than the cross section shown at the top of the page.		
3.1.5.2	3-30	5	I suggest replacing "coal production" with "overburden removal".	Lane	Accept
3.1.5.2	3-30	7	Figure 3.1-18 is labeled Area Surface Mine or Mountaintop Removal, however the narrative on line 2 states they are separate entities	VA	Duplicate
Figure 3.1-18	3-30		Ditto comments above on pattern used to represent overburden strata.	Mike R OSM	Accept
3.1.5.2	3-30	1 st para.	Suggest "and can entail necessitate disposal of large volumes of excess spoil."	Mike R OSM	Accept
3.1.5.2	3-30	20	I suggest replacing "valley fills" with "an excess spoil disposal areas" to be consistent with §701.5 and 816/817.71. I don't think the term "valley fill" has been introduced to this point.	Lane	Accept
3.1.5.2.	3-30	13	"entail disposal of large volumes of excess spoil" is based on the assumption that there are no existing benches to backfill there is no re-mining occurring?	KY	Accept. Add language to indicate that in some cases, particularly remaining, excess spoil can be used to backfill unreclaimed areas from previous mining.
3.1.5.2	3-30	14-16	This explanation of area mining in steep slopes is not consistent with the p.3-31 line 29-30. Page3-31 should be revised to be consistent with p.3-30 lines 14-15.	Lane	Accept
3.1.5.2	3-31	1 st para.	Somewhere in 3.1.5.2 needs to state that multiple pits and equipment spreads may be utilized.	Mike R OSM	Accept
3.1.5.2	3-31	10	Change "disposal fill" to disposal area. And include "or used to reclaim existing pre-law abandon mined land highwalls adjacent to the mine"	VA	Accept (see previous response to VA comment).
3.1.5.2	3-31	10	I suggest replacing "disposal fill" with "an excess spoil disposal area" to be consistent with §701.5 and 816/817.71.	Lane	Accept

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3.1.5.2	3-31	2 nd para.	-In steep slope areas, excess spoil from development..."	Mike R OSM	Accept
3.1.5.2	3-31	16	Should state "and dozers are then used"	VA	Accept
3.1.5.2	3-31	17	Recommend adding "or toxic forming" after "acid forming" to be consistent with the draft text of the stream protection rule.	EPA	Accept
3.1.5.2	3-31		Last sentence in second paragraph should read "Bucket Wheel excavators...."	Garnett	Accept
3.1.5.2	3-31		Third paragraph, last sentence (regarding special handling) seems out of place. The paragraph makes it sound like the special handling provisions are part of the cast blasting process.	Garnett	Delete sentence.
3.1.5.2	3-31	29-30	This is not accurate and is inconsistent with p.3-30, lines12-15. This is an incorrect definition of mountaintop removal mining.	Lane	Please review and make consistent.
3.1.5.2	3-31	29-32	This description of MTR is inconsistent with the description provided on page 3-30, lines 1-3. MTR, as defined here, requires the presence of an AOC variance. These definitions need to be consistent (e.g., area mining plus variance), particularly given the contentious nature of the term.	EPA	Duplicate comment.
3.1.5.2	3-31		The fifth paragraph (last in the section) refers to any mine the mines outcrop to outcrop as a mountaintop removal mine. This is not how mountaintop removal is defined in SMCRA or in our regs.	Garnett	Duplicate comment.
3.1.5.3	3-32	General	This section should indicate the limited extent/scope to which draglines are used in Appalachia versus the rest of US—currently only 3 in operation in Appalachian Region of OSM.	Mike R OSM	Accept. Please ensure text reflects current dragline usage.
3.1.5.3.	3-32	2	Please insert that "draglines are not widely utilized in Central Appalachia.	KY	Duplicate comment.
3.1.5.3	3-32	7	I suggest replacing "rope" with "cable" or deleting "by using the hoist rope".	Lane	Accept
3.1.5.4	3-33	General	Is this significantly different method than area mining? Description sounds the same—if little distinction, suggest deleting section.	Mike R OSM	Explain differences. This should be reviewed by ECSI and Morgan.
3.1.5.5	3-33		First paragraph of section, third sentence should read "This method takes advantage of the dozer's	Garnett	Accept

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			ability..."		
3.1.5.4	3-33	3-4	It should be noted that only the first cut of overburden is disposed in off-site storage; remaining cuts are backfilled behind the progressing operation.	KY	Accept
3.1.5.5	3-33	13	The term "construction-type equipment" is confusing. Road construction type equipment is used in all types of surface mining. This implies that dozer/scrapper combinations are used exclusively in block area mining. I suggest deleting "uses construction-type equipment and".	Lane	Accept
Figure 3.1-21	3-34		Should identify equipment as Bucket Wheel Excavator— although not mentioned in the description for this type of mining—isn't it just area mining using different equipment spread? Maybe just mention these subsets (3.1.5.4 and 3.1.5.5) in passing at the end of section 3.1.5.3, instead of devoting separate sections.	Mike R OSM	Accept
3.1.5.6	3-34	2	Figure 3.1.21 is titled "Block Area/ Dozer-Scrapper Operation", but is a photo of a bucket-wheel excavator. Dozers and scrapers are not in the photo.	Lane	Duplicate comment.
3.1.5.5	3-34	2	Photo in Figure 3.1-21 is a bucket wheel excavator and not a dozer and scrapper operation	VA	Duplicate comment
3.1.5.5	3-34	Figure 3.1-21	Figure 3.1-21 looks like a bucket-wheel excavator to me	NM	Duplicate comment
3.1.5.5	3-34	Figure 3-21	This drawing is titled block area/dozer-scraper operation. This photograph is actually a bucket wheel excavator, and at this scale is not used in a small operation.	K.Jass	Duplicate comment
3.1.5.6	3-34 to 3-37		GENERAL-It appears that the narrative continually tries to make Area Mining and Mountain Top Removal Mining one in the same even though they are two completely separate types of mining.	VA	Reject comment. MTR and Area mining are very similar.
3.1.5.6	3-34		Should indicate that the post-mining configuration is "flat or gently rolling" to support "an equal or better public or economic post-mining land use."	Mike R OSM	Accept
3.1.5.6	3-34	4-9	This section is inaccurate for a number of reasons. It should be revised to be consistent with p.3-36 lines 1-10. The next comments are a suggested revision...	Lane	See response below.

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3.1.5.6	3-34	4-9	Revise to read: "Mountaintop removal mining (MTR), which is usually a form of area mining, involves removing an entire coal seam or seams from the upper fraction of a mountain, ridge, or hill, by removing all the overburden and creating a level plateau or gently rolling contour with no highwalls remaining. MTR operations receive a variance from AOC under certain requirements of the law. All excess spoil material not required on the mountaintop to achieve the approved post mining landuse is placed in approved excess spoil disposal areas." A MTR operation need not create a valley fill. The operation could find off-site disposal alternatives (e.g., in an existing impoundment, or on an existing area that was previously mined). Suggesting that MTR operations require fills is not accurate.	Lane	Accept.
3.1.5.6	3-34	6-8	"The balance of the broken overburden is mandated by regulation to be placed onto the mountaintop area to achieve the post-mining land use" is completely wrong. By regulation, if most of the spoil is placed back on top, then it would be area mining and not MTR.	EPA	Reject comment. While EPA's suggestion is theoretically possible, in practice, due to economic considerations it has not and will not be practicable.
3.1.5.6	3-34	8-9	The confusion was created not by the use of the term in the MTMVF EIS, but by the layperson seeing "tops of mountains" being removed (mined) without regard to the actual mining method applied. This section should clarify that the media and environmental community use the term mountaintop removal mining without regard to the specific meaning of the actual regulatory-defined MTR in SMCRA 515(c). The section also could point out that the use of true MTR in Appalachia is very limited (only 3 true MTRs currently in KY) but hard to categorize because most big surface mines are permitted as a mining "complex" with portions using contour, area, and some may have segments of MTR. State record-keeping often doesn't allow tabulation of the number of true MTRs in use. Could also cite GAO Report from: http://www.gao.gov/Products/GAO-10-21 "GAO-10-21: Surface Coal Mining: Characteristics of Mining in Mountainous	KY	Accept.
3.1.5.6	3-35	1 st para.		Mike R OSM	Accept comment. Some changes to text to indicate that the method is currently very limited in part due to the past decade of controversy, litigation, etc.

Create a section which explains MTR v. ~~area~~ mining in Mountainous

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			Areas of Kentucky and West Virginia"		
3.1.5.6	3-35	1	Figure 3.1-22 is a cross section of a mountaintop removal operation that includes the hydrology. This section has only described the types of surface mining. The other types described do not have cross sections including the hydrology. This cross section also has stress fractures as a result of underground mining which is completely not related to the surface operation. For descriptive purposes, this diagram should only relate to mountaintop removal.	VA	Agree. Remove extraneous detail.
3.1.5.6	3-35	Figure 3.1-22	This figure shows the hydrology which has yet to be discussed, along w/ the valley fills, all the coal seams (including underground mining), the original surface (pre mining) and the final AOC surface. There is way too much information in this top picture than is provided in the discussion in the adjacent paragraphs. Also suggest, if this drawing it to be kept from the top drawing, "Approximate Original Contour" on left be changed to pre-mining original topography and "approximate reclaimed mountain top" be changed to "reclaimed mountaintop approximating pre-mining topography".	KJass	Duplicate comment
3.1.5.6	3-35	12	The bottom caricature in that same figure really doesn't need to be included as photograph 3.1-33 Photograph 3.1-33 (page 3-36) provides a much better job of depicting the description of MTR on pages 3-35 & 3-36. I would simply add arrows pointing to active MTR area, areas of reclamation including approximating the mountain top, and the areas of excess spoil fill.	VA	Accept
3.1.5.6	3-35	13	Should include a sentence "However, contour mining, area mining and mountaintop removal mining are three distinct and separate types of mining"	EPA	Accept
3.1.5.6.	3-36	3-7	Recommend clarifying that operations "may be" granted an AOC variance rather than "are" granted. Such variances are not automatic. KYDNR is perplexed why it is stated that this DEIS will refrain from using the misnomer "mountaintop mining" and yet uses this term	KY	Accept. Use the term from GAO report.

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			just 4 lines down in the Figure 3.1-23 heading of Mountaintop Mining. KYDNR prefers the term "mining in mountainous areas" as used in the national GAO reports on coal mining.		
3.1.5.6	3-36	2 nd full para.	Suggest: "Reclamation of an MTR mine creates a level plateau or gently...."	Mike R OSM	Accept
3.1.7.1	3-36	24	I suggest deleting "by dozers or scrapers". Topsoil is redistributed with other equipment in addition to dozers and scrapers.	Lane	Accept
Figure 3.1-23	3-36		Do you mean Mountaintop Removal Mining and Reclamation Operation? Are you sure it wasn't permitted as an AOC job?	Mike R OSM	Accept
3.1.5.6	3-37	1-3	The accuracy of this statement depends upon the scale of the operation.	VA	Accept. Please define limitations
3.1.5.7	3-37	6 and 22	I suggest deleting "beneath". Coal is not extracted beneath the resulting highwall when the desired stripping ratio has been reached. Coal is extracted horizontally beyond the existing highwall.	Lane-OSM	Accept
3.1.5.7	3-37	24	I suggest replacing "mine" with "highwall miner".	Lane-OSM	Accept
3.1.5.7	3-37	Par 5 "A continuous highwall	"front set of rotary cutting heads that cut coal" I know of no continuous miner that has more than one cutting head. This should be changed to: "front rotary cutting head that cuts coal..."	KJass	Reject comment. New equipment with multiple heads does exist and may be used.
3.1.5.7	3-37	29	"expedited" should be "expected"	NM	Accept.
Figure 3.1-24	3-38		Mislabeled "Underground Mining Methods." Highwall should be more vertical and surface mining bench indicated (wider than scale of equipment shown, typically). Should reorient pattern used to represent strata or use different indication of horizontal lithology.	Mike R OSM	Accept
3.1.5.7	3-38	Figure 3.1-14	The picture includes "Underground Mining Methods" which should be removed. This piece of equipment was originally designed exclusively as underground equipment, it has been modified for use as a surface mining piece of equipment.	KJass	Accept
3.1.5.7	3-38	Par 1	"Normally, highwall mining can only be conducted	KJass	Accept. Please revise text accordingly.

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			<p>in a down-dip direction to prevent excessive dewatering of the overlying strata or potentially dangerous dewatering and contamination from intersection of deep mine workings." It took me a minute to realize the intent of this discussion. To clarify the safety aspect, mining down-dip keeps the water in the mine so it doesn't flow down hill, out of the mine over the equipment and operators.</p>		
3.1.5.8	3-38	3.1.5.8	<p>"Ditches are constructed on the uphill sides of haul roads to collect runoff, and culverts placed at intervals to convey runoff under the road to the downhill side." In western and mid-western mines, where the topography is significantly flatter, ditches are constructed on both sides of each road, and the surface of the road is crested to allow for drainage to both sides.</p> <p>"Additional small service roads" – per regulations, these are called ancillary roads, which have minimum standards which must be met as well as the primary (access and haul) roads.</p>	K/Jass-OSM	Accept
3.1.6	3-38	3.1.6	<p>"If available in sufficient quantity, topsoil is removed and segregated.." According to regulation there is no "if", topsoil will be removed and segregated for subsequent use in reclaiming the mine.</p>	K/Jass-OSM	Accept. Revise text to reflect the requirement to segregate topsoil.
3.1.6	3-3	Par 4	<p>any of several types of steep-slope fills: "valley," "head-of hollow," and "durable rock." The rule change for which this EIS is being done has removed these 3 fill terms and simply made these</p>	K/Jass-OSM	No changes necessary.

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			all excess spoil under the same regulation. So this EIS will address these 3 fill types that exists presently.		
3.1.7	3-39	Whole section	<i>As written this EIS discusses 3 types of excess spoil disposal sites – valley fill, head of hollow and durable rock fill which currently exist and were built to the current regulation standards. However, there is no mention made in this proposed EIS that in the future the change to the regulations will only provide for the construction of excess spoil structures, now built to more stringent requirements (816.71). The old sections (816.72 valley fill/head of hollow and 816.73 durable rock fills) are being removed and the construction criteria for any type of excess spoil structure will now be addressed under the more stringent requirements of 816.71.</i>	KJass-OSM	EIS must look at current regulatory structures as well. No changes necessary.
3.1.7	3-39	2-3	The swell factor is a quantitative mathematical representation of the gain in volume commonly known as swell. I suggest revising this sentence to read: "Therefore, the volume... that was in place prior to mining. This increase in volume is commonly known as swell."	Lane-OSM	Accept.
3.1.7	3-39	1 st para.; 1 st sent.	This statement is no longer true, as most states are requiring "bottom-up" placement. Suggest: "The predominant valley fill construction technique in steep-sloped Appalachia over the past several decades has been is the durable rock fill method. Because of the recent regulatory push to reduce the size of valley fill footprints (stream length disturbed/eliminated), reduce erosion, and to more contemporaneously reclaim front faces of fills, most Appalachian steep-slope states are requiring valley fills "bottom-up" construction in lifts.	Mike R OSM	Accept changes
3.1.7	3-39	2 nd para.; 1 st sent.	Suggest: "Before the enactment of the SMCRA, much of the excess spoil was pushed over the outslope below the mining bench."	Mike R OSM	Accept.
3.1.7	3-39	2 nd	Suggest: "Since the passage of SMCRA, regulations	Mike R OSM	Accept

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3.1.7	3-39	para.; 2 nd sent.	require increased engineering efforts directed toward design and construction of excess spoil disposal areas to improve safety promote free-drainage and improve mass stability.		
3.1.7	3-39	17	I suggest replacing "valley fill construction technique" with "method of excess spoil disposal".	Lane	Accept
3.1.7	3-39	3 rd para.; 2 nd sent.	Suggest "The term "Hollow Fill" has been used interchangeably with each Method, particularly in Kentucky."	Mike R OSM	Accept
3.1.7	3-39	21	I suggest deleting "disturbed area" and replacing it with "mined out area".	Lane	Reject. Disturbed area can include more than the mined area.
3.1.7	3-39	Par 5	"steep-sloped Appalachia" because the Centralia mine in Centralia, WA constructed a valley fill in its steeply sloped terrain, this should be reworded to address areas outside of just Appalachia. Change to: "Steep-sloped, mountainous areas is.."	Klass-OSM	Accept.
3.1.7	3-39	Par 6 - "Before the...	"SMCRA, much of the excess spoil was pushed over the slope". Prior to SMCRA there was no need to even keep material to restore the pre-existing topography, so it wasn't yet known as excess; it was just material that was not needed & in the way of mining - thus "shoot & shove"	Klass-OSM	Duplicate comment.
3.1.7	3-39		The introductory section 3.1.7 should generally describe the 2:1 outslope, 50-foot terrace, stability (static/dynamic F.S.) and (100-yr 6-hr storm) drainage control requirements. The requirement for key-way cuts and buttresses where foundations are >2.8:1 could also be mentioned.	Mike R OSM	Accept. Please revise accordingly.
3.1.6	3-39		Last sentence: "...and are explained in detail below."	UT	Accept.
Figure 3.1-25	3-40		Suggest relabeling drawing "Typical Valley Fill Design" or "Typical Durable Rock Fill," inasmuch as a true head-of-hollow fill is built in lifts, has a rock chimney drain, is less than 250K c.y., etc. If labeled the formed, the drawing might also be	Mike R OSM	Accept.

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3.1.7	3-40	Figure 3.1-25	shown with horizontal lines representing lifts instead of a homogeneous fill pattern. <i>This figure has a lot of stuff on it, and at 8.5X11" size paper, it will be illegible. I would suggest using the plan view and the end cut showing how the valley is filled with material.</i>	KJass-OSM	Reject comment. However, ensure that the figure is legible and understandable.
3.1.7.1	3-40	General	There may also be allowed by some states a lift-type fill, where the underdrains are placed and each lift may be greater than 4-feet and up to fifty feet, end-dumped if it is durable. In that fashion, the front face can be completed in phases and terraces are created by stepping back and dumping the next lift on top of the successive completed/reclaimed lift. Could also mention WV's fill with a "erosion protection zone" to catch erosion and sediment, which must be removed at end of upstream construction unless 404 allows retaining it.	Mike R OSM	Accept.
3.1.7.2.	3-40	14-16	KYDNR believes that the description of a head of hollow fill is incorrect by stating it contains a chimney drain. Very few, if any of, Kentucky's head of hollow fills have been constructed with a chimney drain.	KY	Accept. Please qualify language.
3.1.7.3	3-40	2 nd para.	"Wing dumping" is not allowed to occur in most states but for so far in front of the advancing dumped face. This is because, if the excess spoil calculation was off, the excess spoil needed to create a final face perpendicular to the stream could be insufficient and a concave face result, which may affect drainage control and/or stability in addition to needlessly disturbing downslope areas.	Mike R OSM	Accept. Revise text to indicate that wing dumping is only allowable in most states in proximity to the advancing dumped face.
3.1.7.3.	3-41	18-19	It should be noted that in many cases wing dumping is not allowed and may be a violation of Kentucky regulations.	KY	Duplicate comment.
3.1.7.3	3-41	Par 5 - "The design phase..	"The design phase of a durable rock fill must demonstrate that the structures will comprise 80 percent durable rock by volume. The successful long-term performance of the fills is directly related to the strength and durability of the rock in the fill mass and rock drains. Durable rock is	KJass-OSM	Accept.

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			defined in Federal regulations at 30 CFR 816 / 817.73(b) as rock which does not slake in water and will not degrade to soil material." This has already been stated in paragraph 1 of this section.		
3.1.7.3	3-41	Par 6 – "The regulatory intent..."	"Several State and Federal inspectors, engineers, and geologists have considered that the SDI may not accurately discriminate durable and non-durable rock." Why is this in here – that this standard may not be meeting its usefulness? Is there a better alternative available?	KJass-OSM	Reject comment. Statement is accurate.
3.1.7.3	3-42	1	Is there any documentation to support this statement. "To-date, the occurrence of significant mass movements on all types of valley fills is minimal"? (I see there is a summary of fill stability in steep slope operations in the Appalachian region. What about fills in other mining regions?)	Bardley-OSM	Please document the supporting evidence.
3.1.7.4	3-42	3	This type of spoil placement is not typically used anymore. Now the entire AML bench/highwall is reclaimed to avoid placing excess spoil in valley fills.	VA	Please revise text to note that in some areas, spoil is placed on unreclaimed AML features to avoid placement in excess spoil fills.
3.1.7.4.	3-42	13-18	KYDNR believes it would be more appropriate to gather fill data from the last five years rather than from 2001-2005. This information is readily available from annual OSM/State reports. KYDNR also believes that the number of approved (permitted) fills is misleading as no information on constructed fills is given. Based on state/federal studies, it is estimated that 40-60% of the Kentucky	KY	Accept. See data in next comment.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition																												
3.1.7.5	3-42		<p>permitted fills are NOT constructed.</p> <p>Trends in Excess Spoil Disposal - As currently written the text states "Recent information shows a trend towards less numerous fills and smaller fills.....Kentucky declined (262 to 92)...average size of the Kentucky fills continues to show a general decline (from 19 to 7 acres)."</p> <p>Information available to the Lexington Field Office is in conflict with statement regarding the declining size of fills. Also, the number of fills does not match, but this might be due to criteria for counting, i.e. permitting vs. built.</p> <p>Annually, LFO compiles a Fill Inventory that includes information on number of fill permitted (not necessarily built), average size, watershed acreage, etc. The numbers from these inventories do not match the numbers presented in the draft EIS. See Table:</p> <table border="1"> <thead> <tr> <th>CY</th> <th>#Fills Permitted (not necessarily built)</th> <th>Avg. Acres Surface Mine</th> <th>Avg. Acres Underground Mine</th> </tr> </thead> <tbody> <tr> <td>2002</td> <td>336</td> <td>12.69</td> <td>5.89</td> </tr> <tr> <td>2005</td> <td>226</td> <td>15.46</td> <td>3.14</td> </tr> <tr> <td>2006</td> <td>312</td> <td>14.93</td> <td>3.41</td> </tr> <tr> <td>2007</td> <td>259</td> <td>13.9</td> <td>3.01</td> </tr> <tr> <td>2008</td> <td>246</td> <td>13.6</td> <td>2.91</td> </tr> <tr> <td>2009</td> <td>104</td> <td>21.02</td> <td>46.08</td> </tr> </tbody> </table>	CY	#Fills Permitted (not necessarily built)	Avg. Acres Surface Mine	Avg. Acres Underground Mine	2002	336	12.69	5.89	2005	226	15.46	3.14	2006	312	14.93	3.41	2007	259	13.9	3.01	2008	246	13.6	2.91	2009	104	21.02	46.08	AR-OSM	Accept
CY	#Fills Permitted (not necessarily built)	Avg. Acres Surface Mine	Avg. Acres Underground Mine																														
2002	336	12.69	5.89																														
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2007	259	13.9	3.01																														
2008	246	13.6	2.91																														
2009	104	21.02	46.08																														
3.1.7	3-42	16-18	<p>Virginia information listed is misleading. Please insert a sentence to clarify relative size of fills - in Virginia, fills are typically less than <1 mcyds with small footprints.</p>	VA	Accept																												
3.1.7.5	3-42	3 rd para.	<p>The SBZ EIS has additional trend data after 2005 that is not reflected in this section.</p>	Mike R OSM	Accept. Please use pertinent data from 2008 EIS.																												
3.1.7.6	3-43-46	general	<p>This section seems like a mixed bag of stability and somewhat uneven treatment of new requirements in states. Suggest separating into 2 different sections. Should also explain that WV and KY fill optimization was in part due to AOC studies that showed over-permitting fills, and in part due to increasingly more stringent CWA 404 requirement to minimize stream impacts.</p>	Mike R OSM	Accept. Please revise accordingly.																												

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.7.6	3-43	30	... (redistribution of the spoil from from one part of the fill to another..."	UT	Accept
3.1.7.6	3-43	34	"(e.g. not more that than one bench on the fill face)"	UT	Accept
3.1.7.6	3-43	Par 4 - "For the purpose s	"of the spoil form one part" this should be FROM	KJass-OSM	Accept
3.1.7.6	3-44	13-14	The following statement is not a complete sentence: "For example, an underdrain system of a durable rock fill is likely inadequate when insufficient amount of durable rock and/or unaccounted for subsurface drainage."	Barclay-OSM	Accept. Please revise to complete the sentence.
3.1.7.6	3-44- 3-45		Why describe KY RAM 145 and not mention WV AOC plus?	WV	Accept. Please revise to recognize WV AOC plus approach.
3.1.7.6	3-44	29	"...(8) additional studies of completed fills; and, [no comma]..."	UT	Accept
3.1.7.5	3-44	31-37	This paragraph is largely a duplicate of page 3-42, lines 30-36. Not clear why the majority of this paragraph needs to be included twice.	EPA	Accept. Delete duplication unless there is an overriding reason for repeating it here.
3.1.7.7 and subsequent sections	3-46		Seems like this and following sections are numbered incorrectly and should be 3.1.8, etc.	Mike R OSM	Accept. Consider revising organization.
3.1.7.7	3-46 to -47		The subsection titled "3.1.7.7 Mine Reclamation" seems out of place within Section 3.1.7 Excess Spoil.	UT	Duplicate comment.
3.1.7.7	3-46	1 st para.	Mine reclamation is the process of backfilling, regrading..."	Mike R OSM	Accept
3.1.7.7	3-46	4	"Mine reclamation is the process of backfilling, regrading and planting vegetation on a disturbed"	UT	Duplicate comment.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.7.7	3-46	1 st line in subsection	Change "regarding" to "regrading."	Barclay-OSM	Duplicate comment.
3.1.7.7 Mine Reclamation	3-46	4	The word <i>regarding</i> should read <i>regrading</i> .	TX	Duplicate comment.
3.1.7.7	3-46	Par 2 "Mine Reclam. PAR 3	"backfilling, regarding and planting" Should be REGRADING "Backfilling" it isn't really stated, but most of this page refers to restoration of a SURFACE mine. It may be confusing if backfilling were tried to be explained with the concept of underground mining.	KJass-OSM	Duplicate comment.
3.1.7.7 Mine Reclamation	3-46	13	The statement "almost all sites generate excess spoil that must be hauled to valley fills..." does not characterize surface mining operations which do not generate excess spoil, such as in the Gulf Coast region.	TX	Accept. Please revise to qualify and limit statement or include specific reference to coal mining operations which do not generate excess spoil.
3.1.7.7 Mine Reclamation	3-46	22, 29	The description of topsoil substitute (rock-based material broken up by passage of tracked equipment) appears to only characterize topsoil substitution in the eastern United States rather than other regions, where unconsolidated overburden material is used.	TX	Accept. Please revise to reflect broader topsoil substitution practices.
3.1.7.7	3-47	FRA para.	Citation should be OSM's web site, not VPI: http://arri.osmre.gov/PDFs/Pubs/FRA_No.2.7-18-07.Revised.pdf	Mike R OSM	Accept.
3.1.7.7	3-46	"Backfilling"	"Almost all sites generate excess spoil that must be hauled to valley fills or other disposal fill types adjacent to the immediate mining area." This sentence is very broad and assumes that all mining generates excess spoil. NOT TRUE. Western surface mines, because of the thickness of coal seams removed, does NOT generate any out-of-pit spoil. The exception is WA state, where in	KJass-OSM	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
		<p>"Regrading"</p> <p>"Topsoil Redisit"</p>	<p>mountainous terrain, one operation does have a couple of valley fills, the other has some stockpiled out of pit spoil.</p> <p>"the leveling of spoil areas" – rather than leveling, use "reshaping and movement of spoil material"</p> <p>"preparation of a rock-based topsoil substitute, if topsoil replacement is not employed". Western topsoil substitute material is generally not considered rock-based material. It is simply a substitute overburden soil that meets suitability criteria for use as topsoil, because 1) there is no "Horizon A topsoil" prior to mining, 2) what is available is very limited or inconsistently found prior to mining, or 3) is of such poor quality that substitute material is approved as the suitable rooting material in lieu of actual topsoil. But the last part of this paragraph hits on this exact problem, so perhaps simply removing the rock-based discussion is enough to clarify the concept.</p> <p>"redistributed by dozers or scrapers at an application rate determined by available quantities, usually between 4 and 12 inches." Based on the preceding comment, the last section of this (the specific depth) must be removed, as this thickness does not apply to most mines in the west (and actually may be the approved substitute in some quantity).</p>		

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.7.8	3-47	PAR 4 – "Both UG..."	<p>"underground and surface mine coal may contain rock or excessive sulfur and not be suitable for immediate use by the consumer in its state at the mine mouth." It took me a minute to realize this refers to MINED coal. CHANGE: "Mine" to "MINED"</p> <p>"rock and blend with" This should be "OR blend". Centralia Mine, WA washed their coal to remove rock, but it went directly to the powerplant after that to be used without being blended.</p> <p><i>This photograph shows an overview of a preparation plant w/ the belt line to the stockpile, some crushers w/ stacker tubes (I think) and an impoundment above a valley fill. There is no labeling of any structure – though the title is Coal Preparation Facilities. However, as the description is pretty straight forward, I don't think this photo is needed.</i></p> <p><i>Also in this section the use of processing facilities, wash plant and preparation plant are used interchangeably. I understand this but does the general public, particularly ones that don't live in a coal mining community?</i></p>	KJass-OSM	Accept
3.1.7.8	3-48	Figure 3.1-26	<p>Suggest: "Reject material, or coal mine waste or refuse (rock separated during the cleaning of coal, often consisting of shale), is typically disposed of off-site near of a coal processing facility due to fill storage capacity and occupancy requirements.</p> <p>Scalp rock is typically disposed of at or near the mine site. Refuse from coal processing is typically stored at or near the preparation plant, which may be near or off-site of the active mining operation.</p>	KJass-OSM	Accept in part. Please label features in the photo.
3.1.7.9	3-48	1 st para., 1 st sent.	<p>Suggest: "Reject material, or coal mine waste or refuse (rock separated during the cleaning of coal, often consisting of shale), is typically disposed of off-site near of a coal processing facility due to fill storage capacity and occupancy requirements.</p>	Mike R OSM	Accept
3.1.7.9	3-48	9	<p>Scalp rock is typically disposed of at or near the mine site. Refuse from coal processing is typically stored at or near the preparation plant, which may be near or off-site of the active mining operation.</p>	VA	Accept
3.1.7.9	3-48	Par 2	<p>"disposed of off-site of [should this be IN] a coal</p>	KJass-OSM	Accept in part. There are at least a few preparation plants being

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			<p>processing facility" This is the same term used above to process the coal. Perhaps this should be identified as a "coal processing waste storage facility" BUT unlike eastern properties, western facilities are within the permit and are not off-site.</p> <p>"Under normal circumstances, about 10 to 15 percent of surface mine output will go to a processing facility for cleaning and blending, and the rest will be transported directly to the shipping point." This is definitely an Eastern thing -- There are NO surface coal mines in the west process their coal (other than to crush) prior to shipping. Please correct this general statement which applies strictly to specific areas of the county.</p>		<p>planned for western mines. Thus it should indicate a more regional standard for processing of surface mined coal and an indication that the use of coal preparation may increase in other regions in the future.</p>
3.1.7.9	3-48	13	I suggest replacing "New material accumulates" with "fine refuse material in a slurry form is pumped".	Lane	Accept
3.1.7.9	3-49	1 st para., last sent.	Suggest "...in a series of lifts as new the fine coal waste is deposited as a slurry material in the impoundment formed accumulates behind the embankment.	Mike R OSM	Duplicate comment.
3.1.7.9	3-49	Par 2 - "Refuse with..."	"refuse impoundment behind the berm" Earlier drawings show berms on roads and mountainside working areas -- it has not been defined to be either the equipment barrier nor as, in this case, the constructed embankment. Please correct this. Also, "refuse impoundment" in this sentence has been interchangeably used as "coal processing waste storage facility", as specified in the previous	KJass-OSM	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
		Par 3	comment. New term: "coal processing waste" used as above. Either identify all terms or stick to one throughout the discussion. CHANGE TO "drilled wells, [ADD: are] used to place slurries and solids in underground mines [ADD: which] considered mine backfill [ADD: material]." "Such [ADD] backfill] wells [ADD: to transport these waste materials] may be used to..."		
3.1.7.9	3-49	4	I suggest replacing "berm" with "embankment".	Lane	Duplicate comment
3.1.7.10	3-49	Last Par	"Coal refuse is a low BTU-value material generated by the coal mining process." I gather this use of the term coal refuse is the solid rock that is separated out not the slurry material produced after the material has been chemically processed, as the term was used earlier. Please clarify what this material is & how it is generated.	KJass-OSM	Accept
3.1.7.9	3-49		Coal Refuse Disposal Facilities - Text addresses % of surface mine output that will go to a processing facility for cleaning and processing. Since underground mines are the largest contributors of reject, suggest that a similar discussion of % of output be added to the text.	AR-OSM	Accept
3.1.7.9	3-49	17	It's not clear what the "state and USEPA Regional survey conducted for this study" refers to. Is this an effort related to the 2008 EIS, or a new endeavor conducted to support this EIS? Or is it the 1999 study described later in the paragraph? If so, are there any new data over the past 11 years on this topic?	EPA	Accept. Please ensure the text reflects what study is being referred to and use the most recent available data.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.7.9	3-49	17-29	Explain in more detail.	WV	Reject. Not sure what the commenter wanted.
3.1.7.9	3-49	22	Recommend adding "pursuant to the Safe Drinking Water Act" after "EPA" within this sentence to clarify the statutory authority for this permitting requirement.	EPA	Accept
3.1.8	3-50	19-21	Not all bond amounts are determined based on a "worst case" scenario basis. I suggest revising to read: "Bond amounts may range from a few hundred thousand dollars to many millions of dollars."	Lane	Accept, although "worst case" is generally used.
3.1.8	3-50	24	"Phase 1 bond releases are granted after satisfactory backfilling and regrading regrading have been completed on the disturbed area."	UT	Accept.
3.1.8.	3-50	24	"backfilling and regrading" should be corrected to "backfilling and regrading"	KY	Duplicate comment
3.1.8	3-50	37	As stated, this is a federal requirement. Some state regulatory programs may differ from this requirement.	VA	Clarify that this is a federal requirement.
3.1.8	3-50	2 nd para., last sent.	Suggest: "Phase 3 releases are granted after the approved post-mining land use ("PMLU") and water quality standards for runoff leaving the permit area are met (i.e. the mine site meets all performance standards and conforms with the approved permit reclamation plan). http://www.msha.gov/Impoundments/DesignManual/Chapter-2.pdf This link is in a section of text which describes re-mining. I'm not sure this link to the construction of slurry impoundment criteria has be inserted in the correct location of this document.	Mike R OSM	Accept
3.1.7.10	3-50	Par 2	"provide funds for the government to complete the" REPLACE: "government" WITH "regulatory authority".	KJass-OSM	Accept. Please ensure this is referenced in the proper location.
3.1.8	3-50	Par 3		KJass-OSM	Accept

Section	Page #s	Line #s	Comment	Proposed Disposition
		Par 4	<p>” Bond amounts are based on a “worst case” [INSERT: reclamation cost estimate] scenario in relation to the maximum amount of disturbed area open at any one given time and may range from a [ADD: minimum of \$10,000][REMOVE: few hundred thousand dollars] to [ADD: hundreds of] [DELETE: many] millions of dollars.</p> <p>“bond [ADD: must] [DELETE: should] be sufficient to assure the completion of the reclamation plan if the work had to be performed [ADD: under contract of] [Delete: by] the regulatory authority in”</p> <p>“Reclamation bonds [ADD: may be] [DELETE: are] released [ADD: , generally in three] phases [ADD: as defined in SMCRA, and dependant on the extent of reclamation completed as approved.]”</p> <p>“Phase 1 bond releases are granted after satisfactory backfilling and regarding” CHANGE TO: REGRADING.</p> <p>Phase 2 releases are granted after completion of [REPLACE: revegetation with TOPSOILING] activities.</p> <p>Phase 3 releases are granted after the approved post-mining land use (“PMLU”) is met (i.e. meets all performance standards and the approved permit plan) [ADD: vegetation has been established for</p>	

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			<p>the required amount of time (5 years east of Mississippi and 10 years west of the Mississippi), and the ponds have been removed.]</p> <p>“...federal, state, or municipal bonds; and investment-grade securities), and self bonds” The federal rules do not specifically address the acceptance of investment grade securities – however, no RA’s that I know of allow these because of the potential for fast change in their values. These must be removed from the list of items that can be used as performance bond. Perhaps listing all of the choices allowed is too detailed – stick w/ what’s listed in regs as allowed types w/ reference to the regulations if anyone is really interested.</p>		
3.1.8	3-50	Par 6	<p>“To remain qualified, self-bonded permittees must maintain a tangible net worth of at least \$10 million, possess fixed assets in the U.S. of at least \$20 million, and either meet certain financial ratios or have an "A" or higher bond rating.” This list includes pieces of the three financial test criteria, of which the guarantor must fully meet only 1. In addition, there are contracts that must be signed and other requirements (including 5-yr life of the entity, amount of self bonds no great than 25% of TNW in the US, and financial in USGAAP format) which have not been identified in this section.</p>	KJass-OSM	Accept. Please make appropriate revisions.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.8			<p>“The regulatory authority [MAX] reduce the market value of collateral by a margin sufficient to cover the regulatory authority’s cost to liquidate the collateral in the event funds are needed for reclamation”. This practice may be happening at state levels, but the federal regulations do no require this practice (though it is a wise one).</p>		
3.1.8	3-50-53	General	<p>Suggest section 3.1.8 be subdivided into additional sections. No discussion of bonding for water treatment.</p>	Mike R OSM	Evaluate appropriateness of further subdivision of this section.
3.1.8	3-51	Par 3	<p>[See 30 CFR Part 800 for Office of Surface Mining (OSM) regulatory requirements]. Also see OSM Directive REG-28 (http://www.osmre.gov/guidance/directives/directiv e525.pdf)</p>	KJass-OSM	Accept
3.1.8	3-52		<p>GENERAL—this section may read better by separating out the different types of bonding instruments and their descriptions instead of discussing them jointly in the same paragraph or sentence.</p>	VA	Accept
3.1.8		Par 4	<p>“which is updated annually on July 1 and can be viewed and downloaded at ww.fms.treas.gov/c570” I think you need to add that it is updated periodically so the list is always current, otherwise as written it can be assumed this list gets old & outdated which isn’t true.</p>		
3.1.8	3-52	Par 5	<p>“third party to complete [ADD: the work needed to meet the requirements of] the reclamation plan”</p> <p>“Prior to disturbing new acreage [ADD: not considered in the reclamation cost estimate], the</p>	KJass-OSM	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
		Par 6	permittee...		
3.1.8	3-52	22	“typically requires five years [ADD: in the eastern US and 10 years in the western US] after.” Change “bonding requirements section 509 of SMCRA” to “bonding requirements of section 509 of SMCRA”.	Barley-OSM	Accept
3.1.8	3-53	2	UDOGM has interpreted the revegetation success rules as requiring less time to achieve bond release in the case of industrial/commercial post mining land use. i.e. For industrial uses within 2 years of grading, vegetation success equals the vegetation cover necessary to control erosion.	UT	Reject. No changes necessary
3.1.8.1	3-53	14	Sentence should also include “fails to complete all reclamation obligation... <i>and available conventional bond funds (surety, letter of credit, etc.) are inadequate to complete the required reclamation.</i> ”	VA	Accept
3.1.8.1	3-53	Par 1	“Additional time [ADD: to meet release criteria is met] may be required for attainment of certain PMLUs, such as commercial forest land, industrial, commercial, etc. Generally, once mining has begun on large sites, the only feasible reclamation plan is to complete the mining according to the original plan.” Sentence 2 of this statement is incorrect. There is nothing in the regulations which prohibits a permit revision to a SMCRA permit, including a change to the pmlu if all criteria is met in the application and supporting documentation.	KJass-OSM	Accept
		Par 2	post a bond covering” CHANGE TO: “post an individual bond covering”		

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.9	3-53 thru 3-74	Starting with 20	<p>“reclamation obligations. [ADD: In addition, the TN federal program now includes an alternate bonding system process to ensure financial assurance to cover the cost of treating acid mine drainage beyond the life of the coal permit.] Under OSM...”</p> <p>The content of this section does not reflect its title “Mineral Resources and Mining by Region”, as it infers both minerals and mining operations other than coal. Unless non-coal minerals were previously determined to be insignificant or unimpacted by the proposed rulemaking, other mineral resources should be discussed to some degree under this section, particularly considering federal mineral interests in western states.</p> <p>Oil, natural gas, and coalbed methane resources are usually more closely tied to coal geology than other mineral resources. In federal lands in Utah, coal and oil and gas resources often overlap, and unless previously determined to be insignificant, should (at least) be considered for evaluation with the other resources, since they have significant economic value. In Utah and other western states, the Bureau of Land Management would be a good source for this type of information.</p> <p>The pie chart showing production by region is very helpful. This would be a logical place to show a similar pie chart documenting reserves by region.</p> <p>Again, these colors will not show up on b&w copies of the EIS, should use symbols instead so all can understand graphs regardless of color of printed or on-line EIS.</p> <p>Also, section 3.1.9.1.2: page 3-60, figure 3.1.32; Pg 3-66, figure 3.1.36; page 3-63, figure 3.1-34; page 3-69, figure 3.1-38;</p> <p>Figure 3.1-28 does not appear to correspond to Figure 3.1-29. The Appalachian Basin is listed as the second highest production region in the top figure at just under 400,000,000 short tons in 2008. The Appalachian basin is not even listed on the bottom graph for that same year. What is denoted as</p>	UT	Accept in part. A general statement to address the issues raised by this comment should be added to the discussion.
3.1.9	3-54	1		UT	Accept.
3.1.9	3-54 & -55	Figure 3.1-27, -28, -29		KJass-OSM	Accept
3.1.9.1	-56	-30		VA	Accept
3.1.9	3-55	1			Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			the Illinois Basin on this graph has the same ton production as listed on the first graph for the Appalachian Basin (which is also 4 times more than is listed for the Illinois Basin on the first graph). Have the items been mislabeled?		
3.1.9	3-55	4-5	Figure 3.1-29 appears to omit the Appalachian Region from the graph.	EPA	Duplicate comment
3.1.9	3-55	-----	Figure 3.1-29: The legend is incomplete; each data set has 7 bars; the legend contains only 5 regions.	KY	Duplicate comment
3.1.9	3-55	5 (Fig 3.1-29)	The legend for this figure is incomplete - Appalachian Basin and Colorado Plateau labels are missing.	UT	Duplicate comment
3.1.9	3-56	n/a	Figure 3.1-30 Map of Appalachian Basin, but only shows north and central basin, omits southern basin, per lines 17-18.	VA	Accept
3.1.9.1.1 Figure 3.1-30	3-56	1 st para., 1 st and 2 nd sent.	The coal "zones" shown in the figure and listed in the narrative are only "selected" zones from USGS publications. There are other intermediate and deeper seams considered part of the Appalachian coal basin zones (e.g., No. 5 Block, Stockton and Coalburg, Winifrede/Hazard, Williamson/Amburgy, Campbell Creek/Upper Elkhorn No. 3, and Upper Elkhorn Nos. 1 and 2/Powellton). Suggest revisions, at a minimum, that the 1 st sentence read: "...six selected coal producing zones regrettably..." Delete the second sentence, as the referenced figure provides that info.	Mike R OSM	Accept
3.1.9.1	3-56	8	The map of the Appalachian basin needs work. There are many more coal seams that the 6 given in the legend. Also the entire basin is not shown as it does not show Alabama, Georgia and southern Tennessee coal fields. See Figure 3.2-3.	Lane	Accept
3.1.9.1	3-56		Figure 3.1-30 is labeled as a map of the Appalachian coal basin but only shows a portion of the basin (cuts off the southern Appalachian Basin.)	Garnett	Duplicate comment
3.1.9.1.4	3-57; 3-58	31-37; 1-10	Include recovery % as in the Extraction Method section for the Colorado Plateau	UT	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.9.1.2	3-57	General	The section seems to be mixing coal "beds" and coal "zones". Not clear without looking at the source reference material whether those resources listed as coal beds are actually multiple beds from coal zones. I do not believe (see comment above) the "selected" zones shown/mentioned represent all of the coal zones in Appalachia. If so, the reserve amounts under Federal lands may be misstated. Shouldn't this section state the amount of private lands over coal, state lands? Shouldn't there be a section discussing major mineral owners controlling a majority of the reserves? In addition to clarifying that many coal reserves are owned by Federal owners, this section should also characterize the private/state/etc. owners of coal reserves as well. For example, in West Virginia and Kentucky, a significant proportion of lands are owned by out-of-state land holding companies, an important detail that is not at all mentioned here. Existing research certainly exists as to the types of landowners in this region.	Mike R OSM	Accept
3.1.9.1.2	3-57	1-21	On line 6 of 3-36, "This DEIS does not use the term 'mountaintop mining'..." Then on the listed page and line, "Surface mining in this region utilizes area mining and mountaintop mining methods using draglines, trucks and shovels, and front-end loaders." It is unclear to what mountaintop mining refers.	EPA	Accept
3.1.9.1.4	3-57	33	This sentence references mountaintop mining even though page 3-36 lines 5-6 states "This DEIS does not use the term 'mountaintop mining'."	VA	Accept. Please ensure consistency in use of terminology.
3.1.9.1	3-57	33	Sentence 3 - "The majority of the coal resources in this region [J] located in thick bedswith low to medium sulfur content and high Btus [J] has been mined. ADD comma's as written.	Lane	Duplicate comment.
3.1.9.1.3	3-57	Par 4	"40% of the production in the Appalachian Basin in 2008 and" See earliest comments above - update w/ 2009 information from EIA.gov This is also true throughout section 3.1.9 & all subparts: use of 2008 stats? Granted this is most	KJass-OSM	Accept
3.1.9.1.4	3-57	All of section 3.1.9		KJass-OSM	Accept. Please use updated data.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
	3-58	footnote Par 1	<p>recent from EIA, but state should have data for the 2 yrs since this was published.</p> <p><i>Why not put footnote 7 on this page where reference is located?</i></p> <p><i>Is the WV "42" still current as of this date or is this a 2008 # as well? Otherwise, provide the date this was current.</i></p> <p>"Room-and-pillar mining using continuous miners is common in smaller resource areas and some small operations mine in beds above or below previously mined areas." I thought I had read in the early section of UG mining that multiple seams were NOT allowed in some cases. If this is valid then between the 2 statements clarification is needed.</p>		
3.1.9.1.4	3-58	1 st para. 2 nd sent.	<p>I don't understand the relevance of the highlighted part of this sentence:</p> <p>"Room-and-pillar mining using continuous miners is common in smaller resource areas and some small operations mine in beds above or below previously mined areas."</p>	Mike R OSM	Please revise sentence to ensure meaning is clear.
3.1.9.1.4.	3-58	2 nd para.	<p>I don't understand the highlighted part of this sentence: "In addition, auger and highwall mining was once common in this region, but production by this method has declined as most have caught up with the final highwalls."</p>	Mike R OSM	Please revise sentence to ensure meaning is clear.
3.1.9.1.4	3-58	9	<p>Highwall mining is fairly common in WV.</p>	WV	Accept.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.9.1.5	3-58	11-16	Where did this data come from? Is it permits or mines?	WV	Please clarify source in text.
3.1.9.1.5	3-58	General	This section says nothing about "Mine Size," other than 12 mines produce x% of regional production—it appears to be as much about employment.	Mike R OSM	Revise text accordingly.
3.1.9.1.6	3-58	2 nd sent.	Suggest: Prior to 2008, eCoal production in Appalachia was had been in decline for the two years before 2008.	Mike R OSM	Accept
3.1.9.1.6	3-59	—	What do the numbers on the y axis of the graph at the top of the page represent? (e.g., 4.90E + 08)	Barclay-OSM	Accept. Please ensure the labels are understandable or removed.
3.1.9.1.4.	3-59	2-3	No source data/report is given for the comparison of tons/man-hour when comparing surface/underground efficiencies.	KY	Accept.
3.1.9.1.6	3-59	7	The use of the term utilization can be confusing. "The mines of the [Appalachian] region utilized 79% of underground production and 74% of surface production for a total utilization of 77% of the resource. (p. 3-59)" Is the statement about the Appalachian mines a reference to utilization of production capacity? If so, the mines themselves don't utilize the coal - they produce it. The public uses the coal.	UT	Accept.
3.1.9.1.6.	3-59	1 st para., last sent.	Do you mean?: "The electrical generating stations and steel mills mines of the region utilized 79% of underground production and 74% of surface production for a total utilization of 77% of the resource."	Mike R OSM	Accept
3.1.9.1.6	3-59	9-12	In addition to describing recent year-to-year trends in coal production across all regions, this document should also describe longer term trends in available reserves and likely shifts in coal production among regions of the U.S. While the chapter as written includes data related to available reserves in each region, there is no attempt to compare reserves across these regions, or to forecast trends in coal production. This is	EPA	Accept. Summarize the information on this issue available in other reports.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.9.2	3-59	n/a	a significant omission, particularly in the context of predicting the likely impacts of the stream protection rule on coal production methods and its geographic distribution. The sentence, "Arizona also produced coal from this region as of 2008," reads backward. It implies that AZ hadn't produced coal until 2008, which is not true.	Yellowman-OSM	Accept. Revise text to clarify meaning
3.1.9.2	3-59	14	Replace "The Colorado Plateau is located in the Four Corners region of Colorado, Utah, New Mexico, and Arizona" with "The Colorado Plateau coal region comprises coal reserves in Colorado, Utah, New Mexico, and Arizona". The "Four Corners Region" generally refers to the area surrounding the four corners and does not describe the entire four-state area.	UT	Accept
3.1.9.2.1	3-60	Fig 3.1-32	Add a legend to the figure identifying what the colored areas denote. If they represent reserves, it is not accurate, as coal reserves currently being mined in the Book Cliffs (located east of the San Rafael Swell are not shown at all. The Wasatch Plateau Coal Field is much more extensive than shown in the figure, extending east and north from the area shown. The Alton Coal Field with a soon-to-be permitted mine is also not shown. Since mines in these areas will fall under SMCRA rules, these areas should be evaluated. Also, although it is a large coal resource conducive to underground mining, much of the Kaiparowits Plateau is not typically included in reserve assessments because of National Monument status. The states also need to be labeled, and the shape of the states should be corrected.	UT	Accept
3.1.9.2.1	3-60	4	"The coal-bearing regions in the Colorado Plateau are predominantly located in eastern western Colorado,"	UT	Accept
3.1.9.2.1	3-60	5-6	Correction: "some of the significant coal beds fields in the region include the Wasatch Plateau, Book Cliffs, Alton, and Kaiparowits Plateau in Utah, the San Juan Basin..." Explanation: Figure 3.1-32 inaccurately shows the Wasatch and Kaiparowits Plateaus as being the only coal-bearing areas	UT	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
			<p>in Utah. Kaiparowits coal is not accessible to mine because it is within the boundaries of Escalante National Monument. The Book Cliffs is also a coal producing area, as well as the Alton-Kolob Coal fields, along with the Wasatch Plateau, all have permitted mines. These coal fields are not the only coal fields in Utah, and none of them should be categorized with Colorado coal fields, since there are distinct geologic boundaries between the two.</p> <p>Coal mining in other fields (e.g. Henry Mountains) in Utah is also foreseen after the more-readily mineable Utah coal reserves are mined.</p> <p>Also, at least for Utah, the equivulation of "coal beds" with two "plateau" is awkward, since coal beds, while located in the plateau and in the plateau's coal field, are not the plateaus themselves. Using the term "coal fields" is probably more accurate than "coal beds" in Utah. The use of "coal beds" for coal in other Colorado Plateau states might be acceptable.</p> <p>This is just one example of many found throughout the EIS; tonnage should be described consistently, either as 'million short tons' or 'thousands of short tons', rather than mixing the two, especially in the same sentence. "In 1997, about 30 percent (330 million short tons) of coal mined in the United States came from Federal lands, 52,180 thousands of short tons of which came from the Colorado Plateau region...."</p>		
3.1.9.2.1	3-60	17-18		UT	Accept. Please use standard US units and practice for tonnage and other numbers.
3.1.9.2.1	3-60	n/a	Black Mesa was left off the Location of Coal Reserves Figure 3.1-32.	Yellowman-OSM	Accept
3.1.9.2.2	3-60	Par 3	1997 statistics on federal land. There is nothing more recent?	KJass-OSM	Accept. There should be more recent statistics available from BLM and other sources.
3.1.9.2.2	3-60	18	Not very clear: 52,180 thousands of short tons of which 52,180 million short tons came from the Colorado Plateau region,	UT	Duplicate comment
3.1.9.2.2	3-60	n/a	Since Black Mesa was left out of 3.1.9.2.1, I'm wondering if it was not accounted for in the "23%" of Tribal Ownership	Yellowman-OSM	Accept
General			Since Kayenta Mine (Black Mesa) was omitted earlier, all sections pertaining to Colorado Plateau need to be checked if they are also missing data from Kayenta Mine.	Yellowman-OSM	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.9.2.5	3-61	General	See comment above. Titling the section "Mine Size" appears too narrow.	Mike R OSM	Accept
3.1.9.2.6	3-61	22	General: Suggested source of coal production/reserves etc. data for the State of Utah can be found at: http://geology.utah.gov/emp/energydata/coaldata.htm	UT	Accept
3.1.9.2.6	3-62	Figure 3.1.33	Include units of production in figure title or on Y axis.	UT	Accept
3.1.9.2.6	3-62	Par 1	Update 2008 stats on production by ranking. This can be used for all state production numbers. http://www.eia.doe.gov/cneaf/coal/page/acr/table6.html	KJass-OSM	Accept
Figure 3.1-34	3-63		The figure doesn't identify what formation the black area represents. It also appears that the majority of the Olinos Formation is in Mexico, which is not identified by a national boundary.	Mike R OSM	Duplicate comment
3.1.9.3.1 Location of Regional Coal Reserves	3-63	Figure 3.1-34	Black shading on this figure should be identified in the legend as Cenozoic alluvium.	TX	Accept
3.1.9.3.1	3-63	Figure 3.1-34	Incomplete legend. i.e. what does black color represent?	UT	Duplicate comment
3.1.9.3.2			Why is privately owned land discussed in some sections and not others?	WV	Accept. Please cover land ownership consistently.
3.1.9.3.2 Property Ownership	3-63	11	The statement that "about half of the Federal surface estate in the Gulf Coast Region is underlain by federally owned minerals" is not substantiated and appears incorrect.	TX	Accept. Please document source of information and/or revise.
3.1.9.3.3	3-64	2 nd sent.	This info looks like it should be (and some is) in 3.1.9.3.5.	Mike R OSM	Accept. Ensure consistency.
			I do not understand what this phrase means: "... and those same mines utilized 96% of that capacity." Does that mean they are mine mouth power plants?	Mike R OSM	Accept. Please explain.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.9.3.3	3-64		first paragraph, forth sentence says "Of the four top producing mines in the country, four are located in Texas." This is not correct.	Garnett	Accept. This does not appear accurate.
3.1.9.3.4 Extraction Method	3-64	13	The term soft overburden should be revised to unconsolidated overburden.	TX	Accept.
3.1.9.3.4 Extraction Method	3-64	14	The reference to <i>Texas Utilities</i> is outdated and should be <i>Luminant Mining Company LLC</i> . Various companies in the Gulf Coast Region, including Luminant, are presently practicing removal of overburden with both the scraper/dozer and dragline methods.	TX	Accept
3.1.9.3.4 Extraction Method	3-64, 3-65	25, 1	The study indicates that there may be mines in Texas that were or were not withheld to avoid disclosure, however, all mines in Texas are subject to disclosure of coal production information, as is the case in all states.	TX	Accept
3.1.9.3.5 Mine Size	3-64	19	It is unclear the source of information for the indication that as of 2008, the Gulf Coast region had 14 surface mines. This would imply that there are 11 surface mines in Texas, which is incorrect.	TX	Accept. Please use accurate numbers.
Figure 3.1-36	3-66		There is no legend to distinguish the green area from the gray area.	Mike R OSM	Accept
3.1.9.4.1	3-66	Figure 3.1-36	Legend?	UT	Duplicate comment
3.1.9.4.4	3-67	1 st and 2 nd paras., last sent.	Do not understand what these statements means: 1 st para.-- "Surface mines utilized 83 percent of the resource." 2 nd para.-- "Underground mines utilized 78 percent of the resource." Is the surface and underground recoverable reserves both 38.2Bt? On p. 3-68, below the production chart the DRB is noted as 50.9Bt. Second paragraph, third sentence, revise to "...continuous room and pillar mining method..."	Mike R OSM	Accept. Please clarify
3.1.9.4.3	3-67			Garnett	Accept
Figure 3.1-38	3-69		No legend distinguishes the different color areas with the gray areas.	Mike R OSM	Accept

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.9.5.2			In Property Ownership, Tribal ownership was omitted for Crow in MT (Absaloka Mine). The N. Cheyenne also have coal, but it hasn't been mined.	Yellowman-OSM	Accept
3.1.9.5.3	3-70	1 st full sent.	"...a fraction of one percent being bituminous."	Mike R OSM	Accept
3.1.9.5.4	3-70	Par 3	"Surface mines in this region are primarily medium or large box cut area mines" Again, use of the term box cut area mines not a common term in the west. "Overburden is trucked and dumped in mined-out areas" after the initial box cut to open access to coal, most of these mines use a dragline to place overburden – not trucks	KJass-OSM	Accept. Please revise and have ECSI/Morgan review for consistency with coal mining industry and regulatory program usage.
		Par 4	"Underground mining accounted for the remaining percent of coal production in 2008. In this region, underground mines tend to be either shaft or drift mines entering the coal seam beneath the final highwall." This is a general statement that for the most part is incorrect. 1) I know of only 2 mines in this coal field that are underground and neither are "shaft" mines; however, one may now have need of a supplemental ventilation shaft. Primary access is a slope or drift for both. 2) Again, of the existing UG mines only the WY mine went underground an existing surface operation.	KJass-OSM	Accept. Please ensure the accuracy of these statements.
3.1.9.5.5	3-70	29	"These 14 mines produced 70% of the coal in the entire nation in 2008." Figure 3.1-6 shows less than 50% comes from the entire Northern Rocky Mountain Region.	UT	Accept.
3.1.9.6.1			Centralia Mine is in temporary cessation, not sure if I would consider that "shut down." For the purpose of the EIS I do feel that the Centralia mine and WA coal fields (Centralia/Chehalis) should be included.	Yellowman-OSM	Accept.

Section	Page #s	Line #s	Comment	Incorporate (Yes/No)	Proposed Disposition
3.1.9.6.1	3-71	Par 2	"Washington State's only remaining coal mine, the Centralia Coal mine..." Incorrect. Actually there are 2 existing coal mines, both in reclamation, the John Henry Mine, located in Black Diamond, is owned locally.	KJass-OSM	Accept
3.1.9.6.2	3-71	Par 3	<i>WA coal ownership is federal (blm), private and state.</i>	KJass-OSM	Accept
3.1.9.6.3	3-72	12	Change "Denali National Park" to "Denali National Park."	Barclay-OSM	Accept
3.1.9.7.2	3-73	Par 2	"There does not appear to be any data available regarding the location of coal reserves in relation to federally owned land for this region." Perhaps contacting OSM's Alton office can provide this information as they oversee these states.	KJass-OSM	Accept. Please verify this information.
3.1.9.7.4	3-73	18	"Mining methods in the Western Interior Region includes include both area surface mining and"	UT	Accept.
3.1.9.7.5	3-74	5-6	"Mine Size The Other Western Interior Region consisted of 12 surface mines with 220 total employees and 2 surface underground mines with 140 total employees in 2008."	UT	Accept
3.1.9.7.5	3-74		First sentence should read "...and 2 underground mines with...."	Garnett	Duplicate comment
3.1.9.7.5	3-74	Par 2	"The Other Western Interior Region consisted of 12 surface mines with 220 total employees and 2 Surface [should this be UNDERGROUND??] mines with 140 total employees in 2008."	KJass-OSM	Duplicate comment

MWC does not have any information responsive to this request.

MWC does not have any information responsive to this request.

Liz Edmondson

From: John Morgan
Sent: Friday, October 08, 2010 8:34 AM
To: 'Donald Iannone'; 'Josh Jenkins'; 'Ann Shortelle'
Cc: 'Will Burns'; 'Michael C.Carroll'; Liz Edmondson; 'Mike Stanwood'; 'Jose Sosa'
Subject: RE: An Initial Response to John Morgan's Comments (Please Read the Attached in Prep for Our 2 PM Call)
Attachments: CoalConsvProd.docx

Tracking:	Recipient	Delivery	Read
	'Donald Iannone'		
	'Josh Jenkins'		
	'Ann Shortelle'		
	'Will Burns'		
	'Michael C.Carroll'		
	Liz Edmondson	Delivered: 10/8/2010 8:34 AM	Read: 10/8/2010 9:47 AM
	'Mike Stanwood'		
	'Jose Sosa'		

Don,

Thanks very much for your "early" response I think that the comments will assist our discussion.

After reading your document I think I am even more concerned about the inputs that you received, which appear to be subjective rather than based on a calculated impact of each of the elements.

I think adding a third analysis would be a significant mistake as it would just highlight any logical inconsistency to calculating costs. I believe we must get the RIA as close to correct as possible, even if it means pushing back to OSM regarding the schedule.

The issue of underground mining is critical and is a major topic for conversation in the EIS as to whether the rule applies to the "shadow" area above underground mines. Similarly, the issue of coal refuse impoundments is a major topic and needs discussion as the rule impacts are mostly limited to Appalachia, for instance Powder River Basin coal does not have any coal preparation. The cost implications for underground are totally different than surface and cannot be lumped together with surface effects.

I have attached a graph of coal production over the years and added the impacts of recession periods. The most significant finding from review of the graph is that the introduction of SMCRA in 1977 (and the following years during the state permanent program implementation) does not show any decline in coal production. SMCRA was a huge change in the regulatory climate and the coal industry continued without a national production impact.

I look forward to our discussion.

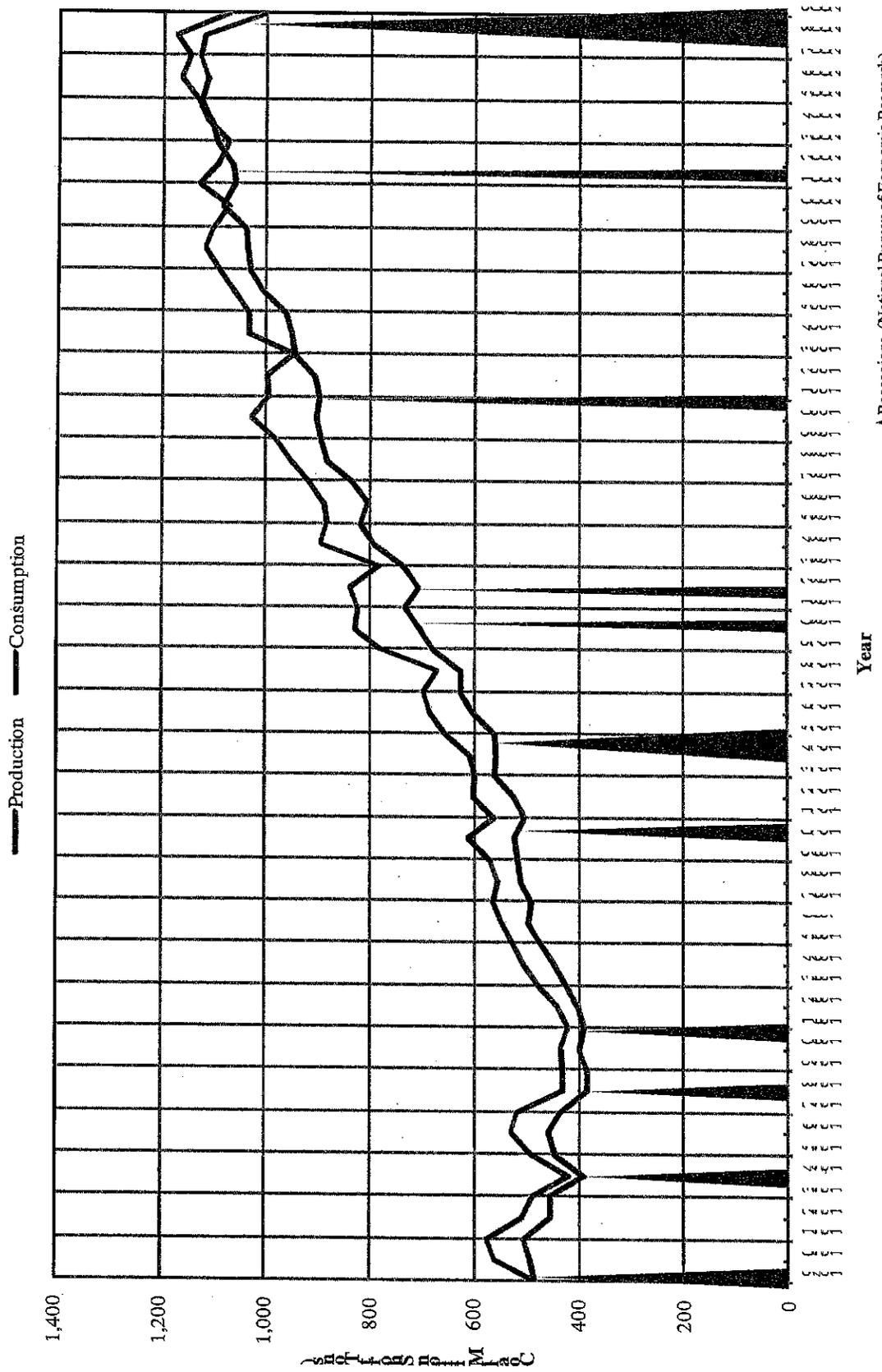
Is there any benefit in trying to get together on Monday or Tuesday when the Mactec group is in Lexington?

John

From: Donald Iannone [<mailto:diannone@ix.netcom.com>]
Sent: Friday, October 08, 2010 4:10 AM
To: Josh Jenkins; Ann Shortelle; John Morgan
Cc: Will Burns; Michael C.Carroll
Subject: An Initial Response to John Morgan's Comments (Please Read the Attached in Prep for Our 2 PM Call)

U.S. Coal (1949-2008)

Production versus Consumption



A Recession. (National Bureau of Economic Research)

Key Concerns

There are a number of text issues that need to be resolved but the primary area of concern is the basis for the cost impacts of the 15 rule elements. As these costs are the foundation for the remainder of the analysis additional justification for the \$ figure used should be provided.

I cannot understand why the text in the RIA (as detailed in the following text box) talks about reclamation costs as the rules have almost no bearing on reclamation costs.

Scenario One.

In addition to an examination of the potential cost impacts of the rule's 15 proposed elements, this cost scenario is based on the work of Misiolek and Noser (1982).¹ They estimated costs per ton for the various elements of the proposed rule (topsoil, grading, and revegetation) for a number of states. Misiolek and Noser's study estimated the reclamation costs as a function of standardized mining operations, such as dragline situations and truck-haul-back operations. Equipment costs for each operation were itemized, and a standard estimate was made of the costs associated with the state's mining operations. They estimated standard overburden depth, coal seam thickness, and coal density measures. The model estimates costs that are approximately \$6,500 to \$8,000 per acre (1980 dollars). The estimates include opportunity costs, indirect tax impacts, and secondary equipment costs. In this study, the estimates were adjusted for inflation to determine the current economic impact per ton. The regional estimates are provided in Table 2-1.

Table 0-1. Cost Estimates for Scenario One

Region	\$ Cost per Ton
Northwest	0.405
Other Western Interior	7.140
Gulf Region	5.350
Colorado Plateau	1.117
Appalachian Basin	3.690
Illinois Basin	2.580
Northern Rocky Mountains and Great Plains	0.405

Some of the elements place an additional cost on the permitting phase such as increased monitoring but these costs are not tonnage dependent, as the tons are a function of the geology and mine plan. In fact mining on Federal Land such as in the N Rocky Mountains already requires a site specific EIS and comprehensive sampling so there should be no cost impact.

Additional costs could be incurred by the more detailed definition of AOC which will require the haulage of more excess spoil to higher elevations rather than downhill into a valley fill, these costs ONLY apply in Appalachia.

Bonding costs in the proposed element are more a function of the duration of the bond and the uncertainty of its release when applied to stream restoration.

The two biggest elements are the issues of material damage and activity near streams. Neither of these are captured by referencing back to the Misiolek and Noser work.

Restrictions on activity near streams does not have a direct cost impact but can significantly change a mining plan and radically change the recoverable reserves and in some cases sterilizing a resource block.

The analysis concludes that when compared to the base model coal mining jobs could be lost as referenced in the following text box.

The numbers in Table 2-6 suggest that under Scenario One, 5,037 coal-related jobs across the states could be lost, and under Scenario Two, 11,303 coal-related jobs could be lost. According to the Scenario Two results, the states potentially most affected from an employment reduction standpoint could be Wyoming (-2,136 jobs), West Virginia (-2,044 jobs), Kentucky (-1,833 jobs), and Pennsylvania (-1,076 jobs).

This conclusion makes no logical sense. If the coal production in the US remains constant the coal will be provided either from a different type of mining that is less impacted by the proposed rule, such as underground mining, or by shifting production to other regions where the rule impacts are less. In fact the transition from surface mining to underground mining will increase employment as the productivity of underground mining is less than surface mining.

How the RIA can conclude a 4.63% reduction in mining employment in Pennsylvania is very difficult to comprehend when the majority of the States production is from underground mining. Furthermore, how can Wyoming and Montana employment decrease when they will be the dominant beneficiary of any reduction in Central Appalachian production.

Similarly the impacts in Utah are very difficult to comprehend as all of Utah's coal production is obtained solely from underground mining.

DEMAND

If long term GDP is projected to increase, and long term power demand is also going to increase, coal fired generation capacity will remain constant or increase slightly with its percentage of overall power production declining as alternative renewable such as wind come on stream and other fuels primarily gas (and long term nuclear) get added to the generation fleet to meet the demand growth.

In the interim, coal fired generation will remain constant with the retirement of some older units being balanced by the commissioning of a few large supercritical stations.

Therefore the coal demand will return to the pre recession levels.

If the demand is constant, any change in coal mining costs will result in cost pass through to the generator rather than making the coal industry uneconomic. For this reason it is impossible to reach the conclusion that an increase in cost per ton will reduce economic output. It is critical to understand the coal contracting process and the fuel cost pass through of the regulated utilities. Most coal contracts allow the reimbursement of costs due to regulatory change, in addition the utilities pass through the cost of fuel to the rate payer so new contract negotiations will result in the inclusion of any additional compliance costs.

The preferred approach to the financial impacts is the effect it will have on utility rates rather than the cost per ton of coal.

MINE PROFITABILITY

If the proposed rule is evaluated on the effect on the profitability of a mining operation and hence its effect on the Economic Output of each State the significance of proposed cost increases needs to be put into context. Even though the current RIA does not include adequate definition of the "Cost Estimate" a cost per ton change of \$3.69 for Appalachia is not uncommon when compared to recent per ton changes due to diesel fuel or ammonium nitrate. The industry production managed to absorb these changes in cost inputs without the type of impact presented in the RIA.

It is also critical to understand the difference between surface and underground mining. Based in the current understanding of the proposed rule there are no projected impacts on underground mining. Furthermore, surface mining cost can be adjusted by changing the mining plan to reduce the stripping ratio or increasing the tonnage recovered by other means such as highwall mining.

Liz Edmondson

From: John Morgan
Sent: Saturday, October 09, 2010 5:19 PM
To: 'Jenkins, Josh'; 'Jose Sosa'; 'Mike Stanwood'; 'Will Burns'; 'Michael C.Carroll'; 'Shortelle, Ann'; Donald Iannone
Cc: Liz Edmondson; 'J. Steven Gardner'; 'Joe Zaluski'
Subject: RE: October 8 2010 Conceptual RIA discussion

Tracking:	Recipient	Delivery	Read
	'Jenkins, Josh'		
	'Jose Sosa'		
	'Mike Stanwood'		
	'Will Burns'		
	'Michael C.Carroll'		
	'Shortelle, Ann'		
	Donald Iannone		
	Liz Edmondson	Delivered: 10/9/2010 5:19 PM	Read: 10/12/2010 5:22 PM
	'J. Steven Gardner'		
	'Joe Zaluski'		

Josh,
I have been working on the mining cost impact and haven't had a chance to respond to your email until now. I agree with all of your comments except for Item #7. We repeatedly discussed during the call yesterday that the impact costs used in the current scenario #1 are unsupportable and illogical. We also discussed using the new impact costs to run through. using IMPLAN, to develop a new scenario #1 by region. The existing scenario #1 will be deleted. Just to clarify, we will have a scenario #2, which consists of maintaining the base case coal production but discussing the regional shifts that could be expected as a result of the rule. We do not have time to fully model this scenario for the conceptual RIA but it is a place holder for moiré thorough analysis in the Final RIA. This is the position as of the end of the call, is there any reason that you have changed that consensus?
John

From: Jenkins, Josh [mailto:JLJENKINS@mactec.com]
Sent: Friday, October 08, 2010 5:47 PM
To: John Morgan; Jose Sosa; Mike Stanwood; Will Burns; Michael C.Carroll; Shortelle, Ann; Liz Edmondson
Subject: October 8 2010 Conceptual RIA discussion

All - Don put together short summary of our agreed upon steps for the conceptual RIA, based upon today's conference call.

- 1. Cost Estimates for the New Scenario:** Don, Mike and Will will work with John Morgan in developing a new set of rule compliance cost estimates on a per ton basis for each of the 7 regions. Please see Table 8-1 in the Draft RIA document for an identification of these regions. John has agreed to provide Don, Mike and Will with his starting ideas on these estimates this weekend. We will discuss John's suggestions this weekend by phone and then move forward in using them in a new set of IMPLAN model runs.
- 2. New Scenario Modeling with IMPLAN:** Mike and Will will work with John's estimates in the IMPLAN model to produce new impact numbers on the 7 regions. Mike estimates this work can be completed no later than end of business on Wednesday. Once the runs are completed and summary tables for each region are ready, Don will incorporate these tables in the RIA document and add the appropriate discussion of of the results and their significance will be added by Mike, Will and Don.
- 3. Stream Protection Benefit Measurement:** John will send Don the data he has available on stream miles and cost of restoration, which Don will use in calculating the economic benefit of stream protection by the rule. No

modeling of these benefits will be done at this time. This will be discussed on a semi quantitative basis as we do not know the footage of streams this would protect.

4. **Other Economic Benefits of the Rule:** Other benefits will be identified and added to the RIA document by don. These will be qualitative in nature only.
5. **Baseline Modeling Representing No Change in Coal Production Level in the Future:** Don will work with John to identify key coal mining industry issues and trends that need to be reflected in a discussion of geographic and mining method shifts, which could potentially occur in part as a result of the rule. No modeling of these shifts is possible at this time. EIA data will be used to portray the current trends in terms of regional production shifts and the current ratio of surface mining to underground mining activities and possible future shifts from surface mining to underground mining in certain states. This discussion will be used in conjunction with the current baseline economic impact analysis found in Chapter 7 of the RIA report. This baseline reflects current production levels in the industry.
6. **Existing Scenario 2:** The existing Scenario 2 (Transportation premium) will be removed from the RIA document (all Sections) by Don.
7. **Existing Scenario 1:** The existing Scenario 1 in the RIA document will remain, but Don will add qualifying discussion about its assumptions and its implications.
8. **Text Edits:** Minor edits will be made to the RIA document based upon other comments provided by John. These will be made by Don.
9. **Industry Analysis Linkage with Modeling Work:** Don will improve the linkages between the coal mining industry analysis in Chapter 5 and the economic modeling work presented in Chapter 7. These enhancements will demonstrate that the modeling is logically connected to the industry trends and structure.
10. **Schedule/Deadline:** This work will be completed and incorporated into the RIA document and provided to MACTEC by Friday, October 15th to ensure that the document formatting can be accomplished and the revised RIA document can be delivered to OSM on October 18th.

If there are any other items/issues not captured or if anyone disagrees with these, please let me know.

Thanks for everyone's input today.

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | Mobile 770.833.6429 | Fax 770.421.3486
Email jjjenkins@mactec.com | Web www.mactec.com

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Liz Edmondson

From: John Morgan
Sent: Sunday, October 10, 2010 6:45 AM
To: 'diannone@ix.netcom.com'
Cc: 'wburns@bgsu.edu'; 'mcarrol@bgsu.edu'; 'jjenkins@mactec.com'; Liz Edmondson
Subject: Re: Mining Impact Costs

Don
I fully understand that we need values. The reason I sent the outline was so we could agree on the approach before populating it.
I was going to include a brief paragraph to support the cost build up of each cell.
I will call you / email at 2:00 today
John

From: Donald Iannone
To: John Morgan
Cc: Will Burns ; Michael C.Carroll ; Josh Jenkins ; Liz Edmondson
Sent: Sat Oct 09 19:22:07 2010
Subject: Re: Mining Impact Costs
Hi John,

Mike and I looked at your spreadsheet. It appears to be moving in the right direction, but we need your help in producing \$'s per ton figures to plug into the IMPLAN model.

We need numbers to actually replace those you questioned in our Table 8-1. Will that be possible?

Thank you.

Don

On Oct 9, 2010, at 5:10 PM, John Morgan wrote:

Don,
Please find attached a spreadsheet that is my template for developing the costs.
Could you review this and see if you think it forms a basis for the development of the impact costs of Scenario 1, by region.
I have also copied Steve Gardner of ECSI so we can include his thoughts
John

From: Donald Iannone [<mailto:diannone@ix.netcom.com>]
Sent: Friday, October 08, 2010 4:28 PM
To: John Morgan
Cc: Will Burns; Michael C.Carroll; Josh Jenkins
Subject: Follow-up

John,

Thank you for your time and advice today, and the follow-up phone conversation.

As we just discussed, we will await an email from you this weekend with your thoughts on cost estimates for the 7 coal-producing regions. The regions to work with are those identified in Table 8-1 in the Draft RIA document.

We look forward to talking with you tomorrow or Sunday.

My cell phone is listed below, and Mike Carroll and Will Burns email addresses are copied on this email.

Regards,

Don

Cell: 440-668-1686

<Mining Cost Impact.xlsx>

Liz Edmondson

From: John Morgan
Sent: Sunday, October 10, 2010 9:13 AM
To: Jose Sosa; Jenkins, Josh; Jose Sosa; Mike Stanwood; WillBurns; Michael C Carroll; Shortelle,Ann; Donald Iannone
Cc: Liz Edmondson; J. Steven Gardner; Joe Zaluski
Subject: RE: October 8 2010 Conceptual RIA discussion

I am planning on a working call at 2:00 today with Don's team to develop the new Scenario #1 costs. We spent two hours on Friday's call thrashing out the details and way forward. I believe that Don's team and I are on the same page.
I am proceeding, as we did yesterday, but NOT if Scenario #1 as currently presented remains intact.
John

From: Jose Sosa [mailto:jose@polukaiservices.com]
Sent: Sun 10/10/2010 9:06 AM
To: John Morgan; Jenkins, Josh; Jose Sosa; Mike Stanwood; WillBurns; Michael C Carroll; Shortelle,Ann; Donald Iannone
Cc: Liz Edmondson; J. Steven Gardner; Joe Zaluski
Subject: Re: October 8 2010 Conceptual RIA discussion

all it is imperative that not even a minute is wasted. This is very time sensitive.

Let's come to an agreement and continue forward.

josh if we have flaws we must correct before releasing doc to Osm and Omb

Jose

Do we need a conference?

Sent from my Verizon Wireless BlackBerry

From: John Morgan <jmorgan@morganworldwide.com>
Date: Sun, 10 Oct 2010 08:43:58 -0400
To: Jenkins, Josh<JLJENKINS@mactec.com>; Jose Sosa<jose@polukaiservices.com>; Mike Stanwood<r.m.stanwood@gmail.com>; WillBurns<wburns@bgsu.edu>; Michael C Carroll<mcarrol@bgsu.edu>; Shortelle,Ann<ABSHORTELE@mactec.com>; Donald Iannone<diannone@ix.netcom.com>
Cc: Liz Edmondson<ledmondson@morganworldwide.com>; J. Steven Gardner<jsgardner@engrservices.com>; Joe Zaluski<jzaluski@engrservices.com>
Subject: RE: October 8 2010 Conceptual RIA discussion

Josh,

I hate to have to repeat all of Friday's conference call but obviously your recollection is significantly different from mine. The work that has been completed to date is not "only a concept at this point". It is a document that is being submitted to the client and will be in the public domain. We can not produce a document that we know has flaws, just writing around the issue will not change the omissions / errors in the current Scenario #1 and just makes a mockery of any additional work we are doing to develop impact costs. The current document does not include any build up of their costs, and these are the sole basis for all of the IMPLAN analysis. Discussions with industry and limited University departments is not adequate for the development of this key component of the whole document

If you are going to push to include the existing Scenario #1 and the existing Table 8.1 I don't see any point in wasting the time of myself, Don, Mike and Will this weekend.

John

From: Jenkins, Josh [mailto:JLJENKINS@mactec.com]

Sent: Sat 10/9/2010 6:36 PM

To: John Morgan; Jose Sosa; Mike Stanwood; Will Burns; Michael C.Carroll; Shortelle, Ann; Donald Iannone

Cc: Liz Edmondson; J. Steven Gardner; Joe Zaluski

Subject: RE: October 8 2010 Conceptual RIA discussion

to answer you question, no there is no reason i have changed anything - it is simply how i understood the call ending. that is why i pressed on going over what we discussed and what . i do agree that you have repeatedly stated the impact costs as presented are not supported. i respect your position but what has been done is is only a concept at this point; Don has offered to dig more into the this and offer verbiage to describe this scenario. we will continue to do that without to see what can be fleshed out.

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | Mobile 770.833.6429 | Fax 770.421.3486
Email jljenkins@mactec.com | Web www.mactec.com
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From: John Morgan [jmorgan@morganworldwide.com]

Sent: Saturday, October 09, 2010 5:19 PM

To: Jenkins, Josh; Jose Sosa; Mike Stanwood; Will Burns; Michael C.Carroll; Shortelle, Ann; Donald Iannone

Cc: Liz Edmondson; J. Steven Gardner; Joe Zaluski

Subject: RE: October 8 2010 Conceptual RIA discussion

Josh,
I have been working on the mining cost impact and haven't had a chance to respond to your email until now. I agree with all of your comments except for Item #7. We repeatedly discussed during the call yesterday that the impact costs used in the current scenario #1 are unsupportable and illogical. We also discussed using the new impact costs to run through. using IMPLAN, to develop a new scenario #1 by region. The existing scenario #1 will be deleted. Just to clarify, we will have a scenario #2, which consists of maintaining the base case coal production but discussing the regional shifts that could be expected as a result of the rule. We do not have time to fully model this scenario for the conceptual RIA but it is a place holder for moiré thorough analysis in the Final RIA. This is the position as of the end of the call, is there any reason that you have changed that consensus?

John

From: Jenkins, Josh [mailto:JLJENKINS@mactec.com]

Sent: Friday, October 08, 2010 5:47 PM

To: John Morgan; Jose Sosa; Mike Stanwood; Will Burns; Michael C.Carroll; Shortelle, Ann; Liz Edmondson

Subject: October 8 2010 Conceptual RIA discussion

All - Don put together short summary of our agreed upon steps for the conceptual RIA, based upon today's conference call.

1. Cost Estimates for the New Scenario: Don, Mike and Will will work with John Morgan in developing a new set of rule compliance cost estimates on a per ton basis for each of the 7 regions. Please see Table 8-1 in the Draft RIA document for an identification of these regions. John has agreed to provide Don, Mike and Will with his starting ideas on these estimates this weekend. We will discuss John's suggestions this weekend by phone and then move forward in using them in a new set of IMPLAN model runs.
2. New Scenario Modeling with IMPLAN: Mike and Will will work with John's estimates in the IMPLAN model to produce new impact numbers on the 7 regions. Mike estimates this work can be completed no later than end of business on Wednesday. Once the runs are completed and summary tables for each region are ready, Don will incorporate these tables in the RIA document and add the appropriate discussion of of the results and their significance will be added by Mike, Will and Don.
3. Stream Protection Benefit Measurement: John will send Don the data he has available on stream miles and cost of restoration, which Don will use in calculating the economic benefit of stream protection by the rule. No modeling of these benefits will be done at this time. This will be discussed on a semi quantitative basis as we do not know the footage of streams this would protect.
4. Other Economic Benefits of the Rule: Other benefits will be identified and added to the RIA document by don. These will be qualitative in nature only.

5. Baseline Modeling Representing No Change in Coal Production Level in the Future: Don will work with John to identify key coal mining industry issues and trends that need to be reflected in a discussion of geographic and mining method shifts, which could potentially occur in part as a result of the rule. No modeling of these shifts is possible at this time. EIA data will be used to portray the current trends in terms of regional production shifts and the current ratio of surface mining to underground mining activities and possible future shifts from surface mining to underground mining in certain states. This discussion will be used in conjunction with the current baseline economic impact analysis found in Chapter 7 of the RIA report. This baseline reflects current production levels in the industry.

6. Existing Scenario 2: The existing Scenario 2 (Transportation premium) will be removed from the RIA document (all Sections) by Don.

7. Existing Scenario 1: The existing Scenario 1 in the RIA document will remain, but Don will add qualifying discussion about its assumptions and its implications.

8. Text Edits: Minor edits will be made to the RIA document based upon other comments provided by John. These will be made by Don.

9. Industry Analysis Linkage with Modeling Work: Don will improve the linkages between the coal mining industry analysis in Chapter 5 and the economic modeling work presented in Chapter 7. These enhancements will demonstrate that the modeling is logically connected to the industry trends and structure.

10. Schedule/Deadline: This work will be completed and incorporated into the RIA document and provided to MACTEC by Friday, October 15th to ensure that the document formatting can be accomplished and the revised RIA document can be delivered to OSM on October 18th.

If there are any other items/issues not captured or if anyone disagrees with these, please let me know.

Thanks for everyone's input today.

Joshua L. Jenkins | Project Manager/Senior Geologist

MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia

Phone 770.421.3412 | Mobile 770.833.6429 | Fax 770.421.3486

Email jljenkins@mactec.com | Web www.mactec.com

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Liz Edmondson

From: John Morgan
Sent: Monday, October 11, 2010 12:37 PM
To: Donald Iannone
Cc: 'J. Steven Gardner'; 'Joe Zaluski'
Subject: Mining Costs
Attachments: Mining Cost Impact.xlsx

Don,

Could you please review the attached spreadsheet to see if you can comprehend my logic.

I have also sent his to ECSI for their input

Please call me when you get a chance.

The permitted acreages were obtained from the OSM annual reports but I think there is a problem of separating surface areas from the "shadow" are above the underground workings. We are checking into this.

John

Cost Impacts - Surface													
	Element #1	Element #2	Element #3	Element #4	Element #5	Element #6	Element #7	Element #8	Element #9	Element #10	Element #11	Element #12	Element #13
	Stream Definition	Baseline Data	Material Damage	Activity in or Near Stream	Mining Through Stream	Monitoring	Surface Configuration and Fills	AOC Exceptions	Revegetation / Topsoil	Fish & Wildlife	Performance Bond / Release	Financial Assurance for Long Term Discharges	Permit Coordination
	current definitions expanded to consider biological, hydrological, and physical characteristics	expanding suite of chemicals subject to analysis; documentation of biological conditions, sediment load, meteorological data, stream form and function, and aquatic organisms	when the mining operation has affected the quality or quantity of the water so that the water body could no longer be used for its designated use	prohibit mining activities in intermittent and perennial streams and within 100 feet of intermittent and perennial streams, but would allow excess spoil fills	mining through intermittent and perennial streams prohibited unless the restoration of stream form and function could be demonstrated	expanding the suite of chemicals subject to analysis and requiring documentation of biological conditions	greater emphasis on minimizing the amount of excess spoil disposed of in valley fills; additional regulation the placement of excess spoil / restoring pre-mining topography	allows AOC exceptions, but imposes additional requirements/criteria to ensure protection of streams, aquatic ecology, and biologic communities	revegetation requirements that emphasize native species and original organic material	ephemeral streams not included. Enhancement activities, as conditions of the permit, must be within the same watershed and on the permitted area			
N Rocky Mountain / Great Plains		Increased cost for additional data collection				Increased cost for additional data collection					Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Appalachian Basin	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release	Additional cost for avoidance and additional restoration cost	Additional cost for avoidance and additional restoration cost	Increased cost for additional data collection	Increased cost for higher excess spoil transport	Increased cost for stream protection	Increased cost for topsoil and planting	Increased on site mitigation cost	Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Illinois Basin	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release	Additional cost for avoidance and additional restoration cost	Additional cost for avoidance and additional restoration cost	Increased cost for additional data collection			Increased cost for topsoil and planting	Increased on site mitigation cost	Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Colorado Plateau		Increased cost for additional data collection				Increased cost for additional data collection					Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Gulf Region	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release	Additional cost for avoidance and additional restoration cost	Additional cost for avoidance and additional restoration cost	Increased cost for additional data collection			Increased cost for topsoil and planting	Increased on site mitigation cost	Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Other Western Interior	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release	Additional cost for avoidance and additional restoration cost	Additional cost for avoidance and additional restoration cost	Increased cost for additional data collection			Increased cost for topsoil and planting	Increased on site mitigation cost	Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Northwest	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release	Additional cost for avoidance and additional restoration cost	Additional cost for avoidance and additional restoration cost	Increased cost for additional data collection			Increased cost for topsoil and planting	Increased on site mitigation cost	Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	

Cost Impacts - Underground													
	Element #1	Element #2	Element #3	Element #4	Element #5	Element #6	Element #7	Element #8	Element #9	Element #10	Element #11	Element #12	Element #13
	Stream Definition	Baseline Data	Material Damage	Activity in or Near Stream	Mining Through Stream	Monitoring	Surface Configuration and Fills	AOC Exceptions	Revegetation / Topsoil	Fish & Wildlife	Performance Bond / Release	Financial Assurance for Long Term Discharges	Permit Coordination
	current definitions expanded to consider biological, hydrological, and physical characteristics.	expanding suite of chemicals subject to analysis, documentation of biological conditions, sediment load, meteorological data, stream form and function, and aquatic organisms	when the mining operation has affected the quality or quantity of the water so that the water body could no longer be used for its designated use	prohibit mining activities in intermittent and perennial streams and within 100 feet of intermittent and perennial streams, but would allow excess spoil fills	mining through intermittent and perennial streams prohibited unless the restoration of stream form and function could be demonstrated	expanding the suite of chemicals subject to analysis and requiring documentation of biological conditions	greater emphasis on minimizing the amount of excess spoil disposed of in valley fills additional regulation the placement of excess spoil / restoring pre-mining topography	allow AOC exceptions, but imposes additional requirements / criteria to ensure protection of streams, aquatic ecology, and biologic communities	revegetation requirements that emphasize native species and original organic material	ephemeral streams not included. Enhancement activities as conditions of the permit, must be within the same watershed and on the permitted area			
N Rocky Mountain / Great Plains		Increased cost for additional data collection				Increased cost for additional data collection					Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Appalachian Basin	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release. Cost for stream restoration from subsidence damage			Increased cost for additional data collection	Increased cost for excess spoil disposal for mine face up and refuse disposal				Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Illinois Basin	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release. Cost for stream restoration from subsidence damage			Increased cost for additional data collection					Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Colorado Plateau		Increased cost for additional data collection	More difficulty in obtaining bond release. Cost for stream restoration from subsidence damage			Increased cost for additional data collection					Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Gulf Region	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release. Cost for stream restoration from subsidence damage			Increased cost for additional data collection					Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Other Western Interior	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release. Cost for stream restoration from subsidence damage			Increased cost for additional data collection					Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	
Northwest	Additional stream segments could be classified as intermittent	Increased cost for additional data collection	More difficulty in obtaining bond release. Cost for stream restoration from subsidence damage			Increased cost for additional data collection					Increased cost due to length of bond coverage	Increased Cost due to additional financial assurance and length of coverage	

Code	Account Name	Account Type	Account Description	Account Balance	Account Type	Account Description	Account Balance
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1001	1001	1001	1001	1001	1001	1001	1001
1002	1002	1002	1002	1002	1002	1002	1002
1003	1003	1003	1003	1003	1003	1003	1003
1004	1004	1004	1004	1004	1004	1004	1004
1005	1005	1005	1005	1005	1005	1005	1005
1006	1006	1006	1006	1006	1006	1006	1006
1007	1007	1007	1007	1007	1007	1007	1007
1008	1008	1008	1008	1008	1008	1008	1008
1009	1009	1009	1009	1009	1009	1009	1009
1010	1010	1010	1010	1010	1010	1010	1010
1011	1011	1011	1011	1011	1011	1011	1011
1012	1012	1012	1012	1012	1012	1012	1012
1013	1013	1013	1013	1013	1013	1013	1013
1014	1014	1014	1014	1014	1014	1014	1014
1015	1015	1015	1015	1015	1015	1015	1015
1016	1016	1016	1016	1016	1016	1016	1016
1017	1017	1017	1017	1017	1017	1017	1017
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1048	1048	1048	1048	1048	1048	1048	1048
1049	1049	1049	1049	1049	1049	1049	1049
1050	1050	1050	1050	1050	1050	1050	1050

General Ledger
 Trial Balance
 Debit
 Credit
 Total

Income Statement
 Revenue
 Expenses
 Net Income

Balance Sheet
 Assets
 Liabilities
 Equity

Statement of Cash Flows
 Operating Activities
 Investing Activities
 Financing Activities
 Net Change in Cash

Statement of Retained Earnings
 Beginning Balance
 Net Income
 Dividends
 Ending Balance

Journal Entries
 Date
 Description
 Debit
 Credit

Adjusting Entries
 Date
 Description
 Debit
 Credit

Financial Ratios
 Current Ratio
 Debt to Equity Ratio
 Return on Assets
 Return on Equity

Notes to Financial Statements
 Note 1: Description of the Company
 Note 2: Accounting Policies
 Note 3: Significant Accounting Estimates
 Note 4: Contingencies
 Note 5: Commitments and Contingencies
 Note 6: Related Party Transactions
 Note 7: Financial Instruments
 Note 8: Leases
 Note 9: Income Taxes
 Note 10: Employee Benefit Plans
 Note 11: Fair Value Measurements
 Note 12: Subsequent Events

Element #	Element #1	Element #2	Element #3	Element #4	Element #5	Element #6	Element #7	Element #8	Element #9	Element #10	Element #11	Element #12	Element #13	Total
Northwest														\$0.000
Other Western Member														\$0.218
Cost Region														\$0.122
Colorado Plateau														\$0.176
Appalachian Basin														\$0.738
N Rocky Mountain / Great Plains														\$0.433
Financial Assurance for Contamination														\$0.000

Notes

Annual Underpayment Term
 N Rocky Mountain / Great Plains
 2,659,000
 230,431,000
 64,609,000
 55,711,000
 12,253,000
 441,000
 0

Basin Data

Additional monitoring cost to permit additional cost is assumed at \$2.5M per permit
 23.5 M tons
 N Rocky Mountain / Great Plains
 4.2 M tons
 Appalachia Basin
 34.6 M tons
 46.5 M tons
 13.6 M tons
 4.4 M tons
 0.0 M tons

Basin Data

Additional rate of long term treatment / treatment
 Long term treatment / treatment occurs at 1% of permits
 10%
 Treatment cost as % of total amount per annum
 20%
 Average bonding amount
 \$3,000
 11,670
 1,002,550
 430,130
 139,810
 11,580
 109
 1,250

Basin Data

Annual cost per Ton calculated as: (Handling Amount per Acre) x (Treatment cost %) x (Volume) / (Annual Tons)
 Appalachia Basin
 0.5
 Additional cost assumed at \$0.50 per cwt. Additional cost is only for tracking
 Annual cost per Ton calculated as: (Cubic Yards Moved) x (Additional Cost per Cubic Yard)

Basin Data

Additional cost for bond release
 Time extension assumed at 5 years
 \$3,000
 Average bonding amount
 11,670
 N Rocky Mountain / Great Plains
 1,002,550
 430,130
 139,810
 11,580
 109
 1,250

Basin Data

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 139,810
 11,580
 109
 1,250

Region	State	Surface	Underground	Permitted Acreage	Subtotal
N Rocky	Wyo	395,840	5,270		
	Mont	59,900	6,400		
	N. Dak	106,460	0		11,670
App. Basin	WV	269,950	31,160		
	Ky - East	436,230	933,450		
	Pa	295,800	47,700		
Ohio	Oh	9,120	590		
	Virg	64,560	7,440		
	Mary	4,150	940		
Tenn	27,350	1,270			1,022,550
Illinois Bas	Ind	194,710	7,480		
	Ill	11,700	22,600		
	Ky-West	48,470	400,050		430,130
Col. Plateau	Col	45,100	118,800		
	NM	74,150	13,220		
	Ariz				
Ut	440	1,790			133,810
Gulf Reg.	Tx	285,600	0		
	Al	75,370	11,460		
	LA	41,930	0		
Miss	Miss	5,800	0		
	Ark	1,220	120		
	Ark	409,920			11,580
Other West	OK	21,600	300		
	Missouri	6,050	0		
	Kan	3,140	0		300
Northwest	Alaska	7,300	1,250		
	Wash				7,300

Assumed 90% of surface in E Ky. 70 % of underground

Assumed 10% of surface in W Ky. 30 % of underground

No information thru 2000

used 2010 report - no infor for 2009
used 2010 report - no infor for 2009
used 2010 report - no infor for 2009

14,820 ac.Excluded as no 2008 onward production

Cost Summary				
	Underground Cost / Ton	Surface Cost Per Ton	% Underground Mining	Weighted Cost
N Rocky Mountains / Great Plains	\$0.253	\$0.194	0.69%	\$0.195
Appalachian Basin	\$0.738	\$7.359	9.59%	\$3.436
Illinois Basin	\$0.494	\$2.934	63.34%	\$1.340
Colorado Plateau	\$0.186	\$1.049	61.99%	\$0.515
Gulf Region	\$0.122	\$2.813	18.50%	\$2.315
Other Western Interior	\$0.218	\$7.480	22.73%	\$5.829
Northwest	\$0.000	\$2.407	0.00%	\$2.407

	Underground			Surface			Total		Total Cost
	Tons (x,000)	%	Cost/Ton	Tons (x,000)	%	Cost/Ton	Tons (x,000)	Weighted Cost	
Northern Rocky Mountains and Great Plains	4,214	0.7%	\$0.253	618,459	99.3%	\$0.194	622,673	\$0.19	\$121,331,210
Appalachian Basin	219,862	68.4%	\$0.738	101,500	31.6%	\$7.359	321,362	\$2.84	\$913,723,080
Illinois Basin	74,223	78.2%	\$0.494	27,003	26.7%	\$2.934	101,223	\$1.15	\$115,920,773
Colorado Plateau	55,370	62.7%	\$0.186	33,009	37.3%	\$1.049	88,370	\$0.51	\$44,952,195
Gulf Region	12,281	22.6%	\$0.122	42,000	77.4%	\$2.813	54,281	\$2.20	\$119,623,175
Other Western Interior	0	0.0%	\$0.000	1,000	100.0%	\$2.407	1,000	\$2.41	\$2,407,211
Northwest	365,980			322,999			1,188,989	\$1.11	\$1,312,937,641
Total									

Liz Edmondson

From: John Morgan
Sent: Monday, October 11, 2010 8:15 AM
To: 'J. Steven Gardner'
Cc: 'Joe Zaluski'
Subject: RE: additional RIA comments

Steve,

Thanks a lot for these comments. I will try and incorporate them in the current round of edits.

As you probably noted from this weekend's emails we are changing Scenario #1 to use better cost impacts (revising Table 8.1) and deleting the current Scenario #2. This will be replaced with a new scenario that maintains coal volume based on the cost pass-through to the generating industry.

I will see you this afternoon, but I will send my RIA cost build up to you later this morning for a sanity check
John

From: J. Steven Gardner [mailto:jsgardner@engrservices.com]
Sent: Sunday, October 10, 2010 9:43 PM
To: John Morgan
Subject: additional RIA comments

John,

Maybe nothing new, but I had an economist familiar with both mining and IMPLAN take a look at this. A few additional comments below:

General issues:

- Some editorial comments in the document such as on page 1, referring to the rule "OSM is revising its rule to better protect streams from the adverse effects of coal-mining activities across the United States" and the tone and quotes in Section 3 beginning on page 20, could be detrimental in an RIA. These quotes could easily be taken out of context.
- A lot of repetition and copying and pasting of irrelevant information. For example, the sections on each state's energy profile seems to be almost verbatim from EIA... and the relevance of the cutting and pasting of corporate website info on Peabody, Arch Coal, etc? to what end?

Model questions/issues:

- The model runs 3 scenarios:
 - Baseline
 - Scenario One (Significant Cost Impact)
 - Estimated rule related compliance cost for each of the rules 15 proposed elements
 - It is not clear the source of these estimated costs, other than the mention of the Misiolek and Noser (1982) estimates on a cost per acre being adjusted for inflation. Were the regional estimates based on cost per acre, if so wouldn't this underestimate the increased cost in Central App?
 - There is little information on how these estimated costs were derived and they are integral to the estimated impacts. In more than 500 pages, this is a glaring omission.

o Scenario Two (High End Cost Impact)

- This cost estimate takes Scenario One and adds \$2 per ton to the estimated costs for transportation of waste materials, and additional monitoring and reclamation cost. This is uniform across the regions, in terms of the adder. Are additional costs uniform across geography? Because of the relative low cost of WY coal and higher cost of App. Coal, this may distort the impacts on a state basis.
 - It is not clear in either of these scenarios how the differences in mining techniques and topography are dealt with. There does not seem to be a mining engineering component in the analysis.
- Based upon these cost estimates, the RIA estimates the decrease in coal output that results from the increased cost of mining. The model assumes a relative inelastic demand for coal, and assumes some costs are passed through to consumers. All the economic costs in the rest of the model, however are estimated from the reduced coal production.
 - By ignoring the impact of the increased costs to the customer, THIS UNDERESTIMATES THE COST OF THE RULES.
 - Because the primary market for coal in the US is electricity generation, the omission of these costs is critical to the accuracy of the estimated economic impact of the rules.
 - In addition to underestimating the impact nationally, the regional differences are ignored.
 - The estimates are annual, but don't show any changes over time. Again, because the primary market is electricity generation, the changes over time are important. There are significant lead times necessary to change generation portfolios, and the timing is critical. The long term elasticity of demand will likely be significantly different over time.
 - Explanation of why the KY employment multiplier is only 2.28. this is far less than other estimates? Source?

J. Steven Gardner, P.E.
President/CEO
Engineering Consulting Services, Inc.
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103 (office)
859-806-5826 (cell)
859-259-3394 (fax)
jsgardner@engrservices.com
www.engrservices.com

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Liz Edmondson

From: John Morgan
Sent: Tuesday, October 12, 2010 5:59 PM
To: 'Donald Iannone'
Subject: RE: Comments and Questions on Your Contributions...

From: Donald Iannone [<mailto:diannone@ix.netcom.com>]
Sent: Tuesday, October 12, 2010 5:46 PM
To: John Morgan
Cc: Michael C. Carroll; Will Burns; Josh Jenkins
Subject: Comments and Questions on Your Contributions...

John,

First off, thank you!

Went through your comments on the document. A couple questions and comments:

1. Where your comments say "Highlight," what does this mean? Simply you highlighted the text or it should be highlighted in the document through italics or bold?
I had track changes enabled and that just signifies where the format was changed
2. What does the Metallurgical Coal Refence mean on Page 72 mean?
I just want to make sure that the two primary coal types in Appalachia "steam" and "metallurgical" are identified as met coal is quite scarce worldwide and is still commanding a price premium
3. Are you certain the Corrective Action Threshold and Other Requirements elements of the rule have been removed by OSM? The version of the Rule given us just last week by MACTEC contained them.
They were not discussed today during the EIS discussion as they are elements that are part of OSM's housekeeping and are not being evaluated in the EIS so I don't think there is a cost impact. We can check with Josh
4. The baseline economic impact analysis results refer to the pre-rule situation. They cannot be deleted from the report. They reflect the economic impact the coal mining industry has now. This is Section 2.41 and then in Chapter 7 of the report. I was not sure if you were changing (or summarizing) the baseline to group it into regions. I did not intend to infer removing it altogether just changing it into regions
5. It seems that you downplay the reclamation cost issue. Perhaps I have misread your points in this regard. Everything we heard in the interviews is that reclamation costs remain a major issue. Yes, reclamation is an issue that has been around for a long while. Please explain.
The primary impact of the rule changes is to reduce the size of fills and the stream impacts. This does not affect actual reclamation in the sense of grading, landforming and revegetation. Recent studies that we have completed indicated that the disturbed area of a mine can be reduced (thus decreasing reclamation costs) when fill optimization is used.
6. You indicated that we have the federal tax rate(s). Is that information in the tax spreadsheet? Maybe I missed it.
I thought you had the AML fee, if not I can send it

Regarding the tax rate spreadsheet:

The severance tax calculations will not be easy/straightforward because there is significant differences in how these taxes are structured. This may not be do-able given the different data requirements assigned to the various state approaches.

Regarding the economic benefits of the rule issue:

Will you be sharing data to help on the stream protection benefit issue in terms of restoration cost savings, etc.? This looks thorny as well to quantify at this point. I will try

Next steps:

We will be slugging through all the changes in the document over the next couple days. This will take us up to the wire from what I can tell now. We will deliver to MACTEC on Friday (hopefully by midday, but I will have to see how this goes. It may be end of the day Friday.)

I will review it whenever it is convenient for you

Don

On Oct 12, 2010, at 4:35 PM, John Morgan wrote:

Attached are some mark up comments on the existing text. I understand that the discussion of the scenarios will change.

I hope this helps

We can have a call to discuss if you want

John

From: Donald Iannone [<mailto:diannone@ix.netcom.com>]

Sent: Tuesday, October 12, 2010 12:33 PM

To: John Morgan

Cc: Michael C. Carroll; Will Burns

Subject: Re: Other Inputs

John,

Much appreciated.

Don

On Oct 12, 2010, at 12:29 PM, John Morgan wrote:

I am in an EIS meeting at the moment but will return to my office at 3:00 to go through the outstanding items
John

From: Donald Iannone

To: John Morgan

Cc: Michael C. Carroll

Sent: Tue Oct 12 09:28:38 2010

Subject: Other Inputs

Hi John,

I am sure you're very busy.

We will need these three additional inputs from you as soon as possible:

- Stream data and restoration to create a semi-quantitative measure of the rule's benefit in terms of stream protection.
- Severance tax rates for the various states and the Federal reclamation tax rate(s) or schedule.
- Comments on main text of the draft RIA report.

Thank you.

Don

Cell: 440-668-1686

<OSM Regulatory Impact analysis.docx>

Linda Carroll

From: John Morgan
Sent: Monday, October 18, 2010 3:46 PM
To: Liz Edmondson
Cc: 'J. Steven Gardner'; 'Joe Zaluski'; Linda Carroll
Subject: FW: Occupational and Public Health

From: Mike Stanwood [mailto:r.m.stanwood@gmail.com]
Sent: Monday, October 18, 2010 8:42 AM
To: John Morgan
Subject: Re: Occupational and Public Health

John, I read your email yesterday and have been pondering what we can do under various time scenarios. If we stick with status quo schedule, it will be tough to have any real interdisciplinary analysis approach with appropriate interaction. If we get more time there's some hope to improve things. Let's get through the Ch 3 submittal and see what happens at the Atl meetings (I won't be there so I need some help with context in regard to this issue).

I like your idea of brainstorming the impacts of the various disciplines together, hopefully in a small group dealing with a group of resource areas each time. Be thinking about who should be involved and we can compare notes.

Your comments on the health and safety discussion do indicate a lack of coal mining knowledge in the analysis. Yes that is a problem. Assignments were obviously made without a whole lot of strategic thought (again as you and I discussed you would have been a good choice to lead the RIA as well).

We hope to have a technical editor on board for this project later this week, and that will also help, but she is not knowledgeable re: mining so her changes will be for readability, style, voice, etc.

On Sun, Oct 17, 2010 at 12:38 PM, John Morgan <jmorgan@morganworldwide.com> wrote:

Mike,

I agree completely with your broader comments. I think that we need to develop an integrated analysis approach rather than the technical experts all heading their own way. I am not trying to focus on Mactec but this is an EIS on mining issues and the mining relevance has to be integrated into every section. It does not appear that the subject experts assigned by Mactec have any exposure to the coal mining industry. Somehow we need to discuss the potential impacts on specific technical areas and their inter-relationship, rather than just operating in silos.

The issue is further compounded as the Mactec representatives in our meetings are not those writing the relevant sections.

I think one way forward would be to have topic specific meetings to review the potential impact of the proposed alternatives on one or two subject areas at a time. These meetings would brainstorm the critical effects and then define who was going to write what. The key writers plus mining experts would be in attendance.

We have to bring the team together somehow, and ensure that we don't produce a document that is technically flawed. I know the schedule is critical, but if we leave the QC until the end we are going to create more friction, as no one likes being second guessed at the last minute.

What ideas did you have?

John

From: Mike Stanwood [mailto:r.m.stanwood@gmail.com]
Sent: Sunday, October 17, 2010 1:34 PM
To: John Morgan
Subject: Re: Occupational and Public Health

John, your comments seem relevant. Let's see what Josh can do with changing things in a relevant way given the time we have.

Expanding some of these specific QC issues to a broader view of things, how can we better integrate a QC process (and guidance and knowledge that you and others have) into the section development process? The chapter 3 process is going to be "easier" than the chapter 4 process, and if we didn't/couldn't do a good job with it in chapter 3 we are going to struggle in chapter 4 as well. With this specific project and so many subs, is a meaningful QC process primarily a function of having enough time, or can we really integrate the QCer into the section development and content as it's happening, rather than waiting until the end? I encouraged everybody to involve the QCer into the section development process instead of waiting until the end, but nobody really did that.

What are your thoughts on these types of issues and developing a more meaningful QC process from this point on?

On Sun, Oct 17, 2010 at 11:24 AM, John Morgan <jmorgan@morganworldwide.com> wrote:

Josh,

Thanks for the opportunity to review the Occupational and Public Health Section

I have included a marked up copy of the text that identifies some areas of concern. In addition we have the following general comments:

- The data analysis appears flawed as for any region that includes a state that is separated into one or more regions since for each region, the analysis was done on a state by state basis without excluding numbers for parts of that state that isn't included in the region. For example, the entire stats for Kentucky are included in both App Basin and IL (and coincidentally the Gulf Region, as well), which makes numbers for KY larger than they should be.

- The fatality and injury statistics need to be based on tonnage rather than (or as well as) employee hours, a fact they seem to recognize in various places in trying to explain why some statistics seem high. Without a tonnage metric it will be difficult to analyze impacts in Ch 4
- Also, most of the regions include states that are not in the region.
- The text should clearly identify the difference occupational health and safety risks between surface and underground coal mining

In the initial sections it would be better to have a brief introduction and then to integrate the discussion of the occupational health and safety hazards with the information for the regions. So, they could describe fatal and non-fatal injuries, what they are, where they occur, differences between surface and underground mining, and then include the statistics for each region. Then they could describe illnesses, what they are, where they occur, differences between surface and underground, and then present the data for each region, etc. This would make the section a lot easier to understand and actually relate the information at the beginning to the data.

As indicated in our comments on the text you need to ensure the relevance of the sections you included, underground coal mining is primarily a pneumoconiosis issue not silicosis. Silica containing rocks are primarily encountered in the drilling of the surface mine overburden, where the exposure risk is lower. The difference between occupational health risks from surface when compared to underground need to be identified. Especially as this is a key factor in Ch 4.

Additionally comments such as high working temperatures are not very significant as the deepest US underground coal mine is in Alabama, deep cover mining is defined as 1,500 ft of cover. Your authors need to be careful to separate “mining” issues from coal mining issues.

Other than the first two paragraphs in the Introduction there is very limited discussion of “Public Health” I think this needs to be expanded.

John

John S L Morgan

Office 859 259 0959

Cell 859 991 1414

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Liz Edmondson

From: Donald Iannone [diannone@ix.netcom.com]
Sent: Monday, November 08, 2010 11:53 AM
To: Jenkins, Josh
Cc: John Morgan
Subject: Re: RIA information

Josh,

Got your call. In and out right now and in a meeting now.

I thought this is what your group planned to produce this week in Lexington. All I added was a future timeframe. Yes, we need #6, which states below that "OSM, Morgan Worldwide, and ECSI will meet in Lexington, KY next week (November 10-11) to develop estimates on expected shifts in coal mining production by region and mining method over the next 10-12 years. Along with that, coal production cost per ton estimates by region will be developed. If possible, these shifts will be defined over time (next 10-12 years). This information will be written up and provided to DTIA for inclusion and use in the RIA. No economic modeling of these data inputs is anticipated. This would be used to flesh out Scenario Two in the RIA and would be used as an introduction to all impact scenarios in the RIA."

I talked to John Morgan Friday about assistance in developing cost estimates for the Most Stringent Rule Alternative by building upon his earlier work use in the modeling of Scenario One. I copied you on my email to him as well. He said step one was to produce a memo to outline an approach to the task. In case John Morgan has not seen Dennis Rice's follow up emails from Friday and today, I will forward these to him. Dennis has offered his ideas on order of magnitude increases in Rule elements under the Most stringent alternative (with ephemeral stream inclusion and some reductions in longwall mining.)

I have copied John Morgan on this to ensure he has this information as well.

The timing of our delivery of the revised RIA draft can be by Dec 10th, BUT we must have everything needed from OSM and your work group in time to meet this deadline.

Hope this helps.

Don

On Nov 8, 2010, at 10:08 AM, Jenkins, Josh wrote:

Good Morning Stephanie – attached is the synopsis of Friday's calls. I have also spoke to John Maxwell of PKS and spoke to him about items' 4 and 6 below (the estimates on 4 will only

follow after production estimates are developed). I am going to follow up with a separate email on those two items.

Action Steps on the RIA Based Upon November 5th Conference Call

Don Iannone and Donald T. Iannone & Associates (DTIA) will:

1. Talk at 1:30 pm today with Andy DeVito and Dennis Rice about a specific strategy to populate the OMB summary tables with best available data the conceptual RIA document, OSM, and other sources. (Update: This has been done!)
2. Work with OSM in giving definition to any additional alternatives to be included in the RIA, if required by OMB. DTIA and OSM will work together jointly to provide non-modeling information and analysis to characterize these other alternatives, if it is required. This work effort would rely to a very large extent on existing information and analysis. (Update: Andy DeVito and Dennis Rice spoke to OMB following this morning's call, and an analysis of alternatives is needed by OMB because the rule is considered economically significant. The alternatives to be included are: 1) proposed preferred rule (in the RIA now); 2) Least Cost and Least Stringent Alternative: the economic cost and benefit analysis from the 2008 rule will be used, which OSM will provide to DTIA for inclusion in the RIA; 3) Most Stringent and Costly Alternative, which is the Rule alternative with the greatest restrictions on longwall mining and gives consideration to ephemeral streams. No economic modeling would be performed on this alternative given cost and time. Instead the cost analysis by Morgan Worldwide and modeling for Scenario One would be adjusted to account for the additional compliance costs relative to longwall mining limits and ephemeral stream inclusion. Andy DeVito and Dennis Rice believe this would be sufficient, if John Morgan can help us develop revised cost estimates for Elements 3, 4 and 5 in his analysis underlying the modeling of Scenario One in the RIA.
3. Work with OSM staff to allocate the \$1.4 billion economic impact identified in Scenario One over a 12-year timeframe. DTIA will use OSM's estimated timeframe to accomplish this allocation. (Update: Andy DeVito and Dennis Rice do not believe this is necessary to meet the OMB requirements. We simply need to provide an estimated annualized monetized economic cost figure for the OMB submission).
4. Work with OSM to acquire/develop available quantitative and qualitative information about the possible economic benefits of the rule. The information on stream mile preservation/protection and mined and protected land acreage will be generated by other members of the EIS team. This information would be developed during the week of November 15th. Once available, it would be provided to DTIA for inclusion in the RIA. It is not expected that these economic benefits can be monetized in the conceptual RIA, but available quantitative data on these benefits (such as protected and preserved stream miles) will be included in the RIA. No economic modeling of this data is anticipated. (Update: Dennis Rice will provide us with a list of potential economic benefits of the rule., although he does not believe these benefits can be monetized at this time.)

5. Strengthen the small business impact analysis (RFA) section of the RIA using U.S. County Business Pattern data, data from the the 2008 rule RFA, and other readily available sources. If analyzed permit data can be provided to us by OSM, we will include it along with a write-up about its significance in the revised RIA document. (Update: The discussion with Andy DeVito and Dennis Rice helped to give focus to this work, which DTIA will be working on shortly)
6. OSM, Morgan Worldwide, and ECSI will meet in Lexington, KY next week (November 10-11) to develop estimates on expected shifts in coal mining production by region and mining method over the next 10-12 years. Along with that, coal production cost per ton estimates by region will be developed. If possible, these shifts will be defined over time (next 10-12 years). This information will be written up and provided to DTIA for inclusion and use in the RIA. No economic modeling of these data inputs is anticipated.
7. DTIA will proceed with the revision of the RIA document where possible while the data and write-ups in #4 and #6 are being developed by other team members.
8. Based upon today's discussion, no additional economic modeling related to the RIA is envisioned.

The schedule for completing this work is to start on those revisions that can be done now and then go to work on those revisions that depend upon the data inputs from #4 and #6 above is available. OSM has informed us it needs to submit the conceptual RIA to OMB by December 10th.

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | **Mobile** 770.833.6429 | **Fax** 770.421.3486
Email jljenkins@mactec.com | **Web** www.mactec.com
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From: Varvell, Stephanie L. [mailto:svarvell@osmre.gov]
Sent: Monday, November 08, 2010 9:33 AM
To: Jenkins, Josh
Subject: RIA information

Josh,

Were you able to communicate your RIA needs to the group meeting in Lexington? I will be asked about the status at a call this afternoon and would like to give some assurances that we have a plan that will allow for the rule to continue to go forward. Also, I believe Don had agreed to send out a synopsis of what type of deliverable we could expect. Could you relay the timeline to me and also when you believe you will deliver the final RIA? The last day I heard was sometime in January. The final delivery date is not on the most recent Gantt schedule.

Thanks,

Stephanie Varvell
Project Manager/
Contracting Officer's Representative
Contract # S10PC00060
859-260-3925

Liz Edmondson

From: Donald Iannone [diannone@ix.netcom.com]
Sent: Monday, November 08, 2010 11:54 AM
To: John Morgan
Cc: Josh Jenkins
Subject: Fwd: RIA (Corrected)

John,

FYI. See Dennis Rice's order of magnitude guesstimates. How does this compare to your view?

Don

Begin forwarded message:

From: "Rice, Dennis" <drice@osmre.gov>
Date: November 8, 2010 9:22:01 AM EST
To: Donald Iannone <diannone@ix.netcom.com>
Cc: "DeVito, Andy" <adevito@osmre.gov>, "Craynon, John" <jcraynon@osmre.gov>, "Sylvester, Cheryl" <Cheryl.Sylvester@sol.doi.gov>, "Shawley, Dianne M" <dshawley@osmre.gov>, "Rideout, Sterling" <srideout@osmre.gov>, "Varvell, Stephanie L." <svarvell@osmre.gov>, "Winters, William R. \"Bill\"" <bwinters@osmre.gov>, "Uranowski, Lois J." <luranowski@osmre.gov>, "Payne, Harry J." <hpayne@osmre.gov>
Subject: FW: RIA (Corrected)

Don,

In the last sentence of the fifth paragraph, I should have said that my estimate is that the multiplier likely would be 200-400% of the preferred option costs for these elements.

Dennis

From: Rice, Dennis
Sent: Friday, November 05, 2010 8:57 PM
To: 'Donald Iannone'
Cc: DeVito, Andy; Varvell, Stephanie L.; Craynon, John; Sylvester, Cheryl
Subject: RE: RIA

Don,

Thanks for sending me the info that you found on the EIA website regarding company size and production. Interesting that two companies account for 31% of all coal mined in the U.S.

To sum up our earlier calls today (Friday, Nov. 5), OMB has confirmed that the RIA must be completed at the proposed rule stage to inform rulemaking decisions and to provide an opportunity for the public to comment on it. If data are not available on the costs to industry, we need to estimate them and allow commenters to provide corrective data after the proposed rule is published.

OMB stated that we should consider this rule to be economically significant without regard to whether it would meet the annual \$100 million cost threshold. This decision means that the RIA must include a baseline and three options. As stated on page 16 of OMB Circular A-4: “[Y]ou generally should analyze at least three options: the preferred option; a more stringent option that achieves additional benefits (and presumably costs more) beyond those realized by the preferred option; and a less stringent option that costs less (and presumably generates fewer benefits) than the preferred option.”

We believe that those options would be the preferred alternative in the EIS (preferred option), the environmentally most protective alternative in the EIS (more stringent option), and the no-action alternative in the EIS, which assumes implementation of the 2008 excess spoil-stream buffer zone rule (less stringent option). The baseline to which these options must be compared would be the status quo, in which the states have not yet adopted or implemented the 2008 rule.

The existing draft RIA includes cost estimates for the preferred option only. Cost estimates for the less stringent option can be found in Parts IX.A. and C. of the preamble to the 2008 rule at 73 FR 75865-75868 (December 12, 2008). You stated that it would not be possible to model the more stringent option. Therefore, we suggested that the starting point for determining the cost of this option be the cost of the preferred option. The primary added costs of the more stringent option would result from the protection of ephemeral streams. Mining operations currently disturb ephemeral streams much more frequently than perennial or intermittent streams. For surface mines, the additional cost of this option could reasonably be estimated by applying a multiplier for Elements 4 and 5 of the model used to determine the costs of the preferred option. The size of the multiplier should be determined after discussions with Morgan Worldwide and the Lexington attendees, but I expect that the multiplier likely would be in the range of 100-400% of the costs of these elements for the preferred option.

While I stated on the conference calls that the major impact of the more stringent option for underground mines would be the prohibition on mining that would subside ephemeral streams, I no longer believe that would necessarily be the case. Ephemeral drainages would continue to exist in subsided areas and, unlike perennial and intermittent streams, subsidence would not adversely impact either their form or function, which is to transport water after precipitation events. Consequently, there would be no additional costs for underground mines over and above those discussed in the preceding paragraph for surface mines.

Section 6(a)(3)(C)(i) of Executive Order 12866 requires “[a]n assessment, including the underlying analysis, of benefits anticipated from the regulatory action (such as, but not limited to, the promotion of the efficient functioning of the economy and private markets, the enhancement of health and safety, the protection of the natural environment, and the elimination or reduction of discrimination or bias) together with, to the extent feasible, a quantification of those benefits.”

The benefits of the stream protection rule would be fewer miles of stream destroyed, improved protection of the biological condition of streams, additional fish and wildlife habitat protection and enhancement (including preservation or restoration of riparian vegetation in a 300-foot buffer zone on each side of a perennial or intermittent stream), mandatory reforestation of lands that were previously forested or that would return to a forested state under conditions of natural succession, fewer and lesser adverse impacts on downstream water quality and groundwater both during and after mining and reclamation, and improved esthetics of reclaimed lands. I’m really not sure how to quantify these benefits.

Dennis

From: Donald Iannone [mailto:diannone@ix.netcom.com]
Sent: Friday, November 05, 2010 4:55 PM
To: DeVito, Andy
Cc: Rice, Dennis; Josh Jenkins
Subject: Largest Coal Producing Companies (2009) See Attached

Liz Edmondson

From: John Morgan
Sent: Tuesday, November 30, 2010 1:15 PM
To: 'elaporte@engrservices.com'
Subject: Re: Mining Impact Costs

Edmundo
Let you Steve and I talk about this. I did talk to Don
John

From: Edmundo Laporte
To: 'Donald Iannone'
Cc: 'Josh Jenkins' ; John Morgan
Sent: Tue Nov 30 12:56:00 2010
Subject: RE: Mining Impact Costs
Don:

Thanks for your email message. I will give you a call in a few minutes.

Regards,

Edmundo

Edmundo J. Laporte, P.E.
Vice President / Director of Mining Services
Engineering Consulting Services, Inc
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-285-9921 (mobile)
elaporte@engrservices.com
www.engrservices.com

From: Donald Iannone [<mailto:diannone@ix.netcom.com>]
Sent: Tuesday, November 30, 2010 7:41 AM
To: Edmundo Laporte
Cc: Josh Jenkins; John Morgan
Subject: Fwd: Mining Impact Costs

Hi Edmundo,

I called and left a voicemail for you this morning.

Would it be possible to talk by phone sometime today between 9 am and 2 pm? Cell: 440-668-1686.

Attached is the analysis in MS Excel by John Morgan, which you indicated you had in PDF format. Ideally, we could get comparable cost estimate data on your recent analysis that is like that provided my John Morgan.

Best regards and thank you.

Don Iannone

Cell: 440-668-1686

Begin forwarded message:

From: "John Morgan" <jmorgan@morganworldwide.com>
Date: October 9, 2010 5:10:53 PM EDT
To: "Donald Iannone" <diannone@ix.netcom.com>
Cc: "Will Burns" <wburns@bgsu.edu>, "Michael C.Carroll" <mcarrol@bgsu.edu>, "Josh Jenkins" <JLJENKINS@mactec.com>, "J. Steven Gardner" <jsgardner@engrservices.com>, "Joe Zaluski" <jzaluski@engrservices.com>, "Liz Edmondson" <ledmondson@morganworldwide.com>
Subject: Mining Impact Costs

Don,

Please find attached a spreadsheet that is my template for developing the costs.

Could you review this and see if you think it forms a basis for the development of the impact costs of Scenario 1, by region.

I have also copied Steve Gardner of ECSI so we can include his thoughts

John

From: Donald Iannone [<mailto:diannone@ix.netcom.com>]
Sent: Friday, October 08, 2010 4:28 PM
To: John Morgan
Cc: Will Burns; Michael C.Carroll; Josh Jenkins
Subject: Follow-up

John,

Thank you for your time and advice today, and the follow-up phone conversation.

As we just discussed, we will await an email from you this weekend with your thoughts on cost estimates for the 7 coal-producing regions. The regions to work with are those identified in Table 8-1 in the Draft RIA document.

We look forward to talking with you tomorrow or Sunday.

My cell phone is listed below, and Mike Carroll and Will Burns email addresses are copied on this email.

Regards,

Don

Cell: 440-668-1686

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Liz Edmondson

From: John Morgan
Sent: Monday, December 06, 2010 11:21 AM
To: 'diannone@ix.netcom.com'
Subject: Re: Revised Mining Cost Impact

Don
Can we try for about 2:00 as I have a meeting until then
John

From: diannone@ix.netcom.com
To: John Morgan
Cc: J Steven Gardner ; Josh Jenkins ; Liz Edmondson
Sent: Mon Dec 06 08:10:18 2010
Subject: Re: Revised Mining Cost Impact
John,

Great. I will call you as soon as my physical is done and I am back in the office--maybe before noon even, if you are free.

Thank you.

Don

Sent from my Verizon Wireless BlackBerry

From: "John Morgan" <jmorgan@morganworldwide.com>
Date: Mon, 6 Dec 2010 07:55:23 -0500
To: Donald Iannone<diannone@ix.netcom.com>
Cc: J Steven Gardner<jsgardner@engrservices.com>; Jenkins, Josh<JLJENKINS@mactec.com>; Liz Edmondson<ledmondson@morganworldwide.com>
Subject: RE: Revised Mining Cost Impact

Don,
It would be very beneficial to have a discussion. I am available any time this afternoon, just call my cell phone (859 991 1414)
John

From: Donald Iannone [<mailto:diannone@ix.netcom.com>]
Sent: Sunday, December 05, 2010 7:19 PM
To: John Morgan
Cc: J Steven Gardner; Jenkins, Josh; Liz Edmondson
Subject: Re: Revised Mining Cost Impact

John,

Thanks for all your hard work on this.

Do you anticipate doing a similar analysis for the other EIS alternatives, especially Alt 2 (the most restrictive).

As we indicated to OSM, we do not plan to do any more IMPLAN modeling or any of the alternatives under the Conceptual RIA scope.

It would be a huge help if I could talk with you tomorrow afternoon. I have my annual executive physical tomorrow and will be tied up with that from 7 am until 12 noon. Do you have some time after 1 pm? It will be critical for us to glean your insights on what the cost estimates are saying. I have reviewed them briefly.

Thanks again.

Don

440-668-1686

On Dec 5, 2010, at 2:39 PM, John Morgan wrote:

Don,

I have taken the projected production shift that was developed for the EIS and corrected for Btu in order to revise the cost impact for the proposed Alternative (#5)

The new results are identified on the "Cost Summary" tab of the worksheet.

I think that it is important to note that these increased costs DO NOT result in a reduction in the total energy supply and will be cost increases that would be passed on to the utility. As we have previously discussed this level of cost increase is immaterial when compared to normal cost inputs to the mining industry such as fuel cost.

I do not think that you can use IMPLAN to evaluate the costs of the most restrictive Alternative as the reduction on surface production and some underground production associated with that proposed rule is due to restrictions on certain mining options that precludes types of mining and mining in certain locations. These restrictions are not cost driven and are due to the physical characteristics of the mining areas and the potential for material damage.

Please call me if you would like to discuss the approach.

As we have previously discussed we are continuing to work on the justifications for the various cost components used to develop the cost of the proposed rule.

John

<Mining Cost Impact - revised Alt #5.xlsx>

Liz Edmondson

From: Craynon, John [jcraynon@osmre.gov]
Sent: Wednesday, January 12, 2011 4:20 PM
To: John Morgan; J. Steven Gardner; John Maxwell; Jenkins, Josh; Jose Sosa
Cc: Varvell, Stephanie L.; Uranowski, Lois J.; Winters, William R. "Bill"; Payne, Harry J.; Shawley, Dianne M
Subject: Questions on Appendix L of RIA
Attachments: Questions on Appendix L or RIA draft.docx

Attached is a list of questions particularly focused on the cost estimates included in the RIA and based on the work in Appendix L. We would like to discuss these as a part of meetings next week.

John R. Craynon, P.E.
OSM SPR EIS Team Lead
Office of Surface Mining Reclamation and Enforcement
Washington, DC
202-208-2866
202-617-5002 cell
202-219-3276 fax
jcraynon@osmre.gov

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Questions on Appendix L of the RIA Draft

General :

Do these numbers/costs in the spreadsheets reflect inconsistent practices across the country? e.g. WV already requires fill minimization and source reduction techniques, Pa mandates stream protection above UG mines so there is no additional cost to implement them.

Did you consider using opposite-end (RAs where costs are minimal and where much higher, depending on the requirements) examples of costs –i.e. Pa and KY for UG mining and stream impacts? PA is much more stringent –how is this captured? Estimated? Error bars?? Can this error be discussed with a request for comments on these costs?

Note: SMCRA allows for impacts within the mined area; this draft rule requires enhancement to offset those adverse impacts. Unavoidable long-term adverse impacts from streams buried are required to be enhanced via offsets commensurate with the magnitude of that adverse impact. (780.16(e))

Spreadsheet- Cost impacts-surface

Equations show differences and need a second check. Here are some examples.

Mining Cost Impact Revised Alternative 5-1, Surface Cost tab, cell E5 through E11. Material damage- equations not consistent- denominator has permit life in the N. Rocky Mountain but not others. Which is correct? Other equations –Cell F6- Activity in or near streams in AR has an additional cost. What is this cost and why?

Surface:

Baseline Data: Monitoring (\$0.25M) and Baseline (\$0.5 M) seems excessive. OSM estimates from T&E species that includes both baseline and monitoring is \$100K for 6 yrs of a full permit in VA and TN.

Material Damage:

Assumes 5% Failure rate. Is this additional beyond the present failure rate of 5% rate. Isn't this much less now that extra monitoring, baseline, threshold criteria will be in place. Or is there a greater risk due to return of form and function? Or sequencing?

What does the 20% represent?

Can you explain average full cost bonding amount of \$6K??

Activities in or near streams:

How is this comparable to 1983 cost? We believe there is no increased cost?

Where get the \$100/Foot- what is included in this cost over present requirements?

Stream mine throughs-

What is the basis for the 20ft/acre? (lit has 12acre/ft) and the length per foot of stream. Is there a statistical basis for this number available?

Where get the \$200/Foot- what is included in this cost over present requirements?

Cost associated with mine throughs includes restoring hydraulic form. Where is the extra cost? Might be monitoring but isn't monitoring accounted for under the extra monitoring cost?

Acres/permit number of 1.1 million acres in AR? Is this new permits or renewals only? Can you tell us how this number was derived? OSM FY'09 reports – issued 55K new acres. Should use NEW acres, not already existing. This shows up at other places as well.

Surface Configuration/Fills:

Can you explain the derivation of the 14 cu yds/ton of coal produced? Is it 14 cu yds of material/ton of coal produced?

What is the basis for 14 cu yd/ton- how can this be applied to all of AR because all permits do not have fills? KY 09 report – 35% of actions apply to permits with fills? And 98% of fills are in central AR.

Also what about acreage- is this total again?

Revegetation/topsoil: Is this cost due to reforestation? – A reforestation cost study done in 2008 concluded that in AR states, cost of reforestation is REDUCED by \$143-350/acre. (Reduced grading costs). Is some or all of this cost partially associated with organic material storage?

Fish and Wildlife:

Enhancement=mitigation. So how derive this additional cost if already required under 404 permit requirements.

Multiplied by entire 1.1 million acres?

Bond Release: Performance Can you explain the additional 2 years for bond release?

Long term polluttional discharges:

Bond calculated on the 5% failure rate? \$6K from MD includes polluttional discharges??
Multiplied by entire 1.1 million acres?

Cost of bond- 1%?

Proposed rule allows current increase in bond by a variety of funding mechanisms including conventional bond, funds or trust. The trust funds allow the replacement and then release of conventional bonds. These mechanisms that allow release of conventional bonds may reduce the overall costs not increase them. (generally trust funds are cheaper)

Underground

Same questions as above apply for spreadsheet, need to verify the calculations.

Same questions for MD as surface, please explain the failure rate of 10%

What is the \$3000 bond?

Surface configuration of fill: What is the rationale for the \$0.50/cu yd to transport refuse vs \$0.25/cu yd for excess fill?

Waste per ton is this really per ton of coal mined?

Number of acres basis- what is this based on? Shadow area? And isn't this acreage a per year and not total presently bonded?

Performance Bond Release

Average bond amount of \$3000- how was this derived?

Additional 3 yrs bond extension, cost of bond- 1% of value, what do these mean?

Financial Assurance Long Term Discharge -same questions as surface mining

Liz Edmondson

From: John Morgan
Sent: Thursday, January 20, 2011 7:20 PM
To: 'liz.d.edmondson@gmail.com'
Subject: Fw: RIA comments and conference w/Josh and Don

This was Dons response he doesn't get it either

From: Donald Iannone
To: John Morgan
Cc: John Maxwell ; Jose Sosa ; JIJENKINS@mactec.com
Sent: Thu Jan 20 18:21:06 2011
Subject: Re: RIA comments and conference w/Josh and Don
Hi John,

The best way to view Ben's comments is to see them as the key components for which he wants to see some content, which will be text only in some cases, quantification in some cases, and monetization in some limited cases.

I am still of the mind that the IMPLAN modeling IS valuable to the RIA even though OMB does not want us to hand the whole study on it, which we never intended to do. We choose the IMPLAN input-output model approach early on to respond to the request that we look at coal producing counties, states, and regions and the nation. Also, we were told that we needed to do an analysis that measures against a baseline (pre-rule situation). IMPLAN allows us to do that. Cost-benefit analysis is a collection of different techniques brought together using an accounting framework that identifies costs and benefits and the net of the two. That could be a net cost or a net benefit.

We are talking about a next document that provides only the KEY data and information. It will not be a massive document that tries to include everything we have done or re-done.

The table of contents will focus on Ben's (Ben Simon works in the Interior Dept's Office of Policy Analysis, which is outside OSM and all other DOI operating units) points to make certain that people know we have provided the "best" information we can for each point. Once we respond to all of the points as best we can, I will organize them into a document that ties them together as best I can.

The last point is that Ben is NOT asking for totally new content except in a few places. He is asking for us to moderate the IMPLAN analysis with all other analyses used. He is asking us to use what we have that fits and supplement elsewhere.

Your updated numbers will be VERY important the next submission.

Things have shifted many times since we started work on the RIA in July. It's hard to keep up. We will do the best we can within the budget and timeframe. We must be realistic about what can be done by the new Feb 1 deadline for a revised RIA document submission.

Thanks as usual!

Don

On Jan 20, 2011, at 5:32 PM, John Morgan wrote:

John

I am available over the weekend. Reading the email from Ben I get the impression that he is asking for a totally different format / content to the RIA. It would be very helpful to me to have a revised table of contents for the new RIA that addresses Ben's points and possibly identifies which parts of the existing document can be used. This will allow a clear definition of what needs to be done and who will have responsibility.

I also think that this is a new task, as far as MW is concerned.

Let me know when you want the conference call

John

From: John Maxwell [mailto:JMaxwell@polukaiservices.com]

Sent: Thu 1/20/2011 5:22 PM

To: John Morgan

Cc: Jose Sosa; 'Donald Iannone'; 'JLJENKINS@mactec.com'

Subject: RIA comments and conference w/Josh and Don

John,

As Jose discussed w/you earlier today, we would like for us to meet on a call with Josh and Don about the revised numbers to use on the RIA and EIS asap, possibly this weekend as tomorrow (Friday) is not convenient for all involved. Please indicate preferred times to meet.

I have copied comments from Benjamin Simon of OSM on the most recent RIA submittal for your review. (Josh and Don, if additional comments besides those below were provided, please forward to John M., Jose and me.)

We appreciate your support in getting this addressed.

From: Simon, Benjamin M

Sent: Wednesday, January 05, 2011 3:21 PM

To: DeVito, Andy

Cc: Crowley, Christian; Cline, Sarah A; Lawyer, Mark

Subject: spr

Hi Andy,

Here are a few general comments on the "conceptual" RIA.

- Clearly distinguish between economic benefits and costs, transfer payments, and economic impacts. Impact analysis should not be the primary tool used for the analysis.
- Include a section discussing the need for the regulation, specifically addressing the extent to which market failures or information asymmetries are present. Why are the existing regulations inadequate? Are existing regulations enforced?
- Clearly state that the goal of the analysis is to evaluate net economic benefits from a national perspective.
- Define the regulatory base line against which the net benefits will be evaluated.

Define the period of analysis and justify the selection of this period.

- Discuss the anticipated pattern of implementation over time and how this might impact the accrual of the benefits and costs over time.

Discuss in conceptual terms how the economic analysis will be approached. How are costs to be estimated? How should benefits be estimated in concept and how will they be evaluated for this analysis?

- Define cost categories (e.g., compliance costs, OSM administrative costs, foregone production, increased electricity costs to consumers)
- Define the benefit categories (e.g., water quality improvements, recreation benefits, health/safety, visibility/noise reductions, etc.). Explain specifically how the regulation would be anticipated to affect each type of benefit in physical/biological terms. Discuss how these effects might be monetized.
- If avoided costs are to be used as a measure of benefits, a justification for this approach should be provided. Note that economic impact estimates are not necessarily equal to economic costs. A better approach for estimating costs might simply be the sum of the value of foregone annual production plus OSM administrative costs plus private sector compliance costs. This stream of costs should be discounted to the present. Any benefits that are monetized should also be discounted appropriately.
- The RIA focuses on regional shifts in production, etc.. While the distributional information may be useful, the focus of the analysis should be to look at net economic benefits to the nation.
- The RIA should explain how the cost estimates were derived (such as the compliance cost estimates that are included in the current draft). The RIA provides 2 different estimates of compliance costs but few details on the elements of these costs or how they are calculated. Perhaps this is explained in more detail in the complete full analysis.

Ben

=====
Benjamin Simon
Director, Economics Staff, Office of Policy Analysis
U.S. Department of the Interior
Mail Stop 3530
1849 C St. NW
Washington DC 20240
202 208 4916
benjamin_simon@ios.doi.gov



John R. Maxwell
Senior Environmental Scientist
Polu Kai Services
352.258.1045

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Liz Edmondson

From: John Morgan
Sent: Friday, January 21, 2011 4:31 PM
To: 'Varvell, Stephanie L.'
Subject: FW: RIA Revisions

FYI

From: Donald Iannone [<mailto:diannone@ix.netcom.com>]
Sent: Friday, January 21, 2011 4:28 PM
To: John Morgan
Cc: jljenkins@mactec.com; John Maxwell; Liz Edmondson
Subject: Re: RIA Revisions

John,

Thanks for your thoughts.

A couple quick points:

1. An outline will get us no further at this stage. OSM wants specifics, especially on identification, quantification, and monetization of benefits (which everyone knows). The outline will be dictated by what Ben Simon needs from DOI's Office of Policy Analysis. Let's all focus on Ben Simon's 10-11 points. By the way, a detailed outline will take a lot of time to generate at this point if that is what you refer to.
2. My approach to revising the document is this. Prepare responses to each of Ben's questions or points and provide those to all of you and OSM for review and comment. We do this one by one. Initially, I will provide a document that contains text and some quantitative and monetized data from earlier work (and John your revised numbers when they are ready). We get concurrence on each point and then move to the next. Monday I will provide the first.
3. Once we get through all 10-11 points raised by Ben Simon, I will assemble them into one document for Ben and hopefully OBM.
4. The agreement we have with OSM is that the main focus of the next submittal will be the salient information minimally needed to get acceptance by Ben's office and then OMB.
5. As for IMPLAN, we will keep some of that in because it is relevant and useful to the study. Your numbers on cost will be given primacy, but we will include the IMPLAN numbers (modified in light of your latest numbers). We will also include the IMPLAN baseline analysis. Andy DeVito from OSM is Ok with this.
6. As for the reduction in coal production, we believe from an economic perspective that perspective should be included, but NOT featured. People need to think about the prospect that the future level may not remain the same. It is supplementary information only at this point. If you recall, OSM did NOT tell the RIA team to exclusively use the "stay the same assumption."
7. We will endeavor to be as consistent as possible with the EIS -- that has been everyone's understanding from the beginning.
8. Finally, we will do the best we can on a Feb 1 next deliverable schedule -- which is not very realistic given the amount of work and discussion that need to occur to resolve how to handle the benefits issue in particular.
9. John, DOI has made ample use of IMPLAN in the past on studies. It IS a credible method and source of analysis. We went with it at the beginning because we were asked to examine impacts at the local, state, and regional levels and then sum to the nation. Also, we asked to do an analysis that ties back to an analyzed baseline (pre-rule economics of coal mining. That is why the method was chosen. We will do the best we can in providing them with cost and benefit data and information.

I must head out now. Thanks.

john, talk with you at 1 pm Sunday. I will call you.

Don

On Jan 21, 2011, at 4:05 PM, John Morgan wrote:

In preparation for our telephone call this weekend I have read Don's two emails from yesterday regarding Bens comments.

Due to the apparent differences between the list prepared by Ben, OSM comments expressed during this week's meetings, and the ongoing issue of using IMPLAN.

Rather than produce another final document and then have it shot down again, I think we should engage OSM incrementally so that we start to have buy in on the new approach including the quantification of the benefits.

Therefore, I would like to go back to my previous suggestion and start developing an outline of the new RIA that addresses both Ben's and OSM's requirements.

We should circulate this outline to the parties on Monday and get them to agree or modify that, before we go to the next stage of expanding the text and analysis. We have to build consensus at each stage so we don't have any more wasted effort and expenditure.

I still think that we should delete the use of IMPLAN, as the reduction in coal production produced by the model is in direct conflict with the approach that OSM has already agreed for the development of Chapter of the EIS.

Lets discuss this on Sunday.

John

John S L Morgan
Office 859 259 0959
Cell 859 991 1414

Liz Edmondson

From: John Morgan
Sent: Friday, January 21, 2011 4:05 PM
To: 'Donald Iannone'; Joshua L. Jenkins P.G. (jljenkins@mactec.com); 'John Maxwell'
Cc: Liz Edmondson
Subject: RIA Revisions

Tracking:	Recipient	Delivery
	'Donald Iannone'	
	Joshua L. Jenkins P.G. (jljenkins@mactec.com)	
	'John Maxwell'	
	Liz Edmondson	Delivered: 1/21/2011 4:05 PM

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Lets discuss this on Sunday.

John

John S L Morgan
Office 859 259 0959
Cell 859 991 1414

Liz Edmondson

From: John Morgan
Sent: Sunday, February 06, 2011 3:59 PM
To: Linda Carroll; Liz Edmondson
Subject: FW: Confidential: Response to Steve Gardner and John Maxwell's Emails

Tracking:	Recipient	Delivery
	Linda Carroll	Delivered: 2/6/2011 3:59 PM
	Liz Edmondson	Delivered: 2/6/2011 3:59 PM

Jose's response

From: Jose Sosa [mailto:jose@polukaiservices.com]
Sent: Sunday, February 06, 2011 3:28 PM
To: Donald Iannone; J. Steven Gardner
Cc: John Maxwell; Edmundo Laporte; Josh Jenkins; John Morgan; Jose Sosa; Liz Edmondson; Mike Stanwood; Randy Sosa; AnnShortelle; Michael C. Carroll; Will Burns
Subject: Re: Confidential: Response to Steve Gardner and John Maxwell's Emails

Don

We need any and all proof of guidance provided by OSM.

I believe we are passed getting OSM to Change.

They are all running for their political lives.

MWW has decided to pull out from the rework of RIA.

We must provide what we can to meet the standard of care within the time given and provide the place holders when the information becomes available.

jose

Sent from my Verizon Wireless BlackBerry

From: Donald Iannone <diannone@ix.netcom.com>
Date: Sun, 6 Feb 2011 13:22:19 -0500
To: J. Steven Gardner<jsgardner@engrservices.com>
Cc: John Maxwell<JMaxwell@polukaiservices.com>; Edmundo Laporte<elaporte@engrservices.com>; Josh Jenkins<JLJENKINS@mactec.com>; John Morgan<jmorgan@morganworldwide.com>; Jose Sosa<jose@polukaiservices.com>; LizEdmondson<ledmondson@morganworldwide.com>; Mike Stanwood<r.m.stanwood@gmail.com>; Randy Sosa<Randy@PoluKaiServices.com>; AnnShortelle<ABSHORTELE@mactec.com>; Michael C. Carroll<mcarrol@bgsu.edu>; Will Burns<wburns@bgsu.edu>
Subject: Confidential: Response to Steve Gardner and John Maxwell's Emails

Dear EIS/RIA Team Members,

Introduction

In response to recent emails from Steve Gardner and John Maxwelll, I would like to share some information from the standpoint of the Conceptual RIA work. Perhaps it will help as we move forward in trying to help our ultimate client (OSM) to succeed. Note: I have copied only those members of the team I have worked with directly over the past six months. My email speaks directly to the issue of whether the RIA team has complied with OSM direction, which we fully have complied. As a note, the RIA team has used its best professional knowledge and expertise throughout the RIA analysis process, but it has worked to be highly responsive to OSM direction at every step.

First, I have the same overall assessment as outlined by Steve Gardner of everyone's situation with respect to OSM direction and where we are today. In short, the RIA team did follow OSM's direction on the RIA, which is the main source of the problem we see at this time related to the RIA. We have been driven hard and fast to produce when the right numbers have not been available to us. We have been asked to do work outside our scope at various points in the past 6 months. We have been asked to respond to OSM's major shift from producing what was intended as a "Conceptual" RIA analysis to one that now reflects the requirements of a complete RIA as defined by OBM. And now, we are asked to perform work in two weeks that easily requires six weeks (or more) and with only a few days of budget left because we were directed by OSM to move ahead and produce based upon the limited data and information we had available.

As a starting point of clarification, my firm and the economic analysis team working on the RIA was hired by MACTEC to provide consulting services to MACTEC related to the RIA. From the beginning, our client has been MACTEC. We have worked closely, cooperatively, and positively with MACTEC throughout this process. There has been frequent communication about our work with MACTEC on a weekly (and in many cases daily basis) to ensure that MACTEC fully understands the nature and status of our work. Our focus throughout has been to meet MACTEC's work expectations, but with a recognition that OSM is the ultimate client for all work completed on the RIA.

Key Points

1. Our Current Situation: First of all, the RIA team is committed to doing the best it can between now and February 23 to produce a stronger RIA document, given available time, data and information, and budget. We asked for six weeks to develop the next draft of the RIA document, but like the EIS team, we were given two weeks to produce the next draft. There are limits to what we can do in this timeframe. A concern is that this next draft of the RIA may fail to meet OSM's expectations. We hope this will not be the case.

2. Our Contract Scope: Our contract called for an economic analysis that would provide a best available economic understanding of the proposed SPR. Our scope was focused on producing an analysis that related to only one rule alternative (the preferred rule alternative or what later came to be known as EIS Alternative 5). We were asked to focus our analysis on local areas impacted by the SPR and give primary attention to the coal mining industry and coal mining areas. We were specifically asked to not look at economic impacts of the SPR on electric power generation and other industries. We were told that the costs of the rule would be of central concern given the history of the coal mining industry in fighting new regulations on the its activities. We developed a study methodology that responded to this scope. We were given the green light from OSM to proceed with our defined methodology. We provided a budget estimate for our work based upon this narrow analysis scope. Our contract says nothing about producing an RIA document that meets all of OBM's guidelines for a complete RIA, which now OSM says that it wants and needs. Nor does our contract say anything about producing an analysis of more than one rule alternative, which we were later asked to undertake by OSM, and which we did in compliance with OSM direction.

3. What We Delivered/Provided: We produced a Conceptual RIA document with appendices that was almost 550 pages in October 2010. Our September 2010 early draft was close to 800 pages, which was edited significantly by our team (including MACTEC personnel). Then in December, we produced a new summary document that was about 70 pages in length. While none of us gets paid by the page or pound of paper,

it is important for OSM to recognize the level of effort each of us has put forward to meets its expectations. In addition, we have participated in a large number of phone conferences and some in face meetings to share, learn and receive feedback (and direction) from OSM. Also, we have prepared several memoranda and emails as part of the ongoing communication process about the RIA with OSM. Until September (which coincides with our initial Conceptual RIA submission), OSM provided very limited feedback or guidance on our work, though it was requested by us. However, we did communicate very frequently with MACTEC during this period. OSM's direction was to produce what we could within the deadline. We honored this direction. Starting in September, our direct contact with OSM increased through meetings and phone conference calls. This direction from OSM however was never prioritized internally by OSM and rarely provided in much detail. Our general impression was that within OSM several different voices existed about what should be done related to the RIA. This has greatly complicated our ability to work with direction given to us from OSM since September. While we were never directly (or officially) informed by OSM, it became increasingly clear to us through OSM's feedback on the October Conceptual RIA draft and since then (October up to the present) that OSM's expectations were shifting away from a Conceptual RIA as our final product to a complete RIA final product. We have been doing the best we can with very limited budget and time to be responsive to OSM's change of direction. We have made it clear to OSM that we cannot produce a complete RIA (with all the OMB identified elements) given the circumstances.

4. We Have Complied with OSM's Direction Which is the Main

Source of the Problem Today: As a point of factual information, we have followed OSM's direction since we were brought on board by MACTEC back in July 2010 to work on an RIA for the SPR. I cannot think of a time when we failed to follow the Office's direction. However, as we now see the direction we received from OSM in large measure accounts for where we are today, which in OSM's view is an RIA document that is not ready for submission to OBM. We have been highly responsive to deliverable timelines/deadlines, which has forced us to produce an RIA document that at the present time lacks some key elements that OSM now expects to be in the document.

5. Cart Before the Horse: Our initial direction from OSM at the beginning of the RIA work was to proceed with work on an RIA without a full or final SPR definition to guide our work and in the absence of an EIS document, which typically contains a large amount of the positive and negative environmental impact information that provides the basis for identifying the economic costs and benefits of a rule. As a point of information, in most instances, the preparation of an EIS precedes the preparation of an RIA. OSM understood this was the case, but wanted the RIA team to proceed with its work and remain on schedule. Also,

we had repeatedly asked OSM for clarification of the rule elements and rule alternatives. We were told no additional information was available since the elements and alternatives were in the process of being defined. We were instructed to remain on schedule and use the scant information available to us. Informed SPR definition and environmental impact information related to the rule and its alternatives have been provided to us very recently with the completion of the draft EIS and the draft language in the Preamble to the rule.

6. Conceptual RIA Direction from OSM and Many Later Changes of Direction: After the first 3-4 weeks of our work in July 2010, it became readily apparent to the RIA team that we would not have much of the technical information and data required to prepare definitive economic cost and benefit estimates. This information was not available because: a) the SPR was too general to assess costs and benefits; b) the environmental impact data required for economic cost and benefit analysis was not available; and c) the coal-mining industry was unwilling and unable to provide the cost and benefit impact information needed. As background, we approached the National Mining Industry (NMA) about doing a survey of its coal members, and NMA informed us this was not possible because only scant information existed about the proposed SPR. We conducted interviews with selected mining companies and experts to the Colorado School of Mines as a substitute for the survey. These interviews produced little useful cost and benefit information and data for our analysis. We then turned to the published literature for guidance, and had even asked OSM to provide the data it had on costs and benefits. Little useful information was provided by OSM.

In late July, we were directed by OSM to continue on with our work, and produce a "Conceptual" RIA, which represented a "best effort" to produce interim information about economic costs and benefits on preliminary definitions of the rule elements. We were told that a Conceptual RIA was an acknowledgement that a complete RIA (or one containing definitive costs and benefits) was not possible or expected. We were asked to hold to the mid-September 2010 draft Conceptual RIA report delivery date. We met that deliverable date. OSM came back with questions challenging the cost estimate numbers used in our analysis and the assumptions underlying them. We explained to OSM that we used the best information available to us.

OSM also informed us that we would need to include an analysis of two other rule alternatives: the most stringent alternative (EIS Alternative 2) and the least stringent alternative defined as the baseline situation (EIS Alternative 1). Again, this work was not included in our contract scope, but we followed OSM's new direction with a recognition that new modeling and analysis was not possible because of limited budget and time. OSM said it was comfortable with us including best available information on the other two rule alternatives, which we did in the October draft submission.

In its review of the September draft submission, we were asked by OSM to improve upon the cost data used in our analysis. We explained that we used the approach we did because no better data and rule definitions was available to us. At that point, because of its expertise Morgan Worldwide (MWW) was asked to develop some preliminary cost estimates for each of the cost estimates of the proposed rule. Once available, MWW's preliminary cost data was incorporated in a re-run of the model and the results were incorporated in our extensive October deliverable. OSM was critical of our October RIA document with a request for more information about the cost assumptions used in our updated analysis, based upon the MWW cost estimates.

We were informed at that point that OSM had asked the mining engineers working on the EIS to produce a best available estimate of possible future regional and mining method shifts in the coal mining industry in light of the various SPR alternatives. We were told to wait for this analysis and incorporate the results (though preliminary in nature and likely to change) into our revised RIA report which we were asked to deliver as quickly as possible. We included this analysis in our revised RIA summary report given to OSM just before Christmas. (We were asked then by OSM to provide only the essential information needed for a proposed late January 2011 OSM submission to OMB.) OSM directed us to hold up on revisions to the full RIA report and its appendices, and concentrate on producing a concise summary document that it could use with OSM. We provided what we could before Christmas to OSM, noting that much of the economic benefits data was not available and asked for OSM assistance in identifying rule benefits. We made it clear this was only a partial response to OSM's summary document direction. Note: While we received some feedback on economic benefits of the SPR from OSM, we did not receive a complete list of "possible" benefits until the middle of January 2011. Since then, we have been working with other team members (including MACTEC and MWW) to determine which and how the list of benefits could be either quantified or monetized.

We were informed after the fact that OSM had sent the incomplete December 2010 summary RIA document to the DOI's Office of Policy Analysis (OPA) and that the OPA stated that the SPR RIA had to contain much more information (though of a conceptual nature) aligned to the OBM complete RIA guidelines. We were surprised that OSM had submitted the incomplete draft to OPA. We would never have advised OSM to do that. At that point, we were asked to communicate with Mr. Ben Simon in OPA about his preliminary comments of the Conceptual RIA summary document. Again, we followed OSM's direction and talked with Mr. Simon, which pointed to the need for a more complete RIA document. After 6 months of work, we were

informed that OPA would be a part of the RIA review process with the DOI. We were also informed at this point (now 6 months into our work) that our economic impact analysis methodology could not be used as the primary method of analysis in the RIA. Mr. Simon indicated that the impact analysis could remain in the report in some fashion, but we would need to follow the OMB guidelines for cost-benefit analysis at the national level only. This direction was completely contrary to OSM's direction all along that we focus our attention on local areas (states and multi-state coal mining regions.) After several conference calls with OSM, the RIA team indicated that it would work to provide a conceptual response to Mr. Simon's comments.

On January 6, 2011, OSM asked us to hold up work on the RIA until it had a chance to define the new direction moving forward. Once again, we complied with OSM's direction and held up work. Later in January, OSM asked for the RIA team (which included MACTEC and other contractors) to provide a new work plan outlining what could and could not be done related to the RIA and Mr. Simon's comments. We worked with MACTEC and others to prepare this work plan, which was provided to OSM. It was very clear at that point that our budget resources and the time would not be sufficient to meet the requirements defined in the new RIA work plan. The work plan outlined a request for a six-week work effort and some additional funding to complete the RIA work in as best a fashion as possible. OSM responded last week that our next draft of the RIA was due on February 23 and that a CURE Notice was a distinct possibility from OSM to PKS, and potentially all EIS and RIA contractors.

The draft Programmatic EIS (PEIS) was made available to the RIA team just a couple weeks ago. The document contains useful information that can be incorporated in the next Conceptual RIA draft. The EIS team has been given comments on the EIS draft, which it must address in the short term as well. It still is not clear the extent to which the environmental impacts identified in the EIS can be either quantified or monetized in a next draft of the RIA. While we have improved estimates of stream mile conservation and land acreage conservation, which can be used in the RIA, there is work by MWW needed to produce revised cost estimates in light of the new mining engineers' analysis of production shifts and associated land and stream impacts for the various EIA alternatives. It also is not clear which and how the various SPR benefits identified by OSM can be either quantified or monetized at this point.

7. RIA Methodology Note: In preparation for our work back in July 2010, we defined and shared a methodology with MACTEC and OSM that included the use of economic impact analysis (IMPLAN input-output model). We were told to move forward. Other types of analysis were included in our methodology, including a thorough analysis of the coal-mining industry, its trends and expected future directions. IMPLAN (or an input-output analysis methodology) was chosen by our economic analysis team because OSM directed us to examine the "localized" impacts of the SPR on coal-producing counties, states, and multi-state coal-producing regions. Input-output analysis is the only reasonable method to employ for this type of localized area analysis. (Cost-benefit analysis, as typically performed in an RIA study, would not work in conducting an analysis of local area impacts.) After some initial test analysis with the IMPLAN model, it was clear that a credible analysis could not be completed on all 190+ coal-producing counties across the U.S., nor was this amount of detail necessary. After some back and forth, we settled on states and coal-producing regions as the most feasible and credible geographic area of analysis. Then much to our surprise, we were informed in early January 2011 that economic impact analysis was not an acceptable "lead" method of analysis for the RIA. This information was shared with the RIA team after OSM communicated with the DOI's Office of Policy Analysis about the RIA. We are now being asked to change direction again and shift back to the OMB cost-benefit analysis method at the national level.

Conclusion and Next Step

Conclusion

I do not believe it is in the best interest of OSM or the entire PKS team for OSM to issue a CURE Notice. While as an immediate threat, it is a strategy to motivate contractors to give OSM what it thinks it wants and needs relative to the EIS and RIA, the CURE action (if executed) will in the end sabotage the valuable work done on the EIS and RIA, further delay work efforts, and work against OSM's effort to get the SPR passed.

My personal belief is that the SPR in some reasonable version is needed to protect the environment and keep the U.S. coal mining industry viable. Given the unfortunate and premature release of the draft EIS document to the media and the negative reactions by some states and the coal mining industry, efforts to pass a successful rule have been injured. The lesson learned here is to only move forward with EIS and EIA documents when there is a high comfort level that their content is credible.

Politics will come into play with this rule as they do with every other rule. As contractors on the outside, we have little to no control over the politics of this rule. The key in moving forward is to develop much improved team project management within OSM, and for OSM to give much more clear (and prioritized) direction to contractors on what is required to produce a successful EIS and RIA, and ultimately get an appropriate version of the SPR passed.

A higher level of trust between OSM and our team must be developed in the future. This will be everyone's job. Beyond swapping out OSM internal project managers, OSM needs to work on building a performance-based internal team that is clearly equipped to do the job right from here forward. Typical governmental/bureaucratic approaches (with typical chains of command) will not provide the needed project management approach. I would urge OSM to take the time now to build that internal team, even if that requires putting the EIS and RIA on hold for a month or more. This team must be capable of not only getting the EIS and RIA done successfully, but it must be capable of implementing the rule.

Next Step on Conceptual RIA

MACTEC has pulled together a team comprised of myself, MWW, and other consultants to produce the next round draft of the Conceptual RIA by February 23. Hopefully we can produce a document that meets OSM expectations and those eventually of DOI's OPA and OMB. We shall see.

My hope is that this memorandum provides a perspective of the RIA work, and the many challenges we have faced in attempting to "hit a fast moving target." I may have missed some points, but I have endeavored to provide as honest and comprehensive assessment of the situation as possible from my standpoint.

Don Iannone

On Feb 5, 2011, at 8:56 PM, J. Steven Gardner wrote:

My follow up to the email last night and response to John Maxwell's email today. Not sure I copied everyone on this distribution list last night, but can forward after this to make sure.

- 1) It appears OSM is trying to say we did not follow their direction, when in fact we did just that. It is OSM that has changed their direction and is now telling the TEAM that we must deliver the work product based on the NEW DIRECTION within the same deadlines. I would hope the entire Team agrees. We feel PKS must make that point abundantly clear to OSM and there must be acknowledgement on their part. If that has been done, OSM is not recognizing it. Has OSM come out and actually said that the TEAM or members have not followed direction in some way?
- 2) We feel that we have met the requirements of the SOW and directions of OSM, plus OSM's redirection of effort is still not clear. It seems there is incredible resistance on OSM's part to agreeing they are in any way at fault.
- 3) We can address some of the comments made and continue to clarify our underlying assumptions, but that is going to take time. There is still an underlying concern that OSM is trying to steer us to a desired outcome that cannot be supported.
- 4) We do have backup on the directions delivered throughout the process. We are gathering what we have, but I would rather spend our limited time addressing legitimate comments and making progress on Chapter 4.
- 5) There has been entirely too much time wasted throughout this entire process. How do we serve a "Cure" notice on OSM? I say that not wholly "Tongue in Cheek".
- 5) Yes, we can agree with Dianne that "The Glass is Half Full", but OSM is the one that spilled the other half, and now we have to fill it again.
- 6) Enough venting for tonight. Back to work.

Thanks,

Steve

J. Steven Gardner, P.E.
President/CEO
ECSI, LLC
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103 (office)
859-806-5826 (cell)
859-259-3394 (fax)
jsgardner@engrservices.com
www.engrservices.com

From: John Maxwell [mailto:JMaxwell@polukaiservices.com]

Sent: Saturday, February 05, 2011 6:04 PM

To: (spr@engrservices.com); Caroline Bari; David Bell; Donald Iannone; Doug Myneer; Edmundo Laporte; J Steven Gardner; Jaque Mitchell; Jeff Baird; Jenkins, Josh; jmahan@plexsci.com; jmorgan@morganworldwide.com; Joe Zaluski; John Maxwell; Jose Sosa; Kathy Kelly; Liz Edmondson; Mike Stanwood; Randy Sosa; Shortelle, Ann; Singer, Robert

Subject: Preparation for Monday

Team,

Based on the activities of the past week, we must assume that OSM will serve us a cure notice. In order to stave off possible consequences, we should work to produce the PDEIS and RIA in as complete a condition we can for the Feb 23 submittal.

Based on the authors review of Ch 4 comments, we should identify the major comments and prepare appropriate responses. The responses that we should prepare for Monday morning's call w/OSM should identify/address the most pressing items and should document those that depart from former instruction/direction from OSM. Documentation of former direction should be presented if available (from written notes, original scope of work or email correspondence). I will prepare notes from recent email (OSM and the PKS team). Comment specific responses will help to defend our position and to proceed forward in the process to produce the PDEIS. If possible, provide additional input by Sunday night or early Monday morning.

Thank you.

<image001.jpg>

John R. Maxwell
Senior Environmental Scientist
Polu Kai Services
352.258.1045

"For Official Use Only – Deliberative Process Material"

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Liz Edmondson

From: John Morgan
Sent: Sunday, February 06, 2011 1:52 PM
To: bwinters@osmre.gov
Subject: FW: Draft RIA

Bill,

This was another set of comments based on our QC efforts on the RIA
John

From: John Morgan
Sent: Thursday, October 07, 2010 2:40 PM
To: Joshua L. Jenkins P.G. (jljenkins@mactec.com)
Cc: Mike Stanwood; jose@polukaiservices.com; Liz Edmondson
Subject: RE: Draft RIA

Josh,

Just a couple of other points that we need to consider during our discussion tomorrow.

- It is my understanding that a RIA is meant to evaluate potential economic impacts, both costs and benefits, of the proposed rule. However, I did not see any reference to the economic benefits. These benefits are numerous including the preservation of miles of streams and the restoration of the form and function of impacted waters. Other benefits include bonding for long term water quality impacts so that these liabilities are not transferred to the State (or Tribe)
- A further point relates to the "arbitrary" imposition of a \$2 premium for Scenario 2. This is applied to reflect costs associated with valley fills in the Appalachian Region states. I cannot understand the rationale for applying this to all of the regions. Based on the 2008 EIA data surface mining in the Appalachian region only provides 10.6% of the overall US coal production.

Thanks for looking into these issues
John

From: John Morgan
Sent: Thursday, October 07, 2010 1:00 PM
To: Joshua L. Jenkins P.G. (jljenkins@mactec.com)
Cc: Mike Stanwood; jose@polukaiservices.com; Liz Edmondson
Subject: Draft RIA

Josh,

As we discussed earlier I have reviewed the Draft RIA and have some major concerns regarding the fundamental economics and the lack of detail about how the cost impacts, due to the proposed elements, are derived. Some of the key issues are that:

- Increased mining costs are passed on to the utility customer and should not negatively affect State Economic Output
 - Decreases in mining in one region or in one type of mining will result in increases elsewhere. If US coal fired generation remains constant
 - Increases in underground mining will increase employment due to lower productivity of underground mining
 - States with a high percentage of underground mining (Colorado, Utah, Illinois and Pennsylvania) will have minimal impacts
 - The industry has many ways to respond to changes in input costs and has regularly addresses these such as the escalation of Diesel and Ammonium Nitrate costs
- have attached a draft document for your consideration.

I think that the document needs significant revision and should not be issued as a draft at this stage, as all versions submitted are discoverable and significant changes in conclusions would create credibility issues with the analysis. I look forward to our discussion tomorrow afternoon.
John

John S L Morgan
Office 859 259 0959
Cell 859 991 1414

Liz Edmondson

From: John Morgan
Sent: Sunday, February 06, 2011 1:51 PM
To: bwinters@osmre.gov
Subject: FW: Draft RIA
Attachments: RIA - Key Concerns.docx

Bill,
This is some of the RIA history that you requested yesterday.
John

From: John Morgan
Sent: Thursday, October 07, 2010 1:00 PM
To: Joshua L. Jenkins P.G. (jljenkins@mactec.com)
Cc: Mike Stanwood; jose@polukaiservices.com; Liz Edmondson
Subject: Draft RIA

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John

John S L Morgan
Office 859 259 0959
Cell 859 991 1414

CONSULTING AGREEMENT FOR FEDERAL GOVERNMENT PROJECTS

CONSULTANT:	MORGAN WORLDWIDE	CONSULTING AGREEMENT NO.:	10-092-0023
ADDRESS:	P.O. BOX 888	PKS PROJECT NO.:	10-092
CITY AND STATE:	LEXINGTON, KY 40588-0888	COST CODE:	
TELEPHONE:	(859) 259-0959	CONTACT NAME:	John S. L. Morgan, President
SUBCONTRACT AMOUNT:	Three Hundred and Seven Thousand and One Hundred Forty One. (\$307,141)		
OWNER:	Department of the Interior, Office of Surface Mining Reclamation & Enforcement		
PROJECT:	Environmental Impact Statement for Proposed Stream Protection Rule		

THIS AGREEMENT, made this 14th day of June, 2010, by and between **Polu Kai Services, LLC**, 137 N. Washington Street, Suite 301, Falls Church, Virginia 22046 ("**Contractor**") and **Morgan Worldwide Inc.** ("**Consultant**").

For the consideration hereinafter named the Consultant covenants and agrees with the Contractor as follows:

1. DEFINITIONS

- a. "Prime Contract" means the prime contract between Polu Kai Services, LLC and the Department of Interior, Office of Surface Mining Reclamation and Enforcement, under Solicitation Number S10PS00236, including all applicable regulations incorporated by reference therein.
- b. The term "Owner" or "Owner and its representatives" shall mean the federal government agency that awarded the Prime Contract to the Contractor, including the agency's representatives such as the Contracting Officer, Contracting Officer's Technical Representative, engineer, architect or other person whose supervision or inspection of the WORK is required to be done by the terms of the Prime Contract.
- c. "Contract Documents" for this Consulting Agreement consist of this Agreement and any Attachments, the Prime Contract between the Owner and Contractor (General, Supplementary and other Conditions), the Drawings, the Specifications, all Addenda issued prior to and all Modifications issued after execution of the Agreement between the Owner and Contractor and agreed upon by the parties to this Consulting Agreement. These form the Consulting Agreement, and are as fully a part of the Consulting Agreement as if attached to this Agreement or repeated herein.
- d. In this contract the word "work" shall mean the work, labor, services, materials, and things required to be done and furnished by the Consultant under the Contract Documents.

2. THE WORK

- a. The Consultant's Work includes all that Work listed in Attachment A and those Contract Documents applicable to this Consulting Agreement. A copy of the Prime Contract is included in Attachment B. Upon the Consultant's request, the Contractor shall provide the Consultant copies of any other Contract Documents that are not in the Consultant's possession.

3. SUBCONTRACT PRICE

- a. The Consulting Agreement price is fixed at **\$307,141.00**.

4. AVAILABILITY OF FUNDS UNDER PRIME CONTRACT

- a. FAR 52.232-19 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR (Apr 1984) applies to the Prime Contract and is hereby specifically incorporated herein. This provision provides:

Funds are not presently available for performance under this contract beyond September 30, 2010. The Government's obligation for performance of this contract beyond that date is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise for performance under this contract beyond September 30, until funds are made available to the Contracting Officer for performance and until the Contractor receives notice of availability, to be confirmed in writing by the Contracting Officer.

- b. In the event that the Prime Contract is not funded beyond September 30, 2010, the Prime Contractor shall not be liable to the Consultant for work performed beyond that date to the extent that the Owner is not liable to the Prime Contractor for the same.

5. DELIVERABLES

- a. The Prime Contract calls for, among other things, the preparation of a draft and final Environmental Impact Statement (EIS) to include the completion of all necessary environmental impact analyses and their appropriate documentation and review under the requirements of the National Environmental Policy Act (NEPA).
- b. The Consultant shall diligently perform its services to ensure scheduled delivery of the draft and/or final EIS and any other deliverables required under this Consulting Agreement. Adequate copies of such data shall be submitted, plus the number of copies desired by the Consultant for his use. Consultant agrees to keep Contractor fully informed regarding his delivery schedule and will immediately advise the Contractor in writing should delay be anticipated.
- c. Approval of a deliverable shall not relieve the Consultant of any duty and responsibility to perform the WORK in the manner necessary to produce the results required by the Contract Documents.

6. ASSIGNMENT

- a. This Consulting Agreement is not assignable and shall not be assigned by Consultant without the prior written consent of Contractor.

7. OWNER APPROVAL OF WORK

- a. The WORK shall be performed, subject to the final approval of the Owner, using that degree of skill and care ordinarily exercised under similar conditions by reputable members of Consultant's profession. The Owner's decision as to the performance of the WORK in accordance with the plans and specifications shall be final unless the Consultant elects to dispute the Owner's determination pursuant to Paragraph 17 herein.
- b. Should the Owner fail to approve any WORK furnished under this Agreement, the Consultant shall within 24 hours after receiving written notice from the Contractor of such determination, proceed promptly to make revisions to the WORK to the extent necessary to obtain Owner approval.

8. PROGRESS AND COMPLETION

- a. The Contractor shall coordinate all WORK, and unless otherwise expressed or provided, the Consultant shall begin WORK covered by this Agreement as soon as the project is ready for such WORK, or promptly upon verbal or written notice by the Contractor, and shall carry on said WORK efficiently and at a speed that will not cause delay in the progress of the Contractor's Work or other branches of the Work carried on by other Subcontractors.
- b. If, in the opinion of the Contractor, the Consultant falls behind in the progress of the WORK to be done under this Agreement the Contractor may, upon forty-eight (48) hours written notice, direct the Consultant to take

such steps as the Contractor deems necessary to improve the rate of progress, including requiring the Consultant to increase the labor force, number of shifts and/or overtime operations, and to submit for approval an outlined schedule demonstrating the method under which the required rate of progress will be regained, without additional cost to the Contractor.

9. CHANGES

- a. In the event the Contractor requests the Consultant to review a proposed modification to the project which may affect the Consultant's WORK, the Consultant shall respond in writing seven (7) days after receipt of such request, stating the effect of the proposed modification upon his performance including details of cost and time thereof, otherwise the Consultant shall accept the determination of the Contractor as to the effect of the proposed modification or change.

Additions to or changes in this Agreement shall be made only upon written order, approved in writing by the Contractor and Consultant. Should the parties hereto be unable to agree as to the value of such WORK to be added or omitted, the Consultant shall proceed under the written order of the Contractor from which order the stated value of the WORK shall be omitted.

- b. In the event the Consultant is required by the Contractor to perform additional Work for which the amount of compensation is not previously agreed upon, the Consultant shall prepare and submit to the Contractor a proposal describing the estimated quantities and cost involved. The Consultant shall keep accurate, detailed and itemized records of the costs of any such change and shall report such costs to the Contractor in the form and manner prescribed by the Contractor. The Consultant shall, if requested, furnish each day to the Contractor certified copies of all timesheets, receiving and inspection reports and all other basic documents required by the Contractor to evidence the expenditures of the Consultant as a result of such change. The Consultant's application to the Contractor for the payment shall be accompanied by certified copies of all pertinent payrolls, invoices and vouchers relating to the additional WORK. The Contractor's receipt of acknowledgement of the Consultant's change order claims, shall not be construed as the Contractor's acknowledgement or acceptance of the accuracy and validity of any portion thereof until such time as final change order amounts are determined to be equitable adjustments and the signature of the Contractor is attached thereto. Should a change result from an act or omission of the Owner, the Consultant shall be bound by the resolution procedures specified in Paragraph 17, claims involving Owner.

10. DELAYS

- a. Except to the extent the Owner is liable to the Contractor under the Prime Contract, the Contractor shall not be held liable to the Consultant should an earlier or later completion date be required, or acceleration of performance is required, due to the acts or omissions of the Owner, Owner's representatives, Contractor, fire or other casualty, riots and strikes or other combined action of the workmen or others, on account of any acts of God, or other causes beyond the Contractor's control, or on account of any circumstances to the extent caused or contributed to by the Consultant.
- b. Should the Consultant be delayed in the prosecution of the WORK by the act, neglect or default in the Contractor, Owner or its representatives, or by any damage caused by fire, lightning, earthquake, cyclone, or any casualty for which the Consultant is not responsible, then the time fixed for the completion of the WORK pursuant to the terms of this Agreement shall be extended for a period equivalent to the time lost by reason of the cause aforesaid. However, no time extension shall become operative unless a notice of claim therefore is presented in writing to the Contractor within forty-eight (48) hours of the Consultant's knowledge of the delay and such claim approved in writing by the Contractor, which said approval will not be unreasonably withheld, delayed or conditioned.
- c. The Consultant shall be liable to the Contractor for any and all loss or damage to the Contractor, or to the Owner for which Contractor may be liable, as a result of any delay on the part of the Consultant in the prosecution or completion of the WORK by the date agreed upon between the Owner and the Contractor, with due allowances being made for contingencies herein provided for.

11. NOTICE OF CURE OF CONSULTANT'S DEFAULT

- a. If the Consultant refuses or fails to supply enough properly qualified persons to maintain the schedule, or fails to promptly pay its workers, subcontractors or suppliers, or disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise is guilty of a material breach of a provision of this Agreement, the Consultant shall be deemed in default of this Agreement. If the Consultant fails within three (3)

business Days after written notification to commence and continue satisfactory correction of the default with diligence and promptness, then the Contractor without prejudice to any other rights or remedies, shall have the right to any or all of the following remedies:

- (i) Supply the necessary labor and materials to complete the Consultant's Work and charge the reasonable and necessary cost, including reasonable overhead, profit, attorneys' fees, costs and expenses to the Consultant; or
- (ii) Contract with one or more additional Consultants to perform such part of the Work as the Contractor determines will provide the most expeditious completion of the Work, and charge the reasonable and necessary cost to the Consultant.; or
- (iii) Withhold any payments due or to become due the Consultant pending corrective action in amounts reasonably sufficient to cover losses and compel performance to the extent required by and to the reasonable satisfaction of the Contractor. In the event of an emergency affecting the safety of persons or property, the Contractor may proceed as above without notice, but the Contractor shall give the Consultant notice promptly after the fact as a precondition of cost recovery.

12. TERMINATION FOR DEFAULT BY CONTRACTOR

- a. If the Consultant fails to commence and satisfactorily continue correction of a default within three (3) business Days after written notification issued under Paragraph 11 then the Contractor may, in lieu of or in addition to the remedies provided for in Paragraph 11 issue a second written notification, to the Consultant and its surety, if any. Such notice shall state that if the Consultant fails to commence and continue correction of a default within seven (7) Days of the written notification, the Agreement will be deemed terminated. A written notice of termination shall be issued by the Contractor to the Consultant at the time the Consultant is terminated. The Contractor may furnish those materials, equipment or employ such workers or subcontractors as the Contractor deems necessary to maintain the orderly progress of the Work. All reasonable and necessary costs incurred by the Contractor in performing the Work, including reasonable overhead, profit and attorneys' fees, costs and expenses, shall be deducted from any moneys due or to become due the Consultant. The Consultant shall be liable for the payment of any amount by which such expense may exceed the unpaid balance of the Consulting Agreement Amount. At the Consultant's request, the Contractor shall provide a detailed accounting of the costs to finish the Work.
- b. If the Consulting Agreement is terminated for default, the Contractor or its other Consultants or subcontractors shall have the right to take and use any of the Work belonging to the Consultant for the purpose of completing any remaining Work.

13. TERMINATION FOR CONVENIENCE BY THE OWNER

- a. Should the Owner terminate, in whole or in part, the Prime Contract for convenience, the Contractor shall notify the Consultant of this in writing. The Contractor's liability to the Consultant shall be limited to the extent of the Contractor's recovery on the Consultant's behalf under the Prime Contract.
- b. Upon receipt of a notification of a termination for convenience, the Consultant shall immediately cease all Work and provide all information necessary to submit a termination for convenience claim against the Owner. To the extent provided for under the Prime Contract and to the extent the Contractor recovers such on the Consultant's behalf, the Consulting Agreement price and time shall be equitably adjusted by change order for the value of the Work performed prior to the termination for convenience. Both parties agree to cooperate with the each other in the prosecution of any Consultant claim arising out of an Owner's termination for convenience. The Contractor, in its sole discretion, may request that the Consultant prosecute a termination for convenience claim, at its own cost, in the name of the Contractor for the use and benefit of the Consultant.

14. TERMINATION FOR DEFAULT BY OWNER

The Contractor shall notify the Consultant in writing should the Owner terminate the Prime Contract for default. Upon receipt of this notification, the Consultant shall immediately stop the Work, follow Contractor's

instructions and mitigate all costs. Both parties agree to cooperate with each other in the prosecution or defense of any federal government claim associated with a default termination, including excess procurement costs. In the event of wrongful termination of the Prime contract by the Owner, the Contractor's liability to the Consultant shall be limited to the extent of the Contractor's recovery on the Consultant's behalf under the Prime Contract. In the event Owner terminates Contractor for cause due to the default of the Consultant, Contractor shall be entitled to recover from Consultant its reasonable costs arising from the termination of the Prime Contract, including any liabilities to the Owner. In the event Owner terminates Contractor for cause due to the default of Contractor, Consultant shall be entitled to recover from Contractor its reasonable costs arising from the termination of this Consulting Agreement, including any liabilities to the Owner. If the Contractor appeals the Owner's default determination, the Consultant ability to recover said costs shall not ripen until the Contractor exhausts his rights under the Contract Disputes Act.

15. OWNER'S SUSPENSION OF WORK

Should the Owner suspend the Work or any part which includes the Work for the convenience of the Owner and such suspension is not due to any act or omission of the Contractor, or any other person or entity for whose acts or omissions the Contractor may be liable, the Contractor shall notify the Consultant in writing and upon receiving notification the Consultant shall immediately suspend the Work. To the extent provided for under the Prime Contract, and only to the extent the Contractor recovers such on the Consultant's behalf, the Contract price and/or time shall be equitably adjusted by Change Order for the cost and delay resulting from any such suspension.

16. CONTRACTOR'S SUSPENSION OF WORK

- a. The Contractor may order the Consultant in writing to suspend all or any part of the Work for such period of time as may be determined to be appropriate for the convenience of the Contractor. Phased Work or interruptions of the Work for reasonable periods of time shall not be considered a suspension. The Consultant, after receipt of the Contractor's order, shall notify the Contractor in writing in sufficient time to permit the Contractor to provide timely notice to the Owner in accordance with the Prime Contract of the effect of such order upon the Work. The Consulting Agreement Amount or Consulting Agreement Time shall be adjusted by Consulting Agreement Change Order for any increase in the time and/or cost of performance of this Agreement caused by such suspension.
- b. Neither the Consulting Agreement Amount nor the Progress Schedule shall be adjusted for any suspension, to the extent that performance was suspended, due in whole or in part to the fault or negligence of the Consultant or by a cause for which Consultant was responsible. The Consulting Agreement Amount shall not be adjusted for any suspension to the extent that performance was suspended by a cause for which the Consultant was entitled only to a time extension under this Agreement.

17. CLAIMS INVOLVING THE OWNER - FEDERAL GOVERNMENT CONTRACT DISPUTES

- a. Consultant shall make all claims for extras, differing site conditions, defective specifications, delays and other grounds for which the Owner may be responsible in sufficient time for the Contractor to comply with the requirements of the Prime Contract for making such requests for equitable adjustment and/or claims to the Owner.
- b. If a Consultant's claim relates to an act or omission of the Owner, the Consultant agrees to be bound to the Contractor to the same extent that the Contractor is bound to the Owner under the Prime Contract and by any and all decisions or determinations made by the Owner, Owner's representative, Contracting Officer, board, court, arbitration panel, or other tribunal to the extent that the Work of the Consultant is involved.
- c. If a Consultant's dispute is prosecuted or defended by Contractor against Owner under the terms of the Prime Contract, Consultant agrees to furnish all documents, statements, witnesses and other information required by Contractor for such purpose and to pay or reimburse Contractor for all expenses and costs incurred in connection therewith.

- d. The Contractor, in its sole discretion, may elect not to directly prosecute claims against the Owner involving the Consultant's Work; provided, however, that the Contractor shall authorize the Consultant, at its own expense, to appeal in the name of Polu Kai Services, LLC. Any decision upon such appeal, when final, shall be binding upon the Consultant. The Consultant shall keep Polu Kai Services, LLC informed of any appeal it makes by providing copies of all pertinent documents to Polu Kai Services, LLC. The Consultant shall indemnify and save harmless from any and all liability of any kind incurred by or imputed to Polu Kai Services, LLC for the submission of any fraudulent or frivolous claims against the Owner under the Contract Disputes Act of 1978, as amended.
- e. It is expressly understood that as to any and all materials, equipment or services furnished or agreed to be furnished by Consultant, and as to any and all damages, if any, incurred by Consultant in connection with the project for which the Owner may be responsible, Contractor and its surety shall never be liable to Consultant to any greater extent than the Owner is liable to Contractor, less Contractor's normal overhead and profit.
- f. Nothing in this clause nor any authorization or offer that may be made shall be deemed to constitute acceptance or acknowledgment by Polu Kai Services, LLC of the validity of the Consultant's claim or any part thereof, nor be deemed to limit or in any way restrict Polu Kai Services, LLC from taking any actions, including available remedies, it deems appropriate to protect its own interests.
- g. The Consultant shall continue performance in a diligent manner pending any dispute resolution proceedings.

18. CLAIMS NOT INVOLVING THE OWNER

- a. As to disputes not involving an act or omission of the Owner, the Consultant shall submit its claim to the Contractor for a determination. The Contractor shall provide a written decision to the Consultant. The decision of the Contractor shall be final and Conclusive unless within twenty (20) days from the date of receipt of such copy, the Consultant makes written demand to the Contractor for relief as required by Subparagraph "b" below. The Consultant shall diligently perform the Work, including any disputed Work, pending resolution of a dispute or legal proceedings.
- b. If the Consultant makes a timely demand for relief as provided in subparagraph "a" above, the Parties shall submit the matter to litigation before a court of competent jurisdiction in Virginia.
- c. The Prevailing Party in any arbitration or litigation shall be entitled to attorney fees and costs associated therewith, as determined by the adjudicator of the dispute.

19. COMPLIANCE WITH LAWS

- a. The Consultant agrees to be bound by, and at its own costs comply with, all federal, state and local laws, ordinances and regulations (the Laws) applicable to the Work, including but not limited to, equal employment opportunity, minority business enterprise, women's business enterprise, disadvantaged business enterprise, safety and all other Laws with which the Consultant must comply. The Consultant shall be liable to the Contractor and the Owner for all loss, cost and expense attributable to any acts of commission or omission by the Consultant, its employees and agents resulting from the failure to comply with Laws, including, but not limited to, any fines, attorney's fees, penalties or corrective measures.

20. INSURANCE

- a. Without prejudice to Consultant's liability to indemnify Contractor as stated in the INDEMNIFICATION provision of this Agreement, Consultant shall procure, at its expense, and maintain for the duration of the Agreement, the following insurance policies, with a financially responsible insurance companies, reasonably acceptable to Contractor, with policy limits indicated below. Notwithstanding any provision contained herein, the Consultant, and its employees, agents, representatives, consultants and lower-tier subcontractors and suppliers, are not insured by Contractor, and are not covered under any policy of insurance that Contractor has obtained or has in place.
 - General liability insurance covering claims for injuries to members of the public or damage to property of others arising out of any negligent act or omission of Consultant or any of its employees, agents, or

subcontractors in the following amounts: personal injury: \$1,000,000 per occurrence, \$2,000,000 aggregate; and property damage \$1,000,000 per occurrence, \$2,000,000 aggregate.

- Professional liability insurance with a \$1,000,000 per occurrence and \$1,000,000 aggregate. If the insurance is a "claims made" policy, it shall be maintained in effect for two (2) years after completion of all Work under the Consultant Agreement.
- Workers' compensation insurance in the statutory amount or \$500,000 whichever is greater. Consultant agrees to maintain this insurance throughout the life of the Consulting Agreement.
- Automobile liability insurance in the following amounts: bodily injury: \$1,000,000 per occurrence, \$1,000,000 each person; and \$1,000,000 each occurrence.
- The Contractor will be named as an additional insured with respect to the Consultant's insurance coverage with respect to General Liability, and Consultant waives subrogation against the OWNER and Contractor as to the General Liability policy.

21. INDEMNIFICATION

- a. The Consultant shall indemnify, defend, and hold harmless Contractor, its employees, agents, consultants, subcontractors, officers, and directors from and against any and all lawsuits, actions, legal or administrative proceedings, claims, demands, damages, costs, expenses and liabilities of whatsoever nature, whether direct, indirect, or consequential, contingent or actual, which arise out of or are in any way related to an act or omission in the performance of the Work provided to the Contractor under this Consulting Agreement for which Consultant is legally liable. Such damages include but are not limited to injury to or death of persons, loss of or damage to property (including loss of use thereof), and economic loss, including lost profit or opportunity, pollution, and environmental impairment, and natural resource damages.

22. PROGRESS PAYMENTS

- a. Consultant may submit invoices to Contractor for progress payments, not more than once each month and to be received by Contractor by the 14th calendar day of each month. Such invoices will represent the value of the completed services and will be prepared in a form and supported by documentation reasonably required by Contractor and the Owner. Invoices will be reviewed and approved by Contractor before submittal to the Owner.
- b. With each progress payment, the Consultant shall certify that all of its sub-consultants, suppliers and/or subcontractors have been paid in connection with the services invoiced.
- c. Contractor shall make payment to Consultant within seven (7) days after Contractor's receipt of payment from the Owner for work satisfactorily performed by Consultant and approved for payment by Contractor; or Contractor shall notify Consultant in writing of its intention to withhold all or any part of the amount of payment along with the reason for any nonpayment.

23. FINAL PAYMENT

- a. Application. Upon acceptance of the Work by the Owner and the Contractor and receipt from the Consultant of evidence of fulfillment of the Consultant's obligations, the Contractor shall incorporate the Consultant's application for final payment into the Contractor's next application for payment to the Owner without delay, or notify the Consultant if there is a delay and the reasons therefore.
- b. Requirements. Before the Contractor shall be required to incorporate the Consultant's application for final payment into the Contractor's next application for payment, the Consultant shall submit to the Contractor all documentation reasonably necessary to obtain Owner approval of final contract closeout.
- c. Time of Final Payment. Final payment of the balance due of the Consulting Agreement Amount shall be made to the Sub-contractor within seven (7) days after receipt by the Contractor of final payment from the Owner for such Work.

- d. Waiver of Claims. Final payment shall constitute a waiver of all claims by the Consultant relating to the Work, but shall in no way relieve the Consultant of liability for faulty or defective Work or services discovered after final payment, nor relieve the Contractor for claims identified by the parties as unsettled at the time of such payment.
- e. Payment non Acceptance. Payment to the Consultant does not constitute or imply acceptance of any portion of the Work.
- f. Overpayments. If the Consultant becomes aware of a duplicate subcontract payment or that the Contractor has otherwise overpaid on a subcontract payment, the Consultant shall immediately notify the Contractor and request instructions for disposition of the overpayment.

24. SUBCONTRACTING

- a. Consultant shall obtain written consent from the Contractor prior to subcontracting out any portion of the Work.

25. APPLICABLE LAWS.

- a. Regardless of the place of performance, this Consulting Agreement shall be governed by the federal law of government contracts. This includes the Federal Acquisition Regulations (FAR) or any other regulation that implements or supplements the FAR. This Subcontract shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia without regard or application of its conflict of laws provisions. The Consultant also agrees to comply with any applicable federal, state, and local laws, rules, regulations and ordinances.

26. SEVERABILITY

- a. The partial or complete invalidity of any one or more provisions of this Agreement shall not affect the validity or continuing force and effect of any other provision.

27. NO WAIVER OF PERFORMANCE

- a. The failure of either Party to insist, in any one or more instances, upon the performance of any of the terms, covenants or conditions of this Agreement, or to exercise any of its rights, shall not be construed as a waiver or relinquishment of any term, covenant, condition or right with respect to further performance.

28. TITLES

- a. The titles given to the Articles and Paragraphs of this Agreement are for ease of reference only and shall not be relied upon or cited for any other purpose.

29. PROHIBITION AGAINST CONTINGENCY FEES OR GRATUITIES

- a. The Contractor and the Consultant shall perform their obligations with integrity, ensuring at a minimum that (a) conflicts of interest shall be avoided or disclosed promptly to the other Party and (b) Contractor and the Consultant warrant that they have not and shall not pay nor receive any contingent fees or gratuities to or from the other Party, including their agents, officers and employees, Subcontractors or others for whom they may be liable, to secure preferential treatment.

30. IMMIGRATION

- a. Consultant by signing below represents and warrants that it is, and will remain, in compliance with any and all provisions of the Immigration Reform and Control Act of 1986 (IRCA), as amended, the Immigration and Nationality Act, as amended, the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as amended, and all other applicable immigration laws, rules, and regulations (Immigration Laws) including all form I-9 verification, E-Verify, and record keeping requirements. Consultant shall Indemnify and hold Contractor and its Surety harmless from any claims or liabilities, including any damages resulting from Work stoppages or delays occasioned by or arising from any subcontractor noncompliance with IRCA or any such Immigration laws, ordinances, rules, regulations, orders or decisions, as relates to the Work of this Consulting Agreement. The Consultant agrees to submit a certification, acceptable to contractor that its employees have

presented the correct documents to legally work in the United States. Consultant also agrees to insert the substance of this clause, including this paragraph, in all Subcontracts or Purchase Orders hereunder.

31. BUSINESS ETHICS & COMPLIANCE

- a. The Consultant, by signing this Agreement, hereby certifies that it has reviewed the requirements of FAR 52.203-13 and 52.203-14, that it (1) already has or will adopt a written code of business ethics and conduct within 30 days of the award of this Consulting Agreement, (2) will otherwise comply with the applicable requirements of the above referenced FAR provisions, which are incorporated by reference in this Consulting Agreement, and (3) will include the substance of those FAR provisions in lower tier subcontracts or purchase orders in excess of \$5,000,000 and which anticipate a performance period in excess of 120 days. Upon Contractor's request for verification, the Consultant shall furnish to it a copy of its written code business ethics and conduct and satisfactory evidence of an on-going business ethics awareness and compliance program as required by FAR 52.203-13. This clause is not applicable if the subcontract or purchase order is for \$5,000,000 or less unless a different dollar limit is required by the terms of the Prime Contract.

32. FEDERAL ACQUISITION REGULATIONS

- a. Consultant agrees to be bound to the Federal Acquisition Regulations applicable to the Prime Contract as if fully stated herein.

33. CONTRACT DISPUTES ACT AND TRUTH IN NEGOTIATIONS ACT CERTIFICATIONS

- a. With respect to any Consultant claims submitted by Contractor to Owner, Consultant agrees to provide at the time of the submission of the claim to Contractor or at the time of agreement to the Change Order a certification signed by a senior company official in charge of the Work involved, that the claim is made in good faith, that the supporting data are accurate and complete and that the amount requested accurately reflects the contract adjustment for which Consultant believes the Owner is liable. Consultant agrees Contractor may rely exclusively on this certification in providing any certification Contractor may be required to submit to the Owner insofar as the claim includes a claim for or on behalf of Consultant. Consultant further agrees to recertify its claim in the above form at any time requested by Contractor.

34. CERTIFICATION AND DISCLOSURE REGARDING PAYMENT TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS

- a. The Consultant, by signing this Agreement, hereby certifies that to the best of his or her knowledge it complies with the requirements set forth in FAR 52.203-11 - Certification and Disclosure Regarding Payment to Influence Certain Federal Transactions (Sept 2007), that to the best of its knowledge and belief no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on its behalf in connection with the awarding of this contract, and that the Consultant will include the language of this certification in all subcontracts, purchase orders, purchase agreements, etc., awards in excess of \$100,000 and require that all recipients of such a subcontract, purchase order, purchase agreement, etc., to certify and disclose accordingly and to obtain the equivalent certification from lower tier subcontractors or suppliers with contracts or purchase orders in excess of \$100,000.

35. ENVIRONMENTAL COMPLIANCE

- a. **CLEAN AIR AND WATER** The Consultant, by signing this Agreement, hereby certifies that (a) Any facility to be used in the performance of this proposed contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities; (b) The Consultant will immediately notify the Contractor, before award, of the receipt of any communication from the Administrator, or a designee, of the EPA, indicating that any facility that the Consultant proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and (c) The Consultant will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt Consulting Agreement.
- b. Consultant agrees to comply with all environmental laws, ordinances, rules, regulations, orders and decisions

issued by any federal, state or local body or agency relating to Consultant providing product(s) and/or service(s) pursuant to this Consulting Agreement. Consultant also agrees to comply with all Owner's rules, regulations, orders, decisions, security requirements, etc. Consultant shall indemnify and hold Contractor harmless from any claims or liabilities arising from any of its noncompliance with any such laws, ordinances, rules, regulations, orders or decisions, as relates to the Work of this Consulting Agreement.

36. JOINT DRAFTING

- a. The Parties expressly agree that this Agreement was jointly drafted, and that they both had opportunity to negotiate its terms and to obtain the assistance of counsel in reviewing its terms prior to execution. Therefore, this Agreement shall be construed neither against nor in favor of either Party, but shall be construed in a neutral manner.

37. INDEPENDENT CONTRACTOR

- a. Consultant is an independent contractor and will maintain complete control of and responsibility for its employees, agents, methods, and operations. Nothing contained in this Consulting Agreement will create any contractual relationship between the Consultant and the Owner.

38. ENTIRE AGREEMENT

- a. This Agreement and all Attachments described herein contain all the terms and conditions agreed on by the Parties hereto, and no other term or agreement, oral or otherwise, respecting the subject matter of this Agreement shall be deemed to exist or to bind any of the Parties hereto.

The Contractor and the Consultant for themselves, their successors, executors, administrators and assigns, hereby agree to the full performance of the covenants of this Agreement. This agreement becomes binding only after both parties have signed the agreement. The Contractor reserves the right to retract this agreement before it becomes binding.

IN WITNESS WHEREOF, they have executed this Agreement the day and year first written above

WITNESS:

BY: CONTRACTOR
POLU KAI SERVICES, LLC

WITNESS:

BY: CONSULTANT
MORGAN WORLDWIDE, INC.

John S. L. Morgan
President

**ATTACHMENT A
SCOPE OF WORK**

Task Assignments MTM-VF EIS								
Discipline	Task			ECSI	MACTEC	MORGAN	Plexus	PKS
Management, Administrative, Document Production, General (Multi-Disciplinary)	Project Management	PKS, PLEXUS						
	Kick-Off Meeting	all		x	x	x	x	x
	Progress Meetings	all		x	x	x	x	x
	Interagency Coordination	all		x	x		x	x
	QA Reviews	all		x	x	x	x	x
	Reconciliation of Comments	all		x	x	x	x	x
	Preparation of PMP	PKS, PLEXUS						x
	DEIS & FEIS Production	PKS, PLEXUS					x	x
	GIS	ECSI, MACTEC		x	x			
Biological Ecological	Terrestrial & Aquatic Ecology	MACTEC	ECSI - QA	x	x			x
	Endangered Species (Inc. Sec 7 consultation)	MACTEC	ECSI - QA	x	x			x
	Wetland Management	ECSI	MACTEC - QA	x	x			x
Social, Cultural, Regulatory	Paleontology, Archaeology & Cultural (Inc. Sec.106 consult.)	MACTEC	ECSI - QA	x	x			
	Occupational & Public Health & Safety	MACTEC	MORGAN - QA		x	\$8,000		
	Modeling, Statistical Analysis & Risk	ECSI		x				
	Utility & Infrastructure	MACTEC			x			
	Socioeconomics & Env. Justice	MACTEC	MORGAN - QA		x	\$7,904		
	Visual Resources	ECSI		x				
	Recreational Landscape Architecture	ECSI		x				
	Adaptive Management	ECSI		x				
	RIA	MACTEC	MORGAN - QA		x	\$22,339		
	Public Involvement (Scoping, Hearings, Comments)	PLEXUS	PKS - QA	x		\$10,000	x	
	Land Use Management:	ECSI	MACTEC - QA	x	x			
Water Resource Planning	ECSI	MACTEC - QA	x	x				
Physical, Chemical	Surface and Groundwater Hydrology	ECSI	MORGAN - QA	x		\$30,564		
	Geomorphology & Fluvial Processes	ECSI	MORGAN - QA	x		\$11,524		
	Topography	MORGAN	ECSI - QA	x		\$89,000		
	Soil Science	ECSI		x				
	Mining	ECSI	MORGAN - QA	x		\$34,161		
	Mineral Resources	MORGAN				\$78,000		
	Geology & Seismicity	ECSI	MORGAN - QA	x		\$15,649		
	Radioactive & Chemical Contaminant Transport	ECSI	MACTEC - QA	x	x			
Air Quality, Meteorology & Noise	MACTEC	ECSI - QA	x	x				

\$307,141

**ATTACHMENT B
CONTRACT DOCUMENTS**

SECTION C - SUPPORTING INFORMATION, SPECIFICATIONS, AND REFERENCE MATERIALS

Office of Surface Mining, Reclamation & Enforcement
(OSM)



Statement of Work
For the
Preparation of an
Environmental Impact Statement

STATEMENT OF WORK

1.0 INTRODUCTION

The OSM will require Contractor support services for the preparation of a draft and final environmental impact statements (EIS) prepared under the National Environmental Policy Act (NEPA). Contractor support services will be required also for: preparing floodplain and wetlands assessments, complying with related Executive Orders, statutes such as the National Historic Preservation Act and the Endangered Species Act and their implementing regulations, policies, guidance and procedures; incorporating NEPA values (such as analysis of cumulative, offsite, ecological, and socioeconomic impacts); preparing supplemental analyses, compiling environmental information to support the NEPA process, and evaluating environmental information used in EISs. This Scope of Work (SOW) describes in a general manner the range of services that are anticipated over the duration of this contract.

This SOW provides for the analysis of the potential environmental impacts resulting from the proposed rulemaking action as well as its alternatives, to include the no action alternative. The federal action, together with the alternatives related to it, is hereafter referred to in this SOW as the proposed action and its alternatives.

2.0 BACKGROUND

2.1 NEPA is our basic national charter for the protection of the environment. It establishes policy, sets goals, and specifies the process for carrying out the policy. In part, NEPA states that all federal agencies shall "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment. " NEPA, at Section 102(2)(C), requires federal agencies to include in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment, a detailed statement known as an EIS on: "(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented."

2.2 The Council on Environmental Quality's (CEQ's) NEPA implementing regulations, at 40 CFR §1500-1508, are binding on all federal agencies, and establish the minimum general requirements that assure NEPA compliance. These CEQ regulations establish a multistage process that describes how the agency is to analyze and describe to the public and the decision maker any significant environmental impacts that could result from carrying out a proposed action.

STATEMENT OF WORK – CONTINUED

2.3 The CEQ regulations at 40 CFR § 1502.10 establish requirements for an EIS. The recommended format is described at 40 CFR 1502.10: (a) cover sheet, (b) summary, (c) table of contents, (d) purpose of and need for action, (e) alternatives, including the proposed action (sections 102(2)(C)(iii) and 102(2)(E) of NEPA), (f) affected environment, (g) environmental consequences (especially sections 102(2)(C) (i), (ii) (iv), and (v) of NEPA), (h) list of preparers, (i) list of agencies, organizations, and persons to whom copies of the EIS are sent, (j) index, (k) appendices (if any).

2.4 The Department of the Interior regulations contains its procedures for implementing NEPA and is located at 43 CFR Part 46. These regulations also contain the Departmental policies and procedures for compliance with NEPA, Executive Order (E.O.) 11514, E.O. 13352, and the Council of Environmental Quality's (CEQ's) regulations (40 CFR Parts 1500-1508). Department officials will use these regulatory requirements in conjunction with and supplementary to these authorities.

2.5 OSM has provided as attachment #1 draft language to be inserted in the portions of the EIS that describe the "purpose and need for agency action". The list of "alternatives including the preferred alternative" is provided as attachment #2. All other portions of the EIS, which are prepared by a Contractor, are subject to review and approval of data and analyses by OSM and cooperating agencies.

2.6 Proposed actions, alternatives, and issues to be addressed in the OSM's NEPA documents may be highly complex, and the subject areas may be technologically and scientifically precedent-setting. The proposed actions and range of alternatives to the proposed actions that may need to be analyzed are often unpredictable and may change during document preparation of the Draft EIS (DEIS) and the Final EIS (FEIS) as a result of factors such as agency evaluation and negotiation, public comment, or external developments. The Contractor will be expected to make corresponding changes in research, data collection, analysis and related documentation and services.

2.7 The EIS preparation requires an integrated interdisciplinary approach. The preparers' disciplines must be appropriate to the identified scope and issues. The NEPA document preparation team shall include but is not limited to: various fields of engineering, surface and groundwater hydrology and water quality, geomorphology and fluvial processes, geology and seismicity, air quality and meteorology, radioactive and chemical contaminant transport, traffic and transportation safety, terrestrial and aquatic ecology, land use management, endangered species biology, soil science, wetland management, water resource planning, paleontology, archaeology and cultural resources, utility and infrastructure design, occupational and public

health and safety, noise, socioeconomics, visual resources, recreation, landscape architecture, environmental justice, adaptive management, modeling, statistical analysis, and risk assessment.

STATEMENT OF WORK – CONTINUED

2.8 These NEPA documents will address highly controversial issues and will be subject to rigorous review by experts in scientific and legal fields, federal and state agencies, tribes, interest groups, the general public, and the courts.

A. SCOPE

3.1 This SOW is for the preparation of a draft and final EIS to include the completion of the necessary environmental impact analyses and their appropriate documentation and review under the requirements of the National Environmental Policy Act (NEPA). The EISs and the processes for their preparation must be consistent with and meet all requirements of NEPA and implementing CEQ regulations (hereafter referred to as the CEQ regulations) and guidance. These requirements are referred to collectively hereafter as the federal NEPA requirements, or simply NEPA. Contractor data collection, analysis, and documentation will identify and evaluate all relevant impacts, conditions, and issues associated with the proposed action, and the alternatives in accordance with NEPA.

3.2 The EIS shall:

- A. Include a cover sheet, table of contents, summary, introduction, including a description of the proposed federal action (the rulemaking), the purpose of the proposed action, and the need for the action, and a description of the organization of the document, a discussion of background information including issues raised in the comments on the ANPR, and a description of the scope of the EIS analysis;
- B. Describe the alternatives of the proposed action;
- C. Describe existing conditions and environmental impacts resulting from the proposed action and related to the physical environment, including topography, geology, soils, mineral resources, hydrology, ecology, meteorological conditions, air and noise quality, environmental justice, economics, cultural environment (including but not limited to: population, employment, housing, land use, zoning, transportation, utilities and community);
- D. Describe unavoidable adverse impacts, and any mitigation;
- E. Describe the relationship between the local short-term uses of the human environment and the maintenance and enhancement of the long-term productivity;
- F. Describe the potential alternative courses of action (including no action) and their impacts;
- G. Analyze the unavoidable commitment of resources required to complete the proposed action;

STATEMENT OF WORK – CONTINUED

- H. Contain a Regulatory Impact Analysis with cost-benefit data that fulfills the requirements of sections 6(a)(3) (B) and (C) of Executive Order 12866, 40 CFR 1502.23, OMB Circular A-4 and the Regulatory Flexibility Act (5 U.S.C.601).
- I. Discuss the public awareness of the proposal; list the agencies, groups, and individuals consulted during the environmental review process and public comments;
- J. Provide documentary support for all of the above;
 - 1) Set the analysis of alternatives against the base alternative of “no action”.
 - 2) Documents prepared shall include, but not be limited to:
 - a. Collection and analysis of all available pertinent data;
 - b. Identification of short and long-term impacts;
 - c. Definition and discussion of potential primary impacts;
 - d. Categorization of potential impacts by geographic area (i.e., on-site, immediate vicinity, watershed, regional, national, etc);
 - e. Comparative analysis of the alternative courses of action.

The final product of the Contract will be a detailed analysis of all potential impacts that reasonably can be expected to occur as a result of the proposed action. Measures to neutralize or eliminate adverse impacts of the proposed action shall be discussed in detail. Potential adverse impacts which cannot be reasonably avoided shall be discussed in detail, along with measures to mitigate these impacts.
 - 3) Use of existing information

Existing information shall be fully utilized in order to avoid duplication of previous research that may be pertinent to the proposed action. On the date of the award of the contract, the OSM will furnish the Contractor with all known pertinent data and documents; however, such data is limited. The Contractor shall be solely responsible for accessing and utilizing all non-OSM sources which are relevant to the proposed federal action.

STATEMENT OF WORK – CONTINUED

4) Collection of Empirical Data

The use of various analytical models by the Contractor in assessing the environmental impacts arising from the proposed action will necessitate the establishment of a data baseline.

Existing data available from Federal, state, and local government agencies and tribes shall be used whenever possible, assuming that the data is widely considered as accurate and extant (i.e. Standard Methods). It shall be the sole responsibility of the Contractor to obtain all information necessary for the full, accurate, and timely completion of the contract. The Contractor shall also be responsible for thoroughly reviewing and assessing the validity of previously generated data and shall provide a complete detailed description of the methodology used in this regard. The Contractor shall institute a professionally acceptable program of empirical research and data collection in those areas where data does not exist, is insufficient for thorough analysis, or is deemed as obsolete.

It is important that the data assembled from all sources is as comprehensive as possible, based on professionally accepted standards. The data should include, but not be limited to:

- a. Pertinent demographic and socioeconomic data;
- b. Employment and commercial activity data;
- c. Data on the physical environment (including but not limited to: ecology, geology, hydrology, seismology);
- d. Data relating to local land use regulations and local land use plans;
- e. Data relating to historic preservation and the potential impacts of the proposed rulemaking;
- f. Data relating to potential archaeological impacts;
- g. Water management plans and flood plain studies;
- h. Data relating to National Ambient Air Quality Standards (NAAQS) and the impact of the proposed rulemaking.

STATEMENT OF WORK – CONTINUED

- i. A summary of NPDES, 404, and 402 stream related permits associated with coal mining for the last five (5) years (source EPA and COE). A narrative describing the Corps of Engineers' (COEs) 2008 compensatory mitigation rule influence on stream restoration projects completed under SMCRA permits.
- j. A Comparison and contrast of SMCRA material damage definition and existing degradation policies associated with the Clean Water Act (CWA) (303d).
- k. Provide narrative describing variations in the 404 and 402 permitting process across EPA regions and Corps Districts to acknowledge regional differences in how coal mining activities are regulated under the CWA. Recent EPA letters have addressed the in parts of the Appalachian Region. OSM will provide data for the Contractor to review and provide analyses summary.
- l. Provide a narrative of the programmatic overview of current state program requirements to include but not limited to: buffer zone variances, monitoring, and reclamation techniques and standards.
- m. Provide an overview of how recent implementation of SMCRA relates to the conditions of the 1996 Biological Opinion (as covered in previous in the attached EISs). OSM will provide to the Contractor species specific protection and enhancement plans and any other applicable materials attained from FWS.
- n. An assessment of the location of each coal mining region with regards to climate and geology (The attached 2008 EIS provides background information).
- o. A comparison and contrast of federal agency (COE, EPA, USGS, OSM) definitions of intermittent and ephemeral streams.

STATEMENT OF WORK – CONTINUED

- p. An assessment of the extent of threatened and endangered (T&E) species in coal fields potentially impacted by mining related stream

impacts (Source state heritage program databases).

- q. The contractor shall perform all NEPA consultation associated with this project. This is to include but is not limited to Section 7 consultation.
- r. The Contractor shall identify cumulative effects, to include but not limited to:
 - i. Review the three (3) most recent reports of the biennial state water quality (305b) reports to identify trends of non-coal mining related impairments within the coal field basins.
 - ii. Provide a narrative of the water quality monitoring requirements, at the program level, from the completion of mining to phase III bond release. OSM will provide the data to the Contractor for comparison and analyses.
 - iii. An assessment of future mining activity using the coal industry's projection.
 - iv. A summary of 303d related watershed scale analyses conducted within the last 10 years that are related to coal mine impacts. Provide a comprehensive list of all 303d listed streams within the coal fields along with the causes of impairment for each stream. Identify any observed patterns within the list.
 - v. GIS products should be used to support topics in a spatially distributed pattern. Examples include but are not limited to: 303s listed streams, density of

STATEMENT OF WORK – CONTINUED

coal related valley fills per 10 digit coalfield watershed, location of each coal mining region with regards to climate and geology, T7E per 10 digit coalfield

watershed recently observed ranges in total dissolved solids (TDS), sulfate, pH, and selenium per watershed.

- vi. Determine specific state program requirements for mining in a stream buffer zone (variances to fill, mine through, or any activity within one hundred (100) foot buffer zone), this shall include but not limited to: the process for granting variances (i.e. conditions for granting), state restoration standards for mining through a stream, including monitoring provisions, assessment standards for restored streams – standards for bond release, process by which the Regulatory Agency determines the recovery of restored streams (i.e. habitat, chemistry, flow, macroinvertebrates, fish, mussels, etc.).
- vii. A narrative summarizing peer reviewed publications resulting from long term studies on water quality impacts from surface and underground mines. A compilation of some of the studies is provided in attachment #2.
- s. Narrative describing trends in permitted activities involving Approximate Original Contour (AOC) variances by operation type and with topographic, geologic, and hydrologic considerations.

STATEMENT OF WORK – CONTINUED

- t. A narrative of fill minimization/optimization procedures associated with excess fill operations, including specific review of water quality, excess spoil fill operations, including specific review of water quality, excess spoil fills, under drains, sloped, stability, stream mitigation, and surface drainage control.
- u. A watershed scale review of geomorphic reclamation: land forming, stream

reconstruction, and stream restoration techniques designed to approximate the natural system.

- v. Topics to be included for Material Damage to Hydrologic Balance – Cumulative Hydrologic Impact Assessment (CHIA) topics include but are not limited to:
 - i. A narrative summary of existing water quality and quantity (surface and ground water) downstream of coal mine sites at a CWA 305(b) scale with emphasis on regional analysis. Including but not limited to: active and reclaimed mines (water quality, flow, loadings), land use categories (identified as a percentage) within a CWA 305(b) scale, percent of disturbed relative to bond release status, percent of valley fills, percent of remined areas, and identification of mining impacts (surface and underground) to existing groundwater conditions. Source material shall include most recent coal field watershed and hydrology reports (USGS).
 - ii. A compilation of the scores of biological indices as related to water quality and stream classifications from characterizations or ratings produced through aquatic life monitoring or bioassessment protocols.

STATEMENT OF WORK – CONTINUED

- iii. A narrative describing the state and federal standards applied to stream restoration and mitigation projects for mine activities associated with mine-throughs, fills, and undermining.
- iv. Provide a narrative of the regulatory program criteria/standard used for determining material damage. This includes the quantitative and/or qualitative methods used. Identify state methodology/standard/process for conducting CHIAs, including the steps taken to develop the CHIA and

any post mining CHIA evaluations. Determine how data are collected, stored, and managed in the CHIA evaluation. Identify the extent that data are stored electronically, regularly maintained in databases, and used in hydrologic evaluations. Assess the compatibility of electronic databases relative to the national mapping initiative. OSM will provide the data for the Contractor's evaluation and analyses.

- w. Compile a list professionally recognized bioassessment protocols currently in use by state or federal agencies to assess the biological condition of streams. For each protocol identified, provide a narrative describing the taxa utilized and the agencies using each specific protocol.

For purposes of evaluating reasonably foreseeable significant adverse effects pursuant to 40 CFR 1502.22, if there is incomplete or unavailable information, the Contractor shall make clear that the information is lacking and shall provide a statement of the relevance of the incomplete or unavailable information, a summary of existing credible scientific information relevant to

STATEMENT OF WORK – CONTINUED

evaluating those effects, and the Contractor's evaluation of these impacts, consistent with section 1502.22.

The recommended outline shall be in accordance with CEQ regulations.

B. TECHNICAL REQUIREMENTS

4.1 Technical direction for preparation of the EIS will be provided by the Contracting Office Representative (COR) who will be designated by the Contracting Officer.

- A. The Contractor shall use Microsoft Word '07, for the preparation of all deliverable documents. All documentation must use Times New Roman 12 font. Software used for analyses and modeling may be proprietary but calculations obtained from applying such software must be provided to COR.
- B. All deliverables must be submitted in digital format that is searchable.

- C. The Contractor shall prepare a project management plan based on the scope of work description. The project management plan shall identify how each task element is addressed in the document.
- D. Contractor shall implement a formal change control process and prepare a cost report that identifies the cost of a draft EIS and the basis of the cost estimates. Each revision of the cost report will be submitted to OSM for review so that the incremental costs of changes and corrections may be tracked. The basis of the cost estimates should include such categories as approach, cost assumptions, cost elements, direct labor, fringe benefits, direct costs, overhead, travel, general and administration, purchased equipment, purchased material, subcontracts, cost of facilities capital, inflation factors, etc.
- E. The Contractor shall coordinate with OSM on acceptable levels of data analysis and on assumptions, analytical methods and models.
- F. The Contractor shall identify and analyze the onsite and offsite environmental impacts of the proposed action and each of the alternatives evaluated in detail in the EIS. This may include, but not be limited to: conducting literature searches; modeling; preparing graphs, maps, charts and tables; calculating; interpreting samples; interviewing experts; and documenting such research, analyses, or use of professional judgment in the absence of preexisting information.

STATEMENT OF WORK – CONTINUED

- G. The Contractor shall identify and describe mitigation measures. During the course of the analysis for the DEIS, it may become apparent that mitigation could reduce, avoid, eliminate, or compensate for the environmental impacts of a proposed action or alternative. If the analyses indicate the potential for such mitigation, the Contractor shall identify the mitigation measures to the OSM to consider incorporating into the proposed action, an alternative, or a mitigation action plan.

SERVICES

5.1 If any of the services do not conform to contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by re-performance, the Government will reduce the contract price to reflect the reduced value of services performed.

5.2 If the Contractor fails to perform the services or to take necessary action to ensure performance in conformity with contract requirements, the Government may (1) by contract or otherwise, perform the services and charge the Contractor any cost incurred by the Government that is directly related to the performance of such service or (2) terminate the contract for default.

C. DELIVERABLES

6. The Contractor shall submit all material in electronic format required hereunder to the COR in accordance with the following schedule.

6.1 The Contractor shall submit a work plan within 30 days of Notice to Proceed. The work plan shall include a milestone schedule, technical approach, staffing plan, work breakdown structure, and management controls to complete the Regulatory Impact Analysis with cost-benefit data by September 24th, 2010; DEIS by February 4th, 2011; and FEIS by October 7th, 2011. The Contractor will be required to participate in scoping process. The Contractor will send consultation letters to Government Agencies and all other interested parties within 30 days of Notice to Proceed.

6.2 The Contractor shall hold meetings twice a month with COR and other designated persons to report progress. All documentation shall be provided electronically. One meeting shall be via teleconference (TELCON) and the other shall be in South Interior Building 1951 Constitution Avenue, NW, Washington, DC 20240 (Room to be determined (TBD) at a later date).

6.3 At monthly meetings, the Contractor shall provide completed segments of the DEIS. The purpose is to ensure that segment progress is in accordance to scope.

STATEMENT OF WORK – CONTINUED

6.4 The Contractor shall submit a Preliminary Draft EIS (DEIS) by November 19th, 2010. The Contractor shall provide 3 hard copies and 50 digital copies. The Government and other cooperating agencies will have 7 business days to review and submit comments. The Contractor will then have 15 calendar days to compile comments and make corrections.

6.5 Review of Preliminary DEIS by the OSM and Cooperating Agency will be seven business days. Comments will be submitted at the end of this period. [Isn't this the same statement as above in 6.4?]

6.6 Participation in Public Hearing: The Contractor shall incorporate comments into FEIS within 45 days following publication in the Federal Register.

6.7 The Contractor shall prepare and submit to OSM the public comments on the DEIS that were submitted to the Federal rulemaking comment website. The Contractor shall organize substantive comments by topic for the inclusion in the FEIS within 30 days of the close of the DEIS comment period.

6.8 Final Environmental Impact Statement (FEIS)

- A. The Contractor shall complete the Proposed FEIS within 50 days after close of DEIS comment period.
- B. OSM and cooperating Agencies will have 14 business days to review and provide comments.
- C. The Contractor shall submit the FEIS within 14 days of agency comment receipt.
- D. Provide 3 hard copies and 50 digital copies of the FEIS.

Prompt delivery of the items listed above is essential to the performance of this contract.

In accordance with the schedule provided, the time period for completion of a submission shall begin on the date that the Contractor receives approval of the previous submission.

Some submissions may be approved with the reservation that OSM and Cooperating Agency comments regarding that submission shall be incorporated into the subsequent submission. If these comments are not incorporated, the document submitted will be returned without further review. Each submission after the first shall be accompanied by a letter noting OSM and cooperating agency comments and explaining how each was resolved. In the event that a submission is not acceptable and is sent back to the Contractor for revision, OSM will have additional time to review the subsequent revised submission.

STATEMENT OF WORK – CONTINUED

In order to expedite the review process, the Contractor shall notify the COR at the time of completion of significant subsections of each document. OSM will then request that 3 hard copies and 15 digital copies be submitted for review and comment.

At the request of the Contractor, the schedule of submissions may be extended in the event that performance is delayed by circumstances beyond the control of, and without fault or negligence on the part of, the Contractor, as determined by the Contracting Officer.

D. RELEASE OF INFORMATION

The Contractor may not disseminate any information concerning the specific project without special written approval of the Contracting Officer.

E. TRAVEL

Travel required in connection with this work order is to be included in the detailed cost breakdown, when the Contractor submits a proposal for the order. Travel costs shall not exceed the FAR 31.205-46, Travel Costs, and Federal Travel Regulations.

F. PAYMENT SCHEDULE

- 9.1 Monthly progress of segments of the DEIS with approved comments - May (meetings including DEIS segment reviews)
- 9.2 Monthly progress of segments of the DEIS with approved comments - June (5%) (meetings including DEIS segment reviews)
- 9.3 Monthly progress of segments of the DEIS with approved comments - July (meetings including DEIS segment reviews)
- 9.4 Monthly progress of segments of the DEIS with approved comments - August (5%) (meetings including DEIS segment reviews)
- 9.5 Monthly progress of segments of the DEIS with approved comments - September (5%) (meetings including DEIS segment reviews). Complete Regulatory Impact Analysis with cost-benefit data.
- 9.6 Monthly progress of segments of the DEIS with approved comments - October (5%) (meetings including DEIS segment reviews)

9.7 Monthly progress of segments of the DEIS with approved comments - November (meetings including DEIS segment reviews)

STATEMENT OF WORK – CONTINUED

9.8 Monthly progress of segments of the DEIS with approved comments-December (5%) (meetings including DEIS segment reviews)

9.9 Monthly progress of segments of the DEIS with approved comments- January (meetings including DEIS segment reviews)

9.10 Approval of Preliminary DEIS and complete mailing – February 14th, 2011 (30%)

9.11 Collection and organization of comments received – May 13th, 2011 (5%)

9.12 Monthly progress of Draft FEIS – June (Meetings including FEIS segment reviews)

9.13 Monthly progress of Draft FEIS – July 29th, 2011 (5%) (Meetings including FEIS segment reviews)

9.14 Monthly progress of Draft FEIS – August (Meetings including FEIS segment reviews)

9.15 Monthly progress of Draft FEIS – September (5%) (Meetings including FEIS segment reviews)

9.16 Approval of Proposed FEIS and complete mailing – October 7th, 2011 (30%)

9.17 Execution of Release of Claims and receipt of all originals and record in required format– October 31st, 2011 (5%)

OPTION	SECTIONS	FUNDS
OPTION #1	9.1 THROUGH 9.8	Subject to the Availability of funds
OPTION #2	9.9 THROUGH 9.10	Subject to the Availability of funds
OPTION #3	9.11 THROUGH 9.15	Subject to the Availability of funds
OPTION #4	9.16 THROUGH 9.17	Subject to the Availability of funds

ATTACHMENT #1 - PURPOSE AND NEED STATEMENT

NEED AND PURPOSE FOR THE FEDERAL ACTION

NEED

On January 2010 the GAO issued a report entitled: Surface Coal Mining - Financial Assurances for, and Long-Term Oversight of, Mines with Valley Fills in Four Appalachian States. The report was an evaluation of the long term monitoring of surface coal mines with valley fills and the assurance that the mines will be properly reclaimed. The GAO examined surface coal mines in Kentucky, Tennessee, Virginia, and West Virginia. The GAO report made the following findings, among others, in the report:

Studies have found environmental impacts resulting from reclaimed mines with valley fills including: subpar reforestation efforts; contaminated streams that have impacted aquatic organisms; water flows that may have been affected by the fills; and cases where mines have not been restored to approximate original contour.

In addition, recent studies suggest that surface mining activities that affect streams may have impacts on stream and riparian biota that are not explicitly addressed under existing regulatory requirements implementing SMCRA. [Cite to, very briefly summarize a couple of the more significant studies.]

Downstream effects of mountaintop coal mining: comparing biological conditions using family- and genus-level macroinvertebrate bioassessment tools, Gregory J. Pond, et. al. July 8, 2008

This study found that surface coal mining with valley fills has impaired the aquatic life in numerous streams in the Central Appalachian Mountains; such mining activity has had subtle to severe impacts on benthic macroinvertebrate communities. Sites downstream of reclaimed MTM and VFs revealed little sign of biological recovery after 6 to 7 years; Impacts to ecosystem

structure and function (i.e., soil and water biogeochemistry, leaf decomposition, macroinvertebrates) remained after 15 years of recovery of a coal-mined watershed in Maryland, and the oldest VF site in the data still had downstream specific conductance values >1200 IS/cm and no mayflies after 15 years.

Mountaintop Mining Valley Fills and Aquatic Ecosystems: A Scientific Primer on Impacts and Mitigation Approaches, Margaret A. Palmer and Emily S. Bernhardt

This executive summary of this paper stated: "...The more surface mining and valley fill activity within a large watershed, the greater the cumulative transport of alkaline mine drainage pollutants to major rivers will be. The streams and rivers below valley fills receive alkaline mine drainage that include highly elevated concentrations of sulfate, bicarbonate, calcium and magnesium ions and which often include elevated concentrations of multiple trace metals. The combined toxicity of multiple constituents results in significant increases in conductivity and total suspended solids below valley fills. This decline in water quality leads to a loss of sensitive aquatic organisms even when downstream habitats are intact. The resulting high conductivity and high sulfates can persist long after mining activities cease and scientists have found no empirical evidence documenting recovery of macroinvertebrate communities in the streams impacted by alkaline mine drainage. The water quality impacts of MTMVF activities are more severe and more persistent than other land use changes within the southern Appalachians."

In consideration of the concerns raised by this information, as well as OSM's experience in evaluating the impacts of surface coal mining operations on mountainous areas and surface and ground waters, OSM believes there is a need to improve the effectiveness of the regulations implementing SMCRA in reducing the harmful impacts of surface coal mining operations that affect mountaintops and streams, including but not limited to operations that engage in mountaintop mining, steep slope mining, and contour mining. Any Federal Action by OSM to achieve a reduction in the adverse impacts of surface coal mining operations must be authorized by and consistent with SMCRA.

PURPOSE

The Surface Mining Control and Reclamation Act of 1977 provide that:

"It is the purpose of this Act to –

- (a) establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations;
- (c) assure that surface mining operations are not conducted where reclamation as required by this Act is not feasible;
- (d) assure that surface coal mining operations are so conducted as to protect the environment."

On June 11, 2009, the Secretary of the Department of the Interior, the Administrator of the U.S. Environmental Protection Agency (EPA), and the Acting Assistant Secretary of the Army (Civil Works) entered into a memorandum of understanding (MOU)¹ implementing an interagency action plan designed to significantly reduce the harmful environmental consequences of surface coal mining operations in six Appalachian states, while ensuring that future mining remains consistent with federal law. The MOU also calls for us to consider whether revisions to other OSM regulations (including, at a minimum, approximate original contour requirements) are needed to better protect the environment and the public from the impacts of Appalachian surface coal mining.

However, OSM's experience is that adverse impacts of surface coal mining operations on mountainous areas and surface and ground waters occur nationwide, and are not limited to Appalachia. Therefore, the purpose of this Federal Action is to improve the effectiveness of regulation under SMCRA, in reducing the harmful environmental consequences of surface coal mining operations that affect mountainous areas and surface and ground waters throughout the nation. Specifically, the purpose of this Federal Action is to amend OSM's rules implementing SMCRA, to require that mining operations are permitted, operated, and reclaimed in a manner that prevents or minimizes significant long-term adverse environmental effects on mountains, streams, and related environmental values. More particularly, the purpose of this action is to amend OSM's stream buffer zone (SBZ) rule published on December 12, 2008, as well as certain other existing OSM regulations, in order to significantly reduce the adverse impacts from surface coal mining operations on mountainous areas and surface and ground waters and related environmental values nationwide, and to maximize the use of the best science and technology available in regulating those operations and in conducting the operations.

Many of the adverse environmental impacts that have been identified in recent studies are related to instances where mining operations have not effectively restored approximate original contour, or have not prevented or minimized projected adverse hydrologic consequences of coal mining operations or the cumulative adverse hydrologic impacts of all mining within a watershed. Therefore this Federal action will take a comprehensive approach to evaluating the relationships among mining impacts such as these, and the permitting requirements, performance standards, and reclamation requirements that address the impacts.

¹ The MOU can be viewed online at <http://www.osmre.gov/resources/ref/mou/ASCM061109.pdf>.

ATTACHMENT #2 - NARRATIVE SUMMARIZING PEER REVIEWED PUBLICATIONS

Effects of Valley Fills on Benthic Macroinvertebrates Literature Review

"As can be concluded based on results from the primary literature and from studies performed for this EIS, filling or mining stream areas even in very small watersheds has the potential to impact aquatic communities some of which may be of high quality or potentially support unique aquatic species. It has not been determined if drainage structures associated with mining can provide some benefits (i.e.; increased flows at toe of fills, retaining drainage structures) that could offset aquatic impacts."

*Mountaintop Mining/Valley Fills in Appalachia: Draft 2003. Programmatic Environmental Impact Statement
US Environmental Protection Agency, Washington, DC.
Pg. III D-4*

Mountaintop mining and valley fill operations have been determined to have adverse and detrimental effects on the integrity of all surrounding ecosystems including both aquatic and terrestrial. The following summary will encompass several parameters associated with the degradation of the benthic macroinvertebrate community below valley fills in conjunction with mountaintop mining operations. The material referenced will discuss the influence of geology, hydrology, water chemistry, site location, bioassessment protocol and methodology using qualitative and quantitative measures, insight on reclamation strategies, and elaborate on conflicting opinions on overall conclusions pertaining to mining/valley fill impacts.

The consensus stated within this literature review has been derived from studies, opinions and most importantly the results of various researchers including the USEPA, USGS, USFWS, several state agencies, academia, consulting firms and the coal industry. A collection of 71 articles/studies/opinions have been assembled complete with individual bibliographies and citations included. Additionally, several studies discovered are unpublished and are not peer reviewed with questionable research tactics so the stature of their conclusions is subject to debate. A few comprehensive studies conducted by various private agencies were discovered but found to be unobtainable so for reference and for the potential of obtaining these studies in the future, they will be included as an attachment but not cited in the completed literature review. Relative studies correlating most to the objectives of this comprehensive literature review found that the majority of influential studies noted locations ranging from eastern Kentucky to southern West Virginia.

Valley Fills

When the topography of the mountain is altered via mountaintop removal, radical changes ensue including the flattening of contours, exposure of unsettled spoil, reduced vegetative cover, and elimination of all natural mountainside and valley stream channels. In 2004, mountaintop mining was determined to be dominant land cover use in central Appalachia with an estimated 1.1 million acres being impacted by active mining operations (Townsend et al. 2009 and Loveland et al. 2003).

In order to accurately assess the influence of valley fills on the benthic macroinvertebrate community, a review of several important topographical and geological components must be discussed. To begin with, when a mountain top is mined all vegetation, topsoil, and overlying rock strata are removed down to the coal seam and redeposit as overburden. As the rock and soil layers are being removed, a volumetric expansion of the blasted material occurs resulting in swell. The excess spoil (swell) is redeposited in an adjacent valley to try and eliminate the cost of rehandling the material. The importance of less handling stems from the push for economic profit for the mining

industry because the less the mining company has to handle the spoil the lower production costs are resulting in the evolution of valley filling.

Geology and Overburden Composition

One of the most important factors in understanding the influence of valley fills on the aquatic benthic macroinvertebrate community is to understand the composition of the overburden that is deposited in the valley fills within the Appalachian coal bearing region. This is significant because the constituents that comprise the overburden will eventually contaminate the streams adjacent to the valley fills through precipitation and other natural and mechanical earth moving events. Beginning with the geology of the region, according to the USGS the bedrock within the central Appalachian region is comprised of Pennsylvanian aged strata with interwoven beds of shales, siltstones, mudstones, mudrock, limestones, carbololiths and sandstones overlapping the older Mississippian aged strata (USGS 2000b and Sobek et al 2000). Understanding the geology of this region is imperative to understanding certain chemical and physical parameters such as acid forming potential and metal contaminant loads which vary based on which rock strata overlies the coal seam.

Through modern mining techniques, blasting the bedrock to expose the coal seams generates spoil, once the spoil has been removed and deposited into a valley fill, it is exposed to the atmosphere and with the addition of precipitation and oxygen immediately a variety of chemical reactions begins to transpire. Certain chemical components found embedded within certain rock strata throughout the Appalachian coal region have the potential to generate detrimental effects on the aquatic community by degrading the water quality. For example; the oxidation of pyrite and sulfide S generate AMD when exposed to water and oxygen decreasing the pH and increasing Fe, Mn, Al, temperature and TSS to harmful levels (Sobek 2000). The noted harmful constituents of overburden found generally within the central Appalachians includes; varying pH, alkaline reactions within soils, salinity potentials, electrical conductivity and toxic metals including; boron, mercury, and selenium. Physical properties that can influence the hydrology of the overburden and ultimately impact the aquatic community via runoff and other nature water moving parameters include; rock type and stability, hardness, slaking, weathering rate, sedimentation, infiltration and porosity (Sobek 2000). Understanding the physical and chemical parameters of the spoil found within the valley fills will help determine what contaminants will impact the adjoining stream and how they will adversely degrade the benthic macroinvertebrate community downstream.

Hydrologic Regime

When assessing the biological integrity of streams below valley fills, the hydrology has been determined to be an additional key component. Understanding how water moves through the fills and streams will help illuminate the importance of the hydrologic regime because without an adequate supply of water the habitat for the benthic community cannot exist.

The ephemeral, intermittent or perennial streams that are buried as a result of valley fills represent a significant loss of natural habitat (Palmer et al. 2009). Studies have determined that headwater streams emerging from the toes valley fills are the crucial link to the integrity and health of ecosystems downstream and to adjacent river networks. Headwater streams are the beginnings of the river systems and are critical sites for nutrient cycling and organic matter processing while offering a refuge from temperature fluctuations, spawning and rearing areas, food and creating migration corridors (Clark et al. 2008, Lowe et al. 2005, Meyer et al. 2003, and USGS 2000a).

Another major determination concludes that the percentage of watershed influenced by the addition of valley fills to ephemeral, intermittent or perennial streams varies based on the number of fills. Additionally, watershed size may actually buffer the effects of fills and mines (Fulk and Hutchens, 2002). Lastly, in order to perform bioassessment of the benthic macroinvertebrate community it has been determined that drought and stream channel morphology are both directly correlated to the integrity of aquatic ecosystems (Clinton et al. 1996, Feminella 1996, and Powell 1999).

When mining occurs within the steep terrain of the Appalachian region, the hydrology of the entire ecosystem is drastically altered. Water flow pathways throughout the geological strata are radically changed and can in turn severely reduce or completely eliminate the hydrological recharge to streams whether buried by a valley fill or deep mining (Ferguson 1967, Ferguson et al. 1981 and USGS 1991). Additionally, due to the exposure of loose

sediment and no vegetative cover there has been a noted decrease in water infiltration and an increase in runoff contributing to increased base flow from the toe of the valley fills raising the potential for flooding and sedimentation to the downstream ecosystems (Messinger 2003, Phillips 2004 and USGS 2001).

“Streams in watersheds where MTM/VFs exist are characterized by an increase of minerals in the water as well as less diverse and more pollutant-tolerant macroinvertebrates and fish species. Questions still remain regarding the correlation of impacts to the age, size, and number of valley fills in a watershed, and effects on genetic diversity. Some streams below fills showed biological assemblages and water quality of good quality comparable to reference streams.

Streams in watersheds below valley fills tend to have greater base flow. These flows are more persistent than comparable unmined watersheds. Streams with fills generally have lower peak discharges than unmined watersheds during most low intensity storm events; however, this phenomenon appears to reverse itself during higher-intensity events.”

Mountaintop Mining/Valley Fills in Appalachia: Final Draft 2005. Programmatic Environmental Impact Statement. US Environmental Protection Agency, Washington, DC

Water Quality Impacts as a result of Valley Fills/Mining

Studies have concluded that a variety of factors are attributed to the decline and eradication of benthic macroinvertebrates in areas with active or inactive mining (e.g. Bradfield 1986, Chambers and Messinger 2001, Eberle and Razem 1985, Freund and Petty 2007, Fulk and Autrey 2003, Green and et al 2000, Hoke et al 2001, Kennedy et al 2003, Maggard and Kirk a, b, c, 1999, Maggard 2006, Minear 1976, Merricks et al 2007, Palmer 2009, Pen Coal Corp 2000, Phillips 2004, Pond et al. a, b, c, d, Powell 1999, Stout and Wallace 2003, and USGS, 2000) In addition to mining, Fulk 2003 and Pond a, c and e also determined the same conclusions concerning the integrity of the benthic macroinvertebrate community when assessing the influence of residential and agricultural impacts on the adjacent habitat.

Studies have proven that not one specific stressor is to blame for the poor water chemistry parameters which is responsible for the poor water quality (Freund and Petty 2007 and Lester and Norton 2003). The literature search concluded that the degradation of the benthic community can be attributed to a combination of the chemical parameters (Bryant and McPhilliamy 2002). Below is a table listing the chemical parameters assessed.

Chemical Parameters Assessed	
Calcium	Temperature
Sulfate	Magnesium Hardness Solids
Dissolved Manganese	Total Conductivity, Field (uS/cm)
Selenium	Alkalinity
Potassium	Sodium
Manganese	Dissolved Chloride
Acidity	Nitrate/Nitrite
Acidity	Hot Aluminum
Dissolved Antimony	Arsenic
Beryllium	Cadmium
Chromium	Cobalt
Copper	Mercury
Nickel	Organic Carbon
Total Phosphorous	Silver
Thallium	Vanadium
Barium	Dissolved Oxygen
Organic Carbon	Dissolved Solids
Suspended Iron	Total Iron
Dissolved Zinc	Aluminum, Total

Studies that assessed valley fills associated with mining determined the following targeted parameters in combination and with elevated concentrations are attributed to the degradation of water quality correlated with the reduction and/or eradication of certain orders of aquatic benthic macroinvertebrates.

Chemical Parameters Determined to be Impacted by Valley Fills	
Sulfate	Hardness
Total Magnesium	Total Calcium
Total Dissolved Solids (TSS)	Total Manganese
Dissolved Manganese	Specific Conductance
Total Selenium	Alkalinity
Total Potassium	Acidity
Nitrate	Nitrite

Table from Bryant and McPhilliamy 2002

AMD, Specific Conductance and Total Dissolved Solids have been the notated culprits of water quality degradation in several peer-reviewed studies and have demonstrated adverse impacts on the benthic macroinvertebrate community when elevated levels are detected below valley fills and in active/inactive mining watersheds (Bradfield 1986, Bryant and McPhilliamy 2002, Chambers and Messinger 2001, Eberle and Razem 1985, Feldman and Connor 1992, Freund and Petty 2007, Green et al 2000, Hartman et al 2005, Hoke et al 2000, Pond a, c, and Schoenholtz 2008 USGS 1990, and USGS 2000).

As stated before, there is no one singular culprit to the degradation of water quality in mined/valley filled watersheds but the literature cited has determined the most influenced chemical parameter is specific conductance. Specific conductance is merely a cumulative measure of ionic strength and when conductivity is high, the disruption of osmoregulation takes place which is essential for aquatic insects to regulate their ion intake and release (Pond et al 2008). Both ionic strength and effluent toxicity can be defined as constituents containing but not limited to a combination of the following water quality parameters including conductivity, TDS, salinity, alkalinity and hardness (Chadwick Ecological Consultants 2000 and Goodfellow et al 1996)

Additionally, Dow 2000 determined specific conductance and pH were not only found to be detrimental to benthic communities in watersheds with active mining but also in residential neighborhoods such as a recent study conducted in New Jersey. On the contrary, Maggard 2006, refutes the findings of Pond and Dow and states specific conductivity is unrelated to the benthic macroinvertebrate communities present downstream of varying types of mine water discharge but note this study was not peer reviewed and only presented at a symposium so the validity may be skewed or bias.

In addition to specific conductance, bioaccumulated metals have also been attributed to the benthic macroinvertebrate community decline in locations with and without mining influences (e.g. Ankley 1996, Cain et al 2006, Clements a, b, Clements et al 1988, Hickey et al 1998, Soucek et al 2001, and Vogel 2000).

Benthic Macroinvertebrates

There are several metrics, indices and statistical interfaces used in assessing the degree of impairment mining and valley fills have had on the habitat for benthic macroinvertebrates and the overall importance of aquatic insects in the surrounding ecosystem. Preference of methodology and assessment was based on age of study and locality with studies using different metrics and methods based on if the study sites were in Kentucky or West Virginia (e.g. Burton and Gerritsen 2003, Green and Swietlik 2000, Merritt and Cummins 1996, Merritt et al 1984, Morse et al a, b, O'Bara et al 1993, Rosenberg and Resh 1996 and Virginia DEQ 2006b)

The majority of studies reviewed utilized similar multi-metric indices to assess the macroinvertebrate communities. In West Virginia the West Virginia Stream Condition Index (WVSCI) has been used and in Kentucky the Kentucky Macroinvertebrate Bioassessment Index (KMBI) has been used. Both methods for bioassessment use Total Taxa, EPT (Ephemeroptera Plecoptera Trichoptera) Taxa%, % Chironomidae (midges, a family of insects that is generally tolerant to pollution), % Two dominant Taxa, and a family-level Hilsenhoff Biotic Index (HBI) to develop a numeric score that usually ranges from 0-100. This score is then compared against a reference to determine if a stream is impaired or failing to meet aquatic life use criteria.

All studies of benthic macroinvertebrates below fills found changes in the community composition. Mayflies (Ephemeroptera) were either completely eliminated or severely reduced. Additionally, Stoneflies (Plecoptera) and caddisflies (Trichoptera) also showed declines in both species richness and diversity. The percentage of species sensitive to pollution decreased and the number of pollution tolerant species increased. Several studies found significant differences in aquatic insect composition between mined and unmined watersheds with and without valley fills (e.g. Bradfield 1986, Chambers and Messinger 2001, Freund and Petty 2007, Fulk and Autrey 2003, Green and et al 2000, Hartman et al 2005, Hoke et al 2000, Maggard and Kirk 1999b, Merricks et al 2007, Palmer and Bernhart 2009, Pen Coal 2000, Pond and McMurray 2002, Pond 2004, and Pond et al 2008).

Age of Fills

Studies have been conducted on a range of valley fills in both eastern Kentucky and southern West Virginia but there is little information given in most studies on the exact age of fills. The date of permit issuance is given in a few studies but not the completion date of the fills. One study, Merricks et al (2007) does give specific ages of fills, which ranged from 3 to 15 years. Their results were similar to the other studies reviewed. It doesn't appear anyone has focused on older fills exclusively. One question that has been raised is; do TDS and conductivity in these streams attenuate over time? Problems to be addressed in the design of a study of older fills would be accurately determining the age of fills and whether we have pre-mining data to do a before/after comparison or if a reference stream approach should be used.

Noted Remediation

A recent testimonial given by Margret Palmer to the United States Senate Committee on Environmental and Public Works states; *"The impacts of mountaintop removal with valley fills are immense and irreversible, and there are no scientifically credible plans for mitigating these impacts."* Additionally, studies have concluded that several mitigation techniques fail due to a variety of issues including chemical and physical barriers ranging from poor water quality to unstable stream channel design (Palmer and Bernhart 2009, Palmer and et al 2005) Despite the previous statements, there has been noted remediation attempts with marginal success on several parameters associated with mining but most notably the reduction of AMD and recreation of stream channels but the science of valley stream remediation is relatively new (Denicolla and Stapleton 2002, Hawkins 1994).

Consensus and Conclusion

With the evidence presented in this literature review, valley fills do have an adverse affect on the benthic macroinvertebrate community via degradation of the aquatic environment. The only question still lacking a definitive answer is; do these streams and watersheds attenuate over time and if so how long does it take to reverse the change and shift the community back from a pollution tolerant community to a community dominated by sensitive species? Assessment of adjacent reference streams in conjunction with the bioassessment protocols used by the majority of the studies compiled has determined the benthic macroinvertebrate community was thriving with a pollution comprised of sensitive species Ephemeroptera, Plecoptera and Trichoptera prior to any mining and a noted depletion or eradication of the community has occurred post mining. This literature review concludes that yes valley fills have been assessed and yes they do have detrimental effects but the question about attenuation over time has not been exclusively researched. Without a direct answer to this question, the true effect of valley fills on the surrounding environment cannot be completely and definitively answered.

Despite the varying opinions on the degree of degradation of the benthic community below valley fills, one conclusion is evident; there is an obvious shift from a sensitive to a pollution tolerant community and this is attributed to the poor water quality flowing from the toe of the valley fills. The poor water quality is credited to a variety of chemical parameters but the most evident and conclusive is found to be specific conductance, variable pH, unpredictable stream flow and elevated levels of TSS and TDS. In conclusion, the proportional abundance of tolerant taxa was the most sensitive indicator of nutrient enrichment and habitat, degradation, whereas Ephemeroptera richness was the most sensitive indicator of elevated metals or ion concentrations (Lester 2003).

ATTACHMENT #3 - 2009 ANPR COMMENTS

General Comments on ANPR

Appalachian Center for the Economy and the Environment (Joe Lovett and Derek Teaney)

- Stream buffer zone rule
 1. Under section 201(c)(2) of SMCRA, OSM has broad rulemaking authority to carry out both the purposes and provisions of the Act. Because most of the purposes of SMCRA focus on environmental protection, OSM can adopt any rule that protects the environment from the adverse effects of mining, irrespective of the more specific environmental performance standards enumerated later in the section 515 or other provisions of the Act.

The performance standards in SMCRA establish a floor, not a ceiling, with respect to the adoption of regulations to protect the environment. The buffer zone rule could prohibit all mining in streams and be fully consistent with the purposes of the Act. Indeed, it must do so, given the adverse environmental consequences of fills and other mining activities in streams. OSM should not—and must not—limit the scope of the stream buffer zone to the provisions of sections 515(b)(10) and (24). OSM has the statutory authority to require environmental protection standards more strict than the minimization standards established in those two provisions. It can prohibit mining where reclamation is not feasible or where OSM cannot assure that the environment will be protected from the adverse effects of mining.

2. The 2008 rule erroneously relied upon section 515(b)(22)(D) of SMCRA as evidence that Congress did not intend to prohibit the construction of excess spoil fills in streams. At most, this provision “recognizes the possibility of placing excess spoil material in waters of the United States.” *Kentuckians for the Commonwealth v. Rivenburgh*, 317 F.3d 425, 443 (4th Cir. 2003) (emphasis added). However, that possibility is only a minimum standard for fill placement. It does not preclude more stringent prohibitions on fill placement that may be necessary to carry out the purposes of SMCRA.
3. There is no evidence that current reclamation practices in the coal industry can feasibly alter or reduce the conductivity levels in streams below fills to comply with water quality standards that prohibit biological impairment. Scientific studies show that ion concentrations have either remained constant or increased over time. These effects have been measured from three to fifteen years after reclamation was completed, and therefore can be expected to persist over time. In these circumstances, OSM should adopt the same policy that it adopted in 1997 for mines that are expected to discharge acid mine drainage; i.e., prohibit the approval of permit applications that would have these impacts on water quality.

OSM is duty-bound by the purposes in paragraphs (a), (c) and (d) of section 102 of SMCRA, and by the duty in 510(b)(3) to prevent material damage to the hydrologic balance, to use its rulemaking authority under section 201(c)(3) to issue a stream buffer zone rule that prohibits the construction of fills that cause or contribute to violations of narrative or numeric water quality standards. Because those violations are so widespread throughout Appalachia, a complete ban on the placement of valley fills in streams, and on allowing “mining through” streams by operations that will generate significant spoil that will contribute to such violations, is required.

4. In the ANPR, OSM wrongly suggests that the “water courses” mentioned in section 515(b)(22)(D) of SMCRA, which establishes requirements for the construction of excess spoil fills, must include ephemeral, intermittent, and perennial streams. This approach is inconsistent with the brief that the Government filed in the *Bragg* litigation, which states that “The Secretary of the Interior has reasonably concluded

that 'springs, natural water courses or wet weather seeps' do not include intermittent or perennial streams."

5. The supplemental environmental impact statement (SEIS) should analyze an alternative to the 2008 rule that would prohibit all placement of mining spoil or waste in all types of streams (ephemeral, intermittent, and perennial) because such activities are known to cause or contribute to significant degradation and violations of water quality standards in downstream waters. This alternative would be more restrictive than the 1983 rule. The percentage of fills and mining disturbances causing those violations is so high (80-90%) that OSM must impose a blanket prohibition on their use in order to comply with the Clean Water Act. The SEIS for this alternative should investigate and document the scope and extent of stream degradation downstream from mined areas in Appalachia, with a special focus on conductivity and selenium.
6. The preferred alternative in the SEIS and proposed rule should not be based on the type of stream, because scientific studies show that ephemeral streams can be as important ecologically as intermittent or perennial streams. Ephemeral and intermittent streams are habitat or feeding-ground for a unique and diverse assemblage of organisms including salamanders, insects, fish and larger wildlife. They are also the conduits that transport water, sediments and dissolved materials from mountaintops to large river ecosystems. While stream functions take place in perennial streams, they do so at different rates and in different ways than those occurring in ephemeral and intermittent streams, and the smallest streams harbor some species that are not found in perennial reaches.
7. If OSM decides not to prohibit the placement of valley fills in all streams, it must at the very least prohibit their placement in intermittent and perennial streams and must interpret the 1983 rule to have that effect because that was the position taken by the Clinton Administration in an appeal brief filed in *Bragg v. Robertson*. Brief for the Federal Appellants at 2, *Bragg v. W. Va. Coal Ass'n*, 248 F.3d 275 (4th Cir. 2001) (No. 99-2683). The brief further stated that "fills that disturb intermittent or perennial streams may be approved only if there is a finding that activity will not adversely affect the environmental resources of the filled stream segment." *Id.* at 41.
8. The 2008 rule does not carry out the primary purpose of SMCRA because it does not prevent environmental harm. Under the existing rule, every permit approving disturbance of a perennial or intermittent stream must include a permit condition requiring that the permittee demonstrate compliance with the Clean Water Act before conducting any activities that require authorization or certification under that Act.

However, this demonstration requirement is merely a generalized and theoretical requirement that the project applicant comply with the law. It does nothing to monitor, assess, measure or determine whether significant degradation is occurring or will occur. The rule does not contain any practical requirements (1) to monitor

and measure for the type of biological impairment and elevated pollution levels that are occurring downstream from valley fills; (2) to treat conductivity or selenium discharged from valley fills or spoil on the mined area to prevent impairment of downstream reaches; or (3) to otherwise prevent discharges that cause or contribute to violations of water quality standards. Without an actual on-the-ground assessment of the effectiveness of permits and certifications to prevent stream impairment, the demonstration requirement in the existing rule is merely a paper exercise.

- Impacts of mountaintop mining

9. Mountaintop mining and construction of fills in streams result in a decline in water quality, which leads to a loss of sensitive aquatic organisms even when downstream habitats are intact. High levels of conductivity and sulfates can persist long after mining activities cease. Scientists have found no empirical evidence documenting recovery of macroinvertebrate communities in the streams impacted. The water quality impacts of mountaintop mining activities are more severe and more persistent than other land use changes within the southern Appalachians.
10. A complete prohibition on mountaintop mining and construction of fills in streams would not be inconsistent with section 102(f) of SMCRA, which provides that one of the purposes of SMCRA is to “strike a balance between protection of the environment and agricultural productivity and the Nation’s need for coal as an essential source of energy.” Recent economic studies demonstrate that even a complete ban on mountaintop mining would have a relatively minor impact on the cost of electricity. The insignificance of this impact can be traced to two factors: a predicted decrease in the overall demand for coal and a predicted increase in the availability of alternative sources of energy.
11. The supplemental environmental impact statement must take into account not only the potential of the alternatives to impact the price of energy, but also the broader economic impacts on the Appalachian region, including the increase in healthcare costs, water treatment costs, and lost potential for jobs that are borne by communities close to mountaintop mining.

National Mining Association

- NMA strongly opposes eliminating the current (2008) stream buffer zone rule. Any changes could jeopardize a fragile regulatory compromise that has taken more than a decade to establish. In addition, pursuing some extreme alternatives to the current rule would open a Pandora's box of regulatory uncertainty that could unnecessarily impede, or perhaps even eliminate, significant segments of the coal mining industry.
- The extensive changes made in the excess spoil and coal mine waste rules, as well as the stream buffer zone rule and related permitting rules, in December 2008 need to be given a chance to work. They are clearly more restrictive than the prior rules and may well "significantly reduce the harmful environmental consequences of Appalachian surface coal

mining operations" in a manner consistent with federal law as sought by the June 11, 2009, memorandum of understanding implementing the interagency action plan.

- OSM offers nothing to support its implications that there are problems with the 2008 SBZ regulation. To our knowledge, there have been no state regulatory authorities clamoring for OSM to repeal or revisit the SBZ rule. The only basis cited for this complete reversal of policy is the politically and ideologically-driven MOU announced on June 11, 2009.
- In proposing changes to the SBZ rule and related rules, OSM must remain cognizant of unintended regulatory consequences of its actions. Actions aimed at surface mining in Appalachia may have a significant impact on mining in other areas, or even on underground operations in the same region. For example, virtually all coal produced by underground mines in central Appalachia must be washed through a preparation plant to remove rock and other impurities. The resulting coal mine waste lacks the stability of excess spoil and must be placed in disposal areas that extend farther down into valleys than excess spoil fills in order to meet the stability requirements of SMCRA. To preclude the placement of coal mine waste disposal sites in areas that extend into perennial streams in central Appalachia is to eliminate the underground coal mine industry throughout central Appalachia, which is one of the nation's richest and highest quality underground reserves. SMCRA simply does not contemplate or authorize any such restrictions on coal mine waste placement. To the contrary, such restrictions would be inconsistent with section 102(k) of SMCRA, which states that one of the purposes of the Act is to "encourage the full utilization of coal resources through the development and application of underground extraction technologies." See also the finding in section 101(b), in which Congress states that it is "essential to the national interest to ensure the existence of an expanding and economically healthy underground coal mining industry."
- Although NMA at one time advocated more coordination between the various regulatory agencies, we now have serious concerns about the agency's establishment of such practices. Judging by our experience with the EPA's interference with the Corps' permitting process under § 404 of the Clean Water Act and the effective creation of a permit moratorium under that program, we believe that introducing personnel from EPA and the Corps into SMCRA permitting decisions of the regulatory authority is inappropriate. Each agency has its clearly defined jurisdiction with regard to issuing permits under SMCRA and the Clean Water Act, respectively. To allow state-issued SMCRA permits to be held up in indefinite review periods by agencies that have no jurisdiction over the majority of the mine project is inappropriate. Moreover, one of the biggest problems with the 404 permit moratorium has been a complete lack of transparency by the EPA and the Corps with respect to what companies need to do in order to obtain a permit. This process has been abusive and unfair to our members, and we strongly object to any plans by the administration to institute a similar practice on the SMCRA permitting side.

Colorado Mining Association

- The impetus for the proposed rule is attributed to the need to significantly reduce harmful environmental consequences of surface coal mining in Appalachia. However, the impact of the proposed changes would extend nationwide since it is virtually impossible to conduct surface mining without encountering a stream, whether perennial, intermittent, or ephemeral.

- The outcome of the proposed rulemaking appears to have been predetermined, based on the statement that the 2008 rule will be either revised or repealed. This statement indicates a predetermined course of conduct in advance of, and separate from, the rulemaking record yet to be developed and to that extent is inconsistent with the Administrative Procedure Act.

Virginia Mining Association

- The proposal to change the recently adopted SBZ rule is unnecessary and without a rational basis. The attempt to change a rule within months of its adoption demonstrates that the proposal is politically rather than scientifically driven. The existing regulation was adopted after years of careful consideration and deliberation, including an environmental impact statement.
- Some degree of regulatory certainty is necessary for rational business decisions and for obtaining financing for mining operations. It is not uncommon for mining operations in Virginia to be planned for an operational life of a decade or two. Such operations require multiple permit renewals. Without some degree of regulatory certainty companies cannot obtain or commit the financial resources to begin or continue such operations.
- Some of the alternatives in the ANPR would have effects far beyond elimination of mountaintop removal mining or even surface mining in general. Approximately two-thirds of the coal mined in Virginia is produced by underground mines. The topography of the Virginia coalfields is characterized by steep mountainsides separated by narrow creek and river bottoms. It is almost never possible to create a coal mine, even an underground mine, in Virginia without placing excavation spoil or mine refuse in or near a stream. Underground mines require flat surfaces for preparation plants, equipment yards, offices and bath houses. Also, the mine refuse from underground mines must be put somewhere. This material is composed almost entirely of small pieces of rock. The only place to dispose of mine refuse in Virginia is in the "hollows" formed by intermittent or ephemeral streams near the mines.

Texas Mining & Reclamation Association

- The SBZ rule has far-reaching implications, applying to all intermittent and perennial streams at coal mines anywhere in the United States. New or revised rules that would prevent operations from rerouting waterways may render substantial coal reserves in Texas economically unrecoverable without any corresponding environmental benefit, given Texas operators' exemplary record with respect to restoration of water features.

Interstate Mining Compact Commission

- To be consistent with decisions of the Fourth Circuit Court of Appeals, OSM's rule should define how excess spoil can and must be placed in streams to comport with the law. It should not ban the practice. And while OSM can prescribe a national standard for accomplishing this task, it remains the responsibility of the states, as exclusive regulatory authorities where primacy

programs have been approved, to apply the standard through the permitting process, in which OSM plays no role other than through appropriate federal oversight.

- The real dilemma lies not with OSM's rule, but with the practice of excess spoil disposal itself, which the courts have authorized and found to be consistent with the way SMCRA is currently written. Any significant change in direction would therefore require an amendment to SMCRA.
- As OSM continues to search for new alternatives to address this matter, two things must be kept in mind: 1) the states' implementation of this rule and its many iterations over the years has not been the stumbling block, and 2) as OSM attempts to move forward once again with a new variation on a common theme, it is critical to bring the states into the final solution given their role as sole issuers of permits that incorporate and implement the standards.
- OSM must consider how any rule will impact each state's SMCRA regulatory program in terms of both implementation and resources. The incorporation of approaches such as the "alternatives analysis" contained in the 2008 final rule will require the investment of considerable time and effort by state permitting personnel that could prove to be overwhelming. Given the current fiscal constraints under which the states are operating, attempting to accommodate these types of permitting analyses could seriously jeopardize primacy programs.
- Reading between the lines of the ANPR, what we sense is an attempt by OSM to reconcile not just its own regulatory requirements under SMCRA, but a larger, undefined set of standards for water quality protection being advocated by EPA and the Corps. This rulemaking simply cannot be taken out of context from all the other activity that has attended the development and implementation of the June 11, 2009, interagency MOU. While much of that activity has been focused in central Appalachia, the overarching concerns regarding conductivity, total dissolved solids, and numerical and narrative biologic water quality standards have implications nationwide. And even if it is agreed that this activity resides only in Appalachia for now, there is simply no agreement among the affected federal agencies on what those standards should be.
- OSM should convene a summit of all affected state and federal agencies before proceeding with further rulemaking. The summit's purpose would be to sort out and hopefully agree upon several key issues: 1) who is taking the lead on the issues; 2) what specific regulatory standards are in play under both SMCRA and the CWA; 3) how and where these standards should be incorporated into existing regulatory programs, especially at the state level; and 4) what the expectations are for both implementation of and compliance with those standards. These types of discussions are long overdue and without some resolution with all parties at the table, rulemakings such as that regarding the SBZ rule and related issues are likely to fail.

Alaska Coal Association

- OSM should adopt the team approach in which regulators and operators from the various approved State programs are included in discussions of developing new rules or modifying existing regulations.

Detailed Summary of Comments on Alternatives Listed in the ANPR

Note: Specific suggestions for rule revisions other than those listed in the description of the alternative itself are highlighted in yellow.

Alternative 1: Replace the 2008 stream buffer zone (SBZ) rules at 30 CFR 780.28, 784.28, 816.57, and 817.57 with the 1983 version of the SBZ rule at 30 CFR 816.57 and 817.57.

- OSM should quickly and fully restore the protections present under the 1983 SBZ rule. (approx. 31,000 commenters)
- The previous SBZ rules (1977, 1979, 1983, and 2008) have not adequately ensured the protection of streams. Accordingly, stronger regulations than the 1983 rules are now necessary to protect aquatic values, and stronger enforcement is required. SMCRA requires that natural watercourses be protected during coal mining activities, but to date it is apparent that the health of waterways has been sacrificed for coal production. (Center for Biological Diversity)
- Instead of reinstating the 1983 SBZ rule, OSM should adopt as its preferred alternative a rule that would strictly prohibit the filling or mining through of any stream segment. (SELC)
- Failing that, OSM should reinstate the 1983 SBZ rule, but expand its applicability to include ephemeral streams and make strict enforcement of this rule a condition of all state regulatory programs. In addition, OSM should apply and require that states interpret the 1983 rule in the manner set forth in the appellate brief that the Government filed in the *Bragg* litigation. Finally, OSM should reaffirm that the prohibitions and restrictions in the rule apply to the stream segment in the footprint of any proposed fill as well as to downstream reaches of the stream. (SELC)
- Replacing the 2008 SBZ rule with the 1983 version of the rule would be consistent with the intent of the MOU and should promote stream protection because the 2008 rule exempts certain activities from the buffer zone protections and does not require protection of a buffer zone for a stream segment that ceases to exist in its original location as a result of mining activities. (Corps of Engineers)
- This alternative would, in effect, maintain the status quo for all primacy states that have not amended their programs in response to the 2008 SBZ rule. (VA DMME)
- Repeal of the 2008 SBZ rule and reinstatement of the 1983 rule would be the preferred option for Pennsylvania. However, the general concept of exempting certain activities (e.g., the construction of coal mine waste disposal facilities in perennial or intermittent streams) from the prohibitions and restrictions of the SBZ rule and instead crafting specific requirements for that class of activities is also reasonable. (PADEP)

- The current North Dakota stream protection rule, which is based on the 1983 version of the SBZ rule, has been in place for nearly 25 years and is working without concerns or issues. Therefore, reinstatement of the 1983 rule should be considered. (ND PSC)
- The best course of action would be to retain the 2008 rule. Nevertheless, if OSM moves forward with a proposal to return to some version of the 1983 rule, it is imperative that the agency provide clear guidance that conducting surface coal mining activities in the stream buffer zone is not prohibited. No rational interpretation of a stream buffer zone rule could survive judicial challenge if it provided for either a *per se* or a *de facto* prohibition on filling some stream segments. (NMA)
- OSM should implement the 2008 rules and give them a chance to further improve environmental performance before even considering, let alone initiating, major regulatory changes in an area that is in dire need of regulatory stability. (NMA, assorted mining companies, approx. 1,500 other commenters)
- The Alaska coal program has run under the 1983 version quite successfully. A return to this version would be acceptable to the Alaska Coal Association membership. (Alaska Coal Ass'n)
- OSM should not revert to the 1983 SBZ rule. The existing (2008) rule finally clarified what industry needed to do to protect streams. It would be a mistake to throw out that rule and return to the confusion and uncertainty associated with the 1983 rule. (Wyoming Mining Ass'n)
- OSM should retain the 2008 SBZ rule, which was the result of a 5-year public process and which ended years of ambiguity and uncertainty. If changes are needed to address certain mining operations in Appalachia, OSM should develop a separate SBZ rule for that region of the country. (Illinois Coal Ass'n, Indiana Coal Council)
- Reinstatement of the 1983 SBZ rule would do nothing to address the concerns raised in the MOU and would return the industry to the same uncertain interpretive quagmire that existed prior to adoption of the 2008 rule. The 1983 rule is unworkable. (Ohio Coal Ass'n)
- If the 1983 version of the SBZ rule is reinstated and its interpretation remains faithful to SMCRA, it will result in a decrease in the amount of environmental analysis and review of mining permits that are situated in or near streams. Considering the stated goals of the MOU upon which the ANPR was based, repealing a more stringent regulation in favor of a less stringent one is, at worst bizarre, and, at best, confusing. (West Virginia Coal Ass'n)
- The 1983 language is legally vague, which is one major reason why the 2008 change was made. Returning to the 1983 language would likely result in increased litigation. (Peabody)

- Legal challenges to the 1983 rule as well as difficulties in practical application of the 1983 rule are discussed in detail in the preamble to the final 2008 rule. We have experienced these difficulties first-hand and recognize that application of the rule requires greater detail than is provided in the 1983 rule. For these reasons, we object to this alternative. (D.R. Allen & Associates)
- North Dakota lignite producers worked effectively with the North Dakota regulatory authority under the 1983 SBZ rule. However, the producers have reviewed the 2008 rule and determined that they can also work well under that rule. Therefore, no change in the national 2008 rule is recommended, although states should have the discretion to revise their rules to address problems of a state or regional nature. (Lignite Energy Council)

Alternative 2: Apply the prohibitions and restrictions of the stream buffer zone rule to all segments of all perennial and intermittent streams and to the surface of all lands within 100 feet of those streams, with the possibility of adding restrictions on disturbance of ephemeral streams.

- Prohibiting the placement of excess spoil or coal mine waste in all segments of intermittent or perennial streams, or even imposing a rebuttable presumption that such placement is unacceptable, exceeds restrictions authorized or contemplated by SMCRA, and would be contrary to it. (NMA)
- Prohibiting placement of excess spoil in perennial and intermittent streams would destroy the surface coal mining industry, while prohibiting placement of coal mine waste in perennial and intermittent streams would destroy the underground coal mining industry in central Appalachia. (NMA)
- Close coordination on federal and state stream jurisdictional determinations will be needed to implement this alternative. (Corps of Engineers)
- Please provide clarification to distinguish between prohibition of spoil placement in perennial and intermittent streams and their buffer zones and restrictions on spoil placement in ephemeral streams and their buffer zones. (Corps of Engineers)
- This alternative would expand the prohibitions established under section 522 of SMCRA and would necessitate statutory and regulatory amendments. (VA DMME)
- This option should not be considered because it appears to conflict with section 515(b)(22)(D) of SMCRA, which allows the disposal of excess spoil in natural water courses if lateral drains are constructed to prevent the infiltration of water into the spoil. (ND PSC, others)
- The focus of protection should remain on perennial and intermittent streams because those terms are well-understood and relatively straightforward to implement. Any other alternative would be unnecessarily disruptive to state regulatory programs and would inject litigation and its associated costs and delays into the permitting process. (PADEP)
- To prohibit mountaintop mining or valley fills by regulation would be directly and clearly contrary to SMCRA and how it has been interpreted by the courts. As the 4th Circuit explained:

SMCRA does not prohibit the discharge of surface coal mining excess spoil in waters of the United States.... It is beyond dispute that that SMCRA recognizes the possibility of placing excess spoil material in waters of the United States even though those materials do not have a beneficial purpose.

Kentuckians for the Commonwealth v. Rivenburgh, 317 F. 3d 425, 442-443 (4th Cir. 2003). (NMA)

- This alternative would result in sterilizing certain coal reserves. Valuation of federal coal for bidding purposes would become uncertain and the federal government may need to compensate operators mining existing leases where restrictions are placed on the reserve that could not be foreseen during the bidding process. (Colorado Mining Ass'n, Peabody)
- The possibility of prohibiting surface coal mining activities in ephemeral streams is particularly troubling because it would severely restrict coal production nationwide. (BHP Billiton)
- Such a blanket prohibition would be overly restrictive, is an over-reaction, removes any ability to evaluate a plan at the state level, and is counter to the preamble of SMCRA in which a balance between protection of the environment and the nation's need for coal as an energy source is required. Streams can have vastly different value, function and density in various areas of the nation. A blanket prohibition does not allow for a fair and valid case-by-case review. In areas with an extremely high drainage density, such as exists in portions of Alaska, this single alternative could prohibit coal mining in the region, even though plans and operations could readily be designed with no material damage to the regional hydrologic balance. The same could be said for coal mines in arid regions. Please drop this alternative from consideration. (Alaska Coal Ass'n)
- OSM previously considered and rejected application of the SBZ rule to ephemeral streams during both the 1983 and 2008 rulemaking processes. The arguments in Part VII of the preamble to the 2008 rule remain sufficient to justify excluding ephemeral streams from application of the rule. (D.R. Allen & Associates)
- Many intermittent streams can be of low value because of land uses such as agricultural drainage systems. Mitigation as part of the mining and reclamation operation can enhance the stream's environment, in which case it makes no sense to prohibit mining activities in those streams and their buffers. (Peabody, Colorado Mining Ass'n)
- This alternative likely would eliminate most surface mining because streams are ubiquitous and it is not reasonable economically or environmentally to mine in between them. (Peabody)
- SMCRA has never included a prohibition on mining in stream buffer zones. Therefore, OSM has no authority to adopt such a prohibition. The courts have struck down a previous attempt by OSM to extend a prohibition expressed in SMCRA beyond the distance specified in the Act. See *In re: Surface Mining Regulation Litigation*, 627 F.2d 1346, 1358-1359 (D.C. Cir. 1980). (Metiki)
- OSM should prohibit all surface mining activities, including the placement of spoil, mine waste, and/or fill, along the entire length of perennial, intermittent, and ephemeral

streams and to the surface of all lands within at least 200 feet of those streams, without exception. It has been demonstrated that 100-foot buffers are not large enough to protect aquatic values during activities that produce severe sedimentation, such as surface coal mining, and in areas with steep terrain (Wenger 1999). (Center for Biological Diversity)

- OSM should not propose or adopt the variation of this alternative that would establish a rebuttable presumption that placement of excess spoil or coal mine waste in a perennial or intermittent stream is prohibited because it would result in an unacceptable level of environmental damage. Adoption of this presumption would simply preserve the status quo and allow unwarranted and routine exceptions to the prohibitions in the SBZ rule. (SELCO)
- We support this alternative to the extent that it is intended to ordinarily disallow spoil and waste disposal in streams as well as on the lands surrounding those streams. We also support extending this protection to ephemeral streams, especially since there is uncertainty as to whether and to what extent those streams will receive protection under the Clean Water Act. (NRDC)

Alternative 3: Revise 30 CFR 816.57 and 817.57 to provide that the SMCRA regulatory authority may authorize mining activities in a perennial or intermittent stream, or on the surface of land within 100 feet of such a stream, only if those activities (1) would not violate sections 401 and 402 of the Clean Water Act; (2) would not violate section 404 of the Clean Water Act; (3) would not significantly degrade the water quantity or quality or other environmental resources of the stream; and (4) would minimize disturbances and adverse impacts on fish, wildlife, and other related environmental values of the stream to the extent possible using the best technology currently available.

- Any changes should consider and clearly explain how they will relate to TMDL reports and requirements. (VA DMME)
- This rather vague option should not be considered because it is likely to create situations in which OSM inspectors and technical reviewers will second-guess findings made by the state regulatory authority. (ND PSC)
- The federal agencies should take this opportunity to clarify the relationship between the SMCRA permit and the section 404 authorization. How can the SMCRA regulatory authority impose requirements that are in conflict with a Clean Water Act authorization? (WVDEP)
- For this alternative to be successful, concurrent evaluation of all permit applications by all regulatory authorities would be necessary. The rule should require that the SMCRA regulatory authority communicate with the Corps of Engineers with respect to compliance with section 404 of the Clean Water Act and communicate with the applicable state NPDES permitting authority and/or EPA to determine compliance with sections 401 and 402 of the Clean Water Act. (Corps of Engineers)

- The first two criteria under this alternative are superfluous and unnecessary because, with or without such a SMCRA rule, mining operations must still comply with applicable provisions of the Clean Water Act. Including the provisions suggested in this alternative in SMCRA rules would be inappropriate because it would place the SMCRA regulatory authority in the position of making determinations on whether or not the Clean Water Act would be complied with or is even applicable. SMCRA regulatory authorities have absolutely no authority to make such determinations, nor can OSM give them such authority by regulation. Section 702(a)(3) of SMCRA states that nothing in SMCRA shall be construed as superseding, amending, modifying or repealing the Clean Water Act or its implementing regulations. Neither the Clean Water Act nor its implementing regulations provide for authorizing SMCRA regulatory authorities to make applicability or compliance determinations for sections 401, 402 or 404 of the Clean Water Act unless the delegation occurs under the Clean Water Act, not SMCRA. (NMA)
- The third criterion would need some spatial clarification such as outside the permit area or within 100 feet of the surface mining activities. Without such clarification, there will be controversy over whether this language does or does not preclude constructing an excess spoil fill in an intermittent or perennial stream, just as there was with the 1983 SBZ rule. (NMA)
- The wording of the fourth criterion is essentially identical to existing 30 CFR 816.71(a)(4) and 816.57(c)(3) as finalized in the 2008 rulemaking. Therefore, existing OSM rules already require that the regulatory authority must find that an operation will comply with these requirements before a permit can be issued. There is nothing new in this criterion that is not contained in existing rules. (NMA)
- The ambiguous language of the fourth criterion of this alternative is worrisome. How will OSM determine if disturbances or adverse impacts have been properly “minimized”? What do you consider an adverse impact? What exactly are “other related environmental values”? (D.R. Allen & Associates)
- How will minimization “to the extent possible” be interpreted? Will the need for a company to have a financial incentive to mine coal be considered? The balance between environmental protection and allowing for such a financial incentive is critical to ensuring the continued production of coal at levels necessary for sustainability of both our nation’s energy supply and economy. (D.R. Allen & Associates)
- This alternative is fraught with ambiguity. Its adoption would result in a return to the very same interpretive ambiguity from which OSM emerged with the promulgation of the 2008 rule. (Ohio Coal Ass’n)
- OSM should revise 30 CFR 816.57 and 817.57 to provide that the SMCRA regulatory authority may not authorize mining activities in perennial, intermittent, or ephemeral streams under any circumstances. The best technology currently available to ensure that

streams meet Clean Water Act standards is to prohibit all mining activity near streams. Given the history of lax Clean Water Act enforcement, the addition of caveats requiring Clean Water Act compliance is inadequate to protect waterways from continuing to be filled or polluted by surface mining activities. Moreover, it is known that in mining areas, current water quality criteria are not adequate to protect sensitive species or sensitive life stages of species (Neves et al. 1997, FWS 1994, 1997, 2009). (Center for Biological Diversity)

- The National Park Service supports the third criterion of this alternative, which would prohibit significant degradation of the water quantity or quality or other environmental resources of the stream outside the permit area. While section 522(e)(3) of SMCRA prohibits surface coal mining activities outside park boundaries that would adversely affect any publicly owned parks, the Service has been reluctant to raise this prohibition even though numerous units of the National Park System are downstream recipients of runoff originating on or near surface coal mining operations and therefore could be adversely affected by this nonpoint discharge. We believe that a more effective way to protect park resources from upstream discharges is by preventing significant degradation of the water quantity or quality or other environmental resources of the stream outside the surface mining permit area altogether. (NPS GRD)

Alternative 4: Establish numerical limits on fill size, the percentage of a watershed disturbed by mining operations at any one time, or total stream miles covered by fills in each watershed.

- There is no new information that would justify limits of this nature. OSM should avoid a “one size fits all” approach. Determinations should be site-specific and take into consideration past mining impacts and opportunities to improve sites left unreclaimed by prior mining. (VA DMME)
- This option should not be considered because it would be very difficult to establish thresholds of this nature to cover the variety of conditions that exist in different areas. (ND PSC)
- Proposing one-size-fits-all numerical limits is impracticable and inappropriate because of differences in site-specific characteristics. (WVDEP)
- This alternative would effectively prevent Alaska from developing its coal resources in a way that maximizes resource recovery while still protecting the environment. (Alaska DNR)
- Establishing numerical limits would be very difficult. The rule should instead require an analysis of the structure and function of premining stream channels to allow regulatory authorities to evaluate whether reclamation or mitigation is adequate to offset stream losses as a result of the mining activity. (Corps of Engineers)
- A 30-day comment period is insufficient for industry to provide the requested information concerning bright-line thresholds. (Ohio Coal Ass’n)

- Imposing numerical limits on fill size is unsound from an environmental standpoint. The laws of geometry dictate that placing 30 million cubic yards of excess spoil in 30 separate one-million-cubic-yard fills would affect substantially more total area with much greater risk of fill failure than placing that same material in six separate five-million cubic yard fills, which would, in turn, cover more total area with greater risk of failure than placing the entire 30 million cubic yards in one fill. (The surface area-to-volume ratio decreases as volume increases, which means that 30 separate one-million cubic yard fills would cover approximately 10 times the surface area that would be covered by one 30-million cubic yard fill.) (NMA)
- Imposing numerical limits on fill size is unsound from the standpoint of safety and stability. Gravity comes into play because the smaller the fill, the higher the toe of the fill would be--and the higher the toe of the fill, the steeper the slope where that toe is placed. A fill that toes out where the slope of the natural ground is less than 10 percent is orders of magnitude easier to hold in place than one where the slope of the natural ground is over 15 percent at the toe (and there would be 30 fill toes on those steeper slopes rather than six toes on a gentler slope, or one toe on a still gentler slope). (NMA)
- The courts have held that an agency seeking to change its previous holdings must provide a thorough and comprehensive statement of reasons for the decision and, in cases where the agency's rule departs from prior policy, such analysis must go beyond that which is required when the agency has not taken a position in the first instance. In this case, OSM has previously taken the position that there is neither statutory authority nor a scientific basis for establishing bright-line numerical thresholds for fills. Thus far, OSM has identified no change in its SMCR authority nor has it produced any new scientific data to support a change in its prior findings on these issues. (NMA)
- This alternative would be inconsistent with the maximum economic recovery requirements of the Mineral Leasing Act for leased federal coal as set forth in 43 CFR 3484.1. (BHP Billiton)
- A numerical limit on the size of fills, percentage of watershed disturbed, or total miles covered by fills could never be developed for Alaska, much less nationally. Even with exhaustive scientific information gathered at the cost of tens of millions of dollars, there are no one-size-fits-all limits that could be appropriately applied. We suggest this alternative be dropped from further consideration. (Alaska Coal Ass'n)
- Limits on fill size or stream miles do not make sense in this context. Mitigation should be considered in determining what impacts are significant. Otherwise, substantial coal reserves will be sterilized. (Peabody)
- Considering the large variations in project-specific site conditions throughout the Appalachian surface coal mining states, application of even a regional limit (whether numerical, qualitative, or quantitative) to all operations is nonsensical. (D.R. Allen & Associates)

- The new rule should establish numerical limits on the percentage of a watershed or county that can be cumulatively permitted for mining activities, past or present. Whether the numerical limit is determined by watershed boundary or county boundary should be based on which delineation will result in the least amount of area that is permitted for mining. We support using county delineations because that data is already available for eastern Kentucky and West Virginia in the December 2009 Governmental Accountability Office report on surface mining in the Appalachian portions of those states. Numerous scientific studies have shown that biodiversity and water quality are negatively affected when greater than 10 percent of the surface area of a watershed has been altered (e.g., Yaun and Norton 2003, Allan 2004, Morgan and Cushman 2005).

Based on this standard, we suggest as the most lenient standard, denial of the further issuance of surface mining permits in counties or watersheds where 10 percent of the land area has already been permitted for surface coal mining, whether the permits are active or reclaimed. With regard to a numerical limit on fill size or total stream miles covered by fills within a watershed, the limit should be set at the present amount of devastation, and no further filling of streams should be permitted, without exception. (Center for Biological Diversity)

- Numerical limits are vital to addressing cumulative impacts from surface mining and to give effect to the requirement in section 515(b)(24) of SMCRA that adverse impacts on fish, wildlife, and related environmental values be minimized to the extent possible, using the best technology currently available. There is scientific support for prohibiting all fills in streams, but, failing that, the rule should prohibit the issuance of new permits for mining through or filling a stream in any watershed in which surface coal mining operations have affected 10 percent of the watershed. (SELC)
- If a permit is issued and subsequent monitoring shows significant degradation or violation of water quality standards, the rule should require that the regulatory authority order a cessation of operations. (SELC)

Alternative 5: Establish a quantitative or qualitative threshold beyond which further damage to water quality or aquatic life in a particular watershed would be prohibited.

- Virginia already implements this approach through its TMDL program, which establishes protective thresholds for aquatic life on a watershed basis. Only permit applications that propose to offset their pollution loads with watershed improvements are eligible for approval. Other states should emulate Virginia's example. (VA DMME)
- Any threshold involving benthic life impairments should state specifically what species of macroinvertebrate or other biological marker organism(s) indicates impairment. For instance, does the presence or absence of a particular mayfly species when other mayfly species are present indicate impairment? Additionally, the assessment protocol, scoring method and specific score should be specified. Any in-stream water quality criteria based on benthic life impairment should not be mandated on a regional basis because Virginia's experience with TMDLs indicates that some of the most detrimental impacts on benthic life result from development and straight-pipe discharges, not coal mining. (VA DMME)
- This option should not be considered because it would be very difficult to establish this type of threshold due to the variety of conditions that exist. (ND PSC)
- Pennsylvania is not aware of any empirical data that would support a quantitative impact threshold. (PADEP)
- Guidelines for water quality standards and effluent limitations designed to protect water quality and aquatic life for specific uses have already been established under the Clean Water Act. The courts have rejected previous OSM rules that intruded into this area of Clean Water Act regulation. (WVDEP)
- This alternative would effectively prevent Alaska from developing its coal resources in a way that maximizes resource recovery while still protecting the environment. (Alaska DNR)
- This type of threshold may be difficult and impracticable to establish because it would require comprehensive analyses of the baseline conditions of all affected watersheds and their ecological carrying capacity. (Corps of Engineers)
- When assessing water quantity and quality outside the permit area, the SMCRA regulatory authority should work closely with both the EPA and other federal land managers, like the NPS, to identify downstream aquatic resource impacts and to develop appropriate water quality and quantity thresholds that promote healthy natural aquatic systems for federal trust resources. Impacts from individual operations as well as cumulative impacts need to be evaluated with regard to aquatic species, especially threatened and endangered species. These impacts also should be considered in assessing past and present conditions in the watershed. (NPS GRD)

- Establishing watershed water quality criteria (either quantitative or qualitative) is entirely beyond the scope of what is authorized by SMCRA. This approach cannot be harmonized with the Clean Water Act and would be in violation of section 702(a)(3) of SMCRA, which states that nothing in SMCRA shall be construed as superseding, amending, modifying or repealing the CWA or any rule or regulation promulgated there under. (NMA)
- Establishing an arbitrary threshold is not feasible and is beyond the scope of SMCRA authority. These concerns should be covered by the existing requirement for a cumulative hydrologic impact assessment and separate permitting processes under the Clean Water Act. (Colorado Mining Ass'n)
- Mitigation should be considered in determining impacts. (Peabody)
- Considering the large variations in project-specific site conditions throughout the Appalachian surface coal mining states, application of even a regional limit (whether numerical, qualitative, or quantitative) to all operations is nonsensical. (D.R. Allen & Associates)
- The rule must define what a watershed is for regulatory purposes. (Freshwater Mollusk Conservation Society, KY State Nature Preserves Commission)
- Cumulative impairments should be examined at multiple levels, starting with a very local scale (HUC 14) and include the small watershed scale (HUC 11) to HUC 8 scale (watershed level). Otherwise, true watershed impacts cannot be assessed. (Freshwater Mollusk Conservation Society, KY State Nature Preserves Commission)
- The development of cumulative thresholds should be evaluated across various seasonal flow regimes to establish appropriate values. In addition, criteria should be set in relation to least disturbed condition streams from nearby areas. OSM or permit applicants should fund studies to gather information on what the critical environmental thresholds should be for threatened or endangered species (water quality, percentage of local watershed disturbance). (Freshwater Mollusk Conservation Society, KY State Nature Preserves Commission)
- OSM should consider the diversity, connectivity, and integrity of freshwater mussel communities within watersheds, especially those downstream of major mining operations. (Freshwater Mollusk Conservation Society, KY State Nature Preserves Commission)
- OSM should work directly with EPA, the U.S. Geological Survey, and scientific groups such as the North American Benthological Society, the American Fisheries Society, the Ecological Society of America, and the Freshwater Mollusk Conservation Society, to establish a framework for establishing appropriate criteria for biological thresholds. (Freshwater Mollusk Conservation Society, KY State Nature Preserves Commission)
- The cumulative effects of mining on groundwater resources must be considered as these connections are critical to the hydrological and biological integrity of watersheds. (Freshwater Mollusk Conservation Society, KY State Nature Preserves Commission)

- Appalachian waterways have already been ravaged by surface coal mining and no further degradation of aquatic habitats should be permitted. (Center for Biological Diversity)

Alternative 6: Adopt by regulation the watershed approach described in the preamble to the 2008 rule, rather than making project-specific determinations.

- Any watershed approach must properly account for pre-SMCRA and nonmining pollutional loads, as well as accurately measure those loads through data analysis. (VA DMME)
- A watershed approach could open the window to the use of offsite best management practices and offsets that would provide the most benefit to water quality and aquatic life. It should encourage offsets to NPDES pollutant loading by companies engaging in point source to non-point source offsets and not in-kind offsets such as offsets for TSS or TDS for straight-pipe removal or sewage treatment projects. (VA DMME)
- This option is quite vague and more specifics are needed to have a clearer understanding of the proposal in order to properly evaluate and comment on it. (ND PSC)
- This alternative should be implemented. The SMCRA regulatory authority should evaluate the individual and cumulative effects of past, present, and reasonably foreseeable future activities in the watershed. The rule should specify the size of the watershed that must be evaluated, using Hydrologic Unit Codes. (Corps of Engineers)
- Requiring operators to engage in watershed-scale impact analysis likely would result in the extinction of mining by many of Ohio's smaller operators. The analysis is legally tenuous and would require operators to engage in a guessing game with respect to future mining development, land use, and downstream uses and characteristics. (Ohio Coal Ass'n)
- This alternative ignores the essential point that coal mining operations differ from other industrial sites that EPA is used to regulating. Mines can only go where the minable coal is. Coal mines are, by necessity, located where minable coal reserves are located. Movable reserves are not evenly distributed, nor do they encompass only a certain percentage of each watershed. Some watersheds are full of minable reserves, while others have few or no reserves. To preclude the mining of minable reserves--particularly when the infrastructure and equipment is already in the area--simply because other mines are already in the watershed makes no sense, either from an environmental or practical perspective. It would only increase the size of the infrastructure footprint for the same amount of coal production. (NMA)
- This alternative would be contrary to SMCRA in that section 102(k) encourages the "full utilization of coal resources" by underground mining methods, and section 515(b)(1) requires that surface coal mining operations be conducted so as "to maximize the utilization and conservation of the solid fuel resource being recovered so that

re-affecting the land in the future through surface coal mining can be minimized.”
(NMA)

- Precluding mining of readily available reserves would constitute a taking of private property requiring just compensation under the Fifth Amendment to the Constitution, especially when coal reserves are acquired years prior to mining, which is typically the case. (NMA, Colorado Mining Ass’n, Peabody)
- The SMCRA mandate for the regulatory authority to prepare a cumulative hydrologic impact assessment (CHIA) should not and cannot be shifted to the permit applicant. Further, the finding required by the regulatory authority, after preparing the CHIA, only applies to the proposed operation, not all anticipated mining. (NMA)
- Stopping mining in a watershed as opposed to providing sufficient mitigation will drive mining into greenfield locations, which would potentially be both more costly and more environmentally damaging. If mitigation is sufficient, there is no sound reason to limit mining in a watershed. (Peabody)
- All the factors mentioned in the 2008 preamble discussion of the watershed approach that EPA recommended are required under the Clean Water Act, not SMCRA. OSM has no authority to incorporate these requirements into SMCRA regulations, nor can OSM legally assume Clean Water Act duties that are reserved to EPA and its delegated states. (West Virginia Coal Ass’n)
- The rule must define what a watershed is for regulatory purposes. (Freshwater Mollusk Conservation Society, KY State Nature Preserves Commission)

Alternative 7a: Define the term "material damage to the hydrologic balance."

- This definition is needed, together with identification of actions that can be taken to ensure the material damage is prevented. (Corps of Engineers)
- The definition should require consideration of adverse on-site impacts, such as the conversion of perennial or intermittent stream segments within the permit area to ephemeral stream segments following reclamation. (Corps of Engineers)
- OSM should define the term “material damage to the hydrologic balance outside the permit area” to expressly include:
 - a) exceedance of any applicable federal or state numeric water quality standard for a pollutant or condition that a surface coal mining and reclamation operation may reasonably be expected to discharge, cause, or worsen, where the exceedance occurs in any water resource that a particular surface coal mining and reclamation operation may or does detectably affect;
 - b) any lesser concentration or load of a mining-related pollutant or combination of pollutants that a SMCRA or Clean Water Act regulatory authority may find to

indicate or constitute an unacceptable degree of damage to a water resource that a surface coal mining and reclamation operation may or does detectably affect;

- c) any condition that applicable federal or state narrative water quality standard or anti-degradation standard prohibits and that a surface coal mining and reclamation operation may reasonably be expected to cause or worsen in a water resource that the operation detectably affects;
- d) any other condition that the regulatory authority determines to constitute an unacceptable degree of damage to a water resource that a surface coal mining and reclamation operation may or does detectably affect; or
- e) disturbance of more than 10% of the land area of any watershed.

Section 702(a)(3) of SMCRA precludes OSM from defining “material damage to the hydrologic balance outside the permit area” in any manner that fails to recognize an exceedance of applicable water quality standards under the Clean Water Act or state statutes that implement the Clean Water Act as “material damage to the hydrologic balance.” (Appalachian Center for the Economy and the Environment)

- The definition of the term “material damage to the hydrologic balance outside the permit area” must expressly include any potential exceedance of state or federal numeric or narrative water quality standards or antidegradation requirements. (SELC)
- The significant amount of hydrologic information gathered during the past 25 years demonstrates the great variability in conditions from area to area and state to state. It confirms the wisdom of OSM’s 1983 decision to leave determinations of material damage to the states, rather than codifying a national definition or establishing national criteria for material damage. (VA DMME)
- If OSM decides to define material damage, the definition must be based on sound science and be site-specific. A scoring matrix of relevant factors may provide the necessary flexibility. (VA DMME)
- To be consistent with EPA actions, any definition should consider establishing a conductivity of approximately 500 micro Siemens or TDS of approximately 350 mg/l as thresholds for material damage. (VA DMME)
- Any definition of material damage that includes a benthic life component should state specifically what species of macroinvertebrate or other biological marker organism(s) will be used as a measure of impairment. For instance, does the presence or absence of a particular mayfly species, when other mayfly species are present, indicate impairment? Additionally, the assessment protocol, scoring method, and specific score should be established. (VA DMME)

- Any in-stream water-quality-based definition of material damage to benthic life should take into consideration the fact that benthic impairment results from a combination of factors (e.g., drought, development, and straight-pipe discharges) that are not all related to coal mining. (VA DMME).
- As mentioned in the ANPR, OSM did not define this term in the past because the gauges for measuring damage vary from area to area and from operation to operation. This rationale remains valid. Therefore, we strongly oppose the suggestion that "material damage" be defined by rule. When the material damage topic has come up in OSM training courses and other discussions, OSM staff has consistently stated that this needs to be evaluated and determined on a case-by-case basis. (ND PSC)
- West Virginia has already adopted a definition of this term, as has OSM in Tennessee. Both definitions are crafted to avoid potential inconsistencies with the Clean Water Act. (WVDEP)
- Given the significant differences in geology, hydrology, and terrain among the various regions of the country where surface coal mining operations occur, regulatory terms such as "material damage to the hydrologic balance" have necessarily been left to each state to define based on their unique circumstances. This is the very essence of SMCRA's design, whereby Congress vested primary governmental responsibility for developing, authorizing, issuing and enforcing regulations for surface coal mining and reclamation operations with the states so as to accommodate the diversity in terrain, climate, biologic, chemical, and other physical conditions in areas subject to mining operations. (IMCC, Ohio Coal Ass'n)
- It is difficult to imagine one nationwide definition (or nationwide criteria) for what constitutes "material damage to the hydrologic balance outside the permit area." While some generic qualitative language like the definition that OSM has approved as part of the Wyoming program might work nationwide, it is hard to see that it would add much clarity. Criteria that would be appropriate for defining material damage to the hydrologic balance outside the permit area-for a permit covering thousands of acres in the Four Corners area with annual precipitation less than 10 inches a year and no intermittent or perennial streams in the immediate area can and should be quite different than those criteria appropriate for a mountaintop operation in central Appalachia, or a large dragline operation in the flat areas of east Texas with more than 50 inches of annual precipitation. (NMA)
- If OSM does propose a definition, the phrase "outside the permit area" should be included as part of the term because it is an integral part of the finding that a regulatory authority must make. (NMA)
- If OSM deems a definition necessary, it should include the following language: "Any long-term or permanent change in the hydrologic balance caused by surface mining operations that has a significant adverse impact on the capability of the affected water resources to support existing conditions and uses." (Mettiki)

- Time and further development of science cannot override geography. (West Virginia Coal Ass'n)
- OSM is precluded from assuming any role in areas of water quality regulation that are reserved to individual states under the Clean Water Act. (West Virginia Coal Ass'n)
- It would be difficult to come up with a definition appropriate for the vastly differing hydrologic conditions where coal mining occurs, and by necessity should be determined by state programs relative to individual sites. (Colorado Mining Ass'n)
- As stated in the ANPR, in 1983, OSM decided not to propose or adopt a definition or fixed criteria for material damage to the hydrologic balance "because the gauges for measuring damage may vary from area to area and from operation to operation." This is still the case; the conclusion drawn in 1983 still applies today. For example, the tolerance for change in a highly productive aquatic habitat would be significantly different than that for a barren aquatic zone. State programs should have the flexibility and authority to judge each project on a case-by-case basis. (Alaska Coal Ass'n)
- Any definition most likely would be unworkable because it would probably conform to the current EPA stance that almost any adverse impact on aquatic communities equates to material damage to the hydrologic balance. (Clintwood Elkhorn Mining Company)
- While understanding of the relevant hydrology and associated technology have advanced since 1983, the statement in the 1983 preamble quoted in the ANPR remains relevant: "...the gauges for measuring damage may vary from area to area and operation to operation..." The large variations in project-specific site conditions (climate, geology, etc.) would make any definition of material damage ripe for legal challenge. (D.R. Allen & Associates)

Alternative 7b: Revise the definition of “cumulative impact area” and the requirements for CHIAs and PHC determinations to incorporate elements that are consistent with the manner and standards by which the Corps of Engineers determines potential cumulative adverse impacts on waters of the United States under section 404 of the Clean Water Act.

- OSM should align the geographic scope of the cumulative impact analysis under SMCRA with the geographic scope of NEPA to promote greater consistency between SMCRA and Clean Water Act cumulative impact analyses. (Corps of Engineers)
- OSM should not revise the definition of "cumulative impact area" to incorporate the manner and standards used by the Corps of Engineers for determinations under section 404 of the Clean Water Act. It is not necessary to invoke standards developed by another federal agency to meet provisions under a different federal act. (ND PSC)
- OSM should not incorporate elements of the Corps of Engineers' processes and standards for potential adverse impacts of fill disposal under the Clean Water Act Section 404 program into the SMCRA probable hydrologic consequences (PHC) determination and CHIA processes. As acknowledged in the ANPR, the Corps is concerned with determining adverse impacts to waters of the U.S. in relation to the discharge of fill material under Section 404 of the Clean Water Act. The CHIA process and the finding that the SMCRA regulatory authority must make is concerned with the possible impact of the entire mining operation upon the entire hydrologic balance outside the permit area (not the stream inside the permit area and not just the stream). (NMA)
- As the jurisdictional reach of the Corps of Engineers has been limited to the affected waters and adjacent riparian areas by the U.S. Court of Appeals for the Fourth Circuit in *Ohio Valley v. Aracoma Coal Co.*, No. 07-1479 (4th Cir. 2009), the differences in the scope of analysis between the section 404 and SMCRA permits warrant elimination of the portion of this alternative that would have OSM incorporate elements of the Corps of Engineers' processes and standards for potential adverse impacts of fill disposal under the Clean Water Act section 404 program into the SMCRA PHC determination and CHIA processes. (D.R. Allen & Associates)
- OSM should not revise the definition of “cumulative impact area” at 30 CFR 701.5. The definition requires regulatory authorities to delimit cumulative impact areas on the basis of scientific analysis of hydrologic data that demonstrate the geographic extent to which the effects of a proposed surface coal mining and reclamation operation may, given the particular environmental conditions adjacent to the proposed permit area, interact with the hydrologic effects of other mining operations to produce a cumulative impact on the hydrologic balance. That method of delimiting cumulative impact areas is pragmatic, wholly supportive of the purpose of CHIA analysis, easily reviewable for error, and not susceptible to manipulation by those who favor or oppose mining without regard to Congress's intent in enacting SMCRA. Properly applied, the definition works well. [Appalachian Center for the Economy and the Environment (ACEE), West Virginia Coal Ass'n]

- The Corps of Engineers' "Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material" contains scant methodology or standards for OSM to incorporate into its CHIA regulations. Other than repeated admonitions to look both individually and cumulatively at the various effects of fill placement, the "Guidelines" mention "cumulative" analysis only twice. Neither of these provisions adds anything to the CHIA process defined in OSM's current regulations and internal guidance documents. The Corps's cumulative impact methodology appears to differ from OSM's CHIA procedures only by limiting the extent of the Corps's analysis to what that agency deems "reasonable and practical," as opposed to OSM's statutory mandate to evaluate "the probable cumulative impact of all anticipated mining in the area" of a proposed mine. 30 U.S.C. § 1260(b)(3). Certainly, OSM has no authority to curtail the focus of its CHIA analysis to anything less than the extent of the agency's statutory mandate. Accordingly, OSM could not incorporate the Corps's narrower cumulative impact focus. (ACEE)
- Congress chose to elevate cumulative impact analysis from the simple mention of cumulative impact as a factor in deciding whether to issue a general permit for fill construction under the CWA to the far more elaborate and crucial test for issuance of any permit for any type of surface coal mining and reclamation operation under SMCRA. In doing so, Congress put the Secretary of the Interior, not the Secretary of the Army, in the driver's seat with respect to methodology and standards for cumulative impact analysis related to surface coal mining and reclamation operations. For that reason, if any incorporation is to be done, it is the Corps which must incorporate OSM's more detailed and stringent cumulative impact regulations rather than the other way around. (ACEE)

Alternative 8: Require that a SMCRA permit applicant concurrently submit the SMCRA permit application to the SMCRA regulatory authority, the National Pollutant Discharge Elimination System permitting entity, the U.S. Army Corps of Engineers, EPA, and the state agency responsible for certification under section 401 of the Clean Water Act.

- Concurrent submittals are necessary to ensure successful interagency communication and to ensure that all agencies are evaluating the effects of the proposed mining activity on all aquatic resources that each agency regulates. (Corps of Engineers)
- The Tennessee Department of Environmental Conservation expressed support for this alternative.
- OSM should require prompt submittal of permit applications to the Fish and Wildlife Service so that threats to proposed and listed threatened and endangered species can be assessed on a permit-by-permit basis. (Center for Biological Diversity)
- Virginia's SMCRA permitting process already incorporates extensive coordination and cooperation with the listed agencies. (VA DMME)

- Electronic permitting allows simultaneous access to permit applications by all interested state and federal agencies. (VA DMME)
- We strongly oppose this option because the specific review times under SMCRA-based law and rules are likely to be very different from those of the state agency that handles the NPDES permitting and other Clean Water Act responsibilities and that of the Corps of Engineers for Section 404 authorizations that may be required. While we currently coordinate and consult with these other agencies as necessary, there should not be a mandatory requirement that the permit applications be filed at the same time. (ND PSC)
- This alternative is totally inappropriate and well beyond what is authorized by SMCRA. It just looks like permit review by a committee that includes parties that have no jurisdiction in a SMCRA permitting decision. If OSM wants to facilitate better coordination, then it should follow the pattern set by 30 CFR 780.16(c) for fish and wildlife protection. Under those rules, it is the responsibility of the SMCRA regulatory authority to provide relevant parts of the application to other agencies that have an interest. Further, the only permit application information provided to other agencies should be information that is relevant to the other agencies' jurisdiction. Also, if National Pollutant Discharge Elimination System authority has been delegated to a state, there is no reason for EPA to be involved. (NMA)
- Where is the authority under SMCRA to impose such a requirement? Such a requirement goes far beyond simple coordination or consultation. (Colorado Mining Ass'n)
- Adoption of this alternative would result in more duplication of effort both for industry and government. Integrated permitting would not assist with solving the already troubled and cumbersome permitting process under the Clean Water Act. In addition, the integrated permitting process in Ohio has been a failure. (Peabody)
- While coordinated permitting sounds attractive, there is a reason why different agencies have different permitting procedures and review parameters—those procedures and parameters are specifically tailored to their respective authorizing statutes and thereby their environmental and regulatory expertise. For example, submission of a detailed SMCRA permit application to an NPDES permitting authority will not benefit the section 402 review in any way—it will only supply volumes of irrelevant information. (West Virginia Coal Ass'n)
- West Virginia's experience with coordinated permitting initiatives shows that they quickly become obstacles to efficient and timely permit issuance under any of the programs and agencies involved, a problem that is exacerbated by the fact that additional funding rarely accompanies any of these initiatives. (West Virginia Coal Ass'n)
- In many cases, this is indeed how an applicant organizes the permit process. However, for large projects that may require an EIS or be managed under a permit coordinating agency (such as the Office of Project Management under the Alaska Department of

Natural Resources), this timing may not be in the best interest of the project or the agencies. For example, it may require incomplete applications be submitted to one agency to fulfill this requirement, only to have a modified application filed later, thus requiring additional review time. Allowing the applicant and the agencies the ability to coordinate their permit application submission and review schedules is in the best interest of all parties. No project can proceed until all applications are processed and approved, regardless of the timing of submittals. Thus, we suggest that this alternative be dropped from further consideration. (Alaska Coal Ass'n)

- Enhanced coordination that does not delay the permitting process is always welcome. However, it is not essential because no disturbance may be conducted until a permittee has obtained all necessary permits. Additionally, procedural issues with certain agencies may result in delays that would prevent submittal of all permit applications. Therefore, conditioning when a permittee may submit an application is in our opinion overly restrictive and would require revisions to not only OSM's regulations, but also the Corps of Engineers regulations as well as those of all state regulatory authorities. (D.R. Allen & Associates)
- We support a streamlined, practical approach to permitting, but to date the agencies have not been able to design such a system. Nothing in this alternative will change this reality. Each permitting authority operates on varying timelines and may request additional information and technical analyses from permit applicants. Under this alternative, those applicants then would be required to potentially submit numerous and unnecessary supplemental information to several agencies. In addition, there is no legal authority for this alternative. (Ohio Coal Ass'n)

Alternative 9: Establish more detailed permit application requirements and performance standards for stream-channel diversions and restoration of streams.

- No further disturbance and diversion of streams should be permitted. Artificially-constructed stream channels do not support the same flora and fauna or fulfill the same ecological roles as natural streams, and the destruction of natural streams should be prohibited. However, because stream damage is likely to continue to be permitted, premining stream surveys should be conducted to document conditions including but not limited to: flow, temperature, conductance, turbidity, pH, dissolved oxygen, total suspended solids, total dissolved solids, and levels of nutrients and metals including nitrogen, phosphorus, sulfur, iron, selenium, arsenic, and mercury. Premining stream surveys should also include aquatic flora and fauna ranging from zooplankton and phytoplankton to aquatic macroinvertebrates, mollusks, amphibians, reptiles, and fishes. If coal mining activities are not going to be entirely prohibited in and near streams, then coal operators should be required to return streams to their premining biological condition. If these conditions cannot be met, then permits should not be issued. (Center for Biological Diversity)
- Performance bonds should not be released until restored streams fully support the forms of life which were present prior to mining. (Center for Biological Diversity)

- No additional requirements or performance standards are needed if applicants must demonstrate compliance with sections 401 and 404 of the Clean Water Act before the SMCRA permit is approved. (VA DMME)
- No additional monitoring or bond release requirements are necessary because the Corps of Engineers has adequate authority to require correction of any discrepancy found after SMCRA bond release. There is no need to require the state SMCRA regulatory authority to incur the additional inspection and administration expenses that would result from additional monitoring and bond release requirements. (VA DMME)
- This option is quite vague and more specifics are needed to have a better understanding of the proposal to properly evaluate and comment on it. (ND PSC)
- SMCRA regulatory authorities should develop stream relocation and restoration criteria that, when practical, align with mitigation requirements under the Clean Water Act. (Corps of Engineers)
- OSM should explore the practicality of requiring that the SMCRA regulatory authority hold the SMCRA performance bond until the success of stream restoration and mitigation requirements under the Clean Water Act have been demonstrated. (Corps of Engineers)
- It may be reasonable to consider adding more detailed permit application requirements for modern stream assessment and mitigation techniques and practices. (Peabody)
- Premining condition surveys would prove useless for permits subject to the arbitrary one-square-mile intermittent stream definition at 30 CFR 701.5. (Peabody)
- OSM needs to better articulate what problem it is trying to solve. It is unclear what the basis is for thinking that further rulemaking is needed on stream-channel diversions, or how this alternative is connected to central Appalachia. With no stated basis or purpose, it is simply impossible to respond without further information. In short, NMA does not believe that OSM should propose additional requirements of this nature. (NMA)
- It will be difficult to develop requirements that will properly fit all situations. State programs have the ability to request additional stream-channel details, such as Alaska has done for the proposed Chuitna Coal project, but this level of detail would not be justifiable or beneficial for all mine sites. Thus, this alternative should be dropped from further consideration. (Alaska Coal Ass'n)
- The current regulations regarding stream diversions and stream restoration are adequate. Because there can be only one mitigation plan, these regulations also would need to conform to any requirements of the Corps of Engineers district within which the proposed project exists. (D.R. Allen & Associates)

Alternative 10: Adopt provisions that would apply only to mountaintop removal operations and operations on steep slopes. This may include the deletion of 30 CFR 824.11(a)(9), which limits the statutory ban on mountaintop removal operations that would damage natural watercourses to those watercourses located below the lowest coal seam to be mined.

- Any changes to the SBZ rules should apply nationwide because mining activities in states other than central Appalachia also adversely affect streams. (Corps of Engineers)
- It does not make sense to limit the SBZ rule to states that have historically allowed mountaintop removal operations. (Tennessee Dept. of Environmental Conservation)
- This approach, based solely on topography, involves constitutional issues such as the taking of private property and interference with interstate commerce. (VA DMME)
- This alternative appears to arbitrarily ignore the fact that mining impacts streams nationwide, regardless of the presence or absence of excess spoil fills. How can the federal government impose harsher standards on some states while allowing other states much more flexibility? (WVDEP)
- OSM should focus its rulemaking efforts squarely on mountaintop mining and valley fills and avoid adopting a rule that would require other states to revise their programs. (PADEP)
- Instead of proposing additional rules pertaining to these types of operations, OSM should work with the affected states to address the issues on a case-by-case basis. (ND PSC)
- It is beyond our understanding how OSM could apply regulations to specific states in a given coal region under a statute intended to be national in scope. Any such move by OSM would place Appalachian coal mining operations at a competitive disadvantage through selective application of a national statute. If anything, OSM and the other federal agencies should more closely examine the impact of mining operations on streams outside Appalachia because much less information is available for those areas. (West Virginia Coal Ass'n)
- Deletion of 30 CFR 824.11(a)(9) is a backdoor way of prohibiting all fills in streams. It would violate the spirit and intent of SMCRA and illegally restrict mining above and beyond the Clean Water Act. (West Virginia Coal Ass'n)
- We question the rationale for limiting the application of the rule to those states with mountaintop removal or steep-slope operations. Is OSM taking the stance that streams in the Appalachian states are in some way a more valuable resource than those present in other states? (D.R. Allen & Associates)
- Any such regulations must be limited to the types of issues that SMCRA recognizes as distinct to those operations, namely those identified in paragraphs (c) and (d) of section 515 of the Act. However, OSM has not articulated any support for such rules. (NMA)

- To the extent that OSM is concerned with mountaintop removal operations, it should identify and, if necessary, address those specific concerns instead of imposing a patchwork of new ill-considered regulations on all operations in all states. (Ohio Coal Ass'n, Peabody)
- Restricting certain provisions to certain regions is a valid approach for dealing with regional issues. However, as written in the ANPR, the alternative lacks sufficient detail for further comment. If the intent is to restrict certain regulations to a region, OSM should find a legally defensible way to clearly limit those requirements to a specific region, rather than applying those requirements to all mountaintop removal operations or steep-slope mining operations. In other words, the adoption of requirements intended to address a problem in central Appalachia, but not specifically restricted to central Appalachia, could lead to unintended consequences with no net benefit to operations outside the region that exist in an entirely different environmental setting. (Alaska Coal Ass'n)
- As practiced today, mountaintop removal operations are fundamentally incompatible with the requirement in section 515(c)(4)(D) of SMCRA that, before approving a permit application for a mountaintop removal operation, the regulatory authority must find that "no damage will be done to natural watercourses." It is simply impossible to fill streams with mining refuse without damaging them. The SMCRA regulatory authority has both the authority and the duty to deny permits that perpetuate this damage. (Center for Biological Diversity)
- OSM should revise its rules to delete 30 CFR 824.11(a)(9), which limits the statutory ban on mountaintop removal operations that would damage natural watercourses to those watercourses located below the lowest coal seam to be mined. However, otherwise, any revised SMCRA rules should apply to all states, not just Kentucky, Virginia, and West Virginia. (Freshwater Mollusk Conservation Society, KY State Nature Preserves Commission, SELC)

Should we revise the approximate original contour (AOC) provisions of our regulations?

- AOC is a term expressly defined in SMCRA on a national basis. Any regulatory changes to it would have to be national in scope and consistent with the statutory definition. The differences in terrain from Appalachia to the Illinois coal basin, to East Texas, to the Western states, and on to Alaska simply preclude further specificity in that definition in a way that is workable across the nation. (NMA)
- Each state program has the discretion to further clarify the nationwide definition of AOC as it applies to mining conditions in that state. If further refinement is warranted for the specific conditions in a state, it should be done at the state (or federal program for a state) program level. (NMA)
- The permitting process for each operation constitutes the appropriate way to address any concerns that citizens or others may have about how AOC is being applied in

Appalachia as well as other areas of the nation. No new national rulemaking is needed to facilitate that site-specific process. (NMA)

- Any requirements beyond those in the 2008 rule and existing policies in the central Appalachian states would somehow have to modify natural, physical mechanics of geology and the constants of engineering or compromise safety and stability. (West Virginia Coal Ass'n)
- There should be no revisions to the AOC provisions of OSM's regulations, which are well-understood and have withstood the test of time. (PADEP)
- OSM should adopt a rule similar to the Montana program provision requiring that reclaimed drainage basins, including excess spoil fills, valleys, channels, and floodplains, be constructed to:
 - (a) Comply with the postmining topography map approved by the regulatory authority.
 - (b) Restore the approximate original contour.
 - (c) Allow the drainage channel to remain in dynamic equilibrium with the drainage basin system without the use of artificial structural controls unless approved by the regulatory authority.
 - (d) Provide separation of flow between adjacent drainages and safely pass the runoff from a six-hour precipitation event with a 100-year recurrence interval, or larger event as specified by the regulatory authority.
 - (e) Provide for the long-term relative stability of the landscape by creating appropriate geomorphic landforms. The term "relative" refers to a condition comparable to an unmined landscape with similar climate, topography, vegetation and land use.
 - (f) Provide an average channel gradient that exhibits a concave longitudinal profile.
 - (g) Establish or restore a diversity of habitats that are consistent with the approved postmining land use, and restore, enhance where practicable, or maintain natural riparian vegetation.
 - (h) Exhibit dimensions and characteristics that will blend with the undisturbed drainage system above and below the area to be reclaimed and that will accommodate the approved revegetation and postmining land use requirements.

Technological innovations made since the promulgation of SMCRA currently provide landform design tools that greatly facilitate the ability of coal operators to comply with these provisions. Such technologies have been successfully demonstrated and they should be implemented in accordance with the SMCRA requirement to use the best technology currently available. Previously permitted excess spoil fill designs are inherently unstable landforms that natural forces will ultimately, if not catastrophically, remove. It is time to require that coal operators seek to emulate nature, rather than control nature. Adoption of these provisions would provide a framework within which surface coal mining, and specifically the practice of mountaintop removal, could continue in Appalachia. (New Mexico MMD)

- OSM should revise its rules to clarify that approximate original contour (AOC) restoration requirements apply to excess spoil fills. The legal opinion to the contrary is flawed. (ACEE, SELC)
- OSM needs to define AOC to mean that the reclaimed area must resemble the area before mining in aspect (or slope) and elevation. A minimum difference in elevation between premining and postmining conditions should be established as an enforceable requirement in a regulation. The regulation should also require a minimum difference in premining and postmining slopes as well as describe the allowable differences between the drainage pattern of the postmining site and the premining site. For example, OSM should require the postmining site to have as many linear feet of ephemeral, intermittent and perennial streams as the premining site. It should require those streams to be similar in configuration and morphology to the original streams. To demonstrate compliance or non-compliance with these requirements, the rule should require mine operators to submit premining and postmining field surveys, GPS data, photographs and measurements of slope of stream beds, plan cross-sections and aerial photographs of the disturbed areas. (ACEE)
- OSM should adopt a regulation clarifying that when an operation cannot comply with AOC restoration requirements as a result of application of a fill optimization formula such as those in place in Kentucky and West Virginia, the operation must obtain a legitimate variance from the AOC requirement. (ACEE)
- Because the detailed, site-specific reclamation plans required by SMCRA are rarely required by permitting authorities, OSM must promulgate a rule setting out in detail the requirements for a variance from AOC. (ACEE)
- OSM should clarify that AOC requirements and variances do not override the prohibitions and restrictions in the SBZ rule. (SELC)
- OSM should seek to minimize the use of AOC variances and improve the consistency with which different states adhere to AOC requirements. The large number of vacant mountaintop removal sites indicates that variances for residential, industrial, or commercial use often are not warranted. Variances should be subject to review to

consider economic feasibility and the potential that the stated postmining land use will in fact occur. It is also important that AOC standards are implemented consistently across all states. (Trout Unlimited)

What other provisions of our regulations should we consider revising to better protect the environment and the public from the impacts of Appalachian surface coal mining?

- Hydrology, geology, and aquatic biology
 1. OSM should define perennial, intermittent, and ephemeral streams in a manner that is consistent with the Clean Water Act, rather than using or referencing definitions from the U.S. Geological Survey. (Corps of Engineers)
 2. OSM should adopt rule language that encourages state and federal agencies to coordinate on stream jurisdictional determinations as part of the permitting process. (Corps of Engineers)
 3. OSM should establish baseline aquatic life information and monitoring requirements at the genus level rather than at the family level. (Bryon Arnold)
 4. OSM should adopt a multifactor approach for the SBZ rule. While a 100-foot buffer should be the absolute minimum, the regulatory authority should be required to determine whether a wider buffer is needed to protect all streams. Such a determination should be based upon information concerning adjacent slopes, geology, soil types, and existing riparian context. Whatever stream protections are adopted should apply, without exception, to any intermittent, temporary, or perennial watercourse. (Freshwater Mollusk Conservation Society, KY State Nature Preserves Commission)
 5. The current recommendation for stream buffers to protect amphibian habitat is 100 meters. This fact is especially important because the Appalachian region supports the highest diversity of amphibian species in North America and amphibian species worldwide are undergoing a rapid decline, largely due to habitat loss and water pollution. (Elizabeth Summers, UT)
 6. The mining of coal and disruption of surrounding strata high in selenium are common sources of selenium that can degrade water quality and biologic diversity. Any rules proposed by OSM should require regulatory authorities to include selenium monitoring as a routine sampling parameter at all mines and require establishment of numerical limits for selenium for all outfalls at any mine where an overburden core sample shows elevated selenium concentrations. OSM also should revise its rules to specify that no permit may be issued where selenium may become a problem unless the applicant has (1) submitted a viable plan for treating selenium pollution if it becomes a problem during mining and (2) demonstrated the financial ability to implement an effective selenium treatment plan. (KY Waterways Alliance)

7. OSM should promulgate a regulation that requires (1) routine, site-specific core sampling for selenium as part of each permit application, and (2) core testing that includes leachable selenium instead of just total selenium and decreases the interval between core samples. In addition, the regulation should make clear that operations at risk for selenium discharges must, during the mining process, test the geology for selenium every time mining operations change in elevation, enter a new strata or move more than 100 feet. One method of accomplishing this may be to require testing of holes drilled to blasting. The operator should be required to submit these samples to the regulatory authority at least twice per month. [Appalachian Center for the Economy and the Environment (ACEE)]
 8. OSM should promulgate a regulation requiring that if selenium is found in core samples before or during mining, an analysis must be performed to determine whether it may create a perpetual pollution discharge. If the analysis shows that selenium is present in sufficient quantities to cause perpetual material damage to the hydrologic balance (including causing violations of water quality standards), then the mining operation must cease and reclamation must begin. (ACEE)
 9. OSM should require additional information on the baseline hydrology and additional characterization of the premining hydrologic balance. Specifically, OSM should amend 30 CFR 780.21(b)(1) and (2) and 784.14(b)(1) and (2) to—
 - a) Expressly provide that a minimum of 12 consecutive months of water quality and quantity information is necessary to establish the seasonal flow conditions that SMCRA requires each permit applicant to demonstrate. The amended regulation should clarify that baseline monitoring of flow rates must occur daily to enable the permit applicant and the regulatory authority to distinguish between seasonal flow patterns (including base flow from ground water) and flow rates that are generated in immediate response to precipitation events.
 - b) Require, throughout the minimum 12-month baseline collection period, synchronous measurements at a sufficient number of stations along each stream course to enable the permit applicant and the regulatory authority to identify when and where the stream is gaining or losing flow. This change is needed to ensure collection of adequate information on exchanges between streamflow and groundwater.
 - c) Designate the pollutants and conditions currently listed there as “pollutants and conditions of concern.” The PHC determination, the CHIA, the hydrologic monitoring plans, and the hydrologic reclamation plan must expressly address the potential of the proposed surface coal mining operation to cause or contribute to an exceedance of the applicable numeric or narrative water quality standard or standards for each pollutant or condition of concern that applies to the proposed surface coal mining operation.
 - d) Require information on both total dissolved solids and specific conductance and to add aluminum, selenium, and sulfate as required parameters. Alternatively, OSM should require the regulatory authority to add aluminum, selenium, or sulfate as pollutants of concern wherever geologic or hydrologic baseline data indicate their presence in the permit area.
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- e) Require that wherever geologic or hydrologic baseline data indicate the presence of any other pollutant or condition for which there exists an applicable federal or state numeric or narrative water quality standard, such as additional metals or temperature, the regulatory authority must treat it as a pollutant or condition of concern for which the permittee must at least provide baseline information.
 - f) Provide that where proposed operations would introduce contaminants or potential sources of contamination to the permit area that are unrelated to geologic materials at the site—for example, explosives, fuels, coal combustion wastes, or coal processing chemicals—those pollutants also must be treated as “of concern” and the permit applicant must provide baseline information on each contaminant, including background concentrations, whenever that substance or contaminant naturally occurs in, or has previously been introduced into, the surrounding environment.
 - g) Provide that where a proposed operation would discharge into a water resource listed as impaired on a state’s list under section 303(d) of the Clean Water Act, the regulatory authority must treat as “pollutants and conditions of concern” each pollutant or condition that is identified as a cause of impairment in question and is among the pollutants or conditions that the proposed operation may reasonably be expected to discharge, cause, or worsen.
 - h) Expressly require that the regulatory authority treat all applicable narrative water quality criteria for each water resource that will receive a discharge from a proposed surface coal mining operation as conditions of concern for which baseline information must be collected. The amended regulations should ensure that the regulatory authority formulates numeric standards or criteria (such as the Index of Biological Integrity) to translate each narrative “free from” into a measurable standard.
 - i) Expressly provide that a pollutant or condition of concern for which a permit applicant must collect and present baseline information may be eliminated from analysis in the PHC determination and CHIA and from the proposed hydrologic monitoring and reclamation plans only if baseline geologic and hydrologic information indicate to a reasonable degree of scientific certainty that discharges of that substance from the proposed permit area will not cause or contribute to an exceedance of any applicable numeric or narrative water quality standard. (ACEE)
10. OSM should amend 30 CFR 780.21(b) and 784.14(b) to require that the regulatory authority inform each permit applicant of the minimum pollutants and conditions of concern that the PHC determination, hydrologic monitoring plan, and hydrologic reclamation plan must address, based on the regulatory authority’s assessment of the baseline hydrologic information provided in the permit application or otherwise available to the regulatory authority. (ACEE)
11. OSM should amend 30 CFR 780.21(f)(3)(iv) and 784.14(e)(3)(iii) to expressly require that the PHC determination analyze the probable impact of the proposed surface coal mining

operation on each pollutant or condition of concern identified pursuant to amended 30 CFR 780.21(b) or 784.14(b). (ACEE)

12. OSM should amend 30 CFR 780.21(g) and 784.14(f) to provide expressly that the regulatory authority may not conclude that a proposed surface coal mining and reclamation operation has been designed to prevent material damage to the hydrologic balance, and thus may not approve the pertinent permit application, if the proposed operation includes a new discharge to a water resource on a state's 303(d) list under the Clean Water Act for a mining-related pollutant or condition that the proposed operation would discharge or worsen, except in compliance with the requirements of 40 CFR 122.4(i) concerning available waste load allocations under a TMDL and compliance schedules covering existing dischargers. (ACEE)
 13. OSM should amend 30 CFR 780.21(g) and 784.14(f) to require that each CHIA identify all pertinent material damage criteria for the proposed operation, including, at a minimum, each numeric water quality standard or translated numeric standard for a narrative water quality standard or anti-degradation standard applicable to each water resource that the proposed operation will likely affect. The amended regulation should further require the regulatory authority to notify the permittee as soon in the permit application evaluation process as practicable, through a publicly available document, of the material damage criteria applicable to the proposed operation. The amended regulation should require that each notice also direct the permittee to structure its hydrologic monitoring plans and hydrologic reclamation plan so as to detect trends toward exceedance of those criteria and to specify measures to prevent actual exceedances. (ACEE)
 14. OSM should amend its water monitoring regulations at 30 CFR 780.21(i)(1) and (j)(2)(i) and 784.14(h) and (i)(2)(i) to require that—
 - a) The permittee regularly monitor each pollutant and condition of concern and annually monitor each other pollutant or condition for which there is a material damage criterion.
 - b) Each hydrologic monitoring plan require monitoring at times and places capable of ascertaining the mine's compliance status with respect to all pollutants and conditions of concern.
 - c) The hydrologic monitoring plans of any permit application that includes a material handling plan meant to prevent water pollution (whether by acid mine drainage, selenium, or any other substance) contain specific measures to be taken within the permit area to indicate effectively whether the material handling plan is failing or has failed to prevent water pollution as predicted.
 - d) Selenium be included as a routine sampling parameter at all mines.
 - e) The regulatory authority establish numerical limits for selenium for all outfalls at any mine where a core sample shows elevated selenium concentrations. (ACEE)
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15. OSM should amend its regulations at 30 CFR 780.21(h) and 784.14(g) concerning hydrologic reclamation plans to—

- a) Provide that the “preventative and remedial measures” required by the current regulations must address specifically each pollutant or condition of concern that the regulatory authority identifies for the proposed operation. The amended regulation should require the permittee to identify, in terms of hydrologic monitoring data and any other appropriate condition, the trigger event or series of events that would prompt the permittee to implement each preventative or remedial measure proposed in the plan. The amended regulation should further require the permittee to explain how each proposed preventative or remedial measure will accomplish its purpose and how the permittee will monitor and assess the effectiveness of each measure. The suggested amendment would promote use of hydrologic monitoring data as an effective early warning system for actually preventing, rather than remediating, material damage to the hydrologic balance outside the permit area.
- b) Require that the regulatory authority order a permittee to develop alternate or additional “preventative and remedial measures” for inclusion in the hydrologic reclamation plan whenever one or more of the initially approved measures fail to prevent deterioration toward material damage, prevent material damage itself, or remedy material damage to the hydrologic balance.
- c) Forbid regulatory authorities from accepting any material handling plan as a component of a hydrologic reclamation plan and require that the hydrologic reclamation plan of any permit application that includes a material handling plan meant to prevent water pollution (whether by acid mine drainage, selenium, or any other substance) contain specific preventative and remedial measures to be taken if monitoring data indicate that the material handling plan is failing or has failed to prevent water pollution as predicted. (ACEE)

16. OSM should amend its permitting regulations to provide that if the regulatory authority relies to any extent on information not in the permit application, the regulatory authority must place a written copy of all such information among the publicly available decision documents for the application in question. The amended regulations should require the regulatory authority to provide the required notice at the time that the regulatory authority determines the permit application to be administratively complete. The amended regulation should authorize the regulatory authority to amend its notice of pollutants and conditions of concern based on information subsequently submitted or obtained, provided that both the amended notice and the supporting information are made immediately available for public inspection. (ACEE)

- Revegetation, topsoil, and postmining land use

1. The revegetation regulations should be modified to ban the planting of non-native species during restoration. (Center for Biological Diversity)

2. OSM must promulgate a regulation assuring that topsoil is saved unless operators can demonstrate that the proposed topsoil substitute is "the best available subsoil which is best able to support vegetation," as required by section 515(b)(6) of SMCRA. (ACEE)
 3. OSM must make clear that topsoil substitutes may not be approved on sites with a postmining land use that involves woody plants unless the applicant demonstrates that the substitute will result in a soil medium that is at least as productive as the premining site. Specifically, OSM must make it clear that regulatory authorities may not permit mining operations to utilize gray sandstone as a topsoil substitute. No studies have shown gray sandstone to be the "best available in the permit area to support revegetation," nor have any studies shown that this material is "equal to, or more suitable for sustaining vegetation than, the existing topsoil," as required by 30 CFR 816.22(b). (ACEE)
 4. OSM must promulgate a rule clarifying the requirements of a "higher or better use." Postmining sites used as fish and wildlife habitat, hayland or pasture, and forestland cannot measure up to SMCRA's "higher or better" use standard. (ACEE)
- Performance bonds
 12. OSM should revise its bonding and reclamation regulations to effectively address the problem of long-term postmining pollutional discharges. OSM should amend its regulations to require that owners and operators of mines with the potential for long-term postmining pollutional discharges post additional financial guarantees sufficient to cover the costs of permanently treating such discharges. The revised regulations should further provide that owners and operators who do not post the additional financial guarantees will be ineligible to receive any new surface mining permits. (ACEE)
 - Permit renewal requirements
 1. OSM should clarify and strengthen rules governing renewal of permits when the applicant is violating federal and state laws protecting surface water quality. First, 30 CFR 774.15(c)(1)(ii) should be amended to add the following clause to the end: "including, but not limited to, effluent limitations established in NPDES permits issued pursuant to section 402 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1342, and the rules and regulations promulgated there under." Second, 30 CFR 774.15(c)(2) should be amended to add the following sentence at the end of the existing provision: "If the opponents of renewal, including citizen opponents, establish one of the criteria in § 774.15(c)(1) of this chapter, the regulatory authority shall deny the renewal application." (ACEE)
 - Violation information requirements and permit block sanction
 1. OSM should promulgate a regulation that provides that, where the surface mining regulatory authority and the water pollution regulatory authority are the same entity, "the regulatory authority, department, or agency which has jurisdiction over" violations of the Clean Water Act or permits issued there under is the U.S.
-

Environmental Protection Agency for purposes of section 510(c) of SMCRA.
(ACEE)

2. OSM should ensure appropriate oversight of surface mining regulatory authorities by expanding the definition of “regulatory authority, department, or agency” for purposes of section 510(c) of SMCRA to include citizens that have provided notice under one of the citizen suit provisions of the federal environmental statutes to sue an operator for violation of the one of the laws referred to in section 510(c). Through those citizen suit provisions, Congress evidenced its intent for citizens to act as private attorneys general. Therefore, it is appropriate to treat them as regulatory agencies for purposes of section 510(c). (ACEE)
 3. OSM should define the terms “has been corrected” and “is in the process of being corrected” for purposes of section 510(c) of SMCRA. The term “has been corrected” should be defined to mean that “the violation at issue has completely ceased and that there is no real likelihood of its recurrence.” The term “is in the process of being corrected” should be defined to mean that “the applicant is subject to a judicial decree or other judicially enforceable order compelling the applicant to achieve full compliance with no real likelihood of recurrence as soon as possible, but not to exceed one year from the date of the decree or order.” (ACEE)
- Other provisions
 1. The alternatives analysis requirements for coal mine waste impoundments and refuse piles should be revised to include consideration of impacts to local residents, such as traffic, dust, and noise. (PADEP)

ATTACHEMNT #4 - REFERENCE MATERIAL

REFERENCE MATERIAL

1979 OSM-EIS-1 *Permanent Regulatory Program*

1983 OSM-EIS-1 *Supplement*

2003 DRAFT EIS *Mountain Top Mining and Valley Fills*

2005 EIS *Mountain Top Mining and Valley Fills*

2008 OSM-EIS-34 *Excess Spoil Minimization and Stream Buffer Zones*

END OF STATEMENT OF WORK

SOLICITATION – CONTINUED

SECTION E – INSPECTION AND ACCEPTANCE

52.246-4 INSPECTION OF SERVICES - FIXED-PRICE (AUG 1996)

(a) Definitions. "Services," as used in this clause, includes services performed, workmanship, and material furnished or utilized in the performance of services.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all times and places during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If the Government performs inspections or tests on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties.

(e) If any of the services do not conform to contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by reperformance, the Government may (1) require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and (2) reduce the contract price to reflect the reduced value of the services performed.

(f) If the Contractor fails to promptly perform the services again or to take the necessary action to ensure future performance in conformity with contract requirements, the Government may (1) by contract or otherwise, perform the services and charge to the Contractor any cost incurred by the Government that is directly related to the performance of such service or (2) terminate the contract for default.

SECTION F - PERFORMANCE

F.1 Period of Performance

A base period of one-year is anticipated to begin on or about mid May and end 12 months later. Three one-year options will be included.

F.2 Place of Performance and Hours of Operations

Place of Performance: The place of performance is OSM Headquarters Building at 1951 Constitution Ave., NW, Washington, DC 20240.

Hours of Operations: Hours of operation are traditionally five days per week, with hours ranging from as early as 6:00 a.m. to as late as 7:00 p.m.. Overtime is not expected; however, may be required on a limited basis.

Federal Holidays: Federal Holidays must be covered by the contractor; compensation plan and backup included as an overhead expenditure. Contractor will not be paid for administrative leave or extra holidays given to Government employees.

F.3 Special Considerations

Contract employees are to have appropriate experience for positions.

F.3.1 Disclosure Information

Information made available to the contractor by the Government for the performance or administration of this effort shall be used only for those purposes and shall not be used in any other way without the written agreement of the Contracting Officer.

The contractor agrees to assume responsibility for protecting the confidentiality of Government records, which are not public information. Each contractor or employee of the contractor to whom information may be made available or disclosed shall be notified in writing by the contractor that such information may be disclosed only for a purpose and to the extent authorized herein. A signed Non-Disclosure Agreement (NDA) will be required.

F.3.2 Limited Use of Data

Performance of this effort may require the contractor to access and use data and information proprietary to a Government agency or Government contractor which is of such a nature that its dissemination or use, other than in performance of this effort, would be adverse to the interests of the Government and/or others.

Contractor and/or contractor personnel shall not divulge or release data or information developed or obtained in performance of this effort, until made public by the Government, except to authorize Government personnel or upon written approval of the Contracting Officer (CO). The contractor shall not use, disclose, or reproduce proprietary data that bears a restrictive legend, other than as required in the performance of this effort. Nothing herein shall preclude the use of any data independently acquired by the contractor without such limitations or prohibit an agreement at no cost to the Government between the contractor and the data owner which provides for greater rights to the contractor.

F.3.3 Section 508

The 1973 Rehabilitation Act amended in 1998 required Federal agencies to ensure that any time the Government maintains, procures, develops, or uses electronic and information technology that it is accessible to persons with disabilities. Unless an undue burden of significant difficulty or expense can be established OSM will provide reasonable accommodation for Section 508 compliance.

F.4 Contract Type.

OSM intends to award a Firm Fixed Price contract.

F.5 Travel Requirements.

The Contractor will be reimbursed, not to exceed amount for all domestic travel as described below, incurred directly and specifically in the performance of this contract, claimed by the Contractor and accepted by the Contracting Officer.

Costs for lodging, meals, and incidental expenses will be based on the Federal Travel Regulation per diem rates. Actual expenses or a combination thereof may be used provided the method used results in a reasonable charge. A written justification for use of the higher amounts will be approved by COR.

http://www.gsa.gov/Portal/gsa/ep/contentView.do?P=MTT&contentId=9646&contentType=GSA_BASIC

All travel related expenses will be charged to ODC.

F.6 Government Furnished Facilities, Property, Materials

When the contractor is working at the OSM Headquarters site located at 1951 Constitution Ave, NW, Washington, DC, the Government is responsible for providing office space and supplies, software, hardware, DOI required IT security training, and the appropriate monitoring resources for hardware and software.

F.7 Government POCs -- Contract Administrator/COR/PM

Contracting Officer's Representative: Li-Tai BilBao

Phone #: 202 208-2895

Fax # 202-219-3276

Email: lbilbao@osmre.gov

Contracting Officer:

Nancy E. Sloanhoffer

Phone #: (202) 208-2902

Fax # (202) 219-3104

Email: nsloanhoffer@osmre.gov

Contract Specialist:

Tracy R. Meeker

Phone #: 303-236-0330 x253
Fax #: 303-236-0340
Email: tmeeker@osmre.gov

SECTION G – CONTRACT ADMINISTRATION

INVOICE - The Contractor shall submit all invoices for services rendered to:

Office of Surface Mining
Attn: Nancy Sloanhoffer
1951 Constitution Avenue, NW
SIB, RM 336
Washington, DC 20240

SECTION H - SPECIAL CONTRACT REQUIREMENTS

The proposal shall include a plan/statement describing how the contractor will address organizational and other conflicts of interest for subcontractors or persons who are consultants or who work for organizations with potential conflicts.

1. Progress Reports

Monthly progress reports shall be submitted to the COR beginning one month from the date of Notice to Proceed. The monthly reports shall be concise, factual, and informal and shall include, but not be limited to:

- A. Work accomplished during the period of the report;
- B. A description of the overall progress, including data, in sufficient detail to explain the progress achieved;
- C. A description of the current problems that may impede performance with the proposed corrective actions;
- D. A description of the work to be performed during the next reporting period.

2. Mailing to Third Parties

The Contractor shall provide appropriate envelopes and postage for all mailings under this contract. OSM shall review and approve all mailing lists before the documents are mailed. The Contractor shall be responsible for assembling documents and preparing them for mailing. The Contractor shall also be responsible for preparing all mailing lists; updating those lists as necessary; preparing mailing labels and/or envelopes; assuring that all mailings are timely, accurate, and inclusive of all required materials.

3. Drawings, Reports, and Publications

All drawings, reports, publications, notes, and other work developed and submitted or relied on for submittals in the performance of this contract shall become the property of the Government and the Government shall have unlimited rights to their use, including the right to use the same without additional compensation to the Contractor. The Contractor hereby grants to the Government a current license to all such works to which it may assert or establish any claim under design patent or copyright laws. The

Government shall be considered the "person for whom the work was prepared" for the purpose of authorship in any copyrightable work. With respect thereto, the Contractor agrees not to assert or authorize others to assert any rights nor establish a claim under the design patent or copyright laws.

4. Contractor Services

The Contractor shall furnish the necessary personnel, materials, services, equipment, facilities and otherwise do all other things necessary for an incident to the performance of the work specified in a manner consistent with accepted professional standards.

The Contractor shall be responsible for providing 3 hard copies and 15 digital copies of verbatim transcripts of the official proceedings of all public meetings held in conjunction with this contract.

Specific minimum services to be provided by the Contractor shall include the following documents:

A. Draft Environmental Impact Statement

1. The Contractor shall assist the OSM in the preparation for and shall conduct public scoping meetings to be scheduled 45 days after Notice to Proceed. The Contractor shall prepare the invitation on behalf of the OSM, subject to review and approval by the COR. In addition, the Contractor shall in conjunction with the OSM, prepare an agenda and project summary for distribution at the meetings. Additional assistance for the preparation and conduct of scoping meetings may be requested by the OSM's contracting officer.
2. The Draft EIS shall analyze the impact of the proposed action.
3. The Contractor shall submit 3 hard copies and 30 digital copies of the preliminary DEIS.
4. After the OSM and cooperating agencies review and comment, the Contractor shall submit 3 hard copies and 50 digital copies for the OSM. In addition, the Contractor shall provide sufficient digital copies for mailing. A mailing list of proposed recipients of the Published DEIS will be approved by the OSM prior to the Contractor's mailing. It shall be the sole responsibility of the Contractor to ensure that the Draft EIS is mailed to all parties (including attendees at the Scoping Meetings) who have requested a copy, as well as those who are required to receive one. OSM will provide an appropriate transmittal letter on OSM letterhead for inclusion with the mailings.
5. The Contractor shall be responsible for printing the DEIS and consulting with the printer to ensure quality reproduction of all materials. If additional copies are needed, they shall be provided by the Contractor at their exact printing cost.

6. The Contractor will be responsible for publishing the DEIS Notice of Availability in appropriate general circulation local newspapers. OSM will assist the Contractor in determining which newspapers are to be selected.
7. Mailing of the completed DEIS shall be coordinated with the publication of the Notice of Availability in the Federal Register.
8. OSM shall be responsible for the publication of the Notice of Availability in the Federal Register.
9. During and after the close of the public review and comment period following the publication of the Notice of Availability of the DEIS in the Federal Register, the Contractor shall consult with the COR in determining which responses are substantive and must be addressed in the FEIS.

B. Final Environmental Impact Statement

The Contractor shall be responsible for the complete analysis of all significant new issues raised as a result of the DEIS review process.

1. The Contractor shall submit 3 hard copies and 30 digital copies of the proposed FEIS for OSM and cooperating agency review and approval.
2. After review by OSM and cooperating agencies, the Contractor shall submit a revised FEIS incorporating responses to comments by OSM and cooperating agencies. The Contractor shall submit 3 hard copies and 50 digital copies for the OSM. In addition, the Contractor shall provide sufficient electronic copies for mailing. A mailing list of proposed recipients of the Published FEIS will be approved by OSM prior to the Contractor's mailing. It shall be the sole responsibility of the Contractor to ensure that the FEIS is mailed to all parties (who have requested a copy), as well as those who are required to receive one. OSM will provide an appropriate transmittal letter on OSM letterhead for inclusion with the mailings.
3. The Contractor shall be responsible for printing the FEIS and consulting with the printer to ensure quality reproduction of all materials. If additional copies are needed, they shall be provided by the Contractor at their exact printing cost.

C. Submission Requirements

All documents shall be prepared on 8 ½ x 11 inch bond paper and bound in a manner agreed upon by the Contractor and COR. A cover page design for the proposed Draft and Final EISs shall accompany each of those documents for approval by the OSM. All designs have to be approved by the OSM prior to submittal.

SECTION I

52.252-02 CLAUSES INCORPORATED BY REFERENCE FEBRUARY 1998

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address (es):

Federal Acquisition Regulation clauses and provisions: <http://www.acquisition.gov/comp/far/index.htm> or <http://www.arnet.gov/far/loadmainre.html>

CLAUSES INCORPORATED BY REFERENCE

52.203-3	Gratuities		APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984	
52.203-6	Restrictions on Subcontractor Sales to the Government		SEP 2006
52.203-7	Anti-Kickback Procedures		JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity		JAN 1997
52.203-10	Price or Fee Adjustment for Illegal or Improper Activity		JAN 1997
52.203-12	Limitation on Payments to Influence Certain Federal Transactions		SEP 2007
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000	
52.209-6	Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment		SEP 2006
52.212-3	Offeror Representations and Certifications—Commercial Items		
52.215-2	Audit and Records - Negotiation	JUN 1999	
52.215-10	Price Reduction for Defective Cost or Pricing Data.	OCT 1997	
52.215-11	Price Reduction for Defective Cost or Pricing Data - Modifications		OCT 1997
52.215-12	Subcontractor Cost or Pricing Data	OCT 1997	
52.215-13	Subcontractor Cost or Pricing Data - Modifications	OCT 1997	
52.215-15	Pension Adjustments and Asset Reversions		OCT 2004
52.215-16	Facilities Capital Cost of Money	JUN 2003	
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other Than Pensions	JUL 2005	
52.219-6	Notice of Total Small Business Set-Aside		JUN 2003
52.219-8	Utilization of Small Business Concerns		MAY 2004
52.222-3	Convict Labor		JUN 2003
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation	JUL 2005	
52.222-21	Prohibition of Segregated Facilities	FEB 1999	
52.222-26	Equal Opportunity		MAR 2007
52.222-35	Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans		SEPT 2006
52.222-36	Affirmative Action for Workers with Disabilities	JUN 1998	
52.222-37	Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans		SEPT 2006
52.222-41	Service Contract Act of 1965, as Amended		NOV 2007

52.222-43	Fair Labor Standards Act and Service Contract Act- Price Adjustment (Multiple Year and Options Contract)		NOV 2006
52.222-44	Fair Labor Standards Act and Service Contract Act-Price Adjustment		FEB 2002
52.222-50	Combating Trafficking in Persons	FEB 2009	
52.223-6	Drug-Free Workplace		MAY 2001
52.223-14	Toxic Chemical Release Reporting		AUG 2003
52.225-1	Buy American Act - Supplies	FEB 2009	
52.225-13	Restrictions on Certain Foreign Purchases		FEB 2006
52.227-1	Authorization and Consent		DEC 2007
52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement		DEC 2007
52.228-5	Insurance-Work on a Government Installation	JAN 1997	
52.229-3	Federal, State, and Local Taxes	APR 2003	
52.232-8	Discounts for Prompt Payment	FEB 2002	
52.232-9	Limitation on Withholding of Payments		APR 1984
52.232-11	Extras		APR 1984
52.232-17	Interest		OCT 2008
52.232-23	Assignment of Claims		JAN 1986
52.233-2	Serviced of Protest		SEP 2006
52.233-3	Protest After Award		AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004	
52.242-13	Bankruptcy		JUL 1995
52.242-15	Stop Work Order	AUG 1989	
52.244-5	Competition in Subcontracting	DEC 1996	
52.244-6	Subcontracts for Commercial Items	FEB 2009	
52.245-1	Government Property		JUN 2007
52.245-2	Government Property Installation Operation Services	JUN 2007	
52.245-9	Use and Charges	JUN 2007	
52.246-25	Limitation of Liability - Services	FEB 1997	
52.247-34	F.O.B. Destination		NOV 1991
52.253-1	Computer Generated Forms		JAN 1991
1452.203-70	Restriction on Endorsements - Department of the Interior	JUL 1996	

CLAUSES INCORPORATED BY FULL TEXT

52.202-1 DEFINITIONS (JUL 2004)

(a) When a solicitation provision or contract clause uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless—

- (1) The solicitation, or amended solicitation, provides a different definition;
- (2) The contracting parties agree to a different definition;
- (3) The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning; or

(4) The word or term is defined in FAR Part 31, for use in the cost principles and procedures.

(b) The FAR Index is a guide to words and terms the FAR defines and shows where each definition is located. The FAR Index is available via the Internet at <http://www.acqnet.gov> at the end of the FAR, after the FAR Appendix.

(a) Definitions. As used in this clause—

“*Central Contractor Registration (CCR) database*” means the primary Government repository for Contractor information required for the conduct of business with the Government.

“*Data Universal Numbering System (DUNS) number*” means the 9-digit number assigned by Dun and Bradstreet, Inc. (D&B) to identify unique business entities.

“*Data Universal Numbering System+4 (DUNS+4) number*” means the DUNS number means the number assigned by D&B plus a 4-character suffix that may be assigned by a business concern. (D&B has no affiliation with this 4-character suffix.) This 4-character suffix may be assigned at the discretion of the business concern to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see the FAR at Subpart 32.11) for the same concern.

“*Registered in the CCR database*” means that—

(1) The Contractor has entered all mandatory information, including the DUNS number or the DUNS+4 number, into the CCR database; and

(2) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS), and has marked the record “Active”. The Contractor will be required to provide consent for TIN validation to the Government as a part of the CCR registration process.

(b) (1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the CCR database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation.

(2) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “DUNS” or “DUNS+4” followed by the DUNS or DUNS+4 number that identifies the offer or’s name and address exactly as stated in the offer. The DUNS number will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(c) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.

(1) An offeror may obtain a DUNS number—

(i) Via the internet at <http://fedgov.dnb.com/webform> or if the offeror does not have internet access, it may call Dun and Bradstreet at 1-866-705-5711 if located within the United States; or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office. The offeror should indicate that it is an offeror for a U.S. Government contract when contacting the local Dun and Bradstreet office.

(2) The offeror should be prepared to provide the following information:

(i) Company legal business name.

(ii) Trade style, doing business, or other name by which your entity is commonly recognized.

(iii) Company physical street address, city, state and Zip Code.

(iv) Company mailing address, city, state and Zip Code (if separate from physical).

(v) Company telephone number.

(vi) Date the company was started.

(vii) Number of employees at your location.

(viii) Chief executive officer/key manager.

(ix) Line of business (industry).

(x) Company Headquarters name and address (reporting relationship within your entity).

(d) If the Offeror does not become registered in the CCR database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror.

(e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered should consider applying for registration immediately upon receipt of this solicitation.

(f) The Contractor is responsible for the accuracy and completeness of the data within the CCR database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to review and update on an annual basis from the date of initial registration or subsequent updates its information in the CCR database to ensure it is current, accurate and complete. Updating information in the CCR does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(g)(1)(i) If a Contractor has legally changed its business name, "doing business as" name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation

and change-of-name agreements in Subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to:

- (A) Change the name in the CCR database;
- (B) Comply with the requirements of Subpart 42.12 of the FAR;
- (C) Agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor must provide with the notification sufficient documentation to support the legally changed name.
 - (ii) If the Contractor fails to comply with the requirements of paragraph (g)(1)(i) of this clause, or fails to perform the agreement at paragraph (g)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the CCR information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.

(2) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the CCR record to reflect an assignee for the purpose of assignment of claims (see FAR Subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the CCR database. Information provided to the Contractor's CCR record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of payment" paragraph of the EFT clause of this contract.

(h) Offerors and Contractors may obtain information on registration and annual confirmation requirements via the Internet at <http://www.ccr.gov> or by calling 1-888-227-2423, or 269-961-5757.

52.215-8 ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT (OCT 1997)

Any inconsistency in this solicitation or contract shall be resolved by giving precedence in the following order:

- (a) The Schedule (excluding the specifications).
- (b) Representations and other instructions.
- (c) Contract clauses.
- (d) Other documents, exhibits, and attachments.
- (e) The specifications.

52.217-8 OPTION TO EXTEND SERVICES (NOV 1999)

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance

hereunder shall not exceed one year. The Contracting Officer may exercise the option by written notice to the Contractor within 15 calendar days.

52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)

(a) The Government may extend the term of this contract by written notice to the Contractor within 15 days; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 30 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed three years.

52.219-14 LIMITATIONS ON SUBCONTRACTING (DEC 1996)

(a) This clause does not apply to the unrestricted portion of a partial set-aside.

(b) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for—

(1) *Services (except construction)*. At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.

(2) *Supplies (other than procurement from a nonmanufacturer of such supplies)*. The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.

(3) *General construction*. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.

(4) *Construction by special trade contractors*. The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

52.222-42 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

*This Statement is for Information Only:
It is not a Wage Determination*

Employee Class	Monetary Wage -Fringe Benefits
GS - 11	\$24.10
GS - 12	\$28.88

52.232-1 PAYMENTS

(APR 1984)

The Government shall pay the Contractor, upon the submission of proper invoices or vouchers, the prices stipulated in this contract for supplies delivered and accepted or services rendered and accepted, less any deductions provided in this contract. Unless otherwise specified in this contract, payment shall be made on partial deliveries accepted by the Government if—

- (a) The amount due on the deliveries warrants it; or
- (b) The Contractor requests it and the amount due on the deliveries is at least \$1,000 or 50 percent of the total contract price.

52.232-19 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR. (Apr 1984)

Funds are not presently available for performance under this contract beyond September 30, 2010. The Government's obligation for performance of this contract beyond that date is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise for performance under this contract beyond September 30, until funds are made available to the Contracting Officer for performance and until the Contractor receives notice of availability, to be confirmed in writing by the Contracting Officer.

52.232-25 PROMPT PAYMENT

(OCT 2008)

Notwithstanding any other payment clause in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer (EFT). Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see subparagraph (a)(4) of this clause concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) *Invoice payments --*(1) *Due date.*

(i) Except as indicated in paragraphs (a)(2) and (c) of this clause, the due date for making invoice payments by the designated payment office shall be the later of the following two events:

(A) The 30th day after the designated billing office receives a proper invoice from the Contractor (except as provided in paragraph (a)(1)(ii) of this clause).

(B) The 30th day after Government acceptance of supplies delivered or services performed. For a final invoice, when the payment amount is subject to contract settlement actions, acceptance is deemed to occur on the effective date of the contract settlement.

(ii) If the designated billing office fails to annotate the invoice with the actual date of receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice; provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) *Certain food products and other payments.*

(i) Due dates on Contractor invoices for meat, meat food products, or fish; perishable agricultural commodities; and dairy products, edible fats or oils, and food products prepared from edible fats or oils are --

(A) For meat or meat food products, as defined in section 2(a)(3) of the Packers and Stockyard Act of 1921 (7 U.S.C. 182(3)), and as further defined in Pub. L. 98-181, including any edible fresh or frozen poultry meat, any perishable poultry meat food product, fresh eggs, and any perishable egg product, as close as possible to, but not later than, the 7th day after product delivery.

(B) For fresh or frozen fish, as defined in section 204(3) of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4003(3)), as close as possible to, but not later than, the 7th day after product delivery.

(C) For perishable agricultural commodities, as defined in section 1(4) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(4)), as close as possible to, but not later than, the 10th day after product delivery, unless another date is specified in the contract.

(D) For dairy products, as defined in section 111(e) of the Dairy Production Stabilization Act of 1983 (7 U.S.C. 4502(e)), edible fats or oils, and food products prepared from edible fats or oils, as close as possible to, but not later than, the 10th day after the date on which a proper invoice has been received. Liquid milk, cheese, certain processed cheese products, butter, yogurt, ice cream, mayonnaise, salad dressings, and other similar products, fall within this classification. Nothing in the Act limits this classification to refrigerated products. When questions arise regarding the proper classification of a specific product, prevailing industry practices will be followed in specifying a contract payment due date. The burden of proof that a classification of a specific product is, in fact, prevailing industry practice is upon the Contractor making the representation.

(ii) If the contract does not require submission of an invoice for payment (e.g., periodic lease payments), the due date will be as specified in the contract.

(3) *Contractor's invoice.* The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(3)(i) through (a)(3)(x) of this clause. If the invoice does not comply with these requirements, the designated billing office will return it within 7 days after receipt (3 days for meat, meat food products, or fish; 5 days for perishable agricultural commodities, dairy products, edible fats or oils, and food products prepared from edible fats or oils), with the reasons why it is not a proper invoice. The Government will take into account untimely notification when computing any interest penalty owed the Contractor.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of the mailing or transmission.)

(iii) Contract number or other authorization for supplies delivered or services performed (including order number and contract line item number).

(iv) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.

(v) Shipping and payment terms (e.g., shipment number and date of shipment, discount for prompt payment terms).

Bill of lading number and weight of shipment will be shown for shipments on Government bills of lading.

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(ix) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic funds Transfer—Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer—Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(x) Any other information or documentation required by the contract (e.g., evidence of shipment.)

(4) *Interest penalty.* The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(4)(i) through (a)(4)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment, and there was no disagreement over quantity, quality, or Contractor compliance with any contract term or condition.

(iii) In the case of a final invoice for any balance of funds due the Contractor for supplies delivered or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(5) *Computing penalty amount.* The Government will compute the interest penalty in accordance with Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance is deemed to occur constructively on the 7th day (unless otherwise specified in this contract) after the Contractor delivers the supplies or performs the services in accordance with the terms and conditions of the contract, unless there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. If actual acceptance occurs within the constructive acceptance period, the Government will base the determination of an interest penalty on the actual date of acceptance. The constructive acceptance requirement does not, however, compel Government officials to accept supplies or services, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(6) *Discounts for prompt payment.* The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(7) *Additional interest penalty.*

(i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of \$1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(7)(ii) of this clause, postmarked no later than 40 days after the invoice amount is paid.

(ii)

(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall --

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt, provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand; provided such date is no later than the 40th day after payment was made.

(iii) The additional penalty does not apply to payments regulated by other Government regulations (e.g., payments under utility contracts subject to tariffs and regulation).

(b) *Contract financing payments.* If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) *Fast payment procedure due dates.* If this contract contains the clause at 52.213-1, Fast Payment Procedure, payments will be made within 15 days after the date of receipt of the invoice.

(d) *Overpayments.* If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall--

(1) Remit the overpayment amount to the payment office cited in the contract along with a description of the overpayment including the--

(i) Circumstances of the overpayment (e.g., duplicate payment, erroneous payment, liquidation errors, date(s) of overpayment);

(ii) Affected contract number and delivery order number if applicable;

(iii) Affected contract line item or subline item, if applicable; and

(iv) Contractor point of contact.

(2) Provide a copy of the remittance and supporting documentation to the Contracting Officer.

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER-
CENTRAL CONTRACTOR REGISTRATION (OCT 2003)

(a) Method of payment.

(1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either—

- (i) Accept payment by check or some other mutually agreeable method of payment; or
- (ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) *Contractor's EFT information.* The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) *Mechanisms for EFT payment.* The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR Part 210.

(d) *Suspension of payment.* If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) *Liability for uncompleted or erroneous transfers.*

(1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for—

- (i) Making a correct payment;
- (ii) Paying any prompt payment penalty due; and
- (iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and—

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(f) *EFT and prompt payment.* A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(g) *EFT and assignment of claims.* If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register separately in the CCR database and shall be paid by EFT in accordance with the terms of this clause. Notwithstanding any other requirement of this contract, payment to an ultimate recipient other than the Contractor, or a financial institution properly recognized under an assignment of claims pursuant to Subpart 32.8, is not permitted. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(h) *Liability for change of EFT information by financial agent.* The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(i) *Payment information.* The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

52.233-1

DISPUTES -- ALTERNATE I (DEC 1991)

(JUL 2002)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this

contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The Contractor shall provide the certification specified in paragraph (d)(2)(iii) of this clause when submitting any claim exceeding \$100,000.

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor."

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the offer.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date that the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in FAR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the

rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

52.243-1 CHANGES - FIXED-PRICE -- ALTERNATE I (APR 1984) (AUG 1987)

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

- (1) Description of services to be performed.
- (2) Time of performance (*i.e.*, hours of the day, days of the week, etc.).
- (3) Place of performance of the services.

(b) If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.

(c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.

(d) If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

(e) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

52.249-2 Termination for Convenience of the Government (Fixed-Price). (May 2004)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

- (1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government—

(i) The fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated; and

(ii) The completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in paragraph (b)(6) of this clause; *provided*, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 49.001 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored,

within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (f) or paragraph (g) of this clause, exclusive of costs shown in paragraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and the Contracting Officer fail to agree on the whole amount to be paid because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined by the Contracting Officer as follows, but without duplication of any amounts agreed on under paragraph (f) of this clause:

(1) The contract price for completed supplies or services accepted by the Government (or sold or acquired under paragraph (b)(9) of this clause) not previously paid for, adjusted for any saving of freight and other charges.

(2) The total of—

(i) The costs incurred in the performance of the work terminated, including initial costs and preparatory expense allocable thereto, but excluding any costs attributable to supplies or services paid or to be paid under paragraph (g)(1) of this clause;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(2)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(2)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow

no profit under this subdivision (g)(2)(iii) and shall reduce the settlement to reflect the indicated rate of loss.

(3) The reasonable costs of settlement of the work terminated, including—

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted—

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

52.244-2 Subcontracts (June 2007)

(a) *Definitions.* As used in this clause—

“Approved purchasing system” means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

“Consent to subcontract” means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

“Subcontract” means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contractor a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) of this clause.

(c) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that—

- (1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or
- (2) Is fixed-price and exceeds—

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(d) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

ALL SUBCONTRACTS.

(e)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (b), (c), or (d) of this clause, including the following information:

- (i) A description of the supplies or services to be subcontracted.
- (ii) Identification of the type of subcontract to be used.
- (iii) Identification of the proposed subcontractor.
- (iv) The proposed subcontract price.
- (v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.
- (vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.
- (vii) A negotiation memorandum reflecting—
 - (A) The principal elements of the subcontract price negotiations;
 - (B) The most significant considerations controlling establishment of initial or revised prices;
 - (C) The reason cost or pricing data were or were not required;
 - (D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;
 - (E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;
 - (F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and
 - (G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (b), (c), or (d) of this clause.

(f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination—

- (1) Of the acceptability of any subcontract terms or conditions;
- (2) Of the allowability of any cost under this contract; or
- (3) To relieve the Contractor of any responsibility for performing this contract.

(g) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(h) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(i) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

52.249-8

DEFAULT (FIXED-PRICE SUPPLY AND SERVICE)

(APR 1984)

(a)(1) The Government may, subject to paragraphs (c) and (d) of this clause, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to—

- (i) Deliver the supplies or to perform the services within the time specified in this contract or any extension;
- (ii) Make progress, so as to endanger performance of this contract (but see paragraph (a)(2) of this clause); or
- (iii) Perform any of the other provisions of this contract (but see paragraph (a)(2) of this clause).

(2) The Government's right to terminate this contract under subdivisions (a)(1)(ii) and (1)(iii) of this clause, may be exercised if the Contractor does not cure such failure within 10 days (or more if authorized in writing by the Contracting Officer) after receipt of the notice from the Contracting Officer specifying the failure.

(b) If the Government terminates this contract in whole or in part, it may acquire, under the terms and in the manner the Contracting Officer considers appropriate, supplies or services similar to those terminated, and the Contractor will be liable to the Government for any excess costs for those supplies or services. However, the Contractor shall continue the work not terminated.

(c) Except for defaults of subcontractors at any tier, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (1) acts of God or of the public enemy, (2) acts of the Government in either its sovereign or contractual

Director

Wage Determinations |

Date Of Revision: 05/26/2009

States: District of Columbia, Maryland, Virginia

Area: District of Columbia Statewide

Maryland Counties of Calvert, Charles, Frederick, Montgomery, Prince
George's, St Mary's

Virginia Counties of Alexandria, Arlington, Fairfax, Falls Church, Fauquier,
King George, Loudoun, Prince William, Stafford

CHANGE ORDER #1

A. CHANGE ORDER DESCRIPTION

In accordance with Section 9 of the "Consulting Agreement for Federal Government Projects," Consulting Agreement No. 10-092-0023, Consultant Morgan Worldwide, Inc. submits the following Change Order outlining the labor and travel costs for the additional work of attending two scoping meetings in Gillette, Wyoming and Farmington, New Mexico, which were not included in the original contract.

B. WORK EFFORT ESTIMATION

Attendance of the two scoping meetings will necessitate 48 hours of labor (one day of travel, one day of meeting, and one day of travel for each meeting) and associated travel expenses to Gillette, Wyoming and Farmington, New Mexico. We understand that the following labor and travel rates are the same as those submitted to and approved by the Office of Surface Mining.

The labor rate is \$175 per hour, for a total of \$8,400 in labor costs to attend both meetings.

Travel expenses for each meeting will include:

- M&IE / Person: \$153
- Total Lodging / Person: \$246
- Total Transportation / Person: \$716

The total travel costs per person are \$1,115, plus a 13% G&A load for a total of \$1,259.95 in travel costs for each meeting, totaling \$2,519.90 for both scoping meetings.

Consultant Morgan Worldwide, Inc. therefore submits this Change Order to add an additional \$10,919.90 to the contact price to cover the costs and labor of attending the scoping meetings in Gillette, Wyoming and Farmington, New Mexico. If requested, Morgan Worldwide will provide documentation of expenditures and labor associated with the additional work described above.

The Contractor, Polu Kai Services, LLC and Morgan Worldwide, Inc. acknowledge that they have read and understand this Change Order and agree to be bound by its terms and conditions.

Change Order Agreed to:

Change Order Agreed to:

John S.L. Morgan
President
Morgan Worldwide, Inc.
Date: _____

Polu Kai Services, Inc.
Date: _____

MORGAN WORLDWIDE CHANGE ORDER #2

A. Change Order Description

In accordance with Section 9 of the "Consulting Agreement for Federal Government Projects," Consulting Agreement No. 10-092-0023, Consultant Morgan Worldwide, Inc. submits the following Change Order outlining the labor costs for the additional work of defining and expanding the alternatives for inclusion into Chapter 2 of the EIS, including incorporation of any additional comments from the Scoping Report and a description of any discarded alternatives and an explanation as to why those alternatives were discarded. This work was not including in our original contract and was approved by PKS in an email dated October 1, 2010.

B. Work Effort Estimation

Labor necessary to complete the work on Chapter 2 outlined above is presented on the attached spreadsheet and totals \$18,567, an amount that PKS agreed to prior to Morgan Worldwide beginning performance of this work.

The Contractor, Polu Kai Services, LLC and Morgan Worldwide, Inc. acknowledge that they have read and understand this Change Order and agree to be bound by its terms and conditions.

Change Order Agreed to:

Change Order Agreed to:

John S.L. Morgan

Polu Kai Services, Inc.

President, Morgan Worldwide, Inc.

Date: _____

Date: _____

MORGAN WORLDWIDE CHANGE ORDER #3

A. Change Order Description

In accordance with Section 9 of the "Consulting Agreement for Federal Government Projects," Consulting Agreement No. 10-092-0023, Consultant Morgan Worldwide, Inc. submits the following Change Order outlining the labor costs for the additional work of reviewing and drafting Chapter 1, which was not included in the original scope of work.

B. Work Effort Estimation

Morgan Worldwide was requested to aid in the drafting of Chapter 1 by PKS. Morgan Worldwide spent 20 hours, as documented by time sheets submitted in August (August 6-10, 2010) on the following work, which was not included in its contract:

- discussions with PKS and Plexus regarding the structure and language of Chapter 1;
- drafted the background section of Chapter 1 and aiding in drafting the remaining sections of Chapter 1; and
- editing Chapter 1 to ensure compliance with NEPA and consistency with OSM's preferred action.

The labor rate for this effort is \$100 per hour, for a total of \$2000 in labor costs.

The Contractor, Polu Kai Services, LLC and Morgan Worldwide, Inc. acknowledge that they have read and understand this Change Order and agree to be bound by its terms and conditions.

Change Order Agreed to:

Change Order Agreed to:

John S.L. Morgan

Polu Kai Services, Inc.

President, Morgan Worldwide, Inc.

Date: _____

Date: _____

Polu Kai Services/Morgan Worldwide Final Contract Modification

A. Final Contract Modification Description

In accordance with Section 9(a) of the "Consulting Agreement for Federal Government Projects," Consulting Agreement No. 10-092-0023 ("Subcontract"), Polu Kai Services, LLC ("PKS") has requested a modification of the Subcontract based on a request by the Office of Surface Mining Reclamation and Enforcement ("OSM") for a modification to the prime contract (Contract No. S10PC00060). Consistent with the prime contract modification, PKS requests that the Subcontract be modified to end on March 23, 2011, with the work done by Morgan Worldwide Consultants, Inc. ("MW") to that date representing complete fulfillment of MW's contractual obligations to PKS under the Subcontract, including, but not limited to, the satisfactory completion and delivery of all required Work.

B. Contract Amount

The original Subcontract amount was \$307,141, and was revised by the PKS-approved Change Order #1 (\$10,919.90) and Change Order #2 (\$18,567). Prior to this Final Contract Modification, the total Subcontract amount was: \$336,627.90.

As a result of this Final Contract Modification, the Subcontract amount is decreased by: \$119,940.83.

Therefore, the Subcontract Total amount is revised to read: \$216,687.07.

C. Payment

Pursuant to the terms of the Subcontract, PKS agrees to pay MW a Final Payment of \$40,744.55. This represents the total amount outstanding and due to MW of the Subcontract Total for work performed under the Subcontract.

Upon receipt of the Final Payment of \$40,744.55, MW represents that all payrolls, bills for materials and equipment, and other indebtedness connected with the Subcontract for which OSM or its property or PKS or PKS's surety might in any way be liable, have been paid in full or otherwise satisfied.

D. Release of Claims

PKS agrees to release and forever discharge MW, its owners, officers, employees, agents, representatives, and sureties from all claims and demands arising out of, or related to, the Subcontract. This includes all claims and demands related to the Subcontract whether known or unknown and regardless of whether based on contract, tort, or equitable grounds.

MW, in consideration of the sum of \$40,744.55, which is to be paid under the Subcontract to MW by PKS, agrees to release and forever discharge PKS, its owners, officers, employees,

agents, representatives, sureties, and OSM from all claims and demands arising out of, or related to, the Subcontract. This includes all claims and demands related to the Subcontract whether known or unknown and regardless of whether based on contract, tort, or equitable grounds.

E. Statements

MW and PKS agree not to make any statements, written or verbal, or cause or encourage others, including subcontractors, to make any statements, written or verbal, that defame, disparage, ridicule or in any way criticize the personal or business reputation, practices or conduct of the other party, its employees, directors and officers. MW and PKS acknowledge and agree that this prohibition extends to statements, written or verbal, made to anyone, including but not limited to, the news media, investors, potential investors, any board of directors or advisory board of directors, industry analysts, competitors, strategic partners, vendors, employees (past and present), and clients.

MW and PKS acknowledge and agree that, notwithstanding the foregoing, the parties are not prohibited from disclosing any information to their attorneys or in response to a lawful subpoena, congressional inquiry, administrative proceeding, court order, or other legal requirement. If either party is required to disclose information under operation of law, the party will disclose only such information as is legally required or ordered by a court of competent jurisdiction or other competent administrative body.

The Contractor, Polu Kai Services, LLC and Morgan Worldwide Consultants, Inc. acknowledge that they have read and understand this Final Contract Modification and agree to be bound by its terms and conditions.

Final Contract Modification Agreed to:



John S.L. Morgan

President, Morgan Worldwide, Inc.

Date: 4/20/2011

Final Contract Modification Agreed to:



Randy Sosa

Polu Kai Services, LLC

Date: 4/21/2011

Liz Edmondson

From: Mike Stanwood [r.m.stanwood@gmail.com]
Sent: Wednesday, December 15, 2010 10:33 AM
To: J. Steven Gardner
Cc: John Maxwell; Edmundo Laporte; Doug Myneer; Baird, Jeff; John Morgan; Joe Zaluski; Jose Sosa; Randy Sosa
Subject: Re: Impact Model

Steve, John went into the ER last night with a herniated disk problem so he's out today. I was not following this situation closely yesterday but I think it was agreed we'd have an internal (contractor people only) call this morning to make sure we are all on the same page. The time proposed was 11:30 ET this morning. Can you guys do this call?

If so, our agenda can include a status update, some basic prep for the call with OSM on Friday, and the consistency issues that Bob Singer brought up. Don't think it will take more than 20-30 minutes.

Let us all know about the call at 11:30 -- use the regular PKS conf call line and I'll call in as moderator. thanks

On Wed, Dec 15, 2010 at 8:20 AM, J. Steven Gardner <jsgardner@engrservices.com> wrote:

John,

In response to your message below, we have concerns that there is a potential for a scope, budget and schedule impact. We don't mind taking a reasonable amount of time to discuss, however the methodology utilized is what has been agreed to by John Craynon and group in numerous meetings and calls. (it is better described in Edmundo's email yesterday at 2:55) We feel that there have been an inordinate number of phone calls and meetings in this project, all of which take much more time away from real work than the actual phone call itself.

We are available for a conference call Friday at 3PM EST for those that can participate to discuss further the methodology that was explained in our original submittal on 11/24.

We will be further expanding on that description of the methodology in our Chapter 4 work.

As Jose has directed we are documenting all of the extra meetings and additional out-of-scope work requests that OSM has made from the beginning of project for the Equitable Adjustment claim.

Let us know if that time is acceptable and exactly who is planning on participating.

Steve

J. Steven Gardner, P.E.
President/CEO
Engineering Consulting Services, Inc.

Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103 (office)
859-806-5826 (cell)
859-259-3394 (fax)
jsgardner@engrservices.com
www.engrservices.com

From: John Maxwell [mailto:JMaxwell@polukaiservices.com]
Sent: Tuesday, December 14, 2010 11:23 AM
To: Edmundo Laporte; 'Doug Mynear'; 'Baird, Jeff'; 'jmorgan@morganworldwide.com'
Cc: Jose Sosa; Randy Sosa; 'Mike Stanwood'; 'J Steven Gardner'
Subject: RE: Impact Model

Edmundo,

This is not a request for a big production. The information requested is a discussion of methodology that should accompany the results as contained in the EIS document. This is not out of scope work. Do not continue what you consider to be out of scope work until we until we discuss this issue.

John

From: Edmundo Laporte [mailto:elaporte@engrservices.com]
Sent: Tuesday, December 14, 2010 10:52 AM
To: John Maxwell; 'Doug Mynear'; 'Baird, Jeff'; 'jmorgan@morganworldwide.com'
Cc: Jose Sosa; Randy Sosa; 'Mike Stanwood'; 'J Steven Gardner'
Subject: RE: Impact Model

John:

We acknowledge receipt of Polu Kai's request for an explanatory conference call with the OSM team.

It is our understanding that the purpose of this call will be to provide information to OSM on the methodology employed to produce the draft impact model that has been circulated among the EIS team members.

We can schedule this call to take place on Friday December 17, 2010, in the afternoon.

ECSI will present to Polu Kai, in due time, a summary of the costs related to the preparation effort required to explain the methodology employed to build the model at this time, which is out of our scope of work.

Please indicate the preferred time for the conference call and we will make ourselves available.

Best regards,

Edmundo J. Laporte, P.E.
Vice President / Director - Mining Services
Engineering Consulting Services, Inc
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-285-9921 (mobile)
elaporte@engrservices.com
www.engrservices.com

From: John Maxwell [<mailto:JMaxwell@polukaiservices.com>]
Sent: Tuesday, December 14, 2010 8:24 AM
To: Edmundo Laporte; Doug Mynear; 'Baird, Jeff'; jmorgan@morganworldwide.com
Cc: Jose Sosa; Randy Sosa; Mike Stanwood; J Steven Gardner
Subject: RE: Impact Model

Edmundo,

Stephanie indicated that the OSM team members would like a conference with the team that produced the model (or just someone who can describe the method in detail). She assured me that OSM does not question the data results, they just need to know the process so that they understand and can present it to any who have questions. At present they see a black box and don't know what goes on inside.

They would like to meet no earlier than Wednesday this week.

Thanks,

John

From: Edmundo Laporte [mailto:elaporte@engrservices.com]

Sent: Monday, December 13, 2010 6:28 PM

To: John Maxwell

Cc: 'J. Steven Gardner'; jzaluski@engrservices.com; dmynear@engrservices.com; 'Jeff Baird'; 'John Morgan'; 'ledmondson@morganworldwide.com'; 'Shortelle, Ann'; 'Josh Jenkins'; 'Donald Iannone'; 'rsinger@ene.com'

Subject: Impact Model

John:

As per our discussions during the conference call on Friday, ECSI has prepared an impact model which includes the baseline and alternatives 2 through 5.

The model reflects impacts on tonnage, acres and streams (except ephemerals, for which data is not available).

I have not been able to compare the revised permitted acreage produced by Morgan Worldwide and circulated by you earlier today. I submitted an earlier version of this model to John Morgan on Friday, as agreed upon, and am waiting for his comments on its general methodology.

It would be appropriate to organize a phone conference later this week to discuss this model.

Regards,

Edmundo

Edmundo J. Laporte, P.E.
Vice President / Director - Mining Services
Engineering Consulting Services, Inc
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-285-9921 (mobile)
elaporte@engrservices.com
www.engrservices.com

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received this electronic mail in error, please notify the sender and Engineering Consulting Services, Inc. immediately to arrange for its destruction or you may return this electronic mail to us.

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Liz Edmondson

From: Mike Stanwood [r.m.stanwood@gmail.com]
Sent: Thursday, December 16, 2010 1:32 PM
To: Jenkins, Josh
Cc: Joe Zaluski; John Morgan; John Maxwell; Jose Sosa; Randy Sosa; J Steven Gardner; Liz Edmondson; Shortelle, Ann
Subject: Re: Transition Metrics

No, keep working on ch 4 as current direction. At this point we have to assume that OSM is/will be onboard with this approach we have taken.

Any direction to stop work would have to come from John Maxwell, Jose, or Randy. thanks

On Thu, Dec 16, 2010 at 10:16 AM, Jenkins, Josh <JLJENKINS@mactec.com> wrote:

Is the PKS directive to stand down on 4?

Please advise ASAP.

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | **Mobile** 770.833.6429 | **Fax** 770.421.3486
Email jljenkins@mactec.com | **Web** www.mactec.com

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From: Mike Stanwood [mailto:r.m.stanwood@gmail.com]
Sent: Thursday, December 16, 2010 11:19 AM
To: Joe Zaluski
Cc: John Morgan; John Maxwell; Jose Sosa; Randy Sosa; J Steven Gardner; Jenkins, Josh; Liz Edmondson; Shortelle, Ann
Subject: Re: Transition Metrics

yes agreed - it is clear that this is direction we all believe we should go and we need to get beyond the discussion phase. John Morgan has laid it out well. I think the request for OSM confirmation should come from Jose or John Maxwell as PM/DPM.

Not sure about John Maxwell's status today (his bad back I'm sure is problematic to at least some extent but I'll check).

Jose, I think we need to run this by OSM and as suggested, get written confirmation that the metric approach as laid out by John Morgan in his email is appropriate and approved. I think you could even take John Morgan's original email below and forward this to OSM. Please advise. thanks

On Thu, Dec 16, 2010 at 7:37 AM, Joe Zaluski <jzaluski@engrservices.com> wrote:

Agreed. We need a decision from OSMRE.

Joe Zaluski

Executive Vice-President

ECSI

Lexington, KY

859-233-2103

On Dec 16, 2010, at 9:28 AM, "John Morgan" <jmorgan@morganworldwide.com> wrote:

As we have been discussing over the last couple of months we need a clear method to define the effect of each of the alternatives on the defined elements as a way to transition from Chapter #3 to Chapter #4.

As a primary assumption for this impact analysis we all agreed that we should treat the US coal supply as a steady state, specifically we should maintain the US coal production at the 2008 level, as defined by the EIA (but adjusted for energy content).

It was also recognized that Alternative #2 would not meet this primary assumption, as the most restrictive alternative precluded the production to meet the target production.

Based on the production shifts resulting from the Alternatives there will be effects on certain key metrics.

We have previously agreed that the metrics are:

- Tons of production by region and by mining type
- Stream length (perennial and intermittent) per ton of coal mined by region
- Acre disturbed per ton of coal mined by region and by mining type
- Tons of coal per permit by region and by mining type
- Employment per ton of coal mined by region and by mining type

I think these are all of the metrics and that they are adequate to detail the impacts in Chapter #4.

However, we need to get written agreement from OSMRE that they concur with this approach. I would strongly suggest that we do not continue with the development of Chapter #4 until we receive such assurance from OSMRE.

Any thoughts?

John

John S L Morgan

Office 859 259 0959

Cell 859 991 1414

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Liz Edmondson

From: Varvell, Stephanie L. [svarvell@osmre.gov]
Sent: Monday, December 20, 2010 12:02 PM
To: John Maxwell; Craynon, John; Sloanhoffer, Nancy E.; Rideout, Sterling
Cc: (spr@engrservices.com); Caroline Bari; David Bell; Doug Myneer; Edmundo Laporte; J Steven Gardner; Jaque Mitchell; Jeff Baird; Jenkins, Josh; jmahan@plexsci.com; John Morgan; Joe Zaluski; Jose Sosa; Kathy Kelly; Liz Edmondson; Mike Stanwood; Randy Sosa; Shortelle, Ann; Singer, Robert
Subject: RE: Confirmation of EIS Analysis Methodology

John,

I just spoke with John Craynon. He asked me to send a note to you confirming the methodology as described. He does not understand the source of the concern regarding Alt. 5 and the rule language. I hope that the conversation you had this morning with Bill, Lois and Dennis has cleared that up.

From: John Maxwell [mailto:JMaxwell@polukaiservices.com]
Sent: Friday, December 17, 2010 4:29 PM
To: Varvell, Stephanie L.; Craynon, John; Sloanhoffer, Nancy E.
Cc: (spr@engrservices.com); Caroline Bari; David Bell; Doug Myneer; Edmundo Laporte; J Steven Gardner; Jaque Mitchell; Jeff Baird; Jenkins, Josh; jmahan@plexsci.com; jmorgan@morganworldwide.com; Joe Zaluski; John Maxwell; Jose Sosa; Kathy Kelly; Liz Edmondson; Mike Stanwood; Randy Sosa; Shortelle, Ann; Singer, Robert
Subject: Confirmation of EIS Analysis Methodology

The EIS team has been discussing over the last couple of months the need for a clear understanding of the appropriate method to define the effect of each of the alternatives (as represented by the defined elements), and as a way to transition from Chapter #3 to Chapter #4.

As a primary assumption for this impact analysis we all agreed (PKS/OSM team) that we should treat the US coal supply as a steady state; specifically we should maintain the US coal production at the 2008 level, as defined by the EIA (but adjusted for energy content). Anything more complex would be unmanageable.

It was also recognized that Alternative #2 would not meet this primary assumption, as the most restrictive alternative precluded the production to meet the target production. Based on the projected production shifts resulting from the Alternatives we have defined the need to use certain key metrics and the metrics agreed upon are:

- Tons of production by region and by mining type
- Stream length (perennial and intermittent) per ton of coal mined by region
- Acre disturbed per ton of coal mined by region and by mining type
- Tons of coal per permit by region and by mining type
- Employment per ton of coal mined by region and by mining type

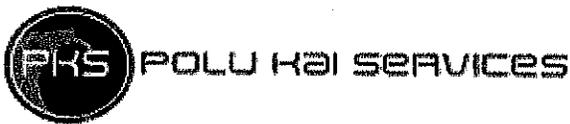
We believe that these are all of the relevant metrics and that they are adequate to provide a reasonable disclosure of potential impacts in Chapter #4. We also are working under the assumption that the potential changes from the alternatives would occur over a period of 12-15 years (possibly more) for full effect, and that the impacts defined would reflect full implementation.

We are also still concerned about potential inconsistencies between the proposed rule language and Chapter 2 text. Some of the assessment team is concerned that the rule language (as represented in Alternative 5) is inconsistent with the October 15 redline version of the Rule. If the current version of Chapter 2 Alternative 5 supersedes the October 15 redline version, we would like confirmation as such.

We need written agreement that OSMRE is in concurrence with the above metrics and approach using the production shifts as a basis for impacts. Also, a call to verify our direction would be appreciated to alleviate any misunderstandings at your earliest convenience.

I apologize that this seems to be a recurring theme, but with the current schedule, we feel it necessary to have confirmation.

Thank you.



John R. Maxwell
Senior Environmental Scientist
Polu Kai Services
352.258.1045

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Liz Edmondson

From: Joe Zaluski [jzaluski@engrservices.com]
Sent: Friday, January 07, 2011 11:08 AM
To: 'Randy Sosa'
Cc: 'John Maxwell'; 'David Bell'
Subject: OSM

Randy – just to repeat how this most recent OSM request came into being. Craynon called Edmundo directly simply to check on availability. We don't want to cause any issue for Craynon here. It was an innocent call. ECSI let you guys know as soon as we could. We clearly understand the protocol and chain of command. If we caused PKS a problem I apologize.

That said – as Ann S. picked up on the issue, this could be a big deal. My concern is that OSM may back off the meeting on Monday and simply reserve their comments until after we submit and then ask for a rewrite using the Winters' methodology. Or, OSM will write an addendum to the EIS saying that the production shifts are the result of EPA and the Corps and that OSM's incremental impact is minimal.

OSM has changed positions on so many important instructions and issues along the way that, as Ann said, all the subs have exhausted their contracts trying to keep them satisfied. I think all the subs are to be commended for doing their best.

Joe Zaluski
Executive Vice-President
ECSI, LLC
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-312-4209 (mobile)
jzaluski@engrservices.com
www.engrservices.com

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Liz Edmondson

From: J. Steven Gardner [jsgardner@engrservices.com]
Sent: Wednesday, February 02, 2011 5:32 PM
To: 'Mike Stanwood'; 'John Maxwell'; 'Jose Sosa'; 'Caroline Bari'; 'Kathy Kelly'; 'Randy Sosa'; 'dbell@plexsci.com'; 'Jenkins, Josh'; 'Shortelle, Ann'; 'Liz Edmondson'; 'Doug Myneer'; 'Jeff Baird'; 'J. Steven Gardner'; 'Joe Zaluski'; 'spr@engrservices.com'; 'Edmundo Laporte'
Subject: FW: Actions from Feb 1 meeting

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 - a. Complete Chapter 3 sections

b. Addressing Chapter 4 comments except for those that refer to 2008 SBZ as baseline.

We would appreciate being copied on PKS's response to OSM on these issues. Resolution of all above is urgent due to the time schedule.

(Remember the glass is half full.)

Steve

J. Steven Gardner, P.E.
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859-233-2103 (office)
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859-259-3394 (fax)
jsgardner@engrservices.com
www.engrservices.com

From: John Morgan [<mailto:jmorgan@morganworldwide.com>]

Sent: Wednesday, February 02, 2011 3:33 PM

To: Mike Stanwood; John Maxwell; Jose Sosa; Caroline Bari; Kathy Kelly; Randy Sosa; dbell@plexsci.com; Jenkins, Josh; Shortelle, Ann; Liz Edmondson; Doug Myneer; Jeff Baird; J. Steven Gardner; Joe Zaluski; spr@engrservices.com; Edmundo Laporte

Subject: Actions from Feb 1 meeting

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- Clear discussion of the methodology including the rationale for the production shifts, we also need to review the underground acreages and permit life. We should also discuss the "other" category of permits,
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- Add language and metrics to discuss the benefits of the rule, I think that a summary impacts : benefits table at the beginning of each section would be a good way to present that alternative and provide more balance,
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- Agree on the implementation schedule for the rule as we all agree that the impacts / benefits are not going to be instantaneous,
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I'm sure there are many other issues that others identified but the items identified above have some major impact on the structure of Ch 4.

John

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Liz Edmondson

From: Joe Zaluski [jzaluski@engrservices.com]
Sent: Thursday, February 03, 2011 3:39 PM
To: 'Jose Sosa'
Cc: Liz Edmondson; 'dbell@plexsci.com'; John Morgan; 'jsgardner@engrservices.com'; 'Jose Sosa'; 'John Maxwell'; 'MIKE STANWOOD'
Subject: SOLUTION
Importance: High

Liz and I have been talking and if you would like to talk in a small group (see above) we may have a solution. In sum – if we craft EIS language that the 2008 production was done with the EPA and Corps enforcement in place (which contains a lot of the meat of the SPR) then the incremental change to the SPR would not be as significant. Please note – we were specifically told to ignore the EPA and Corps throughout our analysis. If we now bring them in – it would soften the impact of the SPR.

THIS IS ONLY A TENTATIVE POSSIBLE SOLUTION

Joe Zaluski
Executive Vice-President
ECSI, LLC
Civil – Environmental – Mining
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
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Liz Edmondson

From: Joe Zaluski [jzaluski@engrservices.com]
Sent: Thursday, February 03, 2011 10:07 AM
To: 'Jenkins, Josh'; 'J. Steven Gardner'; 'Mike Stanwood'; 'John Maxwell'; 'Jose Sosa'; 'Caroline Bari'; 'Kathy Kelly'; 'Randy Sosa'; 'dbell@plexsci.com'; 'Shortelle, Ann'; Liz Edmondson; 'Doug Mynear'; 'Jeff Baird'; 'spr@engrservices.com'; 'Edmundo Laporte'
Subject: RE: Actions from Feb 1 meeting

Josh – thanks. I think a big question is set forth in your number 1. What is baseline? Is it “pretending” that the CR7 was in effect for the coal producing states? If so, it really skews the production analysis. If baseline is then Chapter 2 and the production shift work in Chapter 4 (which still needs some minor tweaks) can tell you that the Chapter 2 matrix (all of the team’s work AND OSM’s input) did NOT assume that place. I think this is called a conundrum.

Notes after
Feb 1
meeting
2008 in effect?
Pretend

Joe Zaluski
Executive Vice-President
ECSI, LLC
Civil – Environmental – Mining
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859-233-2103
859-259-3394 (fax)
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www.engrservices.com

From: Jenkins, Josh [mailto:JLJENKINS@mactec.com]
Sent: Thursday, February 03, 2011 9:08 AM
To: J. Steven Gardner; 'Mike Stanwood'; 'John Maxwell'; 'Jose Sosa'; 'Caroline Bari'; 'Kathy Kelly'; 'Randy Sosa'; 'dbell@plexsci.com'; 'Shortelle, Ann'; 'Liz Edmondson'; 'Doug Mynear'; 'Jeff Baird'; 'Joe Zaluski'; 'spr@engrservices.com'; 'Edmundo Laporte'
Subject: RE: Actions from Feb 1 meeting

Thanks John/Steve - My additions:

OSM wants focus of comparison of Alternatives to baseline conditions, not to each other

Agree w/ Steve’s assessment of GHG. Also want discussion on how climate changes may impact implementation of rule, and how rule may impact climate changes. This may change structure/layout of document – team needs clarification on who takes this since PKS rolled up a brief write-up of this, air, cultural resources, geology, and other topics from Chapter 3 into an introductory part of Chapter 4.

For benefits, OSM has developed a list of 22 benefits (I recall only 20) of the rule and wants those discussed in EIS. They have not developed any more.

More explanation on the Alt 5 projecting 94 miles of streams impacted vs/110 for baseline – need more discussion of the benefits of the ~15 miles of streams saved under proposed rule.

The cost/benefit discussion requested in the EIS. Suggest it could be a new section summarized from the RIA, after Chapter 4. OSM wants a natural resource economist to support project to provide values for natural resources – among others recreational values, stream values, any others.

They want more environmental analysis – not just of areas where production shifts occur, but based on areas where coal will be mined under the new rule (e.g. increased baseline analysis, measures to protect environment)...

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | **Mobile** 770.833.6429 | **Fax** 770.421.3486
Email jljenkins@mactec.com | **Web** www.mactec.com

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From: J. Steven Gardner [mailto:jsgardner@engrservices.com]
Sent: Wednesday, February 02, 2011 5:32 PM
To: 'Mike Stanwood'; 'John Maxwell'; 'Jose Sosa'; 'Caroline Bari'; 'Kathy Kelly'; 'Randy Sosa'; 'dbell@plexsci.com'; Jenkins, Josh; Shortelle, Ann; 'Liz Edmondson'; 'Doug Mynear'; 'Jeff Baird'; 'J. Steven Gardner'; 'Joe Zaluski'; 'spr@engrservices.com'; 'Edmundo Laporte'
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Steve

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Liz Edmondson

From: J. Steven Gardner [jsgardner@engrservices.com]
Sent: Friday, February 04, 2011 5:27 PM
To: 'Jose Sosa'; 'John Maxwell'; 'Jenkins, Josh'; 'David Bell'; John Morgan; 'Randy Sosa'; Liz Edmondson
Cc: 'Joe Zaluski'; 'Edmundo Laporte'; 'Doug Myneer'; 'Jeff Baird'
Subject: ECSI Concerns and items for clarification

Jose:

I have previously outlined numerous concerns in earlier emails, most recently on Jan 10 and February 2. Please refer to those. I will forward those back to you.

As we discussed yesterday, ECSI is working on Equitable Adjustment claims for a number of items from Day 1 of this project. We will be submitting that in due time. We plan to focus on spending our time finishing up the work on the DEIS in the meantime. As discussed today, we feel we will be close to burning through our budget at this stage.

Items for Clarification

1. It appeared to us that OSM was saying we should have used the following assumptions for the Methodology:
 - a. That the 2008 SBZ rule is fully implemented and being enforced by OSM and all coal producing states with permanent programs
 - b. That 2008 coal production figures reflect full implementation of the 2008 SBZ rule
 - c. That EPA and Corps 402/404 permit actions are irrelevant to 2008 production figures
 - d. That we should accept the 2008 RIA & EIS.

We feel that this is contrary to earlier direction given the Team and is not true or defensible. We do not feel we can defend the conclusions of the 2008 RIA and EIS. We also feel that if OSM wants us redo the analysis, there is a claim for additional time and budget, plus we cannot guarantee that we will arrive at the conclusions that they desire.

2. Methodology generally
 - a. That OSM does not agree with the production impacts methodology, even though this methodology was approved previously in writing
3. GHG
 - a. GHG analysis (transportation due to production shifts, methane emissions, etc.) must now be included in the SPR EIS, even though we were advised by OSM in previous meetings that it is not to be addressed. Again, if this is the case, we would need additional time and budget to include in our analysis.
4. Economic analysis
 - a. OSM now requires the PKS team to conduct an economic impacts/benefits analysis for all Alternatives (2-5)
5. Alternatives (Chapter 2)
 - a. That the PKS team is to conduct its analysis based on the text of Chapter 2 of the EIS, and that Chapter 2 accurately reflects the text of the rule. The PKS team is not to conduct its analysis on the "matrix" or text of the rule itself.

6. Assessment of Future Mining Using Industry Projections (Contract Statement of Work, 4(r) (iii))
 - a. ECSI spent considerable time and budget putting together our verification process as specified in the contract and approved by OSM, only to have OSM stop our efforts literally at the last minute.

These are all of the points we have for now. We will most likely have more points to bring up later.

Thanks,

Steve

J. Steven Gardner, P.E.
President/CEO
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Lexington, KY 40508

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Liz Edmondson

From: Mike Stanwood [r.m.stanwood@gmail.com]
Sent: Sunday, February 06, 2011 5:28 PM
To: John Morgan
Subject: Re: Coal Production Forecast

John, it would be nice to rely on some other institutionalized data -- the EIA data becomes a "future baseline" which is reasonable. But how would the "additional production shifts" be projected?

Also, I heard you have pulled out of the RIA support -- just too much baggage for you on that?

On Sun, Feb 6, 2011 at 2:48 PM, John Morgan <jmorgan@morganworldwide.com> wrote:

As we have all discussed on numerous occasions we have agreed to use the coal production shifts as a means to evaluate some of the impacts and benefits of the proposed rule (Alternative 5) and the other 3 alternatives under review. Also recognizing that the alternatives will have other benefits that are independent of any production shift.

The difficulty of using the 2008 production as the base is becoming apparent, as it does not recognize trends that are already occurring due to the industry's own decisions plus the effects of the 2008 SBZ and the changes in the implementation of the CWA. The other issue is that the implementation of any of the alternatives will occur over time and any fixed production analysis has to be limited to a snapshot after full implementation (say 10 to 15 years).

As a solution to these problems I think that we should consider changing from a static model to a dynamic model.

There is a very good basis for this dynamic modeling, specifically the long term coal forecast produced by the EIA. Their most recent forecast was published in December 2010.

I recommend that we use this model as our base and then identify what additional production shifts will occur due to each alternative and the key elements of each alternative that will affect production. Based on these shifts the metrics, such as disturbed acres and stream miles plus employment, can be calculated.

I know this is a big change so late in the day, but I think it might provide a solution to some of the challenges that have been identified over the last couple of weeks.

In addition we should use EIA data whenever possible for items such as mine productivity, seam thickness and heat content as they are a recognized source.

Maybe we can try and get consensus on this tomorrow morning, as we need a quick decision if we are to include this approach into Ch4.

John

John S L Morgan

Office 859 259 0959

Cell 859 991 1414

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31

Liz Edmondson

From: Joe Zaluski [jzaluski@engrservices.com]
Sent: Monday, February 07, 2011 1:43 PM
To: Liz Edmondson
Cc: 'J. Steven Gardner'; 'Edmundo Laporte'; 'Jeff Baird'; 'Doug Mynear'
Subject: RE: Coal Production Forecast

Liz – if you confirm that the EIA numbers do NOT include the effects of the SBZ and/or EPA and/or the USACOE, then it appears to me that we are back to the drawing board.

Joe Zaluski
Executive Vice-President
ECSI, LLC
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340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-312-4209 (mobile)
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From: Liz Edmondson [mailto:ledmondson@morganworldwide.com]
Sent: Monday, February 07, 2011 1:28 PM
To: Joe Zaluski
Cc: J. Steven Gardner; Edmundo Laporte; Jeff Baird; Doug Mynear
Subject: RE: Coal Production Forecast

I'm awaiting an answer to some questions on the EIA data from one of their analysts.

The 2010 Report references recent EPA actions, but does not take them into account because they occurred so recently. It does state that it would expect those actions to increase the price of coal and further reduce production in Central App. If they mentioned them in 2010, it seems likely they would take them into consideration in the 2011 analysis. We'll see....

The 2010 Report also states that potential impacts of pending or proposed regulations and sections of existing legislation that require implementing regulations that have not been approved are not reflected in the projections, but I'm not sure if this would include regulations that had been adopted federally, but not implemented by state programs.

I'll let you know what I find out.

From: Joe Zaluski [mailto:jzaluski@engrservices.com]
Sent: Monday, February 07, 2011 9:45 AM
To: Liz Edmondson
Cc: J. Steven Gardner; Edmundo Laporte; Jeff Baird; Doug Mynear
Subject: Re: Coal Production Forecast

Just talked to Steve will call you shortly. Before 10.

Joe Zaluski
Exec V-P

ECSI, LLC

On Feb 7, 2011, at 8:31 AM, "Liz Edmondson" <ledmondson@morganworldwide.com> wrote:

Hi Steve,

John said he talked to you about the revised production methodology discussed below. We just wanted to confirm before the 10 a.m. call this morning that ECSI was in agreement with this approach. Let us know what you think.

Thanks,

Liz

From: John Morgan

Sent: Sunday, February 06, 2011 4:49 PM

To: Jose Sosa; J. Steven Gardner; John Maxwell; Mike Stanwood; Jenkins, Josh; David E. Bell (dbell@plexsci.com)

Cc: bwinters@osmre.gov; dshawley@osmre.gov; (svarvell@osmre.gov); Liz Edmondson

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Liz Edmondson

From: Winters, William R. "Bill" [bwinters@osmre.gov]
Sent: Tuesday, February 08, 2011 7:27 AM
To: John Morgan; 'jose@polukaiservices.com'; 'jsgardner@engrservices.com'; 'jmaxwell@polukaiservices.com'; 'r.m.stanwood@gmail.com'; 'jljenkins@mactec.com'; 'dbell@plexsci.com'
Cc: Shawley, Dianne M; Varvell, Stephanie L.; Liz Edmondson
Subject: Re: Coal Production Forecast

Sorry for the delay.

I like the dynamic idea a lot. It addresses a number of issues missing from the 2008 model method.

From: John Morgan [mailto:jmorgan@morganworldwide.com]
Sent: Sunday, February 06, 2011 02:48 PM
To: Jose Sosa <jose@polukaiservices.com>; J. Steven Gardner <jsgardner@engrservices.com>; John Maxwell <JMaxwell@polukaiservices.com>; Mike Stanwood <r.m.stanwood@gmail.com>; Jenkins, Josh <JLJENKINS@mactec.com>; dbell@plexsci.com <dbell@plexsci.com>
Cc: Winters, William R. "Bill"; Shawley, Dianne M; Varvell, Stephanie L.; Liz Edmondson <ledmondson@morganworldwide.com>
Subject: Coal Production Forecast

As we have all discussed on numerous occasions we have agreed to use the coal production shifts as a means to evaluate some of the impacts and benefits of the proposed rule (Alternative 5) and the other 3 alternatives under review. Also recognizing that the alternatives will have other benefits that are independent of any production shift.

The difficulty of using the 2008 production as the base is becoming apparent, as it does not recognize trends that are already occurring due to the industry's own decisions plus the effects of the 2008 SBZ and the changes in the implementation of the CWA. The other issue is that the implementation of any of the alternatives will occur over time and any fixed production analysis has to be limited to a snapshot after full implementation (say 10 to 15 years).

As a solution to these problems I think that we should consider changing from a static model to a dynamic model.

There is a very good basis for this dynamic modeling, specifically the long term coal forecast produced by the EIA. Their most recent forecast was published in December 2010.

I recommend that we use this model as our base and then identify what additional production shifts will occur due to each alternative and the key elements of each alternative that will affect production. Based on these shifts the metrics, such as disturbed acres and stream miles plus employment, can be calculated.

I know this is a big change so late in the day, but I think it might provide a solution to some of the challenges that have been identified over the last couple of weeks.

In addition we should use EIA data whenever possible for items such as mine productivity, seam thickness and heat content as they are a recognized source.

Maybe we can try and get consensus on this tomorrow morning, as we need a quick decision if we are to include this approach into Ch4.

John

John S L Morgan
Office 859 259 0959
Cell 859 991 1414

Liz Edmondson

From: John Morgan
Sent: Wednesday, February 16, 2011 9:31 AM
To: Liz Edmondson
Subject: FW: conversation with Bill Winters and Stephanie Varvel

See what you think
I hope Ryder gets better
John

From: John Morgan
Sent: Wed 2/16/2011 9:09 AM
To: David Bell; Jose Sosa
Cc: Joe Zaluski; Randy Sosa; "GARDNER, STEVE"; John Maxwell; "Mynear, Doug and Jennifer"; "SHORTELE, ANN"; ECSI SPR; Josh Jenkins; Mike Stanwood; Edmundo Laporte; jmm@manfredonialaw.com
Subject: RE: conversation with Bill Winters and Stephanie Varvel

I agree with David that we must have a definitive direction.
I believe we should make the corrections that we know can be achieved, but more importantly we need to have as comprehensive scope of work to take us from where we are to a document that includes all of OSM's current requests. With regard to the coal production forecasting we need (as part of the new work plan) to build in milestones where OSM signs off on various components. Based on our previous experience these sign off should be from the Contracting Officer plus the COTR and the project manager.
The most important document that we need to produce is the revised scope of work to show how we intend to re-start the project.
When will we see a draft of this from Maxwell?
John

From: David Bell [mailto:dbell@plexsci.com]
Sent: Tue 2/15/2011 11:58 PM
To: Jose Sosa
Cc: Joe Zaluski; Randy Sosa; "GARDNER, STEVE"; John Maxwell; John Morgan; "Mynear, Doug and Jennifer"; "SHORTELE, ANN"; ECSI SPR; Josh Jenkins; Mike Stanwood; Edmundo Laporte; jmm@manfredonialaw.com
Subject: Re: conversation with Bill Winters and Stephanie Varvel

Jose:

We are getting mixed signals from OSM. On the one hand, we have the project side sharing with us a number of changes to the draft chapters that they feel are necessary to make the EIS accurate and defensible. On the other hand, we have the KO (via cure notice) telling us to make certain changes (not all consistent with the project side's instructions) and deliver the changed PDEIS and RIA by 2/23. We cannot do both by 2/23.

It seems we have two options to deal with the "PDEIS deliverable":

- Deliver on 2/23 a PDEIS that is based on the pre-2/1 direction and the already-approved chapters. We know based on recent comments that that document will not be acceptable. Additionally, what it will present in a semi-official document are the very "facts" that OSM has recently taken issue with. OSM will not/cannot circulate such a PDEIS to the cooperating agencies for review and comment. To do so would ignore the reaction to date and place the agency in an even more unfavorable light. This course of action is wasteful and unsupportive of the ultimate goal of publishing a defensible EIS.

- Deliver on 2/23 a **draft document** based on approved sections to date, *as modified by* discussions and comments since 2/1. We would make edits that we can, e.g., move Methodology discussion to front of Chapter 4, *but* we would insert *placeholders (blanks or brief explanation of what's to come)* for text that will have to be developed based on recent discussions (i.e., our "cure" plan) -- we cannot rewrite wholesale in a couple of weeks text that was otherwise approved in Oct/Nov/Dec. We would indicate in appropriate places that text will be developed based on recent discussions, describing in "cure plan" language what we intend to insert. This would very much be a work in progress, reflecting changes/refinements in OSM positions. OSM would **not** share this version with the cooperating agencies (nor would it be obligated to do so). This approach would address a number of concerns -- allegations that the agency is rushing the process; it acknowledges the agency "hears" its critics; it affords time (and budget) to make revisions based on OSM's new directions, etc. This course of action is most likely to achieve OSM's (and our) goal of producing a comprehensive, defensible EIS.

The decision on which approach to pursue **MUST** be made immediately. We have few resources and little time to waste on creating a useless document (first bullet above). The guidance you have received from the KO at this point does **NOT** resolve this issue, and the subs **MUST** receive specific and concrete guidance/direction immediately.

I do not believe that today's discussion or your "cure" letter to the subs squarely addressed this issue. I apologize for being so direct, but our team discussions have tended to generalize and fail to get to a specific path forward, or if we do seem to chart a path, it becomes fuzzier the more we discuss the variations.

Nonetheless, as you have said, we must continue to document the instructions we were given and that formed the basis for our discussion and analyses -- that information forms the basis for our assertion that we have delivered IAW the PWS and any additional direction requires additional time and money.

Regarding the RIA, I think it is a foregone conclusion that the RIA will not be delivered on 2/23 in a form that reflects the most recent guidance. That document is on a separate, but no less urgent, track than the EIS. MACTEC requires a definitive determination of the baseline standard and approval of a methodology before it can proceed -- we still await **written confirmation** that the dynamic 2010 EIA model is now the OSM-approved path forward. MACTEC will then have to identify the schedule and budget implications of revising the RIA to incorporate the new requirements. These should be included in the Cure Plan.

Dave

On Tue, Feb 15, 2011 at 5:32 PM, Jose Sosa <jose@polukaiservices.com> wrote:

Joe:

No, you are not correct in assuming that the subcontractors are to stop addressing the alleged defects in the EIS and focus on responding to the Cure Notice only. By letter dated today, PKS has instructed all of its subcontractors that they must attempt to cure the alleged defects by February 23, 2011. If that is not possible, each subcontractor has been asked to provide PKS with input as to why not so it can be incorporated into the Cure Notice response. PKS stands with its subcontractors in raising every legitimate defense to the Cure Notice. Finally, PKS has also asked each subcontractor to assist in producing a work plan on how we intend to proceed in addressing the tasks should OSM drop its threat to terminate for default. That plan will be attached to the PKS' response to the Cure Notice.

Bill Winters has been notified of our intent to work on the items pending that we don't intend to meet with the OSM SME's this week.

Jose

From: Joe Zaluski [mailto:jzaluski@engrservices.com]

Sent: Tuesday, February 15, 2011 4:35 PM

To: "BELL, DAVID E."; Randy Sosa; "GARDNER, STEVE"; John Maxwell; "MORGAN, JOHN"; "Mynear, Doug and Jennifer"; "SHORTELE, ANN"; Jose Sosa; 'ECSI SPR'; 'Josh Jenkins'; Mike Stanwood; 'Edmundo Laporte'

Subject: conversation with Bill Winters and Stephanie Varvel

During our call today you asked that I send an email to you recounting the substance of an impromptu call with Bill and Stephanie yesterday. In brief Bill said or asked:

- When would OSM see the response to the Cure Letter?
- He felt that Chapter 2 could be finished in a day, or so; that Chapter 3 needed a little more work; and that Chapter 4 needed a lot of work and an introductory section linking it to Chapter 3
- That the production model should use the EIA data, that it included the effect(s) of the SBZ and that model mine data by type of mine and region should be developed and extrapolated
- That the production model should not assume that a thermal balance is required during implementation of the rule.
- That he was planning on coming to Lexington this Wed-Friday to help get the project across the finish line.

Jose – as I understand our call today, PKS has instructed that ECSI and the other subs work on the response and documentation to the OSM Cure Letter and not work on curing the alleged defects in the draft. Is that correct? Please confirm. We also understand that following the submittal of the response to the cure letter, that PKS will attempt to agree on a new scope and budget with OSM at which time we will be asked to submit a plan to meet that scope.

Joe Zaluski
Executive Vice-President
ECSI, LLC
Civil – Environmental – Mining
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-312-4209 (mobile)
jzaluski@engrservices.com
www.engrservices.com

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Liz Edmondson

From: Varvell, Stephanie L. [svarvell@osmre.gov]
Sent: Friday, March 11, 2011 3:53 PM
To: Liz Edmondson; Joe Zaluski; John Maxwell; spr@engrservices.com; Caroline Bari; David Bell; Donald Iannone; Doug Myneer; Edmundo Laporte; J Steven Gardner; Jaque Mitchell; Jeff Baird; Jenkins, Josh; jmahan@plexsci.com; John Morgan; Jose Sosa; Kathy Kelly; Mike Stanwood; Randy Sosa; Shortelle, Ann; Singer, Robert
Subject: RE: "DEIS Mining Analysis team"

Thanks Liz. I'll relay the information up to HQ. I appreciate your help.

Stephanie

From: Liz Edmondson [mailto:ledmondson@morganworldwide.com]
Sent: Friday, March 11, 2011 3:47 PM
To: Joe Zaluski; John Maxwell; spr@engrservices.com; Caroline Bari; David Bell; Donald Iannone; Doug Myneer; Edmundo Laporte; J Steven Gardner; Jaque Mitchell; Jeff Baird; Jenkins, Josh; jmahan@plexsci.com; John Morgan; Jose Sosa; Kathy Kelly; Mike Stanwood; Randy Sosa; Shortelle, Ann; Singer, Robert; Varvell, Stephanie L.
Subject: RE: "DEIS Mining Analysis team"

MW would agree with ECSI that the "mining analysis" was discussed over a period of time in several meetings. However, that analysis, including the metrics to be defined by that analysis, were first determined and agreed to at a meeting with John Craynon in Lexington, which we believe occurred back in September. Representatives from each subcontractor and PKS were present at that meeting and, along with John Craynon, agreed with that approach. Nobody objected to the approach at that time or offered alternative metrics or analytical options. In addition, OSM confirmed that approach by email from Stephanie Varvell on December 20, 2010. Therefore, MW would state that the analytical approach was developed and agreed to jointly by the PKS Team as a whole and OSM.

From: Joe Zaluski [mailto:jzaluski@engrservices.com]
Sent: Friday, March 11, 2011 3:05 PM
To: 'John Maxwell'; '(spr@engrservices.com)'; 'Caroline Bari'; 'David Bell'; 'Donald Iannone'; 'Doug Myneer'; 'Edmundo Laporte'; 'J Steven Gardner'; 'Jaque Mitchell'; 'Jeff Baird'; 'Jenkins, Josh'; 'jmahan@plexsci.com'; 'John Morgan'; 'Jose Sosa'; 'Kathy Kelly'; 'Liz Edmondson'; 'Mike Stanwood'; 'Randy Sosa'; 'Shortelle, Ann'; 'Singer, Robert'; 'svarvell@osmre.gov'
Subject: RE: "DEIS Mining Analysis team"

John – Steve asked that I respond to your email. He is out of pocket this afternoon. I spoke with him and Edmundo and believe your list to be correct with the following additions. As you know the process took some time and impact questions and mining scenarios were discussed over a period of time in several meetings. It is also important to note the period in time when the impacts were generated. Thinking did change over time and probably still is.

Regular contributor:

John Craynon

Limited contributors:

Bill Winters (as to the impact of longwall mining/permitting)

Liz Edmondson

On a very limited or selected issue basis – numerous OSM personnel

John – ECSI would add that the discussing of selected impacts was a process that took place in several different forums and with numerous people.

If you need anything else, just let us know.

Joe Zaluski
Executive Vice-President
ECSI, LLC
Civil – Environmental – Mining
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-312-4209 (mobile)
jzaluski@engrservices.com
www.engrservices.com

From: John Maxwell [mailto:JMaxwell@polukaiservices.com]

Sent: Friday, March 11, 2011 2:15 PM

To: (spr@engrservices.com); Caroline Bari; David Bell; Donald Iannone; Doug Mynear; Edmundo Laporte; J Steven Gardner; Jaque Mitchell; Jeff Baird; Jenkins, Josh; jmahan@plexsci.com; jmorgan@morganworldwide.com; Joe Zaluski; John Maxwell; Jose Sosa; Kathy Kelly; Liz Edmondson; Mike Stanwood; Randy Sosa; Shortelle, Ann; Singer, Robert

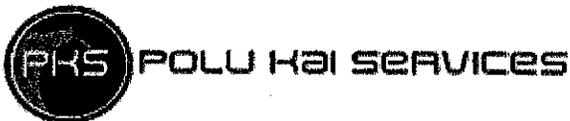
Subject: "DEIS Mining Analysis team"

OSM (Stephanie) has asked me to verify the makeup of the 'DEIS Mining Analysis team' composition as presented in Chapter 4 – Environmental Consequences in the Impact Estimation section. Stephanie assumed it included the entire EIS team. My assumption is that it included personnel from ECSI and Morgan Worldwide, possibly limited to those identified in the List of Preparers - **Elicitation Subject Matter Experts** section which includes:

- John Morgan
- Steve Gardner
- Joe Zaluski
- Doug Mynear and
- Edmundo LaPorte

Please respond as to the accuracy of this list and/or specify other SME team members who have contributed to the mining analysis and included as members of the 'Mining Analysis Team'.

Thanks very much for your input.



John R. Maxwell
Senior Environmental Scientist
Polu Kai Services
352.258.1045

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MWC does not have any information responsive to this request.

Assumptions for Cost Proposal

1. Public Scoping Meetings: Polu Kai Team proposes 5 Public Scoping Meetings as follows:
 - a. One (1) meeting to be held in Washington, DC. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.
 - b. One (1) meeting to be held in coal mining region of West Virginia, specific location TBD. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.
 - c. One (1) meeting to be held in coal mining region of Kentucky, specific location TBD. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.
 - d. One (1) meeting to be held in coal mining region of Illinois, specific location TBD. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.
 - e. One (1) meeting to be held in mining region of Colorado, specific location TBD. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.
 - f. Additional meetings to be at additional cost.
2. Public Meetings upon publication of DEIS: Polu Kai Team proposes 5 Public Meetings as follows:
 - a. One (1) meeting to be held in Washington, DC. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.
 - b. One (1) meeting to be held in coal mining region of West Virginia, specific location TBD. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.

- c. One (1) meeting to be held in coal mining region of Kentucky, specific location TBD. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.
 - d. One (1) meeting to be held in coal mining region of Illinois, specific location TBD. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.
 - e. One (1) meeting to be held in mining region of Colorado, specific location TBD. Duration 6 hours. With court reporter, 10 contractor support/experts, posters, printed materials, security (private/local police), local hotel venue, sound setup, local newspaper notices. Travel, lodging, and per diem at FTR rates.
 - f. Additional meetings to be at additional cost.
3. Reconciliation Meetings: Polu Kai Team proposes 3 1-week Reconciliation Meetings with OSM and project personnel/experts:
- a. 1 Meeting to resolve inter-agency issues following receipt of agencies' comments on the DEIS
 - b. 1 Meeting to resolve public comments and responses following receipt of public comments on the DEIS
 - c. 1 Meeting to resolve issues prior to publication of the FEIS
 - d. Additional meetings to be at additional cost.
4. The RIA will be based on the Alternatives identified at the outset of the EIS process and will not be rewritten or revised during the EIS process.



September 24, 2010

Ms. Nancy E. Sloanhoffer
Contracting Officer
Division of Administration
Office of Surface Mining Reclamation & Enforcement
U.S. Department of the Interior
1951 Constitution Avenue, NW
Washington, D.C. 20240

Delivered via email and U.S. Postal Service

Dear Ms. Sloanhoffer:

The PKS Team is making substantial progress on the many aspects of the Environmental Impact Statement (EIS) for the Stream Protection Rule EIS. We appreciate the support we have received from the OSM project managers, subject matter experts, and contracting personnel. The PKS Team is committed to meeting our obligations under the contract, including delivery of the Draft EIS (DEIS) on February 4, 2011. We will devote whatever resources are required, and we are encouraged that OSM has now established a cadre of personnel who are similarly dedicated. We believe the collective contractor and government team is working well together and focused on success.

I am writing, however, to make you aware of certain factors and events that cause us to be concerned about the viability of the project's ambitious schedule should continued diligence and corrective action falter. These factors and events have been beyond our control and relate primarily to decisions, delays, and actions by the government, which I have summarized below. My purpose in writing today is to ensure that these factors and events are not overlooked or dismissed as insignificant or "waived."

I learned at 3:30 this afternoon that OSM will not be providing its comments on the alternatives that we provided on September 17th. As you may recall from our discussions a couple of weeks ago and as confirmed at our monthly meeting on Monday and Tuesday, OSM's commitment was to provide comments by today. Indeed, Mr. Craynon indicated we would probably receive them yesterday, but we did not. Now I find that we will not receive OSM's comments, including any changes resulting from OSM's decision to expand the rulemaking to include underground mining, until Monday. This results in the loss of another two days (yes, we planned to work over the weekend) to the contractor team to do what it must in order to deliver the draft Chapter 2 by September 30th. This is the latest in a series of government delays and actions that endanger the schedule and increase costs to the PKS Team.



Alternatives Development:

The development of the Proposed Action and Alternatives process has become stalled several times over the past three and a half months as OSM evaluates its needs and direction with regard to the development of a Preferred Alternative, No Action Alternative, and a full range of action alternatives as required by NEPA and Council on Environmental Quality Regulations. Inasmuch as OSM had the lead in providing the agency's perspective on the Alternative, PKS has been in a support role on this task.

Starting with an initial matrix provided by OSM at the June Kick-off Meeting, PKS has assisted OSM personnel in identifying various alternatives that make up each of the principal elements. This complex process has been complicated even more by the evolving positions and provisions under consideration by OSM. The original eleven elements of the Proposed Action and Alternatives have been reworded and expanded; components have been added and deleted; alternatives have changed; and principal elements have been divided and expanded.

At the beginning of August, we even convened an ad hoc two-day meeting in Lexington with Mr. Craynon to bring together all of the various suggestions for alternatives into a comprehensive compilation. Mr. Craynon agreed to review the compilation, assess them in light of OSM's direction, and refine the list. We agreed to meet again by telephone on August 10th. We did so, but it was apparent that more work needed to be done, and we agreed to review the matrix on August 17th at our monthly meeting. On August 17th, the Alternatives still lacked the necessary definition to allow the PKS subject matter experts to analyze the environmental impacts associated with any alternative under a particular element. Without a well defined set of Alternatives, it is impossible for the PKS Team even to begin the analysis of impacts.

At that point, PKS offered to take on the task, but indicated that we considered this outside the scope of the existing contract and would require a contract modification and additional funding. As the Contracting Officer, you concurred and asked that we provide an estimate of the additional work before authorizing us to proceed. Discussions regarding cost and schedule ensued over the next couple of weeks, and on September 2nd you authorized us to proceed. Because the initial schedule called for PKS to deliver the draft Chapter 2 (Description of Proposed Action and Alternatives) on September 9th, it was also necessary to extend the delivery date for this interim submission to September 17th, a compromise from our original request of September 24th.

At his request, we delivered a preliminary draft of the Alternatives matrix to Mr. Craynon on September 13th, with the understanding that he would provide comments by close of business on September 14th. I sent you an email at 10:45pm on September 14th indicating that we had not received any comments. We received OSM's comments via email at 7:41am on the 15th. While a delay of a few hours may seem insignificant, given our looming deadline of the 17th, the PKS Team was standing by to continue work on the Alternatives the evening of the 14th. Instead, that work was delayed until the 15th. We delivered the draft Alternatives, in both matrix and narrative form, by mid-afternoon on the 17th. Per our agreement, OSM had until September 24th to provide comments, after which PKS would finalize the Alternatives, incorporate them into the

Chapter 2 discussion, and, by September 30th, provide a draft Chapter 2 for OSM review and comment. OSM's comments on Chapter 2 are due back to PKS on October 7th. As mentioned at the beginning of this letter, OSM will not provide its comments until September 27th. It is unclear at this point whether this schedule is still attainable.

Addition of Underground Mining:

Although I have addressed this point in a separate letter, I think it relevant to mention it again in this context. Introduction of underground mining rules four months into the EIS process is yet another diversion that adversely affects the PKS Team's ability to move forward with its analysis. Mr. Craynon has indicated that OSM's comments will include any adjustments to the array of alternatives under each principal element necessary to account for the expansion of the rule to underground mining. But that really is not the point. PKS will then have to revisit the Alternatives to ensure they remain sufficiently defined so as to allow analysis. In other words, the Alternatives are still not settled because of the introduction at this late stage of this new applicability to underground mining. Indeed, the scope and analysis now required in Chapter 3, Affected Environment, and Chapter 4, Environmental Impacts, have just been expanded in ways that we have only begun to consider.

Public Comments:

At the Kick-off Meeting on June 7th and 8th, we learned for the first time that the OSM did not intend to hold any public scoping sessions in any of the affected communities. Instead, OSM intended to rely only on the comments received from 25 entities during the 30-day scoping period that had been announced April 30, 2010 in the Federal Register.

The PKS Team viewed this strategy as fraught with legal vulnerabilities, including the failure in the April notice to identify "possible alternatives" as required by NEPA. We urged the agency to re-open the scoping period and solicit additional input from the public by holding open houses, meetings, or hearings in the affected communities. We learned later in reviewing the comments to the April notice that one of those commenters had pointed out the deficiency in the level of scoping and notice and recommended re-opening to avoid a legal challenge. The Director agreed, and OSM identified nine cities in which to hold public open houses, four more than called for in the initial statement of work, and all of which were to be completed by the end of July. We spent much of the rest of the Kick-off Meeting drafting a new Notice of Intent. The scoping period was re-opened effective June 18th through July 30th.

Starting in early July, PKS periodically requested the status of comments submitted to OSM per the NOI and was informed that *no* comments had been received. We considered this highly unusual, but were repeatedly assured that OSM had received no comments via the email address, website, or surface mail. On July 30, 2010, however, we learned that OSM had received almost 23,000 comments at the published email address. Also, the OSM public comment email address was not taken offline until August 3rd, resulting in the receipt of 450 comments after the official



close of the commenting period. These 23,000 comments were finally provided to PKS on August 6, 2010, one week after the close of the comment period. OSM also received 136 comments by surface mail, some as late as August 3rd due to screening protocols, but we did not receive those until August 13th, and four more comments that were received on the www.regulations.gov site, which OSM administers, were provided on August 17th. These delays substantially impacted the compilation of comments, analysis, and publication of the Draft Scoping Report. Information from the Scoping Report was needed and used in refining the already delayed and dysfunctional discussion of the Alternatives (as previously discussed). Despite the delay in timely receipt of the comments, PKS delivered the Draft Scoping Report the night of August 30th.

Cascading Effect of Delays on Other EIS Sections and Tasks:

The EIS process consists of several EIS tasks and sections that are clearly linked to one another, and a delay in one task can cause a cascading effect on other tasks. We continue to experience these cascading effects as outlined below:

- Expansion of the scoping effort to include additional sites, extension of the scoping period to July 30th, and delay in providing comments, without a corresponding adjustment to other deliverables, meant that portions of Chapter 1 could not be completed before the draft was due. For example, the section of Chapter 1 that discusses issues raised during the scoping process could not be completed by the Chapter 1 submission date of August 10th, even as a preliminary assessment, since we received the bulk of the 23,000 comments only the week before and did not receive others until a week later.
- Likewise, the development of a full range of alternatives for Chapter 2, either by OSM or PKS, could not be completed without consideration of the comments received during scoping. The delay in delivery of the 23,000 comments foreclosed even a preliminary review that might have identified some issues for consideration in developing the alternatives. Under the circumstances, PKS was able to provide an email on August 27th outlining scoping comments that could affect the development of the alternatives. Had we received the bulk of the comments earlier, we would have been able to provide such an assessment earlier. The Draft Scoping Report was provided on the 30th and included an expanded list of comments that affected the alternatives.
- Of course, development of the alternatives and Chapter 2 is essential to our ability to begin the analysis of environmental impacts required under Chapter 4. Without a set of defined alternatives, the PKS experts have no point of reference to assess any impacts in any of the 21 resource areas that might be affected, and they have necessarily delayed their impact analysis pending receipt of information on the alternatives.
- We must still address the initial OSM comments to Chapter 1, some of which require clarification to resolve conflicts among OSM comments. The agreed protocol was that OSM would resolve any conflicting comments before returning them to PKS. After submission of the draft Chapter 1, resources shifted to work on the Scoping Report and the alternatives, leaving the Chapter 1 issues for later resolution.

**Southeast Region
6911 Pistol Range Rd., Ste 101E, Tampa, Florida 33635
Phone (813) 749-8624 Fax (813) 886-8483**



- As noted, the addition of underground mining to the rule expands the affected environment and potential environmental impacts. Earlier notice of its inclusion would have allowed our experts to consider both surface and underground aspects in their initial and on-going research and assessments. Now, they will have to revisit in light of the addition. This kind of duplication of work or retreading of covered ground is time consuming and inimical to the aggressive, tight timeline under which we are working.

I want to reiterate that we are committed to meeting the timelines set forth in our contract, but doing so depends on the continued cooperation between the PKS Team and the OSM Team. I am encouraged by how well we have worked together thus far despite the break-neck pace and still evolving nature of the tasks and OSM's positions. I raise these concerns to ensure we recognize the pitfalls so that we can avoid them in the future. I will continue to bring these points to your attention, so that all are aware of the impacts to scope, task, and schedule. We appreciate your consideration in this matter. Please do not hesitate to contact me at 813-749-8624, if you wish to talk about this further.

Sincerely,

Jose J. Sosa, PE, CIH, CGC
Executive Vice President
Polu Kai Services

Cc:
Stephanie Varvell, Senior Program Analyst
John Craynon, OSM EIS Project Manager

Please see responses to Question 6a for documents relevant to this request.

Liz Edmondson

From: Mike Stanwood [r.m.stanwood@gmail.com]
Sent: Thursday, September 23, 2010 5:12 PM
To: Jose Sosa
Cc: David Bell; Joe Zaluski; J. Steven Gardner; John Morgan; John Maxwell; Randy Sosa; Josh Jenkins; Ann Shortelle; Caroline Bari
Subject: Re: Underground mining in the scope of work

I am not against further discussion and maybe the complexity of the underground issue is bigger than I can currently see. BUT:

1) SMCRA (the law) and the SMCRA regulations have always included regulations intended to regulate the potential effects from surface mining, AND THE SURFACE EFFECTS FROM UNDERGROUND MINING

2) Based on John C.'s presentation on the projector tuesday, it sure seemed like the vast majority of the "underground" language was just the same as the "surface" language, or the same as the current "underground" language. As we noted tuesday, we really couldn't tell what was new and/or different in the underground package until it was compared to the surface package.

Before we fly off the handle that it is a major scope change, I'd sure want to see evidence that the underground rules are indeed different than the surface rules and the difference is indeed complex in terms of impact analysis

On Thu, Sep 23, 2010 at 3:05 PM, Jose Sosa <jose@polukaiservices.com> wrote:

Lets get an agenda for tomorrow addressing the underground mining and how to present our case to Nancy who seems to be the only person with a decent head on her shoulders.

Please provide input. Agree with you Dave, the emphasis of the letter, as suspected is going to be the surprise received Monday night. We need to clearly articulate, those mining experts please assist, the fact that the new regulation dumped on us early this week is not just a paper exercise but has serious implication to the analysis of impact and effects to the environment.

Where is Randy with the Tequila?

Jose

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From: David Bell [mailto:dbell@plexsci.com]
Sent: Thursday, September 23, 2010 4:51 PM
To: Jose Sosa; 'Joe Zaluski'
Cc: 'J. Steven Gardner'; jmorgan@morganworldwide.com; John Maxwell; 'Mike Stanwood'; Josh Jenkins; Ann Shortelle

Subject: RE: Underground mining in the scope of work
Importance: High

Jose:

If these are the only references to underground mining in our current SOW, I question whether it's even within scope at this point. Remember, at the Kick-off Meeting, we requested a copy of the "Rule." They sent it to us a few days later (I'm sure you or I can find the email from Li-Tai). That only dealt with the surface mining provisions.

The email that John C. sent to you Tuesday with the underground rule contains 2 files, one for underground and one for surface, right? The underground rule is **122 pages** long; surface is **179 pages**. It seems to me totally out of line for OSM to think that we signed up in a FP contract to receive from them over 100 pages of rules 4 months into the project where those new provisions affect a whole separate part of the environment. This isn't just scope creep, this is scope leap! I would recommend shifting the entire focus of the letter to emphasize this point with all the others as support for what has been disjointed and ad hoc approach to this EIS. It's like OSM has ADHD and can't stay on task. Anyone have some Ritalin??

Dave

David E. Bell

Vice President

Plexus Scientific Corporation

(703) 845-5602 (direct)

(703) 820-3339 (office)

(703) 845-8568 (fax)

(703) 774-6578 (cell)

From: Jose Sosa [mailto:jose@polukaiservices.com]
Sent: Thursday, September 23, 2010 4:16 PM
To: Joe Zaluski; 'David Bell'
Cc: 'J. Steven Gardner'; jmorgan@morganworldwide.com; John Maxwell; Mike Stanwood
Subject: RE: Underground mining in the scope of work

We need to discuss tomorrow and finalize how we present to OSM the ramifications associated with the other elements you listed affecting underground mining.

From: Joe Zaluski [mailto:jzaluski@engrservices.com]
Sent: Thursday, September 23, 2010 4:04 PM
To: 'David Bell'
Cc: Jose Sosa; 'J. Steven Gardner'; 'jmorgan@morganworldwide.com'
Subject: FW: Underground mining in the scope of work

David – see Jeff's comments below. After your call today I asked him to look at the SOW. It clearly does not contemplate the scope of work as we now see it.

Interestingly the SOW only addressed one element (Material Damage) in regard to underground mining. As you noted, there are many many more elements identified. Of particular concern for underground mining would be Baseline Data, Permitting, Corrective Action, Mining Through, Mining In or Near, Permitting, Monitoring, Fills, Financial Assistance, and Stream Definition.

OSM should have specifically listed underground mining in the alternatives and scoping and tailored some of the alternatives to ug mining. They simply did not.

As I said earlier today, if OSM's position is that ug mining has always been included why did they not answer our (Team) repeated questions as to whether ug was included. They could have said so in June. However, they did not tell us until 9-21-10.

Call me when you digest all of this. I have only a couple of suggestions for your (PKS) letter to OSM.

Thanks.

Joe Zaluski
Executive Vice-President
ENGINEERING CONSULTING SERVICES, INC.
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-312-4209 (mobile)

859-223-5061 (home)
jzaluski@engrservices.com
www.engrservices.com

From: Jeff Baird [mailto:jbaird@engrservices.com]
Sent: Thursday, September 23, 2010 3:53 PM
To: 'jsgardner@engrservices.com'; 'Joe Zaluski'; 'Doug Mynear'
Subject: Underground mining in the scope of work

I thought I would go through the SOW to try and see what was said about the requirements to address underground mining in the EIS. Here's what came up:

From the SOW

The Contractor shall identify cumulative effects, to include but not limited to:

- vii. A narrative summarizing peer reviewed publications resulting from long term studies on water quality impacts from surface and underground mines. A compilation of some of the studies is provided in attachment #2.

Topics to be included for Material Damage to Hydrologic Balance – Cumulative Hydrologic Impact Assessment (CHIA) topics include but are not limited to:

- i. A narrative summary of existing water quality and quantity (surface and ground water) downstream of coal mine sites at a CWA 305(b) scale with emphasis on regional analysis. Including but not limited to: active and reclaimed mines (water quality, flow, loadings), land use categories (identified as a percentage) within a CWA 305(b) scale, percent of disturbed relative to bond release status, percent of valley fills, percent of remined areas, and identification of mining impacts (surface and underground) to existing groundwater conditions. Source material shall include most recent coal field watershed and hydrology reports (USGS).

ANPR comments received and attached to the SOW:

Comments from NMA

- In proposing changes to the SBZ rule and related rules, OSM must remain cognizant of unintended regulatory consequences of its actions. Actions aimed at surface mining in Appalachia may have a significant impact on mining in other areas, or even on underground operations in the same region. For example, virtually all coal produced by underground mines in central Appalachia must be washed through a preparation plant to remove rock and other impurities. The resulting coal mine waste lacks the stability of excess spoil and must be placed in disposal areas that extend farther down into valleys than excess spoil fills in order to meet the stability requirements of SMCRA. To preclude the placement of coal mine waste disposal sites in areas that extend into perennial streams in central Appalachia is to eliminate the underground coal mine industry throughout central Appalachia, which is one of the nation's richest and highest quality underground reserves. SMCRA simply does not contemplate or authorize any such restrictions on coal mine waste placement. To the contrary, such restrictions would be inconsistent with section 102(k) of SMCRA, which states that one of the purposes of the Act is to "encourage the full utilization of coal resources through the development and application of underground extraction technologies." See also the finding in section 101(b), in which Congress states that it is "essential to the national interest to ensure the existence of an expanding and economically healthy underground coal mining industry."
- Prohibiting placement of excess spoil in perennial and intermittent streams would destroy the surface coal mining industry, while prohibiting placement of coal mine waste in perennial and intermittent streams would destroy the underground coal mining industry in central Appalachia.

Comment from the Virginia Mining Assn

- Some of the alternatives in the ANPR would have effects far beyond elimination of mountaintop removal mining or even surface mining in general. Approximately two-thirds of the coal mined in Virginia is produced by underground mines. The topography of the Virginia coalfields is characterized by steep mountainsides separated by narrow creek and river bottoms. It is almost never possible to create a coal mine, even an underground mine, in Virginia without placing excavation spoil or mine refuse in or near a stream. Underground mines require flat surfaces for preparation plants, equipment yards, offices and bath houses. Also, the mine refuse from underground mines must be put somewhere. This material is composed almost entirely of small pieces of rock. The only place to dispose of mine refuse in Virginia is in the "hollows" formed by intermittent or ephemeral streams near the mines.

Comment from George McClung (WV)

- New more stringent regulations affect not only surface mines, but also underground mines and coal refuse facilities. The Appalachian Region is known for its lack of flat ground away from streams and drainage ways.

Jeffrey C. Baird
Senior Project Coordinator

Engineering Consulting Services, Inc.
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-230-1968 (mobile)
jbaird@engrservices.com
www.engrservices.com

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September 24, 2010

Ms. Nancy E. Sloanhoffer
Contracting Officer
Division of Administration
Office of Surface Mining Reclamation & Enforcement
U.S. Department of the Interior
1951 Constitution Avenue, NW
Washington, D.C. 20240

Delivered via email and U.S. Postal Service

Dear Ms. Sloanhoffer:

At our monthly meeting on September 20, 2010, the PKS Team provided OSM a review of the Chapter 2 – Description of Proposed Action and Alternatives framework and methodology for development of the alternatives, which we had delivered to OSM on September 17th. John Craynon acknowledged receipt and approved the team's analytical approach to defining the proposed action and alternatives. He indicated that OSM was currently reviewing the alternatives matrix and narrative description of alternatives and would provide comments by September 23rd. Mr. Craynon authorized the PKS Team to start the environmental impacts analysis based on the alternatives and elements provided to OSM in our September 17th submission.

Mr. Craynon went on to say, much to our surprise (as well as to some of the assembled OSM personnel), that OSM had also decided to develop new rules applicable to *underground* mining. On Tuesday, Mr. Craynon shared with us the draft rule changes associated with underground mining, ostensibly so that we could include these in our analysis. These changes comprise an additional 122 pages. According to Mr. Craynon, the language contained in the new concept rule for underground mining is similar, if not identical, to the language contained in the current concept rule for surface mining. He agreed to provide the PKS Team a copy of the redlined concept rule for underground mining so a comparison can be made between the two concept rules. Further discussions resulted in Mr. Craynon agreeing to provide an in-depth review of the concept rule for underground mining with an outline of the areas where the two regulations differ.

Although the PKS Team had repeatedly asked whether underground mining would be included in the rulemaking, it was not until the face-to-face meeting this past Monday and Tuesday that we learned of OSM's intentions to promulgate the underground rule as well. Based on discussions with our subject matter experts in the field of mining, the introduction of this new concept rule will have environmental impacts different from the ones that are being analyzed in the context of surface mining. PKS has instructed our subcontractors to continue our analysis of

the environmental impacts of the various rule provisions as they apply to surface mining, just as we have been doing since the inception of this contract.

The PKS Team initially requested clarification of OSM's intent to apply the new rules to underground mining at the June Kick-off Meeting, but OSM deferred answering. We continued to ask about the applicability of the rules to underground mining at our bi-monthly meetings, and OSM again deferred answering -- until Monday's revelation.

We believe the expansion of the EIS to include any rules changes related to underground mining is outside the scope of the contract as currently written or contemplated by the parties. The Statement of Work for this EIS is virtually silent on the question, with only two references to anything related to underground mining. Specifically, Section A (Scope), paragraph 3.2 J.4) r.vii. states:

- r. The Contractor shall identify cumulative effects, to include but not limited to:
 - ...
 - vii. A narrative summarizing peer reviewed publications resulting from long term studies on water quality impacts from surface and *underground* mines. A compilation of some of the studies is provided in attachment #2. (emphasis added)

A few paragraphs later, the following reference appears.

- v. Topics to be included for Material Damage to Hydrologic Balance – Cumulative Hydrologic Impact Assessment (CHIA) topics include but are not limited to:
 - i. A narrative summary of existing water quality and quantity (surface and ground water) downstream of coal mine sites at a CWA 305(b) scale with emphasis on regional analysis. Including but not limited to: active and reclaimed mines (water quality, flow, loadings), land use categories (identified as a percentage) within a CWA 305(b) scale, percent of disturbed relative to bond release status, percent of valley fills, percent of remined areas, and identification of mining impacts (surface and *underground*) to existing groundwater conditions. Source material shall include most recent coal field watershed and hydrology reports (USGS). (emphasis added)

In both instances, the reference to underground mining is in the context of providing a narrative describing studies or standards that already exist. There is *no* mention of assessing the impacts of *any* proposed rules on underground mining otherwise in the SOW. References for and against inclusion or comments concerning potential impacts were raised in the comments to the Advance Notice of Proposed Rulemaking, but there is no indication that OSM intended to or did act on them to include underground mining in this EIS.

The proposed action in this EIS is the rulemaking. As such, we requested a copy of the proposed rule and received it shortly after the June Kick-off Meeting. That rule addresses *only* the surface



mining regulations under SMCRA; it does not include *any* changes to the underground mining regulations. Whatever the rationale now, it is clear that at contract award and until Monday, as far as we know, OSM did not intend to include underground mining in its rulemaking and thus within the scope of this EIS. We have proceeded accordingly for the past 3½ months based on the SOW and the lack of any contrary indication from OSM.

Furthermore, the April Notice of Intent for this EIS makes no mention of underground mining at all, and the June Notice of Intent includes a single reference in the description of only one element, *Definition of Material Damage to the Hydrologic Balance*: "...This term includes streams downstream of the mining operation and above underground mines." (emphasis added). Interestingly, the sentence is the same in the April NOI, with the exception of the underlined language that was added in the June NOI. The Public Scoping Open House materials include only this single reference in the handouts and posters associated with Material Damage.

Likewise, none of the discussions associated with development of the Need and Purpose or the Proposed Action and Alternatives have involved underground mining. Indeed, the draft Chapter 1 and OSM's comments thereto do not mention underground mining. The Alternatives matrix that OSM first provided at the June Kick-Off meeting does not include any such reference. And, of course, the Alternatives matrix and narrative that we just submitted for OSM review and comment make no mention of underground mining. In fact, OSM acknowledged this point and promised to include any necessary underground mining-related changes in their review comments. While we appreciate OSM's attempt to mitigate the impact of this late addition to the rulemaking, the fact remains that it is outside the scope of the current EIS contract.

I believe we need to address this immediately in order to avoid delays to the completion of the EIS. We are prepared to discuss this matter on Tuesday as requested in Ms. Varvell's email earlier today.

Sincerely,

Jose J. Sosa, PE, CIH, CGC
Executive Vice President
Polu Kai Services

Cc:
Stephanie Varvell, Senior Program Analyst
John Craynon, OSM EIS Project Manager

Southeast Region
6911 Pistol Range Rd., Ste 101E, Tampa, Florida 33635
Phone (813) 749-8624 Fax (813) 886-8483

Liz Edmondson

From: David Bell [dbell@plexsci.com]
Sent: Wednesday, September 29, 2010 3:00 PM
To: Liz Edmondson
Subject: RE: ANPR and Underground

I did receive the materials on bonding, tho' I have not tried to incorporate. I decided I needed to tackle 1 thing at a time, get it nailed down, and then move to the next. If they get an extension to Mon or Tues, I should be ok. I will let you know....

David E. Bell
Vice President
Plexus Scientific Corporation
(703) 845-5602 (direct)
(703) 820-3339 (office)
(703) 845-8568 (fax)
(703) 774-6578 (cell)

From: Liz Edmondson [mailto:ledmondson@morganworldwide.com]
Sent: Wednesday, September 29, 2010 2:56 PM
To: David Bell
Subject: RE: ANPR and Underground

I think it's fine. The issue is not whether the ANPR and NOI contain mentions of the broad sections of the regs relating to underground mining permit requirements and performance standards. The questions are: 1) was what they are attempting to change now adequately noticed in scoping, meaning does it fall under those 11 or so proposed actions such that the public would be on notice of these new proposed changes; and 2) was analyzing these modifications to the underground mining sections of the rules within our scope of work. I'm not sure a mere reference to sections 784 and 817 in the NOI and a proposed change to the SBZ portions of the ug mining regs in the ANPR captures some of the things they seemed to propose in Atlanta.

I'm sure we'll have to readdress this sometime, but I think for now, until we know exactly what they want to do in the EIS regarding underground mining, we just have to wait to hear from them.

How is Chapter 2 going? Did you get the stuff I sent on bonding? I'm working from home and remote access to Outlook never seems to work right for me. I know you got handed a huge task, so if you need any help or have questions about what we did initially, let me know.

Liz

-----Original Message-----

From: David Bell [mailto:dbell@plexsci.com]
Sent: Wed 9/29/2010 2:28 PM
To: Liz Edmondson
Subject: RE: ANPR and Underground

Thanks, Liz. I probably painted with too wide a brush yesterday in my assertion that there was "no mention" in the ANPR and NOIs. I regret that casual mention of sections, etc. out of context might detract from our position. That said, I sense that only Cheryl is seeking "confirmation" of the fact of prior discussions. Hopefully, it's a moot point, and we can move on.

David E. Bell

Vice President

Plexus Scientific Corporation

(703) 845-5602 (direct)

(703) 820-3339 (office)

(703) 845-8568 (fax)

(703) 774-6578 (cell)

From: Liz Edmondson [<mailto:ledmondson@morganworldwide.com>]

Sent: Wednesday, September 29, 2010 2:24 PM

To: David Bell

Subject: RE: ANPR and Underground

Dave,

I'll also note that the NOI from April does list sections 784 and 817 (ug regs) in the very beginning where citing the regulations the proposed action will impact. However, I think the larger question is whether the public would be on notice of the changes OSM has now proposed to the ug rules. The 2008 rule also modified portions of the underground rules related to the stream buffer zone, so I think anything related to that is probably fair game, but I think the changes that OSM is now proposing go far beyond what is contained within the notice. Of course, that is from my brief reading of a non-red lined rule change a week and a half ago.... It is the shadow area issue that is ultimately the big deal in all of this. We'll probably need to discuss this further, but depending on what they ultimately decide to do, they might need to do additional scoping.

Liz

-----Original Message-----

From: David Bell [<mailto:dbell@plexsci.com>]

Sent: Tue 9/28/2010 4:40 PM

To: Liz Edmondson

Subject: ANPR and Underground

Liz:

You mentioned that the ANPR mentions proposed rule changes to the underground provisions. Can you point me to what you were referring to? I see references to ugm in response to the ANPR Section II and Section III questions relating to SMCRA itself, but they seem only to cite to then existing provisions, not new ones. Are you referring to Section VI and the reference in Alternative 1 to Section 817.57 and 817.17?

Dave

David E. Bell

Vice President

Regulatory, Safety, and Strategic Consulting

Plexus Scientific Corporation

4501 Ford Avenue
Suite 1200
Alexandria, VA 22302
(703) 845-5602 (direct)
(703) 820-3339 (office)
(703) 845-8568 (fax)
(703) 774-6578 (cell)

Liz Edmondson

From: Craynon, John [jcraynon@osmre.gov]
Sent: Tuesday, October 26, 2010 4:00 PM
To: J. Steven Gardner; Sylvester, Cheryl; Varvell, Stephanie L.; Coker, Jeffrey A. "Jeff"
Cc: 'John Maxwell'; John Morgan; Liz Edmondson; 'Edmundo Laporte'; 'Doug Mynear'; 'Jeff Baird'; 'Zaluski, Joe'; Rice, Dennis; Winters, William R. "Bill"; Uranowski, Lois J.
Subject: RE: Underground Mining Clarifications Follow up

A few clarifications are in order.

After discussion with the rule team, the preferred alternative is equivalent to the most restrictive alternative. That alternative considers any detrimental impact from subsidence on the hydrologic balance, regardless of the temporal component, to be material damage.

An intermediate alternative (Alternative 3) is that such impacts to streams can be repaired and streams reclaimed and have those impacts not considered to be material damage to the hydrologic balance.

The least restrictive alternative (Alternative 4) disregards the impacts from underground mining in determining material damage to the hydrologic balance.

These changes above were included in the subsequent input on Chapter 2 provided this morning.

I am copying Dennis, Bill and Lois in hopes that the questions you raise (highlighted below) can be quickly answered.

John R. Craynon, P.E.
Chief, Division of Regulatory Support
OSM SPR EIS Team Lead
Office of Surface Mining Reclamation and Enforcement
Washington, DC
202-208-2866
202-617-5002 cell
202-219-3276 fax
jcraynon@osmre.gov

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From: J. Steven Gardner [mailto:jsgardner@engrservices.com]
Sent: Tuesday, October 26, 2010 3:07 PM
To: Craynon, John; Sylvester, Cheryl; Varvell, Stephanie L.; Coker, Jeffrey A. "Jeff"
Cc: 'John Maxwell'; 'John Morgan'; 'Liz Edmondson'; 'Edmundo Laporte'; 'Doug Mynear'; 'Jeff Baird'; 'Zaluski, Joe'; 'J. Steven Gardner'
Subject: FW: Underground Mining Clarifications Follow up

John,

Following up on our conference call on Friday, October 22. Thanks for the opportunity to further discuss the relevant issues related to OSM's interpretation of the requirements of SMCRA and the applicability of the proposed rule and requirements for protection of the hydrologic balance [particularly section 510(b)(3) and 516(b)(1)]. We wanted to make sure that we had the correct understanding of statements made.

First, referring back to the OSM letter of October 7 to PKS, we discussed several items that we wanted to clarify. We were disappointed with several things stated in that letter. We have always understood that SMCRA covers underground mining, especially as it regards surface facilities, mine portal and fills. What was never clear for the SPR EIS was the surface impacts aspect of the actual underground mining or shadow area. From the first meeting in June, we had asked about how the proposed rule would impact Underground Mining. The letter did finally address several of our questions, but it raised others that we brought up on the conference call.

Also, just as a point of clarification, the letter refers to ECSI being present at meetings in DC and Lexington in April. We did have representatives at the Lexington meeting, but not in DC. We checked with others present at those meetings and no one recalls the subject being clearly broached. That is why we kept raising the questions.

The 4 questions that were answered were very helpful and the wording will be referenced and quoted verbatim in the EIS where appropriate.

Regarding underground mining impacts under the proposed rule and alternatives, we understand that:

1. OSM would like the most restrictive alternative (Alternative 2) to consider that if a mining permit application predicts potential dewatering or other impact to the hydrological balance OUTSIDE the permit area as a result of the operation, a permit will not be issued.
2. From our conversation, it is our understanding that the impact to the hydrologic balance of a stream will only be considered material damage if that impact is permanent.
3. OSM indicated that the preferred alternative (Alternative 5) would allow for reestablishment of the hydrologic balance, provided that the impact is not permanent.
4. Surface Mining through a stream within the permit area does not necessarily mean that material damage has been caused, so long as form and function of the stream can be restored.
5. The "shadow area" of an underground mine is outside the permit area, therefore if dewatering or other hydrologic impact to any stream within the shadow area is predicted, no permit will be issued, under the most restrictive alternative.
6. The terms mitigation or remediation should not be used in regard to stream reconstruction as a result of longwall or room and pillar subsidence.

Also, it was indicated that it would be possible under the preferred alternative to divert a stream if it appears that the operation could cause dewatering or other hydrologic impacts outside the permit area. This statement raises at least one question. If the diversion of the stream in question is within the shadow area (e.g., risk of dewatering due to a longwall operation), what aspects will need to be considered for the permitting and bonding of the diversion?

There was a statement made about including underground mining in permit area being "disingenuous". We're not sure why that characterization was made, but we all agreed it was a legitimate question, especially since some states, if not all consider the underground areas in the permitting process. We still feel there needs to be a discussion of how underground areas continue to be considered in the permitting process.

We appreciate the time and effort put into clarifying these key matters that will allow us to complete the definition of the alternatives under study (Chapter 2) and start assessing their environmental consequences (Chapter 4).

As previously stated in various meetings and letters, we are concerned about the current schedule to complete the Chapter 4 alternatives analysis. As OSM is aware, there was a 3-4 month delay in actually beginning the EIS drafting process, due to the scoping meetings and alternatives development. Our primary concern above all is producing a quality work product that is both legally defensible for OSM and that we can be proud to be associated with.

Please let us know if our understanding of the matters discussed on the call is correct.

Thanks,

Steve

J. Steven Gardner, P.E.
President/CEO
Engineering Consulting Services, Inc.
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103 (office)
859-806-5826 (cell)
859-259-3394 (fax)
jsgardner@engrservices.com
www.engrservices.com

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Liz Edmondson

From: David Bell [dbell@plexsci.com]
Sent: Thursday, October 28, 2010 12:17 PM
To: 'J. Steven Gardner'; 'Joe Zaluski'; Liz Edmondson; 'John Maxwell'; Doug Mynear; 'Jeff Baird'; John Morgan
Subject: FW: Underground Mining Clarifications Follow up

FYI.

Sending along John C.'s further forward from Dennis Rice.

David E. Bell
Vice President
Plexus Scientific Corporation
(703) 845-5602 (direct)
(703) 820-3339 (office)
(703) 845-8568 (fax)
(703) 774-6578 (cell)

From: Craynon, John [mailto:jcraynon@osmre.gov]
Sent: Wednesday, October 27, 2010 3:36 PM
To: 'John Maxwell'; Jose Sosa; David Bell; Mike Stanwood
Cc: Varvell, Stephanie L.; Sloanhoffer, Nancy E.
Subject: FW: Underground Mining Clarifications Follow up

FYI.

From: Rice, Dennis
Sent: Tuesday, October 26, 2010 5:03 PM
To: Craynon, John
Cc: Sylvester, Cheryl; Uranowski, Lois J.; Winters, William R. "Bill"
Subject: RE: Underground Mining Clarifications Follow up

John,

A few clarifications to the clarifications:

1. Under the preferred alternative, any damage to the hydrologic balance outside the permit area would have to meet the threshold established in the definition of material damage to the hydrologic balance outside the permit area" before it would be considered material damage; i.e., it would have to be sufficiently severe to preclude any existing or reasonably foreseeable use of surface water or groundwater outside the permit area or any designated use of surface waters outside the permit area.
2. With respect to the contractor's numbered questions, my responses would be (1) only with the qualification noted above; (2) No, the definition of material damage to the hydrologic balance outside the permit area applies to both temporary and permanent adverse impacts; (3) this would not be the preferred alternative; (4) the definition of material damage to the hydrologic balance outside the permit area applies only outside the permit area, not within the permit boundaries, (5) this is mostly correct for colloquial purposes, with the qualification noted in item 1 above, and (6) not sure what the issue is here.

3. I have difficulty understanding what the contractor is stating/asking in the first highlighted passage. I cannot envision any situation in which a underground mine applicant would propose to divert a stream to avoid dewatering the stream by subsidence. However, should that situation occur, the applicant would have to include the stream diversion within the permit area and calculate and post bond accordingly. There would be no difference from other stream diversions.
4. With respect to the second highlighted passage, the focus of the EIS discussion should be on the federal definitions, not state definitions. If the contractor wants to include a table or short narrative describing state practices, I suppose there is no problem, but I don't understand why there would be a need to do so. What might be helpful is a sentence or two clarifying that states cannot evade the prohibition on material damage to the hydrologic balance outside the permit area by expanding their definitions of permit area to encompass more land than would be required under the federal rules. States that include the shadow area within the permit area could continue to do so, but they would still have the obligation of applying the prohibition to all lands within that area that would be subject to the prohibition if the federal rules were in effect.

Hope this helps,

Dennis

From: Craynon, John

Sent: Tuesday, October 26, 2010 4:00 PM

To: J. Steven Gardner; Sylvester, Cheryl; Varvell, Stephanie L.; Coker, Jeffrey A. "Jeff"

Cc: 'John Maxwell'; 'John Morgan'; 'Liz Edmondson'; 'Edmundo Laporte'; 'Doug Mynear'; 'Jeff Baird'; 'Zaluski, Joe'; Rice, Dennis; Winters, William R. "Bill"; Uranowski, Lois J.

Subject: RE: Underground Mining Clarifications Follow up

A few clarifications are in order.

After discussion with the rule team, the preferred alternative is equivalent to the most restrictive alternative. That alternative considers any detrimental impact from subsidence on the hydrologic balance, regardless of the temporal component, to be material damage.

An intermediate alternative (Alternative 3) is that such impacts to streams can be repaired and streams reclaimed and have those impacts not considered to be material damage to the hydrologic balance.

The least restrictive alternative (Alternative 4) disregards the impacts from underground mining in determining material damage to the hydrologic balance.

These changes above were included in the subsequent input on Chapter 2 provided this morning.

I am copying Dennis, Bill and Lois in hopes that the questions you raise (highlighted below) can be quickly answered.

John R. Craynon, P.E.

Chief, Division of Regulatory Support

OSM SPR EIS Team Lead

Office of Surface Mining Reclamation and Enforcement

Washington, DC

202-208-2866

202-617-5002 cell
202-219-3276 fax
jcraynon@osmre.gov

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From: J. Steven Gardner [mailto:jsgardner@engrservices.com]
Sent: Tuesday, October 26, 2010 3:07 PM
To: Craynon, John; Sylvester, Cheryl; Varvell, Stephanie L.; Coker, Jeffrey A. "Jeff"
Cc: 'John Maxwell'; 'John Morgan'; 'Liz Edmondson'; 'Edmundo Laporte'; 'Doug Mynear'; 'Jeff Baird'; 'Zaluski, Joe'; 'J. Steven Gardner'
Subject: FW: Underground Mining Clarifications Follow up

John,

Following up on our conference call on Friday, October 22. Thanks for the opportunity to further discuss the relevant issues related to OSM's interpretation of the requirements of SMCRA and the applicability of the proposed rule and requirements for protection of the hydrologic balance [particularly section 510(b)(3) and 516(b)(1)]. We wanted to make sure that we had the correct understanding of statements made.

First, referring back to the OSM letter of October 7 to PKS, we discussed several items that we wanted to clarify. We were disappointed with several things stated in that letter. We have always understood that SMCRA covers underground mining, especially as it regards surface facilities, mine portal and fills. What was never clear for the SPR EIS was the surface impacts aspect of the actual underground mining or shadow area. From the first meeting in June, we had asked about how the proposed rule would impact Underground Mining. The letter did finally address several of our questions, but it raised others that we brought up on the conference call.

Also, just as a point of clarification, the letter refers to ECSI being present at meetings in DC and Lexington in April. We did have representatives at the Lexington meeting, but not in DC. We checked with others present at those meetings and no one recalls the subject being clearly broached. That is why we kept raising the questions.

The 4 questions that were answered were very helpful and the wording will be referenced and quoted verbatim in the EIS where appropriate.

Regarding underground mining impacts under the proposed rule and alternatives, we understand that:

1. OSM would like the most restrictive alternative (Alternative 2) to consider that if a mining permit application predicts potential dewatering or other impact to the hydrological balance OUTSIDE the permit area as a result of the operation, a permit will not be issued.
2. From our conversation, it is our understanding that the impact to the hydrologic balance of a stream will only be considered material damage if that impact is permanent.
3. OSM indicated that the preferred alternative (Alternative 5) would allow for reestablishment of the hydrologic balance, provided that the impact is not permanent.
4. Surface Mining through a stream within the permit area does not necessarily mean that material damage has been caused, so long as form and function of the stream can be restored.

5. The "shadow area" of an underground mine is outside the permit area, therefore if dewatering or other hydrologic impact to any stream within the shadow area is predicted, no permit will be issued, under the most restrictive alternative.
6. The terms mitigation or remediation should not be used in regard to stream reconstruction as a result of longwall or room and pillar subsidence.

Also, it was indicated that it would be possible under the preferred alternative to divert a stream if it appears that the operation could cause dewatering or other hydrologic impacts outside the permit area. This statement raises at least one question. If the diversion of the stream in question is within the shadow area (e.g., risk of dewatering due to a longwall operation), what aspects will need to be considered for the permitting and bonding of the diversion?

There was a statement made about including underground mining in permit area being "disingenuous". We're not sure why that characterization was made, but we all agreed it was a legitimate question, especially since some states, if not all consider the underground areas in the permitting process. We still feel there needs to be a discussion of how underground areas continue to be considered in the permitting process.

We appreciate the time and effort put into clarifying these key matters that will allow us to complete the definition of the alternatives under study (Chapter 2) and start assessing their environmental consequences (Chapter 4).

As previously stated in various meetings and letters, we are concerned about the current schedule to complete the Chapter 4 alternatives analysis. As OSM is aware, there was a 3-4 month delay in actually beginning the EIS drafting process, due to the scoping meetings and alternatives development. Our primary concern above all is producing a quality work product that is both legally defensible for OSM and that we can be proud to be associated with.

Please let us know if our understanding of the matters discussed on the call is correct.

Thanks,

Steve

J. Steven Gardner, P.E.
President/CEO
Engineering Consulting Services, Inc.
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103 (office)
859-806-5826 (cell)
859-259-3394 (fax)
jsgardner@engrservices.com
www.engrservices.com

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Liz Edmondson

From: Mike Stanwood [r.m.stanwood@gmail.com]
Sent: Wednesday, December 15, 2010 2:45 PM
To: Jenkins, Josh
Cc: Singer, Robert; Edmundo Laporte; John Maxwell; Liz Edmondson; John Morgan; Gardner, J. S.; Zaluski, Joe; Mynear, Doug; Dudley, Judith; Shortelle, Ann
Subject: Re: Impact Model

thanks Josh. So given that, I think we have 2 choices:

- 1) use the 12 years in the EIS as the timeframe in which the full production shifts are reached. or
- 2) state a range of time (such as 10-15 years after the regulatory change) as the timeframe for full production shifts to occur.

Personally I kind of like the range because "12 years" seems like a level of precision we really don't have, and of course we don't really know how quickly the industry would actually respond to the need to shift production.

In either case, it would seem that environmental impacts associated with the production shifts would likely be gradual, as the production shifts (and associated impacts) would occur over time and not all at once. So would it therefore be realistic to assume that environmental impacts would be projected to occur over a 15 year period from the regulatory change, with specific locations of impacts and the rate of impacts not known? With our metrics, however, we would be able to estimate the projected "total" impacts after all the production shifts have occurred.

Edmundo, if we were to use a range of time to reach the full production shifts that you project, would that be consistent with the methodology and meaning of your model?

Other thoughts?

On Wed, Dec 15, 2010 at 12:22 PM, Jenkins, Josh <JLJENKINS@mactec.com> wrote:

All - For the RIA, the timeline we used was 12 years from passing the legislation to fully affecting production.

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | **Mobile** 770.833.6429 | **Fax** 770.421.3486
Email jljenkins@mactec.com | **Web** www.mactec.com

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From: Singer, Robert [mailto:RSinger@ene.com]
Sent: Tuesday, December 14, 2010 4:37 PM
To: Edmundo Laporte; Jenkins, Josh; John Maxwell; r.m.stanwood@gmail.com; ledmondson@morganworldwide.com; jmorgan@morganworldwide.com; Gardner, J. S.; Zaluski, Joe; Mynear, Doug
Subject: RE: Impact Model

Edmundo,

The stream (and areas) impacts are based on permits right? So what is the timeline for these impacts? These aren't impacts per year if that is the case. I don't understand how to interpret the numbers for current or future impacts. Is there any way to divide by the permit duration and get impacts per year?

Bob

Robert Singer, Ph.D

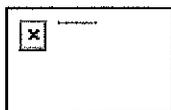
Ecology and Environment, Inc.

368 Pleasant View Drive, Lancaster, NY 14086

Phone: HQ Office 716-684-8060 | Home Office 518-743-1119 | Mobile 518-791-1295 | Fax: 716-684-0844

RSinger@ene.com | www.ene.com

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Celebrating 40 Years of Green Solutions

From: Edmundo Laporte [<mailto:elaporte@engrservices.com>]

Sent: Tuesday, December 14, 2010 3:08 PM

To: 'Jenkins, Josh'; 'John Maxwell'; Singer, Robert; r.m.stanwood@gmail.com; ledmondson@morganworldwide.com; jmorgan@morganworldwide.com; Gardner, J. S.; Zaluski, Joe

Subject: RE: Impact Model

Josh:

11 or 11:30 will work for us.

Edmundo

Edmundo J. Laporte, P.E.
Vice President / Director - Mining Services
Engineering Consulting Services, Inc
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-285-9921 (mobile)
elaporte@engrservices.com
www.engrservices.com

From: Jenkins, Josh [<mailto:JLJENKINS@mactec.com>]
Sent: Tuesday, December 14, 2010 3:06 PM
To: John Maxwell; Edmundo Laporte; rsinger@ene.com; r.m.stanwood@gmail.com;
ledmondson@morganworldwide.com; jmorgan@morganworldwide.com; jsgardner@engrservices.com;
jzaluski@engrservices.com
Subject: RE: Impact Model

We are discussing bio/eco @ 0930 w OSM SMEs. Can we do it at 11 or 1130?

Joshua L. Jenkins | Project Manager/Senior Geologist
MCTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | **Mobile** 770.833.6429 | **Fax** 770.421.3486
Email jljenkins@mactec.com | **Web** www.mactec.com

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From: John Maxwell [<mailto:jmaxwell@polukaiservices.com>]
Sent: Tuesday, December 14, 2010 2:45 PM
To: Edmundo Laporte; Jenkins, Josh; rsinger@ene.com; r.m.stanwood@gmail.com;
ledmondson@morganworldwide.com; jmorgan@morganworldwide.com; jsgardner@engrservices.com;
jzaluski@engrservices.com
Subject: RE: Impact Model

Does 9:00 est work for all?

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-----Original message-----

From: Edmundo Laporte <elaporte@engrservices.com>
To: John Maxwell <JMaxwell@polukaiservices.com>, "Jenkins, Josh" <JLJENKINS@mactec.com>, "rsinger@ene.com" <rsinger@ene.com>, "r.m.stanwood@gmail.com" <r.m.stanwood@gmail.com>, "ledmondson@morganworldwide.com" <ledmondson@morganworldwide.com>, "jmorgan@morganworldwide.com" <jmorgan@morganworldwide.com>, "jsgardner@engrservices.com" <jsgardner@engrservices.com>, "jzaluski@engrservices.com" <jzaluski@engrservices.com>
Sent: Tue, Dec 14, 2010 19:42:24 GMT+00:00
Subject: RE: Impact Model

John:

We will not be able to participate in a call today. I have scheduled a meeting with John Morgan at that time to go over acreages and reconcile those figures.

Let's plan on having that call tomorrow.

Regards,

Edmundo

Edmundo J. Laporte, P.E.
Vice President / Director - Mining Services
Engineering Consulting Services, Inc
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)

859-285-9921 (mobile)
elaporte@engrservices.com
www.engrservices.com

From: John Maxwell [<mailto:jmaxwell@polukaiservices.com>]
Sent: Tuesday, December 14, 2010 2:35 PM
To: Jenkins, Josh; Edmundo Laporte; rsinger@ene.com; r.m.stanwood@gmail.com;
ledmondson@morganworldwide.com; jmorgan@morganworldwide.com; jsgardner@engrservices.com;
jzaluski@engrservices.com
Subject: RE: Impact Model

Is 4:00 good for all?

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Sent via DROID on Verizon Wireless

-----Original message-----

From: "Jenkins, Josh" <JLJENKINS@mactec.com>
To: Edmundo Laporte <elaporte@engrservices.com>, John Maxwell <JMaxwell@polukaiservices.com>
Sent: Tue, Dec 14, 2010 19:28:58 GMT+00:00
Subject: RE: Impact Model

Can we set up a time to discuss? I would like my SME to hear some of the assumptions going into this. Will there be a summary writup also?

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | **Mobile** 770.833.6429 | **Fax** 770.421.3486
Email jjjenkins@mactec.com | **Web** www.mactec.com

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From: Edmundo Laporte [<mailto:elaporte@engrservices.com>]
Sent: Monday, December 13, 2010 6:28 PM
To: John Maxwell
Cc: 'J. Steven Gardner'; jzaluski@engrservices.com; dmynear@engrservices.com; 'Jeff Baird'; 'John Morgan';
'ledmondson@morganworldwide.com'; Shortelle, Ann; Jenkins, Josh; 'Donald Iannone'; 'rsinger@ene.com'
Subject: Impact Model

John:

As per our discussions during the conference call on Friday, ECSI has prepared an impact model which includes the baseline and alternatives 2 through 5.

The model reflects impacts on tonnage, acres and streams (except ephemerals, for which data is not available).

I have not been able to compare the revised permitted acreage produced by Morgan Worldwide and circulated by you earlier today. I submitted an earlier version of this model to John Morgan on Friday, as agreed upon, and am waiting for his comments on its general methodology.

It would be appropriate to organize a phone conference later this week to discuss this model.

Regards,

Edmundo

Edmundo J. Laporte, P.E.
Vice President / Director - Mining Services
Engineering Consulting Services, Inc
Civil – Environmental – Mining – Safety
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103
859-259-3394 (fax)
859-285-9921 (mobile)
elaporte@engrservices.com
www.engrservices.com

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Liz Edmondson

From: Mike Stanwood [r.m.stanwood@gmail.com]
Sent: Friday, December 17, 2010 1:45 PM
To: Jenkins, Josh
Cc: Shortelle, Ann; dbell@plexsci.com; John Morgan; Liz Edmondson; Jose Sosa; John Maxwell; Randy Sosa; Caroline Bari; Kathy Kelly; Singer, Robert; J. Steven Gardner; Doug Myneer; Joe Zaluski; Edmundo Laporte; Jeff Baird
Subject: summary of call today

Josh, call was held today. Results of meeting are below. I'm cc'ing the whole team for others who were not on call and do document decisions/concerns.

- 1) team very concerned about the potential for lack of OSM buy-in to coal production shift/metrics/impact analysis approach. John Maxwell is writing an email to OSM stating our need for their immediate concurrence. Team wants resolution as soon as possible to avoid re-doing work and OSM "surprises"
- 2) no call with OSM currently scheduled on their request to better understand methodology -- should happen next week but OSM people are already starting to scatter with holidays
- 3) team expressed concern that Ch 2 content for alternative 5 does not match with rule. we agreed that we need to inform OSM of this concern but it is possible they may not deal with this now.
- 4) timeframe for implementation of production change shifts was agreed to as "10-15 years". This is consistent with RIA. This assumption will be stated in Ch 4 introduction, and analysts can use this temporal factor in conducting impact analysis. e.g., we have a baseline coal mining/environmental setting, and 10-15 years after new rules are approved it is assumed that production shifts would have been fully implemented. Within the EIS, we describe the associated environmental effects at that full implementation point. Chapter 4 intro will also state that the rate of impacts and specific locations of impacts cannot be forecasted with any degree of certainty at this time, so any "interim impacts" (between baseline year and 10-15 year implementation period) are not described in detail.
- 5) ch 2 is undergoing an internal only (Kathy Kelly) edit -- OSM is not involved in that effort. the goal is readability and consistency, which will be applied to other chapters as well.

On Fri, Dec 17, 2010 at 11:26 AM, Jenkins, Josh <JLJENKINS@mactec.com> wrote:

Mike was there a call today?

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | **Mobile** 770.833.6429 | **Fax** 770.421.3486
Email jljenkins@mactec.com | **Web** www.mactec.com

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From: Jose Sosa [mailto:jose@polukaiservices.com]
Sent: Friday, December 17, 2010 10:53 AM
To: Jenkins, Josh
Subject: Re: did i miss the call today or was none held?

No. Randy and I are in Sr. Mgmt meeting today in DC. Mike was going to take lead

Sent from my Verizon Wireless BlackBerry

From: "Jenkins, Josh" <JLJENKINS@mactec.com>

Date: Fri, 17 Dec 2010 10:23:21 -0500

To: Jose Sosa<jose@polukaiservices.com>

Subject: did i miss the call today or was none held?

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | Mobile 770.833.6429 | Fax 770.421.3486
Email jljenkins@mactec.com | Web www.mactec.com

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Liz Edmondson

From: John Morgan
Sent: Wednesday, January 26, 2011 11:42 AM
To: 'diannone@ix.netcom.com'; 'Mike Stanwood'
Cc: 'Josh Jenkins'; 'John Maxwell'; Liz Edmondson
Subject: RE: Revised Conceptual RIA Report Outline

I agree that providing a cash flow for the costs and benefits is fraught and going to be full of major assumptions. However, as most of the benefits are going to be from avoided impacts I think that the benefit will occur ahead of the costs, which are mainly spread out over the life of the mine. This timing benefit should certainly help the NPV analysis of the net cost of the proposed rule.

John

From: diannone@ix.netcom.com [<mailto:diannone@ix.netcom.com>]
Sent: Wednesday, January 26, 2011 11:30 AM
To: John Morgan; Mike Stanwood
Cc: Josh Jenkins; John Maxwell; Liz Edmondson
Subject: Re: Revised Conceptual RIA Report Outline

John Morgan,

Yes the discounting and net present value issues do need a conversation by our team.

It is a required piece of the OMB guidance. We must address it in some fashion, even if with ballpark time periods that identify how the rule will unfold between now and 2012 (or another over timeframe).

We did some limited discounting of some numbers in the Dec 23 draft to OSM. It was a crude attempt assuming costs unfold uniformly over 12 years. We had nothing better, but we all know that is not a defensible way to do this. But with no other approach and lots of missing information (now in the EIS and elsewhere perhaps), we used that approach.

The underlying issue relative to the rule's proposed implementation schedule should also be discussed. This comes first. We used 12 years because of guidance given to us early on. We attempted to allocate the numbers in the Dec draft but we had no precise guidance as to how to do that in line with something resembling a realistic implementation schedule.

The difficulty for the RIA in this regard is providing insights on "when" are identified costs and benefits expected (based upon what we know or estimate at this point in time) to accrue. No easy matter as you can imagine. Perhaps one avenue into this issue is to examine when certain identified environmental impacts (benefits mainly) would occur. Do we have anything in the EIS that defines time periods during which stream miles or land acres would be conserved? If we do, this would guide us in assigning timeframes to economic costs and benefits in the RIA. Short of that, we have no defensible way to get at the implementation and impact schedules.

Does anyone on the team have a better strategy to get at this issue?

Don

Sent from my Verizon Wireless BlackBerry

From: "John Morgan" <jmorgan@morganworldwide.com>
Date: Wed, 26 Jan 2011 08:27:18 -0500
To: Mike Stanwood<r.m.stanwood@gmail.com>; Donald Iannone<diannone@ix.netcom.com>
Cc: Josh Jenkins<JLJENKINS@mactec.com>; John Maxwell<JMaxwell@polukaiservices.com>; Liz Edmondson<ledmondson@morganworldwide.com>
Subject: RE: Revised Conceptual RIA Report Outline

Mike

I understand your comment regarding the use of a discount factor if we were trying to come up with a single number for the cost:benefit. However nothing in the RIA documents prepared to date have even tried to develop a future cash flow as we have agreed to keep coal production as a steady state (at 2008 levels) and we have never attempted to look at the change in either benefits or costs over time.

It is my understanding that the RIA is looking at a snapshot after the rule is fully implemented.

Do we need to discuss this?

John

From: Mike Stanwood [<mailto:r.m.stanwood@gmail.com>]
Sent: Tuesday, January 25, 2011 6:31 PM
To: Donald Iannone
Cc: Josh Jenkins; John Maxwell; John Morgan; Liz Edmondson
Subject: Re: Revised Conceptual RIA Report Outline

Don, the only things I see potentially missing from a broad outline like this are "limitations of the analysis" and "discount rate". The RIA approaches that I've seen all include a discount rate to bring back future costs and benefits back to the present. Might be nice to point out that analysis will include that factor (assuming that is what will happen). It is always good to emphasize limitations of the analysis (including typical issues associated with cost-benefit analysis and difficulties in monetization of unquantified benefits).

mike

On Tue, Jan 25, 2011 at 4:14 PM, Donald Iannone <diannone@ix.netcom.com> wrote:

Team,

Here is the outline promised.

I am out in the morning tomorrow (Wednesday). I am out from 6:30 am till about noon.

Please provide your comments as quickly as possible and I will revise in light of them, with your help.

Thanks.

Don

--

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Liz Edmondson

From: John Morgan
Sent: Saturday, February 19, 2011 3:15 PM
To: J. Steven Gardner; 'Jenkins, Josh'; 'David Bell'; Liz Edmondson; 'Joe Zaluski'; 'Doug Mynear'; 'Jeff Baird'; 'Shortelle, Ann'
Cc: 'John Maxwell'; 'Mike Stanwood'; 'Jose Sosa'; 'Randy Sosa'; 'Caroline Bari'
Subject: RE: Implementation Timeline

I think that, as with all other components of the EIS, we need to submit our timeline proposal to OSM for them to agree to. We also need to recognize that there are two components of the timeline; the implementation period for the new rule by each State (remembering each State has a different process and time) and secondly the average life of each permit by region and type, as total implementation of the rule only occurs after all production come from reserves permitted after the introduction of the rule.

John

From: J. Steven Gardner [mailto:jsgardner@engrservices.com]
Sent: Sat 2/19/2011 12:41 PM
To: 'Jenkins, Josh'; 'David Bell'; John Morgan; Liz Edmondson; 'Joe Zaluski'; 'Doug Mynear'; 'Jeff Baird'; 'Shortelle, Ann'
Cc: 'John Maxwell'; 'Mike Stanwood'; 'Jose Sosa'; 'Randy Sosa'; 'Caroline Bari'
Subject: RE: Implementation Timeline

It may be reasonable, but is a change from what we had been told to consider.

J. Steven Gardner, P.E.
President/CEO
ECSI, LLC
Civil – Environmental – Mining
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103 (office)
859-806-5826 (cell)
859-259-3394 (fax)
jsgardner@engrservices.com
www.engrservices.com

From: Jenkins, Josh [mailto:JLJENKINS@mactec.com]
Sent: Saturday, February 19, 2011 12:34 PM
To: David Bell; 'J. Steven Gardner'; 'John Morgan'; 'Liz Edmondson'; 'Joe Zaluski'; 'Doug Mynear'; 'Jeff Baird'; Shortelle, Ann
Cc: 'John Maxwell'; 'Mike Stanwood'; 'Jose Sosa'; 'Randy Sosa'; 'Caroline Bari'
Subject: RE: Implementation Timeline

As I reread this, it looks like they think ~8.5 years for new permits and another 5 to catch any major renewals?

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | Mobile 770.833.6429 | Fax 770.421.3486
Email jljenkins@mactec.com | Web www.mactec.com
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From: David Bell [mailto:dbell@plexsci.com]
Sent: Saturday, February 19, 2011 11:43 AM
To: Jenkins, Josh; 'J. Steven Gardner'; 'John Morgan'; 'Liz Edmondson'; 'Joe Zaluski'; 'Doug Myneer'; 'Jeff Baird'; Shortelle, Ann
Cc: 'John Maxwell'; 'Mike Stanwood'; 'Jose Sosa'; 'Randy Sosa'; 'Caroline Bari'
Subject: RE: Implementation Timeline

Also, you (experts) should challenge the assumption of 8.5 years if you don't think it's reasonable/realistic, just as we have on this crazy schedule for a rulemaking and EIS...

David E. Bell
Vice President and General Counsel
Plexus Scientific Corporation
(703) 845-5602 (direct)
(703) 820-3339 (office)
(703) 845-8568 (fax)
(703) 774-6578 (cell)

From: Jenkins, Josh [mailto:JLJENKINS@mactec.com]
Sent: Saturday, February 19, 2011 11:40 AM
To: David Bell; 'J. Steven Gardner'; John Morgan; 'Liz Edmondson'; 'Joe Zaluski'; 'Doug Myneer'; 'Jeff Baird'; Shortelle, Ann
Cc: 'John Maxwell'; 'Mike Stanwood'; 'Jose Sosa'; 'Randy Sosa'; Caroline Bari
Subject: RE: Implementation Timeline

Yes. This is something needed for RIA and EIS. Originally we discussed 10-15 years - now only up to 8.5 years. It spreads the costs and benefits out over a definable period. We should review and determine what if any suggested changes we would have based on the Team's knowledge of some average time for the life of existing permits. I originally understood it would only consider major permit renewals and mostly only new permits.

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone 770.421.3412 | **Mobile** 770.833.6429 | **Fax** 770.421.3486
Email jljenkins@mactec.com | **Web** www.mactec.com
For Official Use Only – Deliberative Process Material

From: David Bell [mailto:dbell@plexsci.com]
Sent: Saturday, February 19, 2011 11:31 AM
To: 'J. Steven Gardner'; Jenkins, Josh; John Morgan; 'Liz Edmondson'; 'Joe Zaluski'; 'Doug Myneer'; 'Jeff Baird'; Shortelle, Ann
Cc: 'John Maxwell'; 'Mike Stanwood'; 'Jose Sosa'; 'Randy Sosa'; Caroline Bari
Subject: RE: Implementation Timeline
Importance: High

Does this affect anything in our Cure Notice Response/Work Plan, e.g., modeling into the future. Seems like it introduces some variables that would have to be considered in out-years.

David E. Bell
Vice President and General Counsel
Plexus Scientific Corporation
(703) 845-5602 (direct)
(703) 820-3339 (office)
(703) 845-8568 (fax)
(703) 774-6578 (cell)

From: J. Steven Gardner [mailto:jsgardner@engrservices.com]
Sent: Saturday, February 19, 2011 10:38 AM
To: 'Dave Bell'; 'Joshua L. Jenkins'
Subject: FW: Implementation Timeline

Dave & Josh,

Did you all get this?

J. Steven Gardner, P.E.
President/CEO
ECSI, LLC
Civil – Environmental – Mining
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103 (office)
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859-259-3394 (fax)
jsgardner@engrservices.com
www.engrservices.com

From: Winters, William R. Bill [mailto:bwinters@osmre.gov]
Sent: Friday, February 18, 2011 2:23 PM
To: John Maxwell
Cc: John Morgan ; Steve Gardner ; Shawley, Dianne M
Subject: Implementation Timeline

Hi folks,

Find attached the implementation timeline we discussed last week. Sorry for the delay but we had several key folks out sick this week.

Thanks.

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Implementation of Stream Protection Rule

If adopted in final form, the stream protection rule would take effect 60 days after publication in states with federal programs and on Indian lands. Implementation in states with approved regulatory programs would take considerably more time. We would first notify those states under 30 CFR 732.17 that we have determined that they must amend their programs to remain no less effective than the revised federal rules. The states would respond by submitting either a proposed program amendment or, more likely, a description of amendments to be proposed together with a schedule for submission of the proposed amendments and a timetable for enactment. To avoid unnecessary disruption of state programs, we generally accept schedules under which states would prepare and submit proposed amendments only after the completion of litigation of the new federal rule at the appellate level. This process can easily take 5 or more years.

Implementation Timeline

Federal Program States and Indian lands

- Rule takes effect 60 days after publication in the Federal Register.
- Permit applications approved after that date must comply with the rule.
- Existing operations would have to comply with new performance standards no later than the time of permit renewal (within 5 years).

Primacy States

- OSM will send Part 732 notifications to all states 90 days after publication of the final rule in the Federal Register. The notifications would require the states to amend their programs to be no less effective than the revised federal rules.
- Within 60 days of receipt of a Part 732 notification, the state must submit either a proposed program amendment or an action plan with a timeline for submission of such an amendment.
- Because the rule will likely be challenged in court, we anticipate that states will submit timelines providing for submission of proposed program amendments only after litigation is concluded, which we estimate will take 5 years.
- We anticipate that states will take 18 months to develop program amendments after the conclusion of litigation.
- OSM review and approval of state program amendments will take 7 months after submission.
- We anticipate that states will put the approved program amendments into effect within an average of one year from date of approval (up to 2 years in states with legislatures that do not meet every year).

- Total Elapsed Time: 102 months (8.5 years)
- Permit applications approved after that date must comply with the amended state programs.
- Existing operations would have to comply with new performance standards no later than the time of permit renewal (within 5 years).

Polu Kai Services EIS Team Strategy for Completing PDEIS

The primary work objectives are to address comments received to date regarding Chapters 1, 2, 3, and 4. Based on our recent discussions about Chapter 4 specifically, we will correct any passages that suggest a misunderstanding of the proposed rule. We will expand the discussion of environmental effects and descriptions of environmental benefits, and we will provide a more detailed description of how production shifts are determined. We will add a cost-benefit analysis section that will focus on “important qualitative considerations” among the five alternatives (see CEQ Regs, 40 CFR 1502.23), rather than a monetary cost-benefit analysis. Section 1502.23 states “For purposes of complying with the Act, the weighing of the merits and drawbacks for the various alternatives *need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations.*” (*emphasis added*) Instead, and consistent with Section 1502.23, those monetary cost-benefit considerations will be cross-referenced in the EIS to the RIA.

The PKS Team intends to use the following approaches to address the above objectives:

1. PKS will meet with the OSM EIS and Rule Teams to discuss and form a consensus on the probable effects of the proposed rule. This dialogue is essential so that if difference interpretations exist, the intent of the proposed OSM rule is known and effects evaluated will be clear.
2. PKS will continue to review and address Chapter 4 comments with particular attention to the most significant issues identified by OSM. OSM has indicated that it will identify by 2/7/11 those issues that it considers most significant.
3. Introductory and transition sections for each alternative will be developed and will outline the key elements of the alternative and the overall benefits and impacts the alternative is expected to have.
4. PKS will provide a more detailed discussion of the beneficial environmental effects of the alternatives (e.g., increased requirements for baseline analysis prior to permitting, operational measures conducted to protect environment, etc.). The benefits of each alternative will be evaluated and compared to Alternative 1 and described in the EIS on a qualitative basis without monetization, consistent with the provisions of CEQ regulations (Section 1502.23).
5. PKS will also revise the methodology section to clarify that two sets of impacts are evaluated as part of this DEIS – avoided impacts associated with shifts in coal production, and specific effects associated with requirements imposed by the elements that are independent of coal production.
6. PKS is considering a change in the production shift assessment methodology by employing a dynamic model based on data from EIA’s most recent coal production forecast (December 2010). If used, this model would take into account production trends that are already occurring and changes in the implementation of the CWA, while recognizing that effects of the alternatives would occur over time. In addition to acceptance of a change in method by OSM, time and cost constraints will be considered in deciding the viability of the change.

7. PKS will await guidance from OSM on addressing greenhouse gas emissions as instructed by Ms. Shawley during the February 2nd face-to-face meeting at OSM.
8. PKS will continue to revise and complete remaining chapters of the PDEIS for submittal to OSM on February 23rd.

With respect to the RIA, PKS will consult natural resource economists to assist in identification and evaluation of monetized benefits. Monetized benefits for Alternative 5 will be evaluated and included in the RIA document.

PKS is committed to providing a PDEIS that comports with OSM's guidance and addresses the comments on the submitted sections of the PDEIS. We will continue to put forth our best efforts to achieve a quality document.

Liz Edmondson

From: John Morgan
Sent: Tuesday, February 22, 2011 9:49 AM
To: 'Jenkins, Josh'
Cc: 'John Maxwell'; 'Jose Sosa'; 'Randy Sosa'; 'J. Steven Gardner'; Liz Edmondson; 'Joe Zaluski'; David E. Bell (dbell@plexsci.com); 'Mike Stanwood'
Subject: RE: Implementation Timeline

Tracking:	Recipient	Delivery
	'Jenkins, Josh'	
	'John Maxwell'	
	'Jose Sosa'	
	'Randy Sosa'	
	'J. Steven Gardner'	
	Liz Edmondson	Delivered: 2/22/2011 9:49 AM
	'Joe Zaluski'	
	David E. Bell (dbell@plexsci.com)	
	'Mike Stanwood'	

As I stated in my email dated Feb 19, I think that OSM is being simplistic with regards to the implementation timeline as it will vary significantly by region, due to the size and type of operation. Therefore, I strongly recommend that we develop an implementation schedule including a discussion of our rationale. We need full agreement from OSM before we proceed. As we know from the past only the CO has authority to bind the government.

John

From: Jenkins, Josh [<mailto:JLJENKINS@mactec.com>]
Sent: Tuesday, February 22, 2011 9:31 AM
To: jsgardner@engrservices.com; John Morgan; JMaxwell@polukaiservices.com
Subject: Fw: Implementation Timeline

Fyi

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Sent via DROID on Verizon Wireless

-----Original message-----

From: "Winters, William R. \"Bill\"" <bwinters@osmre.gov>
To: "Jenkins, Josh" <JLJENKINS@mactec.com>
Sent: Tue, Feb 22, 2011 13:54:32 GMT+00:00
Subject: RE: Implementation Timeline

8.5 years. The 5 years may be a bit confusing but it would be for previously issued permits that go through a renewal. Many sections of the new rule likely won't be retroactive. We'll refine the grandfather/retroactive when we receive comment on the DEIS.

Thanks.

BTW: Always feel free to call my cell instead of email (865.310.0571)

From: Jenkins, Josh [<mailto:JLJENKINS@mactec.com>]
Sent: Monday, February 21, 2011 11:31 AM
To: Winters, William R. "Bill"
Subject: FW: Implementation Timeline

So Bill, may be a dumb question, but, this looks like ~8.5 years for implementation and another 5 beyond that to catch the lingering permit renewals for a full nationwide implementation of ~13.5 years?

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
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From: J. Steven Gardner [<mailto:jsgardner@engrservices.com>]
Sent: Saturday, February 19, 2011 10:53 AM
To: Jenkins, Josh; 'Dave Bell'
Subject: RE: Implementation Timeline

Received mid afternoon yesterday and noted this morning you all were not on distribution.

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President/CEO
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From: Jenkins, Josh [<mailto:JLJENKINS@mactec.com>]
Sent: Saturday, February 19, 2011 10:49 AM
To: J. Steven Gardner; 'Dave Bell'
Subject: RE: Implementation Timeline

Did not. Thank you.

Joshua L. Jenkins | Project Manager/Senior Geologist
MACTEC Engineering and Consulting, Inc. | Atlanta, Georgia
Phone

Liz Edmondson

From: J. Steven Gardner [jsgardner@engrservices.com]
Sent: Tuesday, February 22, 2011 9:56 AM
To: John Morgan; 'Jenkins, Josh'
Cc: 'John Maxwell'; 'Jose Sosa'; 'Randy Sosa'; Liz Edmondson; 'Joe Zaluski'; 'dbell@plexsci.com'; 'Mike Stanwood'
Subject: RE: Implementation Timeline

I agree with John's assessment here.

Steve

J. Steven Gardner, P.E.
President/CEO
ECSI, LLC
Civil – Environmental – Mining
340 South Broadway, Suite 200
Lexington, KY 40508

859-233-2103 (office)
859-806-5826 (cell)
859-259-3394 (fax)
jsgardner@engrservices.com
www.engrservices.com

From: John Morgan [<mailto:jmorgan@morganworldwide.com>]
Sent: Tuesday, February 22, 2011 9:49 AM
To: Jenkins, Josh
Cc: John Maxwell; Jose Sosa; Randy Sosa; J. Steven Gardner; Liz Edmondson; Joe Zaluski; dbell@plexsci.com; Mike Stanwood
Subject: RE: Implementation Timeline

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Subject: RE: Implementation Timeline

Did not. Thank you.

Joshua L. Jenkins | Project Manager/Senior Geologist
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Phone

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Please see responses to Question 6a for documents relevant to this request.

Please see MWC's written response to Question 7 at the front of this binder.