

## I. Objections Alleging Violation of Law, Regulation or Policy

### Objection 1: The USFS (and BLM) must prepare an EIS (NEPA Violations)

**You allege that due to the obvious potential for significant impacts, the proposed DN/FONSI cannot be sustained under the NEPA and that despite the proposed finding of “no significant impact,” the Project will clearly result in significant impacts to land, air, wildlife, surface and groundwater, recreation, human health (including mine workers), and cultural/historic resources among affected resources (pp. 2-3 of objection letter).**

**The NFMA requires all site-specific actions authorized by the Forest Service, including a mining plan, to be consistent with Forest Plan standards and guidelines. “Such projects must be consistent with the applicable forest plan. (Objection p. 30)**

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#### RESPONSE TO OBJECTION 1:

NEPA at 40 CFR 1501.3 and 4 describe whether to prepare an EA or EIS, in the case of this project it on the basis of the EA the Deciding Official choose to prepare a finding of no significant impact (FONSI). The FONSI presented the reasons why this action would not have a significant effect on the human environment. The regulation at 36 CFR 220.7(b)(3)(iii) directs the agency to document the environmental effects of the proposed action and any action alternatives in terms of context and intensity. The draft Decision Notice finds that implementing Alternative C would not have a significant effect on the quality of the human environment (EA 8-10).

In my review of the record I find that while the analysis generally appears to comply with NEPA, certain aspects of the analysis lacks the required discussion of intensity required to determine significance as defined in 40 CFR 1508.27. Without this information, a FONSI cannot be supported and a well-informed decision cannot be made. Specifics of my review will be discussed in the 30 numbered objection issues below.

The proposed project is consistent with Forest Plan standards and guidelines as discussed in the DN on pp. 2, 5, 8, 11, and 12 and in the EA section 1.6.2 Consistency with Manti-La Sale National Forest Plan (DN pp. 1-4 and 1-5, 4-59, 4-78 and 4-79)

#### **Instructions:**

- a) *Information supporting analysis and determination of impacts needs to be in the record.*
- b) *Resource specialists need to ensure the effects write-ups include both the rationale for the findings as well as the context and intensity of the impacts as defined in 40 CFR 1508.27.*

## Objection 2: Deferral of critical surveys violates NEPA

**You allege that the deferral of critical environmental, cultural, wildlife, radiological, and other reviews violates the NEPA, that at a minimum, the failure to include this relevant information in the EA raises the potential for significant impacts and thus warrants the preparation of an EIS, and that this sort of approve-first, review-later approach violates the NEPA (pp. 4-11 of objection letter). FS failed to meet NEPA’s “hard look” standard**

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### RESPONSE TO OBJECTION 2:

NEPA allows for adaptive management strategies to be part of an action that, in response to monitoring, provides the vehicle in which alternate courses can be taken to remain within desired conditions or parameters.

Several locations in the document, 4-15, 4-17, 4-21, 4-24 and 4-31, for example, discuss monitoring that will occur or site specific surveys that will be conducted and that impacts will either be avoided or actions will be adjusted to become compliant with law, regulation, and policy.

While courts must consider whether the agency took a “hard look” at the potential environmental effects of a proposed action, the Tenth Circuit has repeatedly held that the “hard look” standard does not always require an agency to assemble “hard data” to support its scientific judgments. Morris v. U.S. Nuclear Regulatory Com’n, 598 F.3d 677, 693 (10<sup>th</sup> Cir. 2010); Ecology Center, Inc., v. U.S. Forest Service, 451 F.3d 1183, 1190 (10<sup>th</sup> Cir. 2006); and Citizens Committee to Save Our Canyons v. Krueger, 513 F.3d 1169, 1176 (10<sup>th</sup> Cir. 2008). The Tenth Circuit has asked how the data demanded by a commenter would better inform the Forest Service or the public and has rejected the call for more data when “no one was misled.” Id. In Citizens Committee, the court noted that more information could always be collected but deferred to the Forest Service where the agency had specifically considered whether its data was sufficient and decided that it was.

The Decision Notice (p.22), identifies the following Term and Condition of Approval for the Decision for this project: *Prior to construction of access roads, exploration drill holes or ventilation shafts within the phase boundaries established by the POA, the operator shall submit detailed location information for placement of these facilities. This information shall be supplemented by wildlife surveys, vegetation surveys, and cultural resource surveys of all proposed affects areas. The boundaries, timing, and content of these surveys shall be determined by the authorized officer of BLM or FS, as appropriate based on land status, prior to completion of the surveys. The operator shall avoid all sensitive areas designated by BLM or FS (as appropriate based on land status) based on the results of these surveys.*

The Decision Notice on page 1 further states that reasonable and practicable requirements for the protection of the environment will be used. The Modifications to La Sal Mines Complex Plan of Operations Amendment Required Prior to Approval is Attachment 1 to

the DN. The Decision does a good job of displaying the modifications and terms and conditions that are added to Alternative C and discusses those adaptations.

The deferral of surveys in of itself does not violate NEPA, nor does it raise the potential for significant impacts and thus warrant the preparation of an EIS. As mitigation throughout the document and in the decision includes avoidance of impacts to resources discovered in the deferred surveys it is difficult to understand how that could lead to a significant impact.

That being said I found the Cultural Resources was not in compliance with 36 CFR 800 subpart B, Protection of Historic Properties. (See Objection Issue 10 for further discussion and instruction)

## Instructions

- a) *The Forest needs to review the resource specific protection measures in the Terms and Conditions to ensure they are consistent with the terminology in the EA and use the word “avoid” as was used in the EA. These protective measure need to be specific and a part of the design features.*

*The EA discusses and analyses the phased survey approach and directs avoidance, where possible of impacts. However, the resource sections lack specific information as to what avoidance for each resource would entail. Some information can be found in the BAE p. 35). “If construction is scheduled between the dates of January 1 and September 31, raptor surveys will be required prior to construction. Field surveys will be conducted as determined by the authorized officer of BLM or the USFS as applicable. Based on the result of the field survey, the authorized officer will determine if appropriate buffers and timing limitations are necessary.”*

*The recommendation for the bald eagle is a 1-mile spatial buffer from January 1 to August 31, annually. The recommendation for the northern goshawk is a 0.5-mile spatial buffer from March 1 to August 15, annually. The recommendation for the golden eagle is a 0.5-mile spatial buffer from January 1 to August 31, annually. However this information is not easy to find and needs to be part of the design features*

**Objection 3: Adequacy of baseline condition information (groundwater quality & quantity, radon, cultural resources, and wildlife, among other impacted resources [including on-site air quality data])**

**You allege that the failure to obtain adequate information on baseline conditions violates the NEPA and that without establishing the baseline conditions it is not possible to determine what effect the project will have on the environment, and consequently, the draft decision does not comply with the NEPA (pp. 11-13 of objection letter).**

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RESPONSE TO OBJECTION 3:

40 CFR§ 1502.15 Affected environment. The descriptions shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues. Verbose descriptions of the affected environment are themselves no measure of the adequacy of an environmental impact statement.

**Groundwater quality & quantity**

The EA (p. 3-16 – 3-19) discusses the affected environment as it pertains to groundwater resources and the potential affects, and identified concerns and measurement indicators in this regard (EA. 1-14). Baseline conditions are discussed in the EA (p. 3-16 thru 3-19) and include existing and future uses, groundwater quality, springs, groundwater flow, recharge areas, and the regional hydrology of the area.

**Instructions**

- a) *A supplement groundwater technical report should be completed for the project record which includes the impacts of the exploration drilling phases of the proposal as well as document and incorporates previous areas of exploration and mining and the influence this may have had on groundwater.*
- b) *While the EA and POA provides information as to the proposed number of exploration holes to be drilled over the life of mining there is little information as to the average depth of exploration hole. This information can be used to calculate the cross sectional area of aquifer which may be impacted by each phase of drilling and which can be used to analyze the potential for contaminant migration. This information is necessary to adequately identify and assess the affected environment. It is reasonable that the proponent identify the conceptual areas of proposed drilling; this is not confidential or restricted information.*
- c) *In addition to surface water, the forest planning process identifies groundwater aquifers and provides management direction for their protection (Forest Service Manual [FSM] 1926.15 (22)). While the Manti-LaSal Forest Plan has no specific standards or guidelines for protection of groundwater resources, the Forest Service has developed a four-part information system on groundwater management on NFS lands: (1) FSM 2543 and 2880; (2) a Forest Service report on groundwater laws, regulations, and case law for all 43 States with NFS land (Forest Service USDA Forest Service Source Book of State Groundwater Law); (3) a technical guide on groundwater inventory and monitoring (Carlson, In progress 2012); and, (4) a*

*technical guide on managing groundwater resources on NFS land (Technical Guide 2007). For groundwater resources, the Forest Service states, “the NFS contains substantial groundwater resources, for which stewardship and protection are mandated by congressional acts. Many other natural resources on NFS lands rely, directly or indirectly, on groundwater and would be damaged or destroyed if that water were depleted or contaminated” (Forest Service Technical Guide, Managing Groundwater Resources). This is relevant to add to the EA discussion on groundwater/surface water resources.*

## **Radon**

Radon is not a resource like groundwater, cultural resources, and wildlife; it is a component of air quality. Consequently a radon baseline would not have the same meaning as the baseline conditions for a resource would. Nonetheless, current conditions for radon emissions adjacent to mine features have been determined. See monthly radon measurements at 31 mine features (vents, portals, shafts) for 2012 provided in Table 4 (Letter from SENES Consultants, Limited, to Energy Fuels Resources (USA), Inc., 3/28/2013, and attached 2012 Annual Compliance Report, p. 9).

More broadly, The National Ambient Air Quality Standards (NAAQS) were developed by EPA and adopted by the State of Utah, and are intended to protect public health and welfare air quality standards with which the La Sal Mine Complex must comply are listed in Table 3-1 of the EA. Because the project location is remote, there are few nearby stationary air pollution sources and existing background pollutant concentrations are generally expected to be low for each PSD classification, EPA has developed PSD increment standards that limit the incremental increase in air pollutant concentrations above the concentrations as of a specific date, called a baseline date. Baseline dates are established when a PSD major source permit application is deemed complete by the permitting authority. Any change in ambient air concentrations from that baseline date either consumes the PSD increment (if there is an increase) or expands the PSD increment (if there is a decrease). The sum of changes from the baseline date may not exceed the PSD increment. The baseline information for radon is adequate and complies with NEPA. (EA p. 3-3)

## **Cultural**

The Cultural History Overview (EA pgs. 3-7, 3-8 and 3-9) includes synopsis of the historical cultures and land used from the prehistoric Paleoindian period (ca. 10,000–6,000 B.C.) through the historic mid 1900’s and of the mining history in the four corners region and San Juan County.

A Class I file search was conducted to identify existing cultural resource surveys and any known cultural resource sites present in the project area. This search included records of the Utah Division of State History (UDSH) in Salt Lake City, the BLM MFO, and the FS Moab Monticello District Office to identify known cultural resource sites within the project area and within a 0.5 mile radius of the project area.

The EA states that 32 cultural resource inventories, or surveys, have been completed within 0.5 miles of the project area including an intensive Class III pedestrian survey for the proposed development rock storage area expansion at the Pandora Mine. (EA pg. 3-9 and 3-10)

It appears that the intent of 40 CFR 1502.15 was complied with but is not fully documented or documented clearly. A detailed historical overview is presented but is lacking in more specific historic mine history. A search of existing cultural data was conducted with results summarized in the EA but evidence suggests a lack of available survey data and other documentation.

## Instructions

- a) The FS needs to ensure all cultural survey information and documentation such as the 2013 surveys and the Forest Plan are part of this analysis.*
- b) Cite survey and document references.*
- c) Clarify data summaries and boundaries – a table and map would help display this information more clearly. Currently there is also no clear definition as to what comprises the project area acreage and what acreage is within the 0.5 mile radius.*
- d) Include more specific historic mine history in the affected environment.*

## Wildlife

The environmental baseline for federally listed species is found in the BAE (Doc #501, p. 20-25). The information includes basic life history, population dynamics, relevant habitat associations, historic and designated or proposed critical habitat and suitable habitat within the analysis area. The baseline information also includes Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process (50 CFR 402.02). Altogether this information is necessary to provide support for the determinations of no effect that have been made for all listed species on this project. Without it there is insufficient support for the claim of “no effect”.

EA (Doc #593, p. 3-49 to 3-55) and BAE (Doc #501, p.20-25; 36-42) include baseline information for the six FS sensitive species that have potential to occur in the project area.

It is unclear whether District and/or Forest survey information was used in the documentation of baseline information. The analysis is in error as the Gunnison Sage-grouse and Western Yellow-billed Cuckoo were analyzed as candidate species. Both species were listed as Federally Threatened 2014.

## Instructions

- a) Update BAE to include baseline information and impacts to Gunnison Sage-grouse and Western yellow-billed cuckoo as T&E species. Re-consult with F&WS if necessary.*
- b) Review District and Forest survey information and add it to the record and analysis if it was not previously included in the baseline information.*

- c) *Clarify the EA/BAE as to what site specific survey information is available and used in documenting the baseline conditions.*
- d) *Identify known distribution of the species and habitat within the area of analysis for each species. Include and state survey results, personal observations, or state Natural Heritage Data results for all evaluated species.*
- e) *Clearly state what the area of analysis is for each species, this should not be the project area, rather it is the outermost extent of where direct, indirect and cumulative effects can be meaningfully measured.*

## Objection 4: Adequacy of Plan of Operations

**You allege that the failure to submit a complete mining plan is in violation of the 1897 Organic Act, USFS Regulations and Policies, and the NEPA and that the POA submitted by the applicant fails to contain the requisite information required for the agency and public to review all of the impacts that may occur during the project's 20+ year life. You also allege that deferring the requirement on the company to submit a complete mine plan, and deferring any analysis of the connected actions and/or cumulative impacts from the mill, not only violates the NEPA, it contradicts the USFS' own regulations and policies (pp. 13-15 of objection letter).**

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### RESPONSE TO OBJECTION 4:

The authorized officer and mineral administrator determine whether a plan of operations is adequate or not. Neither the regulations (36 CFR 228.4) nor the Forest Service Manual (2817.21) can describe what is needed in every possible case. The distribution of uranium ore in the La Sal complex is not precisely predictable (see Fig. 1-1 in CDM, 2009, Final Hydrogeologic Evaluation of the Denison Mines (USA) Corp. La Sal Mine Complex, San Juan County, Utah) and it is not possible to know in advance exactly where to drill next or where the next vent shaft will be needed. This feature of the mines was also identified in the 1981 Plan of Operations for the Pandora Mine by Atlas Minerals. Moreover, the operator has included projected activities far into the future in the POA at the request of the BLM and USFS to address “reasonably foreseeable developments” in order to facilitate NEPA analysis (POA, p.1-3).

Paragraph (d) of 36 CFR 228.4 expressly allows that “if the development of a plan for an entire operation is not possible at the time of preparation of a plan, the operator shall file an initial plan setting forth his proposed operation to the degree reasonably foreseeable at that time”. Construction of vent shafts and exploration boreholes are adequately described on pages 3-7 to 3-10 of the POA. Page 3-8 of the POA has the following statement: Denison proposes that the specific locations for these facilities and the location of associated access roads be subject to BLM and USFS review prior to construction. This would involve a supplement to the POA, under 36 CFR 228.4(f), the supplement could require additional NEPA.

The POA submitted is reasonable considering the geology and mining methods. The EA and draft DN are in compliance with 36 CFR 228.4.

### Objection 5: Cumulative Effects

**You allege that the EA fails to take the required hard look at all direct, indirect, and cumulative impacts (p. 15 of objection letter) and that the USFS failed to consider the cumulative impacts from all past, present, and reasonably foreseeable future projects in the region on, at a minimum, water and air quality including ground and surface water quantity and quality, recreation, cultural/religious, wildlife, transportation/traffic, scenic and visual resources, transportation of ore to a mill, ore processing at the mill itself etc. (pp. 16-20 of objection letter).**

**You also allege the EA fails to consider the cumulative impacts from all past, present, and reasonably foreseeable future projects within the analysis area regardless of landownership (pp. 25, 46, 48-53 of objection letter).**

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#### RESPONSE TO OBJECTION 5:

The EA (p. 4-1) Direct and Indirect Analysis identifies the geographical and temporal boundaries of the direct and indirect effects analyses vary based on the type of effects and resource areas being evaluated. The temporal boundary of the direct effects analyses is restricted to the development, operation and reclamation phases of the proposed mine expansion, when active ground disturbing activities are occurring. The geographical boundary of the direct effects analysis is limited to the proposed expansion areas. The temporal boundary of the indirect effects analyses encompasses the post-reclamation phase and the decades after mining and reclamation are complete. The geographical boundary of the indirect effects analysis includes the areas encompassed by the proposed.

The EA (page 4-1) in Section 4.1.1.2 Cumulative Effects Analyses recognizes and considers the effects caused by the action when combined with past, present and reasonably foreseeable future actions. Reasonably foreseeable future actions are those for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends.

The EA states that geographical and temporal boundaries of the cumulative effects analyses vary based on the resource area and that the temporal boundaries of the cumulative effects analyses encompass prior actions that have occurred in the analysis area (i.e., historical mining), current actions, and reasonably foreseeable actions. For public lands within the analysis area, reasonably foreseeable future actions are limited to actions that are scoped. For mineral development activities for uranium or other locatable minerals, actions that have been formally proposed through submittal of a plan of operations to BLM or FS for approval are also considered. For private lands within the analysis area, reasonably foreseeable future actions are the existing land uses such as ranching and residential, which are expected to continue in the future.

The analysis appears to comply, but is not fully documented and the rationale for the determination of impact and the degree or significance of impact is minimally discussed at best for some resources.

### **Instructions:**

- a) *Resource specialists need to ensure that the cumulative effects temporal and spatial bounds are clearly stated for each resource.*
- b) *Resource specialists need to ensure the effects write-ups include the rationale for the conclusion, as well as the context and intensity of the impact. Merely stating that one alternative would have less impact than another does not describe the context or intensity of the impact being discussed.*
- c) *Cumulative impact findings that include modifications to the POA due to data gathered from monitoring needs to include the triggers for the modifications and the desired outcome of those changes. Monitoring in and of itself does not change impacts, rather it is what we do with that information. That is what is needed in detail in the analysis. What modifications would occur to address issues that monitoring may show? What is the trigger to effect change?*
- d) *The data from surveys referenced needs to be in the project record, maps would be helpful if they are available.*

### **Objection 6: Failure to consider the La Sal Mines Complex operations and the White Mesa Mill operation as connected actions**

**You allege the agencies failed to consider the La Sal Complex operations as a connected action with the White Mesa Mill (p. 26 of objection letter).**

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#### **RESPONSE TO OBJECTION 6:**

Previous litigation pertaining to connected actions found: “When one of the projects might reasonably have been completed without the existence of the other, the two projects have independent utility and are not ‘connected’ for NEPA's purposes.” (Great Basin Mine Watch v. Hankins 456 F.3d 955).

While a portion of ore delivered to the mill would be from the La Sal Mines Complex, the White Mesa mill accepts ore from several sources and is not reliant on the mine for its operation (EA p. 4-13) and therefore the mill is considered to have independent utility and not be a connected action.

Connected actions including those occurring on FS, BLM, State and private lands as outlined in the Proposed Action (EA pp. 2-1 – 2-11) and the selected alternative, Alternative C (EA pp. 2-12 – 2-16) are considered in the analysis.

### **Instructions:**

- a) *The EA needs to define what a connected action is and better disclose the rationale for the cumulative effects associated with all actions, connected and not connected*

*(Federal and Non-Federal) in association with the La Sal Mine Complex POA prior to the issuance of a decision.*

## **Objection 7: Range of alternatives analyzed**

**You allege the USFS/BLM failed to fully review reasonable alternatives to the activities at the La Sal Complex, such as those involving a different extent and scope of review and approval:**

**You also allege that the agencies' decision to review and approve all three phases, and all of the projects contained in the La Sal Complex, precludes the agency and the public from taking the requisite hard look under NEPA (pp. 27-28 of objection letter).**

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### RESPONSE TO OBJECTION 7:

The purpose and need in this EA responds to Energy Fuels right to mine on Federal lands at the La Sal Mines Complex as set forth by the General Mining Law of 1872 as amended (EA 1-3) and in accordance with FS regulations at 36 CFR 228 Subpart A.

As cited in 36 CFR 220.7(b)(2) “the EA shall briefly describe the proposed action and alternative(s) that meet the need for action. No specific number of alternatives is required or prescribed.” Alternatives that were analyzed in detail (EA 2-1 through 2-20) meet the purpose and need (EA 1-3), and addresses one or more key issues related to the proposed action (EA 1-11 through 1-19).

The objectors suggested creating an Environmental Protection Alternative (EA 2-17 through 2-20). This alternative was considered but not analyzed in detail because the Responsible Official determined that portions of the proposed alternative were already incorporated into alternatives A and/or C while other components were already defined by current laws and regulations, as well as, agency regulatory jurisdictions and some components of the Environmental Protection Alternative were considered outside the scope of the EA.

As discussed in the response to comments, splitting the project into several smaller pieces would not accurately represent the project in its entirety and is not required by law, regulation, or policy.

A Plan of Operations Amendment (POA) for the La Sal Mines Complex was submitted to the Manti- La Sal National Forest in 2010. The POA proposed expansion of existing operations at the La Sal Mines Complex. An approved plan of operations is required to authorize this activity because it proposes locatable minerals development on National Forest System (NFS) Lands. With the submittal of the POA the Forest was required to conduct NEPA. The draft DN implements Alternative C, which requires specific modifications to the POA prior to approval. Once the required modifications have been made in the POA the deciding official will approve the POA and authorize expansion of the La Sal Mines Complex on NFS lands. Modifications are described in Attachments 1 and 2 of the draft DN and are part of the analysis in the EA. The requirements include,

among others, pre-construction assessments, resource surveys, modification of the reclamation plan, terms and conditions, and monitoring requirements. Since the POA addresses inherent and interconnected parts of the proposed mining process at the La Sal Mines Complex, it is appropriate to analyze these proposed activities together in this EA.

Additional modifications (design features) identified through the NEPA process and described in Attachment 1 of the draft Decision Notice, will provide for improved protection of the environment. These modifications will reduce effects to cultural resources, wildlife, vegetation and other surface resources of National Forest System Lands, and will facilitate effective reclamation of mining-related disturbance after the project is complete. Alternative C includes Terms and Conditions of Approval, which are described in Attachment 2. These terms and conditions of approval are based on best management practices for locatable minerals development on NFS lands.

The EA and draft DN are in compliance with applicable regulations that identified a reasonable range of alternatives to meet the stated project purpose and need (EA 2-1 through 2-20). Also included under “Decision and Reasons for the Decision” the DN thoroughly explains how implementation of Alternative C (Require modifications to the POA prior to approval) will fulfill the purpose and need for action.

The decision rationale concludes appropriately that the EA considered how each alternative addresses the stated purpose and need (EA 2-1 to 2-16), how each alternative responds to identified issues (EA 2-1 to 2-16), and how comments that were submitted during the 45-day comment period were considered (EA, Appendix D and DN p. 7).

The EA adequately displayed the Project’s effects to the key issues addressed in Chapter 4 of the EA, and as such, set forth the context and intensity of the effects needed to make an informed draft decision of the La Sal Complex Mine EA.

## Objection 8: Effectiveness of mitigation

**You allege the EA failed to conduct an adequate review of mitigation measures that fully analyzes the effectiveness of each proposed mitigation measure for all potentially affected resources (e.g., surface and ground water, air, land, wildlife, recreation, religious/cultural, etc.) as required by the NEPA (pp. 29-30, 50 of objection letter).**

**The EA’s brief listing of mitigation measures is not acceptable. The agency is required to fully analyze the impacts to each resource, fully analyze each mitigation measure, and fully analyze the effectiveness of each proposed mitigation measure for all potentially affected resources (e.g., surface and ground water, air, land, wildlife, recreation, religious/cultural, etc.).**

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### RESPONSE TO OBJECTION 8:

NEPA defines “mitigation” as a way to avoid the impact altogether, minimize impacts by limiting the degree or magnitude of the action; rectify by repair, rehabilitating, or restoring; reducing or eliminating the impact over time; or compensate for the impact by replacing or providing substitute resources or environment.40 C.F.R. §§1508.20(a)-(e).

Design features are not defined by NEPA, and are often used in this EA interchangeably with mitigation in environmental analysis.

A list of design features is listed in Appendix F (the EA mistakenly says the list is in Section 2.4.9) of the EA and in Attachment 1 of the DN and those features are discussed in more detail in Chapter 4.

Within the introduction to chapter 4, Environmental Effects it is stated that “Because all known mitigating measures have been included in the descriptions and design features of the alternatives, the environmental consequences described below are unavoidable” (EA pg. 4-1).

### **Instructions:**

- a) There appears to be confusion as to what design feature are and what mitigation measures are and how, or if, they relate to modifications. The Forest needs to clarify mitigation, modification, and design features throughout the analysis.*
- b) Insure the restrictions, mitigation, modifications, and design feature identified for specific resources are worded the same throughout the EA, Appendixes, DN, and Attachments.*
- c) Add discussion of effectiveness of mitigation measures.*
- d) Any measures which are not adequately supported regarding effectiveness must be monitored with a commitment to make changes to mitigate the impact if the initial mitigation is not successful. Monitoring is not a design feature, what you do with the information gathered during monitoring is adaptive management.*

## **Objection 9: Failure to minimize adverse impacts and protect public resources**

**You allege the USFS failed to minimize adverse impacts and protect public resources under the Organic Act, 228 Regulations, and the NFMA.**

**The Forest Service’s authority to regulate mining operations is governed by the Organic Administration Act of 1897 (“Organic Act”), 16 U.S.C. §551, among other laws, which authorizes the agency to promulgate rules and regulations for the national forests in order “to regulate their occupancy and use and to preserve the forests thereon from destruction . . . .” Additionally, the failure to fully review the baseline conditions and the deferral of mitigation and other analysis to the future violates the NFMA. (pp. 30-33 of objection letter).**

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### **RESPONSE TO OBJECTION 9:**

§228.8 Requirements for environmental protection. Under the Organic Act, and the 36 CFR Part 228 regulations, the agency cannot approve a mining PoO unless it can be demonstrated that all feasible measures have been taken to “minimize adverse impacts” on National Forest resources, including all measures used to protect wildlife and habitat.

The “operator shall take all practicable measures to maintain and protect fisheries and wildlife habitat.” 36 CFR 228.8(e).

All operations shall be conducted so as, where feasible, to minimize adverse environmental impacts on National Forest surface resources, including the following requirements:

**Organic Administration Act of 1897:** "No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States..."

The Draft Decision complies with the requirements under 36 CFR 228A to minimize effects to the environment as it discloses an action alternative designed to reduce impacts.

The POA was submitted under the authority of the 1872 Mining Law as amended. The FS derives the authority to regulate such activities from the 1897 Organic Act (16 USC 478, 551), the Multiple Use Mining Act of 1955 (30 USC 612), and Mining and Mineral Policy Act of 1970 as reissued in the 1990s.

The Organic Administration Act of 1897 provides for the continuing right of the public to conduct mining activities under the General Mining Law as long as the rules and regulations covering National Forests are complied with. The act recognizes that miners and prospectors have the legal right of access into National Forests to prospect, locate, and develop mineral resources. The Multiple Use Mining Act of 1955 provides additional authority for FS to restrict mining operations on National Forest System lands to only those uses that are reasonably incident to mining and in a manner that minimizes environmental impacts (see Forest Service Manual 2800 [FS 2007]).

I find that the Responsible Official complied with the 1897 Organic Act and the National Forest Management Act as described above by managing NFS lands in accordance with the Manti-La Sal National Forest Plan and associated amendments. Desired conditions associated with respect to locatable minerals are described in the EA (pp 1-4 through 1-5). In addition, the decision to require specific modifications to the La Sal Mines Complex POA prior to approval (Alternative C) is consistent with the intent of the forest plan's long term goals and objectives. The alternative was designed in conformance with land and resource management plan standards and incorporates appropriate land and resource management plan guidelines. Forest Plan consistency is discussed in Section 1.6.2 of the EA.

### **Instructions:**

- a) *Terms and conditions for operation approval need to be strongly worded so there is no misinterpretation by the operator or the Forest Service regarding the intent of the mitigation (pre-construction survey or assessment) to serve as an environmental protection measure. This then becomes a plan administration and compliance issue with the operator if not completed. Specify what specialist will conduct survey, specific time-frames, and procedures for documentation so that non-compliance can be tracked and reported, etc.*
- b) *It is unclear if this method of mitigation development meets the intent of 228.8 and Organic Act of 1897 since surveys and thus potential for impacts are deferred to a*

later date which could require a new plan of operation. This puts the onus on minerals administrators to ensure compliance and recommend a plan amendment if necessary. See 36 CFR 228.4(4(e)):

*“At any time during operations under an approved plan of operations, the authorized officer may ask the operator to furnish a proposed modification of the plan detailing the means of minimizing unforeseen significant disturbance of surface resources. If the operator does not furnish a proposed modification within a time deemed reasonable by the authorized officer, the authorized officer may recommend to his immediate superior that the operator be required to submit a proposed modification of the plan. The recommendation of the authorized officer shall be accompanied by a statement setting forth in detail the supporting facts and reasons for his recommendations. In acting upon such recommendation, the immediate superior of the authorized officer shall determine:*

*(1) Whether all reasonable measures were taken by the authorized officer to predict the environmental impacts of the proposed operations prior (emphasis added) to approving the operating plan,*

*(2) Whether the disturbance is or probably will become of such significance as to require modification of the operating plan in order to meet the requirements for environmental protection specified in §228.8 and*

*(3) Whether the disturbance can be minimized using reasonable means. Lacking such determination that unforeseen significant disturbance of surface resources is occurring or probable and that the disturbance can be minimized using reasonable means, no operator shall be required to submit a proposed modification of an approved plan of operations. Operations may continue in accordance with the approved plan until a modified plan is approved, unless the immediate superior of the authorized officer determines that the operations are unnecessarily or unreasonably causing irreparable injury, loss or damage to surface resources and advises the operator of those measures needed to avoid such damage”.*

c) *If the potential for impacts result in a new plan of operation (ergo, new NEPA may be required...see 36 CFR 228.4(f))*

*“Upon completion of an environmental analysis in connection with each proposed operating plan, the authorized officer will determine whether an environmental statement is required. Not every plan of operations, supplemental plan or modification will involve the preparation of an environmental statement. Environmental impacts will vary substantially depending on whether the nature of operations is prospecting, exploration, development, or processing, and on the scope of operations (such as size of operations, construction required, length of operations and equipment required), resulting in varying degrees of disturbance to vegetative resources, soil, water, air, or wildlife. The Forest Service will prepare any environmental statements that may be required”.*

## Objection 10: Deferral of Cultural Resource analysis

**You allege that the USFS/BLM deferral of the on-site cultural resources analysis to the future, long after the project is approved, violates the NHPA and the NEPA (pp. 33-35, 49 of objection letter).**

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### RESPONSE TO OBJECTION 10:

Initial consultation took place on March 10, 2011. BLM mailed a letter to 15 representatives of 8 tribes and pueblos, initiating consultation with appropriate, legally recognized Native American groups who used the region (EA pg. 3-7) (EA pg. 5-1 Consultation and Coordination section lists those contacted and responses). The EA discloses that additional consultation occurred with one tribe.

The analysis included a class I literature review which was conducted to identify the extent of previous cultural resource surveys and any known cultural resource sites present in the project area (EA p. 3-9). Alternative C requires preconstruction surveys and avoidance of any sites that are eligible for listing on the National Historical Register, and effects to cultural resources would be addressed through the Terms and Conditions (Draft Decision p. 12) and POA (Draft Decision p. 15).

36 CFR Section 800.8(c) of the NHPA Section 106 regulations allows "use of the NEPA process for Section 106 purposes." Under this subsection, an agency can use the NEPA process and the documents it produces "to comply with Section 106 in lieu of the procedures set forth in Secs. 800.3 through 800.6." This may be a way for an agency to streamline its overall environmental/historic preservation review process.

In other words, the agency must do the substantive things that the Section 106 regulations call for, but it doesn't have to follow precisely the same procedures it would if it were doing "standard" Section 106 review. It has the flexibility to do things in "phases," and the level of effort it puts forth is supposed to be similar to what it does for other kinds of environmental resources.

For the Forest to participate in a phased survey approach they would need to establish a detailed Programmatic Agreement between the FS and SHPO, plus the advisory council. I did not find such an agreement in the record. The BLM has a National Programmatic Agreement which they operate under however this agreement does not apply to the FS. Nor is it clearly defined in the analysis and decision what entails "avoidance" for each resource.

36 CFR800 subpart B allows for deferral of final identification and evaluation of historic properties if specifically provided for.

Subsection 800.8(c)(4) requires the agency to specify in its FONSI or ROD the measures it will take to mitigate adverse effects on historic properties. The agency must also "ensure that the approval of the undertaking is conditioned accordingly," and make "a binding commitment" to do so. Section 800.8(c)(4) goes on to say that "where the NEPA process results in a FONSI, the Agency Official must adopt such a binding commitment through a Memorandum of Agreement (MOA) drafted in accordance with Sec. 800.6(c)

and must be completed prior to the FONSI. I could not find the MOA in the project record.

Also the project record lacks documentation that FS consulted with SHPO. Table 5-1 in the EA pg. 5-1 documents a letter to SHPO from the BLM which does not satisfy FS regulations.

## Instructions

- a) *The FS needs to develop a detailed MOA and Programmatic Agreement between the FS and SHPO consistent with the requirements in 36 CFR800 subpart B. The agreement needs to be in place before the final decision is signed.*
- b) *Consultation between SHPO and the Forest must be completed prior to signing the decision. This SHPO consultation is independent of the BLM. Documentation needs to be added to the project record showing that the FS consulted with SHPO on this project.*
- c) *The record and decision must identify what is meant by “impacts will either be avoided or actions will be adjusted to become compliant with law, regulation, and policy” for each resource and how the impacts will be avoided or which actions would be adjusted to become compliant and how those actions will affect the resource or proposed action.*
- d) *36 CFR800 subpart B allows for deferral of final identification and evaluation of historic properties if specifically provided for. The FS needs to establish a detailed Programmatic Agreement between the FS, SHPO, and the Advisory Council on Historic Preservation, if they wish to participate. The agreement needs to be in place before the final decision is signed.*

## Objection 11: Violations of the Endangered Species Act (ESA)

**You allege the USFS and BLM failed to meet the substantive species and habitat protection provisions of the ESA by arbitrarily limiting the analysis of endangered species to those impacts that may occur within the borders of the project area, that by unreasonably limiting the geographic scope of analysis the agencies concealed the direct, indirect, and cumulative impacts on four endangered fish and the newly-listed Yellow-Billed Cuckoo, and that no consultation occurred because of the determination that all USFWS listed, candidate, and petitioned species for San Juan County, Utah, were unlikely to occur in the project area, and therefore the project would have no effect on those species (pp. 35-41 of objection letter).**

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### RESPONSE TO OBJECTION 11:

Since the biological assessment indicates that there are no listed species or critical habitat present that are likely to be adversely affected by the action then formal consultation is not required (50 CFR 402.12) however, the action Agency must be able to defend its determination.

The EA (p.4-1) correctly identifies that the geographical and temporal boundaries of the direct, indirect and cumulative effects analyses vary based on the type of effects and resource areas being evaluated. The geographical boundary of the direct effects analysis is limited to the proposed expansion areas.

However the EA incorrectly limits the geographical boundary of all the indirect effects to the areas encompassed by the proposed expansion phases. Rather, the indirect and cumulative effect analysis area should be extended to the limits of where the impact can no longer be meaningfully measured.

The BAE is deficient in defining proximity of designated critical habitat

The area of analysis for each species is not clearly defined.

If decisions about whether habitat to support a species was based solely on the SWReGAP landscape-scale state-wide data, a disclosure on the limitations of this analysis must include what that could mean to the determinations reached.

The USFWS species list used for this analysis is out of date (2011) and two species have been recently listed (2014). These are the Yellow-billed Cuckoo (Threatened) and the Gunnison's Sage Grouse (Threatened). The Gunnison's Sage-Grouse was identified on the TES Species Preliminary Assessment (Doc #235) as having historic habitat in the area.

### **Instructions:**

1. *The following deficiencies in the BAE must be addressed.*
  - a) *Listed species write-ups appear to have only considered direct effects of the activities due to construction of roads, ventilation shafts and exploration drilling, however potentially there are indirect effects such as disturbance as a result of ore transport or noise travel from ventilation fan operations, etc. that needed to be analyzed and the degree of impacts determined, including the rationale for the determination (Doc #501, p. 20-25). It is not clear if off-site actions resulting from the project (indirect impacts) will occur in or near any known designated critical habitat.*
  - b) *Claiming there is no TES impacts within the planning because there is no known species is not sufficient when critical habitat has been designated by the U.S. Fish and Wildlife Service (Doc #501, p. 20-25). For all species with designated critical habitat, a determination of effect must be made on the critical habitat as well as the species (50 CFR part 402).*
    - i. *Some species write-ups have no information to indicate where the nearest designated critical habitat resides or if any actions associated with this project may indirectly affect this habitat (Doc #501, p. 20-25).*
2. *Add any relevant TES species inventory or monitoring data to the BAE and project record to support the analysis.*
3. *Add any relevant TES habitat data to the BAE and record to support analysis.*

## Objection 12: Air Quality

**You allege the EA fails to fully review all air quality impacts from the Project. You also allege that the identification and analysis of potential air-borne emissions from the mining operation is a necessary component of a POA for US Forest System Lands as set forth by 36 CFR § 228 (pp. 41-44, 49 of objection letter).**

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### RESPONSE TO OBJECTION 12:

36 CFR 228.8 “All operations shall be conducted so as, where feasible, to minimize adverse environmental impacts on National Forest surface resources, including the following requirements.” This section of the regulation refers to operations and complying with laws, regulations and standards for eight resources including air quality. The regulations at 36 CFR 228.4(c)(1) through 36 CFR 228.4(c)(3) describe what is included in a Plan of Operations. The requirements for a Plan of Operations are different than requirements for an environmental analysis consistent with the NEPA.

Analysis in the EA (p. 4-12) found the potential direct, indirect, and cumulative effects on air quality from the La Sal Mines Complex are expected to be localized, with minimal effect on regional air quality. Potential cumulative effects of nearby uranium mining operations, the White Mesa Mill, and reasonably foreseeable development were addressed to estimate if there is a potential for cumulative effects.

The DN (p. 8-9) discloses the impacts to air quality are not significant. On page 11 of the DN is the disclosure that the decision is consistent with the Clean Air Act and that the La Sal Mines Complex is subject to the requirements of the federal Clean Air Act as amended, which is administered in the state of Utah by the Utah Department of Environmental Quality (UDEQ).

The EA describes the Air Quality issue on pages 1-12 – 1-13, including 8 concerns (or sub-issues) and two measurement indicators to assess effects. The EA also discloses that the air quality concerns primarily relate to dust emissions from the mine. On page 2-13 the EA describes a design feature of Alternative C that reduces the potential for violation of the National Emission Standards for Hazardous Air Pollutants (NESHAP) at new vent shafts, which would be authorized if Alternative C is selected. Table 2-4, page 2-22 of the EA, compares impacts of the alternatives to Air Quality based on the measurement indicators. The affected environment, including regulatory requirements associated with Clean Air act, air quality existing condition, and existing air quality permits, is described in the EA on pages 3-1 to 3-6.

The record demonstrates adequate consideration of the issue.

## Objection 13: Analysis of water sources in the D-aquifer and drilling

**You allege the EA fails to give a realistic evaluation of the impacts to the water sources in the D-aquifer and does not discuss the extra drill holes and dewatering that would have to occur for vent and exploration drill holes in the**

area west of the Beaver Shaft on private land, where drilling would intersect the D-aquifer (p. 44 of objection letter).

You also allege that since neither BLM nor the FS have regulatory jurisdiction for vent shafts on private lands, and the agencies cannot enforce the additional design feature of Alternative C for reclamation of vents on private lands the EA must review the potential that these “voluntary” measures would not occur.

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RESPONSE TO OBJECTION 13:

The objector claims that an unspecified number of multiple wells would have to be drilled around each mineral exploration borehole to “dewater the area”. The failure of the EA to consider these additional dewatering wells in the effects analyses renders it deficient and there is no mention of dewatering wells in the POA.

The objector is correct that there is no mention of dewater wells in the POA. The data indicates that wells in the D aquifer near La Sal would be expected to have moderately low yields and dewatering is not required or necessary for boreholes through the D aquifer. Water wells can be drilled into artesian aquifers which ultimately yield more than 500 gal/min without surrounding dewatering wells.

The objector’s claim that dewatering wells would be needed for mineral exploration boreholes is not supported by any regional or local information on the characteristics of the D aquifer or by well drilling practices.

It is unclear in the EA whether the analysis assumed that the modifications to Alternative C which were designed to be more protective of the D aquifer would be applied to all vents or just to those on federal lands.

**Instructions:**

- a) *Clearly show if the modifications to alternative C where applied to private lands or not. If not, included another analysis which discussed the potential impacts of no modifications on private land.*
- b) *EA p. 2-12 states: Alternative C would require Energy Fuels to implement **engineering mitigations** to reduce the potential for interaction of development rock with the D aquifer for all vent and production shafts located on lands under the jurisdiction of BLM and FS. Either reference where the engineering mitigations can be found or list them here.*

## Objection 14: Consideration of operator performance during short-term shut-down of operations

**You allege that there is no evidence in the record that the mine operator has taken the actions fulfilling the interim management plan actions for short-term shutdown of the mine if economic conditions change (p. 44 of objection letter).**

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### RESPONSE TO OBJECTION 14:

The directions for the stipulation of an interim management plan that establishes requirements for short-term shutdown of the mine can be found in the proposed POA which addresses a plan for mine closure including an Interim Management Plan (Appendix E section 7 pp. 7-1 thru 7-3), and in the EA section 2.2.3.4 (pp. 2-11 and 12).

The interim management plan addresses requirements of 43 CFR §3809.401, Section (b) (5) and 36 CFR 228 Subpart A §228.10 (EA p. 2-11). This section includes shutdown for periods when the mine must shut down temporarily as a result of fluctuations in uranium/vanadium prices or other factors.

Past actions of the mine to fulfill interim shutdown procedures are compliance/minerals administration issues and were addressed in the EA (p. 3-32).

## Objection 15: Assurance of timely revegetation

**You allege there is no evidence in the EA to support the assertion that 70% of the cover can be restored in 3-5 years in areas where there are Ponderosa pines, Gambel oaks, and piñon pine trees, with some grass understory (p. 44 of objection letter).**

**You also allege there is a lack of baseline, pre-disturbance conditions (including current vegetation) and an assessment of the effectiveness of proposed mitigation (including revegetation) where the agency intends to rely on a standard that requires 70% revegetation of the pre-disturbance conditions (p. 51 of objection letter).**

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### RESPONSE TO OBJECTION 15:

Alternative A under, Post-reclamation Vegetation Monitoring states: *“Upon the completion of all reclamation activities, revegetation success would be measured in accordance with UAC Rule R647-4-111, such that **revegetation** [emphasis added] has achieved 70 percent of the original or adjacent cover”*. (EA p. 2-10)

This is a misinterpretation of the UAC Rule R647-4-111. The rule states under 13.11. *“The revegetation has achieved 70 percent of the **premining vegetative ground cover** [emphasis added]. If the premining vegetative ground cover is unknown, the ground*

*cover of an adjacent undisturbed area that is representative of the premining ground cover will be used as a standard”.*

Therefore ground cover is the determining factor not vegetative species present.

The Draft Decision Notice agrees with the objector in that 70% of the cover cannot be restored in 3-5 years in areas where there are Ponderosa pine, Gambel oaks, and piñon pine trees.

*“At that time, those disturbed areas will begin to regenerate a self-sustaining vegetative cover that meets Forest Plan land use goals for the area. During the initial years after reclamation, the reclaimed vegetation will be at earlier seral stages than adjacent areas of pinion juniper forest, which will provide for diversity in habitat types in the area. Over a period of years to decades after reclamation, these areas will naturally regenerate into seral stages that are similar to the existing vegetation in the area.”* (Draft Decision Notice p. 8)

The affected environment section of the EA provides GAP data to delineate broad vegetative cover types across the analysis area and cover types are mapped (EA Figures 3-5 and 3-6). Associated vegetation cover type descriptions taken from the SWREGAP are described and listed on pp 3-41 thru 3-45. Appendix J of the POA contains ground cover data from a vegetation survey conducted at the La Sal Mine complex in 2009.

The EA requires pre construction vegetative surveys to define baseline vegetative cover to monitor reclamation activities, and measure compliance with the proposed reclamation performance (EA pp. 2-15, 4-69, 4-70, 4-72, 4-52). The EA (pp. 2-10 and 2-15) also requires monitoring following revegetation:

EA (p. 2-10) states: Results of bi-annual assessments of reclamation progress would be reported to the agencies on an annual basis.

EA (p. 2-15): states Revegetation test plots would evaluate performance of soil, seed mixtures, and soil amendments in meeting the reclamation performance criteria.

The EA adequately addresses baseline data and pre disturbed conditions with direction to collect this data prior to ground disturbing activities.

Acceptable levels of revegetation are addressed with the 70% limit but throughout the EA it is referred to as vegetative cover rather than ground cover as specified in UAC Rule R647-4-111, 13.11

### **Instructions:**

- a) *Correct the EA where it refers to “70% vegetative cover” to say “70% ground cover”. It would be useful to define that vegetative cover as basal or canopy cover. EA pp.2-10, 4-51, 4-66, 4-70, 4-72.*

### **Objection 16: Ventilation Shaft Reclamation**

**You allege the EA does not identify the existing ventilation shafts on BLM or USFS land that are not lined, or inadequately lined (p. 44 of objection letter).**

**You also allege that there is no basis for the assumption in EA Section 4.8.2.2 that the ventilation shafts would be plugged and reclaimed as the mine expands in future development and before the final closure of the Mine Complex (p. 46 of objection letter).**

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RESPONSE TO OBJECTION 16:

Section 2.4.1 in the EA describes the difference between Alternative A and Alternative C for vent shaft reclamation. Alternative A would allow the use of mined development rock in plugging vents but Alternative C would not allow it for vents in the D aquifer. Alternative C was selected in the Draft Decision Notice. Development rock is waste, not ore, but it could include small concentrations of uranium-, vanadium-, selenium-, or arsenic-bearing minerals. During construction, shafts that penetrate aquifers would be lined and sealed to mitigate potential leakage of groundwater into the underground mine (EA p. 2-12). The term “lined” in the EA refers to the casing to be used in new vent construction (POA, p. 7).

Atlas Minerals’ 1981 Plan of Operations for the Pandora Mine states that six “bore holes” provide ventilation for the mine but the construction of these and new vent shafts is not described. The Reclamation section and Stipulations in that plan state that such bore holes will be filled to prevent accidental or unauthorized entry. Although it is likely that existing vents were also cased, the conservative assumption would be that none of the 26 existing vent shafts shown in Figure 1-2 of the POA are cased.

Minor leakage of water from vent shafts into the mine workings was identified in the EA (p. 4-24). The Salt Wash Member of the Morrison Formation does not crop on hills to the north and consequently does not receive recharge from precipitation (EA, Fig. 3-1). Small outcrops of the Brushy Basin Member, which overlies the Salt Wash Member, do occur in the potential recharge area but they are relatively impermeable mudstone. Consequently, no recharge reaches the Salt Wash Member in the mine area and the mines are dry (CDM, 2009, Final Hydrogeologic Evaluation of the Denison Mines (USA) Corp. La Sal Mine Complex, San Juan County, Utah, p. 2-2 to 2-4).

Any water which leaks into the mine from vent shafts is likely from local, perched, water-bearing zones in the Burro Canyon Formation, which outcrops extensively north and east of the mine area. The magnitude of the leakage is not sufficient to significantly lower the water table in the source(s). The sandstone lithology of the Burro Canyon Formation and proximity to the recharge area suggest water leaking into the mine is of good quality. This is confirmed by two samples of leakage water, which have pHs of 8.45 and 8.04 and total dissolved solids concentrations of 300 mg/L and 400 mg/L. Water leaking into the mine mostly evaporates (CDM, 2009, Final Hydrogeologic Evaluation of the Denison Mines (USA) Corp. La Sal Mine Complex, San Juan County, Utah, p. 2-2). Any water percolating downward away from the mine workings could cause a slight improvement in water quality in aquifers in the lower Salt Wash Member or below. Consequently, leakage of water down vent shafts currently has no significant impacts on water quantity (or potentiometric head) or water quality.

As for the specific objection that there is no basis for the assumption in EA Section 4.8.2.2 that the ventilation shafts would be plugged and reclaimed as the mine expands in future development and before the final closure of the Mine Complex the DN and EA state the following:

DN; p. 23; 3.2 General Terms and Conditions Applicable to Exploration Drilling and Ventilation shaft Installation, Operation and Reclamation.

8. The operator shall provide a ventilation shaft plugging plan for BLM or FS approval (as appropriate based on land status) for all shafts that intersect the D-aquifer on BLM or FS lands. This plan shall be submitted for agency approval at least 6-months prior to ventilation shaft reclamation.

EA (p. 1-3, 2-8, 4-40, and 4-46) address that the -ventilation shafts would be reclaimed after mining ceases at the La Sal Mines Complex, by backfilling the shafts and sealing the surface openings.

EA; p. 3-3; Reclamation section - Concurrent reclamation is reclamation that can be conducted concurrently with active mining. Examples of concurrent reclamation that have been completed to date include reclamation of ventilation shafts that are no longer necessary to support the La Sal Mines Complex, and reclamation of exploration drilling sites. Concurrent reclamation is generally conducted where feasible and practicable; however, much of the mine-related disturbance is related to infrastructure that is required to support the mine. These areas cannot be reclaimed until mining is completed.

Section 4.8.2.2 refers only to Alternative B so it is assumed that the objector meant to cite section 4.8.2 regarding the cumulative effects of noise caused by vent shafts. The conclusion in the EA that the project would have no cumulative noise impact (p. 4-34) is not dependent on the operator reclaiming a specific number of existing vents as new vents are constructed. In fact, whether the vents are reclaimed or not is irrelevant for noise. What counts is whether they continue to operate. As explained for direct and indirect effects of new vent shafts (EA, p. 4-33), noise is attenuated with distance from the receptor. Shutting down the fan in an existing vent may or may not cause a perceptible change in noise at the receptor, depending on distance.

Timing of vent shaft reclamation is described in the EA. EA (p. 4-50), section 3.3.9 Reclamation - Reclamation of ventilation shafts and associated access roads would be conducted concurrently as practicable based on the progression of underground mining areas. However, most ventilation shafts and associated disturbance would be reclaimed after mining ceases. This is currently anticipated to be approximately 2034.

The Terms and Conditions appendix in the DN states that a reclamation plan needs to be submitted for agency approval at least 6-months prior to ventilation shaft reclamation

The EA adequately addresses the plugging of ventilation shafts.

### **Instructions:**

- a) *Revise Terms and Conditions Applicable to Exploration Drilling and Ventilation shaft Installation, Operation and Reclamation #8 to include a timing requirement – State what reclamation will occur concurrently where feasible and practicable?*

## Objection 17: Permit requirements

**You allege that the EA fails to identify the approvals required by the DAQ for construction and operation of the vents (p. 44 of objection letter).**

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### RESPONSE TO OBJECTION 17:

All required permits and approvals have either been obtained or are in progress. Additional information on these permits or approvals is included in the POA (Appendix E section 4, EA p. 1.9)

Table 1-1 on page 1-9 of the EA lists all the relevant permits or approvals required for the proposed actions including those for air quality.

Page 4-12 addressed air emission for the operations of the White Mesa Mill and that those emissions are regulated by USAQ through an existing permit issued on 2011. .

The project file includes copies of permit DAQE-AN0141510003-12 (document #285) and DAQE-AN0112050018-11 (document #411).

EA (p.3-5) states that the EPA has delegated authority to UDEQ to administer the air permit program for industrial emission sources in Utah. The La Sal Mines Complex is subject to the requirements set forth in UAC Rule R307, "Environmental Quality, Air Quality".

EA (p. 3-5) states; Emissions from regulated sources in Utah are managed through air quality permits that are issued by UDEQ. These air quality permits are referred to as "Approval Orders" under the UDEQ regulations. . Energy Fuels is currently permitted to produce a maximum of 312,000 tons of ore per year from the mines based on an air quality permit issued by UDEQ, AO DAQE-AN0141510003-12. Activities associated with existing mining operations that produce air emissions include underground mining operations, ore and rock handling and storage, diesel generator and air compressor operations, and ore transport.

The EA does disclose that all necessary air quality permits will be obtained prior to implementation of this project.

## Objection 18: Water Rights and Groundwater

**You allege that Table 1-1 in the EA does not include water rights approvals for water that is used in the mining processes (p. 44 of objection letter).**

**You also allege that the EA fails to analyze impacts to groundwater resources on private and state lands, analyze water quantity requirements, impacts to the aquifer from withdrawal, provide the pertinent water rights for the operation of the La Sal Mines Complex, and fails to determine if sufficient water for the operation of the La Sal Mines Complex is owned by Energy Fuels (pp. 45, 50-51, 53 of objection letter).**

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### RESPONSE TO OBJECTION 18:

The EA (p. 1-7), Section 1.7.4 – State Laws; Utah Administrative Code Title 73; Provides for administration of water rights in the state of Utah by the Division of Water Rights

36 CFR 228A does not apply to impacts to authorizations and allocations outside of FS agency authority such as water rights.

The Utah Legislature and Utah State Engineer provide for the appropriation and allocation of water within the state of Utah. While brief in its statement, the Forest Service did disclose the information pertaining to the State of Utah’s administration of water rights on page 1-7 of the EA, including water rights approvals in Table 1-1 which does not change the designated authority regarding the administration of this resource or give the FS authority to change water right allocations or procedures. The opportunity exists during project scoping to make the State of Utah or State Engineer aware of project details. It is then up to the State Engineer to identify concerns pertaining to water rights and allocations however reviewing the impacts to authorizations and ownership (water rights) is beyond the scope of this proposal.

All water wells installed at the mines would be permanently abandoned by a licensed driller in accordance with UAC Rule R655-4-12. (EA p. 2-8)

The Hydrologic Evaluation Report (#124) (p. 2.2) Pandora Mine Water is currently pumped into the active areas of the mine from the surface to provide water for use in drilling operations and dust control. The current source of the water used at the Pandora Mine is a well located at the Redd Ranch, which is hauled to the mine.

Aquifer impacts were analyzed and with the limited amount of water use proposed it is unlikely that this water withdrawal would affect area springs or flow in the Dolores or Colorado Rivers. (BAE p.11) Approximately 2,000 to 4,000 gallons of water would be required during the drilling process for each proposed vent hole. Additional water would be required for exploration drilling, dust control, and other mining operations.

### Instructions:

- a) *It is presumed that additional quantities of water would be required for exploration drilling, dust control, and other mining operations. The descriptions of the*

*proposed action do not appear to be consistent across the project record therefore the conclusions drawn with regard to impacts are problematic.*

- b) *While the use of the plan of operation form (FS-2800-5) is optional, the proponent should supply information pertaining to water usage, volumes required for operations, sources, etc. Water usage should be disclosed and if appropriate analyzed as a connected action (if water is being hauled to the mine site) and a cumulative effect. See : 40 CFR § 1508.25 Scope.*

## Objection 19: Noise Management and Analysis

**You allege the EA does not give a credible description of the noise impacts from vents to wildlife and people that would not be mitigated (pp. 44-45 of objection letter).**

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### RESPONSE TO OBJECTION 19:

The potential noise caused by ventilation fans is identified in the EA section 1.10.9 as an issue to be addressed. The expected sound level, measured in decibels, is the indicator identified to be used in determining the effects. In the affected environment, noise concerns were identified on various receptors. Receptors are the humans in the area that are able to perceive the noise from the ventilation fans at their homes and the potential to affect wildlife.

Management of noise from the vents was addressed in the DN (p.16) and the EA (pp 2-16 and 2-23). For Alternative C, installation of ventilation fans underground in all new ventilation shafts on lands under the jurisdiction of BLM or FS would be required, unless installation underground is not feasible because of health and safety concerns. This would place the new ventilation fans on BLM or NFS lands approximately 800 to 1,000 ft. below the surface to mitigate noise concerns associated with surface ventilation fans. In addition, where existing fans present a localized noise concern to La Sal residents, Energy Fuels would utilize available engineered methods to reduce noise including: installation of sound barriers to direct noise away from receptors, extended risers on fans to dissipate noise, and baffles in cases where such modifications to existing fans are available.

The noise level is compared between alternatives, with Alternative C emitting approximately 80 dB at new ventilation shafts and Alternative A emitting approximately 90 dB. The relative difference of 10 decibels would relate to a perception of new vent fans being approximately twice as loud under Alternative A as compared to Alternative C (EA p. 2-27)

Noise is discussed in detail in the EA section 3.3.7 pp. 3-20 thru 3-27: Temporary habitat quality reduction would result from noise during active construction and drilling, including increased noise from ventilation fans, truck-mounted drilling rigs, bulldozers and other construction vehicles, transportation vehicles, and construction workers. Ventilation fans would remain a constant source of noise. Increased noise may have an impact on all wildlife within the project area. Wildlife may become habituated to noise

over time. However, tolerance of noise is not equal to absence of impact. Disturbance from noise may result in behavioral or distributional changes; displacement of sensitive individuals; or declining foraging success and, therefore, poor body condition or nest abandonment (Romin and Muck 2002). (EA p. 4-75) Based on this information, under Alternative A, ventilation fan noise would have a local impact on birds, including migratory songbirds and potentially northern goshawks. Depending on the noise sensitivity of the particular bird species, birds would likely avoid nesting near the fans, moving into adjacent habitat with lower noise levels. (EA p. 4-76)

The Decision Notice (p. 9) discusses noise under public health and safety and that the BAE determined that since no T&E species occur in the project area it is unlikely that the project would affect T&E species (DN p. 10).

As discussed in Section 4.8, noise levels from new underground fans in Alternative C would be more than 10 dB lower at a given distance to nearby receptors as compared to surface ventilation fans in Alternative A. This reduction in average noise levels would be recognized by humans as a noise level that is about half as loud as the surface fans. Similarly, average noise levels affecting wildlife would be lower under Alternative C as compared to Alternative A.

### **Instructions:**

- a) *Provide an analysis of noise for wildlife species which includes what if any mitigation measures will be utilized to minimize impacts.*
- b) *The analysis of effects to humans needs to include a conclusion – the context and intensity of the effect, and a rationale for that conclusion.*
- c) *As the habitat for TES species is reexamined as instructed in Objection Issue 11, and geographic areas of analysis are clarified as instructed in Objection issue 5, reevaluate the potential impacts of noise.*

### **Objection 20: Radiation dosage analysis**

**You allege that Table 2-4 in the EA fails to disclose the millirems per year dose level in order to compare with the existing dose standard (p. 45 of objection letter).**

**You allege that the agency failed to obtain the data necessary to disclose the predicted radon emissions and radon impacts to nearby receptors or, where the data is missing, explain why collection of that data is not possible, or how the costs to do so would be exorbitant.**

**You allege that the EA does not disclose a scientific basis, including supporting documentation, to support the use of the radon emissions model (Aermod) (p. 52 of objection letter).**

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RESPONSE TO OBJECTION 20:

The objector appears to be confused between the occupational exposure limit for workers at the mine and the radon exposure limit for members of the public. The radiation levels they quote are at DRAs and are not the levels for the nearest receptors (the public). The occupational exposure limit is 5,000 mrem/yr (EA page 4-41) and the radon exposure limit for the public is 10 mrem/yr above background (EA page 4-36). The information is available in the EA showing how these standards are met. Table 3-11 shows the modeled radon concentrations and receptor locations in the La Sal area modeled using COMPLY-R and AERMOD by SENES Consultants Limited (Energy Fuels 2013a and EA p. 3-33)

The EA (p. 4-43) states that the public would likewise not incur increased health risk from radionuclides in other air particulate emissions. Exposure of residents and the public to particulates, and the associated health risks, are expected to be immeasurably low and indistinguishable from natural environmental conditions. Very conservative estimates of particulate emissions from vents result in a dose to receptors of less than 0.1 mrem/yr, or a small fraction of the dose from natural environmental conditions. From a practical standpoint, this dose would be indistinguishable from local natural environmental conditions. And that radon discharge from ventilation shafts is closely monitored to mitigate risks to potential surface receptors.

The model COMPLY-R (EPA 1989) is a computer model that is approved by EPA for modeling of radon-222 emissions and evaluation of compliance within NESHAP regulations (40 CFR 61 Subpart B). EPA may also accept other modeling programs to evaluate compliance with the radon-222 emissions standard.

Supporting documentation for the use of the AERMOD model can be found in the project record. The use of the AERMOD model is governed by the AERMOD Implementation Guide which was developed through the collaborative efforts of EPA OAQPS, EPA Regional Office, State and local agency dispersion modelers, through the activities of the AERMOD Implementation Workgroup. (#079 AERMOD Implementation Guide 2009 p. 1) The recommendations contained within this document represent the current best use practices as determined by EPA, through the implementation of AIWG. (#079 p. 2)

The analysis for radon dosages has been completed, however radiation is a complex issue, and I do not think the sections in this EA are presented in a way that the general public will readily understand.

### **Instructions:**

- a) *Add information to the EA which supports the use of the AERMOD model and refers to the AERMOD Implementation Guide.*
- b) *Update Table 3-11 EA p. 33 – 3 to show 2013 monitoring to show compliance with 40 CFR 61 subpart B.*
- c) *Reorganize the radiation sections in Chapters 3 and 4 for clarity and consistency – i.e. - Consider doing everything in millirems.*

### **Objection 21: Radon emissions**

**You allege that the EA does not disclose requirements to monitor radon and other radionuclides at receptor locations, monitor radon in homes or work sites in the**

**vicinity of the La Sal Mines, or of the proximity of the La Sal Elementary School to the Beaver Shaft and surrounding radon vents (pp. 45-46 of objection letter)**

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RESPONSE TO OBJECTION 21:

The pre-construction radon assessment would demonstrate that emissions from the ventilation shaft would be in compliance with the requirements of 40 CFR 61 Subpart B. If preconstruction radon modeling does not demonstrate that the vent hole would be expected to comply with the regulation, design modifications would be implemented to comply with the regulation, or the ventilation shaft would not be constructed. After construction, monitoring of radon emissions would be conducted in accordance with 40 CFR 61, Subpart B or other EPA or UDEQ-approved methods for the life of the ventilation shafts. (EA p. 2-13)

The 2013 annual monitoring report (Annual Report for the La Sal Mines Complex under Code of Federal Regulations (CFR) 40 Part 61, Subpart B – National Emissions Standards for Hazardous Air Pollutants, March 27, 2014) shows that the annual estimated exposure for local receptors are all below 10 mrem/yr as determined with the COMPLY-R model. The operator is also in compliance with EPA modeling methodology.

Additional radiation due to radon at the La Sal Elementary School is 1.2 mrem/yr based on the COMPLY-R model or 1.2mrem/yr based on the AERMOD model, this is well within the EPA limit (Table 1 of the 2013 annual report), and is based on a total of all radon sources.

**Instructions:**

- a) *Update the EA using the 2013 annual report for the La Sal Mines Complex.*

**Objection 22: Worker health and safety (radon)**

**You allege the EA determined that there are high doses from the ore piles and waste rock piles, fails to mention several citations associated with exposure to radon during the operation of the Pandora Mine and La Sal Complex (Beaver Shaft and La Sal), fails to acknowledge above ground worker activity, and fails to determine if protective gear is required.**

**You allege the EA, for Radon and Cancer Risk, confuses the dose from all sources with the dose from radon gas and radioactive particulates that are inhaled and that there is no baseline health data (pp. 45-47 of objection letter).**

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RESPONSE TO OBJECTION 22:

The EA states correctly that impacts to workers and the environment are regulated by MSHA, the State of Utah, and EPA, and there is a discussion of the occupational exposure limit and exposures in the mine area with the highest radiation levels. The EA presents an example of a worker working near the ore stockpile fulltime and that the gamma radiation emitted from the La Sal Mines Complex surface facilities would not

occur at levels that cause an effective dose to miners from gamma radiation to exceed the 5,000 mrem/yr occupational limit (SENES 2011). (EA p. 4-41)

The EA (p. 4-36) shows that Potential effects to humans are addressed by the NESHAP regulation in terms of an annual equivalent dose. The annual equivalent dose is expressed with units of millirem per year and that because radon emissions from the mine vents would comply with the 10 mrem/yr standard, which is protective of individuals who are assumed to be present full time 365 days per year, it is also protective of members of the recreating public who are present for shorter periods of time (SENES 2011).

The analysis for Radon and cancer risk clearly shows that the NESHAPs standard for radon, which allows a maximum dose of 10 mrem/yr to any member of the public, is no more than about 1/30 of the dose that an individual would receive from natural environmental conditions and as discussed in Section 3.3.8. Radon exposure to La Sal residents from mining activities under Alternatives A and C would be less than the 10 mrem/yr standard, which is designed to be protective of public health. (EA p. 4-43) because of these low levels protective gear would not be required.

### **Objection 23: Data reliability**

**You allege that SENES is not an independent source of data and information (p. 47 of objection letter).**

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#### **RESPONSE TO OBJECTION 23:**

SENES Consultants, an ARCADIS company, is a Canadian-based environmental consulting firm. The firm provides environmental services for industrial, commercial, governmental, and public interest groups on a broad spectrum of projects.

They have successfully completed over 5000 local and worldwide projects of environmental service areas since 1980. Across these service areas, they have been involved in policy development and review, technical assessments, delivery of specialized and expert advice interpreting government regulations, peer reviews, and all levels of project management and implementation.

SENES undertakes projects for a wide variety of clients including governments, non-governmental organizations (local, regional, national and international; community groups, and environmental interest groups), aboriginal communities, industry associations and task forces.

In March 2013, SENES Consultants was acquired by ARCADIS to form ARCADIS SENES Canada Inc. ARCADIS is an international company, based in the Netherlands which provides consultancy, design, engineering and management services in the fields of infrastructure, water, environment and buildings.

A Memorandum of Understanding between the USDI, Bureau of Land Management, Moab Field Office; Denison Mines Corp.; and the USDA Forest Service, Manti-La Sal National Forest was signed in September, 2010. The purpose of the MOU is to identify and articulate the working arrangement between the Proponent (Denison

Mines) and The Agencies (BLM and USFS). The Agencies agreed that BLM serves in the capacity of "Lead" agency and the Forest Service serves in the capacity of "Cooperating Agency" in the preparation of the EA. Additional sections of the MOU described the nature and involvement of each of the parties in the preparation of the EA. A third party contractor (Consultant), acceptable to The Agencies, was hired by the Proponent. The Consultant is under the direction and oversight of The Agencies. (Document #290 in the project record)

In addition a Conflict of Interest Disclosure Statement was signed in October, 2010. The Consultant affirms that it does not have any financial or other interest in the outcome of the project, in accordance with the Council on Environmental Quality Regulation 40 CFR 1506.5(c) (1999). (Document #179 in the project record).

The Agencies responsibilities included:

- Making the final determination of the inclusion or deletion of material from the analyses on issues affecting proposed activities on NFS lands.
- Making its own independent evaluation of the information submitted by the Consultant, subcontractors, the Proponent, or others, and have responsibility for its accuracy (40 CFR 1506.5(b)).
- Convening an ID Team to oversee the analyses. The ID Team functioned principally as a review team, providing input and technical guidance on the adequacy of existing data and studies.

## **Objection 24: Radiological analysis (NRC dose standard)**

**You allege the EA ignores the EPA radiological criteria for the release of uranium mill property for unrestricted use and failed to define "deleterious" material in terms of radiological content of that material (p. 47 of objection letter).**

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### RESPONSE TO OBJECTION 24:

Storage of development rock could potentially cause effects to drinking water in the La Sal area if deleterious leachate were generated at the DRAs, and this leachate infiltrated into groundwater. The potential for development rock to generate deleterious leachate is addressed in Section 4.4. As discussed in that section, the risk of generation of deleterious leachate from DRAs is low. Accordingly, the associated risk to drinking water resources resulting from leachate generation and subsequent infiltration to groundwater is also low. (EA p. 4-23)

As you point out the EA (p. 4- 41) states that the NRC dose standard for decommissioned uranium milling facilities is set forth at 10 CFR 20 Subpart D §20.1402 – *Radiological Criteria for Unrestricted Use*. The state of Utah has adopted the same criterion for decommissioned uranium milling facilities in UAC Rule R313-15-402. These regulations require a public dose standard of 25 mrem/yr for unrestricted use of decommissioned uranium milling sites. The EA also goes on to state as you did that the EPA (1997)

recommended a more-stringent guideline for protection of the public of 15 mrem/yr. and that this EPA guidance value was applied during reclamation of abandoned uranium mines in the area conducted in accordance with CERCLA such as the King Edward Mine (FS 2005). What you apparently missed was the following sentence which adopts this practice as a requirement for reclamation of the La Sal Mines Complex (EA p. 4-41).

### **Objection 24: Health and safety (public access)**

**You allege the EA fails to address public access to ore piles, development rock areas and loading operations during operations and after reclamation, that piles will not be fenced, and the impact of removing the gate restricting access to the Pandora waste rock pile (p. 47 of objection letter).**

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#### RESPONSE TO OBJECTION 25:

The EA does restrict public access to ore piles: ore piles, development rock areas and loading operations would be located in controlled areas of the site with limited public access. During operations, the public would have no access to ore piles or to dust generating equipment or activities. After cessation of operation, ore would be removed from the site, development rock would be returned to the mine or development rock piles would be covered in accordance with the reclamation plan, and dust generating activities would cease. As a result, long-term potential dust exposure and health risk would be low. (EA p. 4-41)

The proposed Terms and Conditions of Approval for Alternative C would provide for BLM and/or the FS to require Energy Fuels to construct gates to restrict public access onto the exploration drilling and vent hole access roads. (EA p. 4-15)

#### **Instructions:**

- a) *Clearly state in the alternative description what steps would be taken to restrict public access to ore piles as stated above. If the areas are not fenced but should be, require the operator to fence these areas in the POA.*

### **Objection 26: Health and Safety (Radiation)**

**You allege the EA references a 2013, gamma survey, and then fails to cite it or put it in the record. The EA puts the gamma levels in terms that are not measured so that they can be compared to existing radium activity standards for cleanup of radium in soils (40 C.F.R. §192.33(b)(2)) or the Subpart B dose standard.**

**The EA does not differentiate between the portals (Pandora, Beaver Shaft, La Sal, and Snowball) and the ventilation shafts. This is confusing, because the observations could have been at the portals, vent shafts, or both. The section says that “gamma radiation was observed within approximately 15 to 33 ft from the portal areas,” then says that “data suggest that there may be a slight increase in radionuclides near the vent shafts.”**

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RESPONSE TO OBJECTION 26:

The objector is correct; the reference 2013 gamma survey was neither cited nor found in the record. The data suggest that there may be a slight increase in radionuclides near the vent shafts, but that concentrations of radionuclides and metals in the soil do not pose a human health or ecological risk. (EA p. 4-45)

The EA does not convert the exposure of 44 microrem/hr to an annual exposure rate, but it is easily done. It is less than 10% of the exposure rate for an ore pile (see Issue 22), and is below the occupational exposure limit.

The EA appears to use the terms portal and ventilation shafts interchangeable in section 4.9.

**Instructions:**

- a) *Cite the 2013 gamma survey information and include it in the record.*
- b) *Update the EA to make all exposure rates and measurement units consistent.*
- c) *Review the EA and ensure that the terms portals and ventilation shafts are used correctly.*

**Objection 27: Socioeconomics**

**You allege the EA fails to mention the adverse effects associated with the uranium boom and bust economy, fails to disclose what happened to the workers who lost their jobs when the mines closed in 2012, fails to disclose the impacts of workers in San Juan County losing their jobs at 3 uranium mines in 2012, and the impact of placing of the White Mesa Mill on standby at the end of 2014.**

**You also allege there is no data on the fluctuation of the number of mine workers, on how many miners left their jobs to find work elsewhere during and after mine operation, or the impacts on the workers who lost their jobs (p. 48 of objection letter).**

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RESPONSE TO OBJECTION 27:

The Socioeconomic issue and measurement indicators are described on page 1-17 of the EA. Table 2-4, page 2-25 of the EA, discloses the impacts for the three alternatives. The population, income, industry, and housing trends are disclosed in the Affected Environment section on pages 3-35 to 3-36. This section recognizes the mining provides jobs for approximately 8% of the workforce and that prior to interim shutdown of the mine in 2013, there were approximately 52 employees present at the Beaver Shaft Mine and 32 employees at the Pandora Mine. The proposed future development plan for the

operations at the La Sal Mines Complex has the potential to employ up to 80 employees at the Beaver Shaft Mine and 50 employees at the Pandora Mine and extend the mine life to 20 years or more (CDM 2010).

The EA, Chapter 3 (p. 3-9) discloses past impacts of the uranium boom.

The effects analyses on pages 4-56 to 4-57 discloses the direct, indirect, and cumulative impacts to tourism, income, truck traffic, housing, and employment.

I find the Socioeconomics is appropriately discussed in the DN, EA, and project record.

## Objection 28: Water Quality

**You allege the EA fails to disclose the irrigation ditch near the Beaver Shaft waste rock pile on BLM land and a larger irrigation ditch in the vicinity of that pile as perennial or intermittent surface water in the proposed project area (p. 48 of objection letter).**

**You allege the EA fails to include information (analysis) and supportive documentation on water quality, including water quality data and a comparison of this data to Utah water quality standards for the affected aquifers for such known contaminants in the area such as uranium, vanadium, arsenic, and selenium.**

**You also allege that the reliance on State requirements to address potential impacts does not fulfill the agency's duties under NEPA and the APA and that there is no supporting documentation that no artesian groundwater is expected to be encountered on Forest System lands (p. 50 of objection letter).**

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### RESPONSE TO OBJECTION 28:

#### **Irrigation Ditch**

The location of ditches was shown in Figure 3-3 for vents and noise receptors. Ditches would be considered intermittent if they are allowed to divert water for significant periods of time in the spring and summer. However, the presence of ditches does not change the statement that the primary effects to surface water features, whether natural or constructed, would be due to storm water runoff from the mine facilities.

The failure to specifically mention ditches in Section 4.13 does not affect the effects analysis.

#### **Water Quality Data/Artesian Groundwater**

The state of Utah and the Utah National Forests have agreed, through a memorandum of understanding, to use Forest Plan Standards and Guidelines and Forest Service directives (i.e. the Forest Service manual and handbook) to meet water quality protection elements of the Utah Nonpoint Source Management Plan. (EA p. 4-59)

Water quality was analyzed in the EA (pp. 4-23 thru 4-30). Alternative C includes approval of all existing activities/disturbances described in Alternative A with the exception of additional protective modifications. A condition of approval would include

the requirements that the operator implement best management practices on NFS lands designed to mitigate non-point source water pollution in accordance with the *National Best Management Practices for Water Quality Management on National Forest System Lands* (USDA 2012), Forest Plan Standards and Guidelines, and applicable Forest Service directives. This would ensure that Alternative C would comply with the Utah Nonpoint Source Management Plan for Category 1 High Quality Waters located within the outer boundaries of Manti La Sal National Forest. Several additional requirements designed to prevent soil erosion and associated adverse effects to surface water quality are also included in the proposed terms and conditions of approval described in Appendix F. (EA p. 60)

Artesian conditions are most likely to occur far from recharge areas where sedimentary rock aquifers are progressively buried by younger rock units. This is not the case in the project area. The D aquifer is composed of the Dakota and Burro Canyon formations and these units crop out in the vicinity of the La Sal Mines Complex and artesian conditions do not occur in the D aquifer on FS lands near the La Sal Mine Complex. (EA, p. 3-18, Fig. 3-1)

Section 4.6 of the EA contains sufficient information to support the response given to EPA's comment and the conclusion that artesian conditions do not occur in the D aquifer on FS lands near the La Sal Mine Complex.

## **Objection 29: Reclamation**

**You allege the EA fails to disclose how slope reduction would be accomplished without increasing the disturbed areas for the Beaver Shaft, La Sal, and Snowball waste rock piles (pp. 48-49 of objection letter).**

**You allege the agency failed to consider its authority under 36 CFR § 228.8 to minimize impacts on National Forest resources to require the proponent to reclaim historic disturbance at the mine site (p. 51 of objection letter).**

**You allege the BLM and USFS have not assessed the area to determine which access roads can be reclaimed or determined which impacted areas are associated with the Mines Complex (p. 49 of objection letter).**

**You also allege the EA fails to analyze the impacts to transportation routes, roads, and access routes that are “out of scope of the proposed POA” (p. 52 of objection letter).**

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### RESPONSE TO OBJECTION 29:

The EA (p.3 -34) and POA describe the waste rock/DRA piles associated with the Beaver, La Sal, and Snowball mines. However the discussion of expanded disturbance and alternative development centers on the larger Pandora DRA. Attachments/Figures pertaining to the individual DRAs questioned in the objection are included in the EA but do not show the final footprint after reclamation. I find the EA does not disclose whether additional surface disturbance would be encountered by slope reduction.

Reclamation of existing disturbed areas encompassed by the proposed POA is described in the POA and Section 4.10 of the EA. Reclamation of other historical mine disturbances that are not encompassed by the proposed POA are not within the scope of the proposal. The FS does not have regulatory authority to require the proponent to reclaim this historical disturbance. (110- FS Response to Comments NOPA Appendix C) The EA (Section 4.10) examines the direct and indirect effects of alternatives pertaining to reclamation.

Historic Access Road Reclamation: The objectors issue appears to stem from Comment 6-71(110- FS Response to Comments NOPA Appendix C): *The Agencies must assess the environmental impacts La Sal Mines Complex from the time that the mines commenced operation in the 1970s. This would include an analysis of the land cleared for the mines, radon vents, exploration drilling, access roads, electrical lines, and transformer stations. There is a maze of cleared strips in the mine complex area from current and historic mining operations. These are clearly evident from aerial photographs.*

The Forest Service Response was the following: *Cumulative effects are addressed for all resource areas in Chapter 4 of the EA. Additional analysis was completed of historic disturbance based on aerial photographs as described in Section 4.1.*

In fact the EA (p. 4-2) does include previous mineral development associated with the area encompassed by the La Sal Mines Complex (i.e., the Pandora, Snowball, La Sal, and Beaver Shaft mines) in the cumulative impacts analysis, as well as ongoing and reasonably foreseeable future reclamation of historical mining.

A second comment pertaining to the same issue but categorized under travel management reads as follows: *The USFS must determine whether there are currently roads and access routes that can be reclaimed at this time.*

The Forest Service response is as follows: *The proposed timing of reclamation complies with 36 CFR §228.8(g) and FSM 2840.3(4). The Forest completed an environmental assessment on the motorized Open Areas in 2010. The Forest System roads accessing these mining areas were determined unnecessary to keep open for the public. They are now gated roads for Forest Service administrative use and mining purposes. They will be returned to a level one status when mining is complete. Other access routes will be reclaimed when no longer needed for mining.*

The EA (p.4-50) states: Reclamation of ventilation shafts and associated access roads would be conducted concurrently as practicable based on the progression of underground mining areas. However, most ventilation shafts and associated disturbance would be reclaimed after mining ceases.

### **Instructions:**

- a) *Disclose the anticipated expanded disturbance associated with final reclamation of the waste rock dumps within the final reclamation plan and within the EA where appropriate.*

## Objection 30: Impacts to local jurisdictions and emergency services

**You allege that the impacts to local jurisdictions and emergency responders resulting from the project are direct and indirect impacts of the project and thus must be analyzed under NEPA and are not “out of scope of the proposed POA” (p. 51 of objection letter).**

### RESPONSE TO OBJECTION 30:

**Statement from Uranium Watch in Appendix C:** *“In the USFS assessment of the emergency response planning, the USFS must assess the ability of the local emergency responders to respond to emergencies at the mines. These responders are not employed by Denison, but are usually called upon to respond to emergencies at the mine and to travel underground. The assessment would include the history of local response to mine emergencies, impacts of Denison’s reliance on local emergency responders on this group of people, history of local emergency response to mine accidents, problems encountered by local emergency responders, and any other matter related to local emergency response to mine accidents and emergencies. The USFS and BLM must assess the hazards associated with helicopter landings at the mine sites in case of emergency. In the past a helicopter that was in the process of landing to pick up an injured worker caused large pieces of material at the mine to rise into the air—because it was not properly tied down—threatening the helicopter. This could have caused a serious accident.”*

**FS Response in the EA (p. 2-19):** *Health and safety in the underground mine is regulated by MSHA, and is not within the jurisdiction of BLM or the FS. Emergency response plans for structural fires in the La Sal area or for wildland fires in the general vicinity of the La Sal Mines complex are the responsibility of the local fire department and/or other state or Federal agencies. Specifying emergency response requirements for these agencies is not within the scope of the proposed action. Potential hazards to emergency personnel associated with responding to fires or other emergencies near the mine ventilation system are assessed in Section 4.9.*

Since health and safety in the underground mine is regulated by MSHA, and not within the jurisdiction of BLM or the FS, discussion of the effects of emergency response planning is outside the scope of the analysis. Energy Fuels is required to comply with state and Federal laws that protect human health and safety including National Emission Standards for Hazardous Air Pollutants (NESHAP) and Federal Mine Safety and Health Administration (MSHA) regulations.