Mendiola, Doris

From: Mike Thomas [mthomas@uranerz.com]
Sent: Wednesday, March 03, 2010 3:20 PM
To: NicholsRanchISRSEIS Resource
Cc: Yu, Irene; Balsam, Briana
Subject: Uranerz Energy Corporations Additional Comments on NUREG-1910, Supplement 2, Draft SEIS
Attachments: Uranerz Specific SEIS Nichols Ranch Comments.pdf; ADDITIONAL COMMENTS ON THE DSEIS FOR THE NICHOLS RANCH IST PROJECT.doc

Attached are additional comments from Uranerz Energy Corporation regarding the Draft SEIS for the Nichols Ranch ISR Project in Campbell and Johnson Counties, Wyoming (NUREG-1910, Supplement 2, Draft). In regards to the previous comments that were submitted to the NRC by Uranerz Energy Corporation on January 29, 2010 for the Draft SEIS, Uranerz would like to rescind comment #16. After further review, the comment is in error.

If there are any questions regarding this information, please contact me at 307-265-8900 or by email at: mthomas@uranerz.com.

Thanks,

Mike Thomas

12/11/09

74FR65808

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Mike Thomas
Environmental, Safety, and Health Manager
Uranerz Energy Corporation
Work: 307-265-8900
Cell: 307-389-9489
Fax: 307-265-8904
Mthomas@uranerz.com

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Add= I. Yu (IWY1)

COMMENTS ON THE DSEIS FOR THE NICHOLS RANCH ISR PROJECT

3/3/2010

Wildlife

Comment on Section 3.6.1.2.2 Wildlife, Upland Game Birds, Line 27-28.

It states in the SEIS that "Uranerz conducted a formal survey for greater sage-grouse lek activity in April 2006 which is also discussed in Section 3.6.3." While this statement is true it is not completely accurate and should be revised to read:

"Many greater sage-grouse leks in the general project area have been monitored by BLM or the Wyoming Game and Fish Department for many years (the oldest since 1979). Most recently with the development of coalbed methane in the general area, several new leks have been identified and monitored annual since 2006 (Uranerz 2010)."

Cultural Resources

General SEIS Comments for All Sections Pertinent to Cultural Resources and the Pumpkin Buttes TCP

Since Uranerz and NCR cannot become a signatory to the existing PA, we recommend that language suggesting the possibility that it can be used be removed throughout this document. It should be replaced with language indicating that effects and mitigation measures relevant to the Pumpkin Buttes TCP will be addressed in a separate MOA that is based on the existing PA.

Specific SEIS Cultural Resource Comments

Additional comments have been included on the attached PDF for individual comments for the SEIS.

	Alternative 1: Proposed Action	Alternative 2: No-Action	Alternative 3: No Hank Unit
4.13 Public and Occupational Health and Safety Impacts			
Construction	**SMALL**	**NONE**	**SMALL**
	4.13.1.1	4.13.2	4.13.3.1
Operation	**SMALL**	**NONE**	**SMALL**
	4.13.1.2	4.13.2	4.13.3.2
Aquifer Restoration	**SMALL**	**NONE**	**SMALL**
	4.13.1.3	4.13.2	4.13.3.3
Decommissioning	**SMALL**	**NONE**	**SMALL**
	4.13.1.4	4.13.2	4.13.3.4
4.14 Waste Management Impacts			
Construction	**SMALL**	**NONE**	**SMALL**
	4.14.1.1	4.14.2	4.14.3
Operation	**SMALL**	**NONE**	**SMALL**
	4.14.1.2	4.14.2	4.14.3
Aquifer Restoration	**SMALL**	**NONE**	**SMALL**
	4.14.1.3	4.14.2	4.14.3
Decommissioning	**SMALL**	**NONE**	**SMALL**
	4.14.1.4	4.14.2	4.14.3

2.4 Preliminary Recommendation

After weighing the impacts of the proposed action and comparing the alternatives, the NRC staff, in accordance with 10 CFR 51.71(f), sets forth its preliminary NEPA recommendation regarding the proposed action. The NRC staff recommends that, unless safety issues mandate otherwise, environmental impacts of the proposed action (issuing a source material license for the proposed Nichols Ranch ISR Project) are not so great as to make issuance of a source material license an unreasonable licensing decision.

The NRC staff has concluded that the overall benefits of the proposed action outweigh the environmental disadvantages and costs based on consideration of the following:

- Potential impacts to all environmental resource areas are expected to be SMALL, with the exception of
  1) historical and archaeological resources during construction,
  2) visual and scenic resources during construction, and
  3) socioeconomics (specifically, demographics, housing, and local finance) during operation,

  where such impacts would be MODERATE.
- Regarding the Pumpkin Buttes TCP, a PA has been developed by the BLM and Wyoming State Historic Preservation Officer (SHPO), which includes

mitigation measures for construction activities within the 3.2-km (2-mi) radius of the Pumpkin Buttes. If signed by Uranerz, the implementation of the requirements of the PA for the Pumpkin Buttes TCP would limit potential cultural and visual impacts. If not signed by Uranerz, a separate MOA with agreed upon mitigation measures would have to be developed with BLM.

- Regarding groundwater, ISR operations would take place in ore zone aquifers previously exempted by the U.S. Environmental Protection Agency as potential drinking water sources. Additionally, Uranerz would be required to monitor for excursions of lixiviant from the production zones and to take corrective actions in the event of an excursion. Uranerz would also be required to restore groundwater parameters affected by ISR operations to levels that are protective of public health and safety.
- The regional benefits of building the proposed project would be increased employment, economic activity, and tax revenues in the region around the proposed site.
- The costs associated with the proposed project are, for the most part, limited to the area surrounding the site.

2.5 References

10 CFR Part 40 Appendix A. *Code of Federal Regulations*, Title 10, *Energy*, Part 40 Appendix A, "Criteria Relating to the Operation of Uranium Mills and to the Disposition of Tailings or Wastes Produced by the Extraction or Concentration of Source Material from Ores Processed Primarily from their Source Material Content."

EIA (Energy Information Administration). 1995. "Decommissioning of U.S. Uranium Production Facilities." Office of Coal, Nuclear, Electric, and Alternate Fuels. DOE/EIA-0592. February 1995.

EPA (U.S. Environmental Protection Agency). 2008b. "Health and Environmental Impacts of Uranium Contamination in the Navajo Nation: Five-Year Plan." requested by House Committee on Oversight and Government Reform. June 9, 2008.

EPA (U.S. Environmental Protection Agency). 2008a. "Technical Report on Technologically Enhanced Naturally Occurring Radioactive Materials from Uranium Mining: Mining and Reclamation Background." Volume 1. Office of Radiation and Indoor Air / Radiation Protection Division. EPA-402-R-08-005. April 2008.

EPA (U.S. Environmental Protection Agency). 1995. "Technical Resource Document: Extraction and Beneficiation of Ores and Minerals – Uranium." Volume 5. Office of Solid Waste/Special Waste Branch. EPA 530-R-94-032. January 1995.

EFRC (Energy Fuels Resources Corporation). 2009. Letter from F. Filas, EFRC, to Montrose County Commissioners. Subject: Reply to Responses to Comments Received at Two Public Meetings, Pinon Ridge Mill Facility, Montrose County, Colorado. September 16, 2009.

NRC (U.S. Nuclear Regulatory Commission). 2009. NUREG-1910, *Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities*. Washington, DC: June 2009.

NRC (U.S. Nuclear Regulatory Commission). 2006. "Environmental Assessment for the Addition of the Reynolds Ranch Mining Area to Power Resources, Inc's Smith Ranch / Highlands Uranium Project Converse County, Wyoming." ADAMS ML No. ML062690386. Washington, DC: November 2006.

The Late Prehistoric period (1,500 to 300 B.P.) heralds the acceptance of new technologies such as smaller projectile points adapted to use with arrows. Prior to the Late Prehistoric period, the points were hafted on spears. Also introduced at this time is earthenware technology, which improves food preparation techniques. Stewing, braising, and boiling were now possible, which significantly broadened the number of floral and faunal species that could be utilized. Sometime between 1,000 and 600 B.P., there is considerable movement of people into Wyoming from several directions. The Kiowa-Apache and Shoshone-Comanche move into the region first, probably in response to several factors including population pressures from eastern sedentary groups who have partially adapted to horticultural regimes. Between about 600 B.P. (A.D. 1300) and A.D. 1700, the Crow, Cheyenne, and Arapaho all move into Wyoming to pursue their bison-oriented lifestyles.

3.9.1.2 *Protohistoric/Historic Era*

The Protohistoric period dates between about A.D. 1700 and 1840. This period includes the time when European goods and the domesticated horse are introduced into the region. There is no appreciable European presence in the region, with the exception of French fur traders moving up and down the Missouri River. Across the northern High Plains, there was active trading in European material goods, including metal knives, pots, and glass beads. However, Native American goods in similar styles also continued to be produced. The Native American tribes continued to pursue Native traditions into the 1900s in the region though the majority of the tribal members were relocated to the Wind River Reservation.

The Historic era is subdivided into seven periods: Early Historic (A.D. 1801 to 1842), Pre-territorial (A.D. 1843 to 1867), Territorial (A.D. 1868 to 1889), Expansion (A.D. 1890 to 1919), Depression (A.D. 1920 to 1939), World War II (A.D. 1940 to 1946), and Post-World War II (A.D. 1947 to 1959). Various themes have been identified which crosscut the periods. The proposed project area was historically used for cattle ranching with limited oil and gas exploration in the nearby vicinity. There is no indication from the sites identified to date in the proposed project area that there were earlier historic occupations of the area. Thus, at best, historic occupations are limited to the Expansion and post-Expansion periods.

3.9.2 Historic and Cultural Resources Identified and Places of Cultural Significance

Section 106 of the *National Historic Preservation Act of 1966* as amended (NHPA) requires federal agencies to take into account the effects of their undertakings on cultural resources (i.e., archaeological, historical, and traditional properties eligible for or listed in the NRHP). NRC staff reviewed documentation related to past archaeological surveys conducted on behalf of Uranerz for the proposed Nichols Ranch ISR Project and those conducted for CBM companies whose project areas overlap with the proposed Nichols Ranch ISR Project boundaries. These documents included survey reports with determinations of the potential for effects or adverse effects to properties listed on or eligible for listing on the NRHP. The following sections discuss the occurrence of cultural resources at each unit.

3.9.2.1 *Nichols Ranch Unit*

Within the Nichols Ranch Unit, one Class III archaeological survey was conducted by Western Land Services (WLS) for the Tex Draw CBM POD project, which identified 13 archaeological sites. These included 7 prehistoric, 3 historic, and 3 prehistoric/historic sites. Based on the available data, the sites are dominated by artifact scatters though historic building remains are present at Site 48JO2953, which is not eligible for listing on the NRHP. Only 1 of the 13 sites is eligible for listing on the NRHP and is identified in Table 3-10.

Table 3-10. Nichols Ranch Unit Archaeological Sites

Site ID	Site Type	NRHP Finding
48JO2944	Prehistoric: lithic scatter Historic: debris scatter	Not eligible
48JO2946	Prehistoric: open camp	Not eligible
48JO2948	Prehistoric: lithic scatter	Not eligible
48JO2949	Historic: debris scatter	Not eligible
48JO2950	Historic: debris scatter	Not eligible
48JO2953	Prehistoric: lithic scatter Historic: building remains (razed Nichols Ranch)	Not eligible
48JO2957	Prehistoric: lithic scatter	Not eligible
48CA5386	Prehistoric: lithic scatter Historic: hunting blinds and wind breaks	Not eligible
48CA5390	Prehistoric: lithic scatter Historic: debris scatter	Not eligible
48CA5391	Prehistoric: lithic scatter with feature Historic: debris scatter	Eligible
48CA5392	Prehistoric: lithic scatter	Not eligible
48CA5393	Prehistoric: lithic scatter	Not eligible
48CA5406	Prehistoric: lithic scatter	Not eligible
Sources: Brunette, 2007; Uranerz, 2007		

3.9.2.2 *Hank Unit*

Within the Hank Unit, four archaeological Class III surveys have been completed, which identified 23 archaeological sites (Table 3-11). Of the 23 sites, 8 are eligible for listing on the NRHP and are identified in Table 3-11. The past Class III surveys include two conducted by Frontier Archaeology and TRC Environmental Corporation for the proposed Nichols Ranch ISR Project on behalf of Uranerz, one for the Dry Willow I POD project, and one by Arcadis for the Dry Willow 4 POD project. Except for Site 48CA6146/6147, all of the cultural resources identified in the Hank Unit are prehistoric or protohistoric. The single historic component, at Site 38CA6147, is a very small debris scatter consisting of a fragmented clear glass bottle, two cans, and a handful of nails. The debris may have resulted during fence mending or other ranch activities.

The prehistoric sites are marked by the presence of fire-cracked rock (FCR), chipped stone tested cobbles, debris and occasional tools; groundstone; and, at one site, minor amounts of bone. None of the prehistoric sites indicated the presence of temporally diagnostic items such as ceramics or projectile points. The reason for this absence of such sites is unclear, but the artifact assemblages from the sites are suggestive of seasonal processing locations. The presence of stone circles does not preclude seasonal use and the stone circles, possible tepee loci, does hint at Late Prehistoric or Protohistoric occupations. The absence of EuroAmerican goods at any of the sites argues against early Historic occupations by Native American peoples

though it is documented that the Pumpkin Buttes have been utilized by Native Americans into the Historic period.

Table 3-11. Hank Unit Archaeological Sites

Site ID	Site Type	NRHP Finding
48CA379	Prehistoric: lithic scatter	Not eligible
48CA6146/ 48CA6147	Prehistoric: lithic, groundstone, and FCR scatter with stone circles. Historic: debris scatter	Eligible
48CA6148	Prehistoric: lithic scatter with stone circles	Eligible
48CA6149	Prehistoric: lithic scatter	Not eligible
48CA6151	Prehistoric: lithic scatter	Not eligible
48CA6342	Prehistoric: lithic scatter with hearth	Not eligible
48CA6343	Prehistoric: lithic scatter with features	Not eligible
48CA6344	Prehistoric: lithic scatter with FCR	Not eligible
48CA6345	Prehistoric: lithic scatter with FCR	Not eligible
48CA6475	Prehistoric: open camp	Eligible
48CA6490	Prehistoric: open camp	Eligible
48CA6491	Prehistoric: lithic scatter	Not eligible
48CA6498	Prehistoric: lithic scatter	Not eligible
48CA6499	Prehistoric: lithic scatter	Not eligible
48CA6748	Prehistoric: lithic scatter with FCR and activity areas	Eligible
48CA6749	Prehistoric: lithic scatter	Not eligible
48CA6750	Prehistoric: lithic scatter with groundstone.	Not eligible
48CA6751	Prehistoric: lithic scatter with activity areas and possible stone circle feature	Eligible
48CA6752	Prehistoric: lithic and FCR scatter	Not eligible
48CA6753	Prehistoric: lithic and FCR scatter	Eligible
48CA6754	Prehistoric: lithic and FCR scatter with FCR concentration	Not eligible
48CA6926	Prehistoric: lithic scatter	Not eligible
48CA6927	Prehistoric: lithic scatter with features	Eligible
Sources: Brunette, 2007; Uranerz, 2007; Brunette, 2006		

3.9.2.3 *Places of Cultural Significance*

The Pumpkin Buttes (Site 48CA268), an NRHP-eligible TCP, is the only documented place of cultural significance near or within the proposed Nichols Ranch ISR Project area, as shown in Figures 1-1 and 2-3. The Pumpkin Buttes are comprised of five individual buttes (North, North

Middle, South Middle, Indian, and South). The western boundary of the North Middle Butte is located within the proposed Hank Unit permit boundary. The TCP boundary for the North Middle Butte is the area between 1,676 m (5,500 ft) AMSL and the top of the butte. Sites 48CA6748 and 48CA6753 are within the TCP boundary and Site 38CA6751 is adjacent to it, all of which are recommended eligible to the NRHP.

The Pumpkin Buttes were identified as eligible to the NRHP (Uranerz, 2007) during investigations not related to the proposed Nichols Ranch ISR Project. The Pumpkin Buttes were determined eligible for the NRHP under Criteria A, B, and C and its conditions of integrity were considered intact (BLM, 2009b). Subsequent to the determination of eligibility, the BLM entered into Memoranda of Agreement (MOA) with the proponents of the Savageton 3/Savageton 4 project (Lance Oil and Gas/Anadarko Petroleum Corporation) and Dry Willow Phase I and II projects (Anadarko Petroleum Corporation). Because of anticipated development within the viewshed of the Pumpkin Buttes, BLM entered into a Programmatic Agreement (PA) with the Wyoming State Historic Preservation Office (SHPO) focused on mitigation of adverse effects for the Pumpkin Buttes TCP from anticipated Federal minerals development (BLM, 2009b). Prior to entering into the agreement, the BLM invited the Blackfeet, Cheyenne River Sioux, Crow, Eastern Shoshone, Fort Peck, Three Affiliated Tribes (Mandan, Hidatsa, and Arikara Nation), Northern Arapaho, Northern Cheyenne and Oglala to participate in consultation and to be consulting parties for the resolution of adverse effects to the Pumpkin Buttes. Although the Northern Cheyenne participated in the consultation process for the Savageton 3/Savageton 4 MOA, they and the other tribes chose not to formally comment on the PA. In the PA, the signatory parties noted that "BLM has determined that the development of oil, gas and in-situ uranium well, infrastructure corridors, access roads and other facilities are assumed to have an adverse effect to the contributing integrity of the setting, feeling and association for the Pumpkin Buttes Traditional Cultural Property..." (BLM, 2009b). The PA outlines various measures that must be taken by the proponent to mitigate the adverse effect of their proposed actions on the TCP, which are discussed in Chapter 4.

3.9.3 Tribal Consultation

Consultation with Native American tribes that have heritage interest in the proposed project area is ongoing. As mentioned in Chapter 1, NRC sent Section 106 tribal consultation letters were sent to the following tribes on December 24, 2008: Blackfeet, Cheyenne River Sioux, Crow, Eastern Shoshone, Ft. Peck Assiniboine/Sioux, Northern Arapaho, Northern Cheyenne, Oglala Sioux, and Three Affiliated Tribes (the Mandan, Hidatsa, and Arikara Nation). By email dated February 12, 2009, Mr. Conrad Fisher of the Northern Cheyenne Tribal Historic Preservation Office (NCTHPO) responded to the December 24 request. Fisher noted that the Pumpkin Buttes are considered spiritual and ceremonial areas and that contaminants related to uranium extraction, traffic, noise, and dust pollution may affect the overall condition of the area (NCTHPO, 2009). To date, no other responses have been received.

3.9.4 Paleontological Resources

A paleontological survey was conducted for the proposed project area on behalf of Uranerz. The survey identified Quaternary sediments and exposed Eocene deposits of the Wasatch Formation. These deposits are fossil bearing and vertebrate, invertebrate, and petrified wood specimens were identified in the Nichols Ranch Unit and Hank Unit areas. The survey results summarized the identification of unidentified mammal, gar, turtle, and petrified wood in the Nichols Ranch Unit. In the Hank Unit, fossil materials were recovered from the slope of the North Middle Butte and included unidentified bone, turtle, and petrified wood.

construction could be SMALL to LARGE depending on the presence or absence of historical and cultural resources on the site.

Archaeological sites and isolated finds identified within both the Nichols Ranch Unit and Hank Unit project areas would be directly affected during construction. Activities would include the construction of well fields and access roads. Only one archaeological site at the Nichols Ranch Unit and eight archaeological sites at the Hank Unit are eligible to the NRHP. Four of these sites could be impacted during the construction (48CA5391, 48CA6146/6147, 48CA6148, and 48CA6927). Site 48CA5391 (Nichols Ranch Unit) is located within a proposed well field. Sites 48CA6146/6147, 48CA6148, and 48CA6927 (Hank Unit) are located either on top or between the ore body and within areas for proposed monitoring wells.

If it is determined that the sites cannot be avoided, then mitigation must be completed prior to construction per treatment plans. Treatment plans would be established following the development of a Memorandum of Agreement (MOA) between Uranerz, NRC, BLM (if BLM lands are involved), SHPO, and the State Attorney General's Office. The MOA would outline the mitigation process for each affected resource and why the sites cannot be avoided. If an MOA is developed, the actions in the MOA are enforceable by the NRC as the lead federal agency. Prior to construction, Uranerz would have to develop an Unexpected Discovery Plan that would outline the steps required in the event that unexpected historical and cultural resources are encountered. In the event that mitigation is conducted, the impact to the sites would be MODERATE. If mitigation is not implemented, then the impacts would be MODERATE to LARGE. Section 106 consultation between the NRC, SHPO, BLM, and Uranerz regarding potential impacts to these sites is ongoing (see Appendix A).

The existing Pumpkin Buttes PA between the BLM and Wyoming SHPO (BLM, 2009) serves as a baseline for considering the effects of the proposed project on this TCP. Although Uranerz does not propose any physical development above the 1,676 m (5,500 ft) above mean sea level (AMSL) boundary, the BLM has determined that development of the Hank Unit would have an adverse effect to the setting of Pumpkin Buttes and that mitigation measures must be developed to lessen the visual impact to the resource (BLM, 2008a). Such mitigation measures, as described in the PA, include using areas of existing disturbance wherever possible, placing wells in areas that avoid dense sage brush or other vegetation, and painting of aboveground infrastructure to blend in with the surrounding topography. The Northern Cheyenne noted that noise and dust may affect the integrity of the setting of Pumpkin Buttes. These effects could be mitigated and are discussed later in the visual and scenic resources impacts section of this chapter. If Uranerz becomes a signatory to the PA and the mitigation measures outlined in the PA are implemented, then the impact to the resource would be MODERATE because the effects of the structures would be long-term even though the dust and noise associated with construction would be short-term. Section 106 consultation between the NRC, SHPO, BLM, and Uranerz regarding potential impacts to the TCP is ongoing. Correspondence related to this consultation process can be found in Appendix A.

Paleontological specimens are present in both project areas. Construction would impact both geological units including the surficial Quaternary deposits and near surface Wasatch Formation deposits. However, based on the geology of the site and the poor exposure of fossil bearing sediment, the proposed Nichols Ranch ISR Project would not significantly impact the fossil remains identified. Uranerz would have a monitor present during construction activities involving depths in excess of a few feet. If fossil remains are discovered during construction, work would stop and contacts would be made to the appropriate state and federal agencies. Therefore, any impact from construction on paleontological resources would be SMALL.

Buttes TCP's setting, feeling, and association (BLM, 2009a). The PA (BLM, 2009b) for the Pumpkin Buttes TCP requires developers to complete a Class III survey of any proposed project within the area, submit detailed construction plans, and participate in an onsite evaluation with BLM. This process would ensure that the effects of both units of the proposed Nichols Ranch ISR Project on visual resources are mitigated.

4.10.1.1 *Construction Impacts*

As discussed in Section 4.3.9.1 of the GEIS, visual impacts during construction can result from equipment (e.g., drill rig masts, cranes), dust/diesel emissions from construction equipment, and hillside and roadside cuts. Depending on the location of a proposed ISR facility relative to viewpoints such as highways, process facility construction and drill rigs could be visible. For nighttime operation, the drill rigs would be lighted, and this would create a visual impact because the drill rigs would be most visible and provide the most contrast if they were located on elevated areas. Most impacts would be temporary as equipment is moved and would be mitigated by BMPs (e.g., dust suppression). Additionally, because these sites are expected to be in sparsely populated areas and there would be generally rolling topography of the region, most visual impacts during construction would not be expected to be visible from more than about 1 km [0.6 mi]. As previously discussed, PSD Class I areas require more stringent air quality standards that can affect visual impacts; however, there are no PSD Class I areas in the Wyoming East Uranium Milling Regions. Finally, proposed ISR facilities are expected to be located more than 16 km (10 mi) from the closest VRM Class II area, and the visual impacts associated with ISR construction would be consistent with the predominant VRM Class III and IV classification, Therefore, visual impacts associated with ISR construction would be expected to be SMALL. The following is a site-specific discussion on construction impacts to both units at the proposed project site specific to the TCP.

4.10.1.1.1 Nichols Ranch Unit

Visual impacts from construction in the Nichols Ranch Unit would be consistent with impacts described above and assumptions made in the GEIS. No visual contrast during construction would affect any Class II areas and visual impacts during construction are expected to be SMALL. Regarding the Pumpkin Buttes TCP, the Nichols Ranch Unit is not within a 3.2-km (2-mi) radius of any TCP element. Mitigation responses for actions greater than 3.2 km (2 mi) have not yet been developed. The BLM completed a scenic quality field inventory, the first step in a contrast rating evaluation, in the summer of 2009. Once completed, the contrast rating evaluation will determine the extent to which proposed activities at the Nichols Ranch Unit can be seen from the Pumpkin Buttes. Continued coordination with the BLM will ensure that mitigation options are considered for any identified visual effects. Additionally, if Uranerz signs the PA (discussed in more detail in Section 4.10.1.1.2), mitigation strategies specified in the PA would be applied to both the Nichols Ranch and Hank Units, which would further reduce the SMALL impacts to visual and scenic resources from the Nichols Ranch Unit. Section 106 consultation, which could also further reduce the SMALL impacts from the Nichols Ranch Unit, regarding impacts to the TCP is ongoing between the NRC, SHPO, BLM, and Uranerz. Documentation related to the consultation process is provided in Appendix A.

Additionally, after its independent review of the Uranerz's ER; the site visit, meeting with federal, state, local, and tribal officials; other stakeholders; and evaluation of other available information, the NRC staff concludes that the site-specific conditions for the Nichols Ranch Unit are comparable to those described in the GEIS for visual and scenic resources and incorporates by reference the GEIS's conclusions that the impacts to visual and scenic resources during construction are expected to be SMALL. Furthermore, the staff has not identified any new and

significant information during its independent review that would change the expected environmental impact beyond those discussed in the GEIS.

4.10.1.1.2 Hank Unit

Because the Hank Unit overlaps with and is within the 3.2-km (2-mi) radius of the Pumpkin Buttes TCP, mitigation measures identified in the PA for the Pumpkin Buttes TCP would apply to construction activities in the Hank Unit. The PA (BLM, 2009b) for the Pumpkin Buttes TCP includes appendices that detail measures that can be employed to lessen construction impacts. Some of these measures include:

- Temporary single-lane roads for dry-season use should not exceed 6.1 m (20 ft) in width including the 3.7-m (12-ft) wide running surface;
- Resource roads should not exceed 12.2 m (40 ft) in width with a 4.9-m (16-ft) wide running surface and should not have a gravel surface that contrasts with the surrounding vegetation and soil color;
- Construction of all road types should be sited outside of areas of dense sagebrush in order to lessen visual contras, and roads should follow natural contours when possible;
- Pipelines should be aligned within roads whenever possible and includes trenching methods to minimize the visual impact of pipelines; and
- In-situ wells should not be built in dense vegetation stands that would lead to high color contrast and any well heads and above ground infrastructure should be painted a color that blends with the surrounding landscape.

If signed by Uranerz, the implementation of the requirements of the PA for the Pumpkin Buttes TCP and additional mitigation measures, such as those mentioned above, would limit the impacts to visual and scenic resources from the Hank Unit. If not signed by Uranerz, a separate MOA with specific mitigation measures would have to be developed with the BLM to limit the impacts to visual and scenic resources from the Hank Unit. However, because of the proximity of the Hank Unit to the Pumpkin Buttes TCP and the presence of construction machinery in plain view, some visual and scenic effects from construction are likely, and therefore, impacts are anticipated to be MODERATE. Section 106 consultation between the NRC, SHPO, BLM, and Uranerz regarding impact to the TCP is ongoing. Documentation related to the consultation process is provided in Appendix A.

Additionally, after its independent review of the Uranerz's ER; the site visit, meeting with federal, state, local, and tribal officials; other stakeholders; and evaluation of other available information, the NRC staff concludes that the site-specific conditions for the Hank Unit differ from those described in the GEIS for visual and scenic resources. The GEIS concludes that the impacts to visual and scenic resources during construction are expected to be SMALL. However, the proximity of the Hank Unit to the Pumpkin Buttes TCP is unique to the proposed Nichols Ranch ISR Project site. For the reasons described in the above section, the staff concludes that the impacts to visual and scenic resource for the Hank Unit during construction would be MODERATE.

4.10.1.2 *Operation Impacts*

Section 4.3.9.2 of the GEIS states that visual impacts during operations would be expected to be less than those associated with construction. Most of the well field surface infrastructure would have a low profile, and most piping and cables would be buried. The tallest structures would be expected to include the central processing plant (10 m [30 ft]) and power lines (6 m