StrataRossLAPEm Resource

From: Ben Schiffer [bschiffer@wwcengineering.com]
Sent: Monday, February 28, 2011 5:22 PM
To: Saxton, John
Cc: Chris Pugsley
Subject: Re: Ross ISR, Docket # 040-09091, Limited Additional Data Submittal, Email #6
Attachments: RAI_NRC_Submittal.pdf

John--
Please see the attached pdf with an updated table of RAIs/Comments and where these are addressed in the text of the application materials.

Ben

On 2/28/2011 2:01 PM, Saxton, John wrote:
Ben,

Thanks for the update and will be looking forward to receiving the submittals.

John

From: Ben Schiffer [mailto:bschiffer@wwcengineering.com]
Sent: Monday, February 28, 2011 3:13 PM
To: Saxton, John
Cc: Chris Pugsley
Subject: Ross ISR, Docket # 040-09091, Limited Additional Data Submittal

John--
I believe we have things assembled and prepared for emailing. Chris Pugsley with Thompson and Pugsley will be providing the revised affidavit to you while I'll be transmitting the updated figures and addenda. I hope all is well with you and let me know if you have any questions.

Ben
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Subject: Re: Ross ISR, Docket # 040-09091, Limited Additional Data Submittal, Email #6
Sent Date: 2/28/2011 5:22:02 PM
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From: Ben Schiffer

Created By: bschiffer@wwcengineering.com

Recipients:
"Chris Pugsley" <cpugsley@athompsonlaw.com>
Tracking Status: None
"Saxton, John" <John.Saxton@nrc.gov>
Tracking Status: None

Post Office: wwcengineering.com

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ADAMS Document Accession No.	Document Description	Document Date	Applicant	Facility	Document Type	Comment Category	Comment Sub-category	Comment Summary	Planned Response	Report	Section	Page	Complete	Report 2	Section	Page	Complete
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Alternatives	Mine planning	Discuss the site sequencing and, the steps that actually lead to the decision to use the ISL process to recover uranium	Sequencing discussed in 1.3.	ER	1.3	1-18	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Introduction	Proposed Action	Provide updated information on federal, state, county, and tribal licenses and permits required to construct and operate the proposed Dewey-Burdock project.	Information provided in Table 1.6-1.	ER	1.6	1-45	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Environmental Impacts	Environmental Impacts	Provide quantitative and qualitative support for predicted environmental impacts of the reasonable alternatives.	A detailed discussion of predicted environmental impacts is included in Section 2.3 and in Table 2.3-1.	ER	2.3	2-44	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Land Use	Land Use	Provide a map that shows the predominant land use activities (e.g., grazing) within 5 miles of the site.	Figures 3.1-1 and 3.1-2 show land use within 5 miles of the site.	ER	3.1	3-20	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Transportation	Transportation Routes	Provide information on the main highways and/or county roads that workers would potentially use to access the site from the towns of Custer and Newcastle. This information is needed to complete the description of the proposed action and determine the potential environmental impacts of traffic leading to and from the site.	Baseline traffic is provided for highways and county roads used to access site.	ER	3.2	3.2.2	Yes				
ML090370541	Moore Ranch 2nd Response to RAI_TR_2.1-3.3	10/27/2008	Uranium One	Moore Ranch	Request for Additional Information	Geology	Site Geology	Draw geologic cross sections to a MSL datum with surface elevations clearly shown to ensure proper interpretation with respect to site topography.	Geologic cross sections and fence diagrams are presented in Section 3.3, including Figures 3.3-5 and 3.3-8.	ER	3.3	3-77	Yes				
ML090370541	Moore Ranch 2nd Response to RAI_TR_2.1-3.3	10/27/2008	Uranium One	Moore Ranch	Request for Additional Information	Geology	Site Geology	Cross sections should extend past the proposed well fields to at least the locations of the proposed monitor well rings if possible.	Fence diagram and cross sections extend to approximately the permit boundary.	ER	3.3	3-80	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Geology and Seismology	Provide isopachs for the "B sand", overlying shale, "A sand," underlying shale, and "1 sand" for the Nichols Ranch Unit.	Isopach maps are discussed in Section 3.3 of the ER and are provided in TR Addendum 2.6-D (Figures 3, 4, 7, 8, 11, and 13).	ER	3.3	3-51	Yes	TR	Addendum 2.6-D		Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Geology and Seismology	Provide a cross-section for the west limb of the Nichols Ranch Unit.	Geologic cross sections and fence diagrams are presented in Section 3.3, including Figures 3.3-5 and 3.3-8.	ER	3.3	3-77	Yes	TR	Addendum 2.6-D		Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Geology and Seismology	Provide isopachs for the "G sand", overlying shale, "F sand", underlying shale, and "B sand" for the Hank Unit.	Isopach maps are discussed in Section 3.3 of the ER and are provided in TR Addendum 2.6-D (Figures 3, 4, 7, 8, 11, and 13).	ER	3.3	3-51	Yes	TR	Addendum 2.6-D		Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Geology and Seismology	Provide surface geological maps in Nichols Ranch and Hank units clearly showing areas of alluvium.	Provided in ER Figure 3.3-4.	ER	3.3	3-76	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Site Characterization	Geology and Seismology	Provide more thorough isopach maps for the C and B Sands to assess the presence or absence of these sands across the license area to properly assess the ore zone underlying aquifer. The majority of the borings were not deep enough to reach this sand on the isopach, so it was defined using very few points.	Isopach maps are discussed in Section 3.3 of the ER and are provided in TR Addendum 2.6-D (Figures 3, 4, 7, 8, 11, and 13).	ER	3.3	3-51	Yes	TR	Addendum 2.6-D		Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Geology and Seismology	Provide maps of the top elevation in msl for the following layers: The FG horizon, the Lost Creek Shale (LCS), the HJ horizon, the Sage Brush Shale (SBS), and the KM horizon. Include the location of the fault on all maps to enable reviewers to assess the change in elevation of these layers across the fault	Structure contour maps indicating the tops of the various units involved are discussed in Section 3.3 of the ER and are provided in TR Addendum 2.6-D (Figures 1, 5, 9, and 12).	ER	3.3	3-39	Yes	TR	Addendum 2.6-D		Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Site Characterization	Hydrology	Zero values should be reported as non-detect, if appropriate. Regarding surface water quality.	Non-detect' values listed as ND in TR Addendum 2.7-E and < PQL in Table 3.4-12 and 3.4-14 in ER.	ER	3.4	3-143	Yes	TR	Addendum 2.7-E		Yes

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ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Meteorology	Provide sufficient information regarding the meteorological characteristics of the site. Provide maximum, minimum, and average monthly temperatures.	Detailed discussions on site meteorological characteristics (including temperatures) are provided in Section 3.6 and specifically in Table 3.6-2.	ER	3.6	3-286	Yes	ER	Addendum 3.6-B		Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Meteorology	Provide maximum, minimum, and average monthly precipitation data.	Detailed discussions on site meteorological characteristics (including precipitation) are provided in Section 3.6 and Addendum 3.6-B. Avg annual and monthly precip is provided by monthly min and max precip are not provided.	ER	3.6	3-307	Partial	ER	Addendum 3,6-B		Partial
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Meteorology	Provide average monthly wind speed data and identify the maximum, minimum, and average monthly wind speed.	Detailed discussions on site meteorological characteristics (including wind speed) are provided in Section 3.6 and specifically in Table 3.6-4. More detailed information is provided in Addendum 3.6-B.	ER	3.6	3-288	Yes	ER	Addendum 3,6-B		Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Meteorology	Provide a description of onsite meteorological instrumentation.	Table 3.6-5 describes on-site meteorological equipment.	ER	3.6	3-289	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Introduction	Proposed Action	Provide a breakdown of the acreage disturbed by construction of site facilities (buildings), pipelines, access roads, well fields, impoundments for the deep well disposal liquid waste management option, and impoundments and irrigation areas for the land application liquid waste management option.	Disturbance acres by facility are provided in Table 4.1-1	ER	4.1	4-13	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Waste Management	Quantities	Provide additional information on anticipated generation of liquid and solid radioactive wastes, chemical wastes, and mixed wastes, including wastes from potential site-contaminating events.	Quantity of each waste stream is estimated and summarized in Table 4.13-1.	ER	4.13	4-181	Yes				
ML100610158	Lost Creek 3rd Round WDEQ Comment Responses	10/22/2009	Lost Creek	Lost Creek	Response to WDEQ Comments	Waste Management	Quantities	Please provide a table which lists each of the facilities solid and liquid waste streams, the estimated monthly predicted volume to be generated, the storage location, and the disposal location.	Quantity of each waste stream is estimated and summarized in Table 4.13-1.	ER	4.13	4-181	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Waste Management	Volumes	Clarify whether the estimate of byproduct material includes excavated soil and, if soil is not included in that estimate, provide the expected amount of excavated soil from decommissioning that would need to be disposed of as 11e.(2) byproduct waste and the basis for the estimate.	Table 4.13-1 includes contaminated soil in estimated quantity of solid 11e.(2) byproduct material.	ER	4.13	4-181	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Alternatives	Access roads	Discuss the access (to the site and internal to various areas) and, the steps that actually lead to the decision to use the ISL process to recover uranium	Access roads described in 4.2.	ER	4.2	4-15	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Transportation	Traffic	Provide estimated daily or peak hour traffic volumes and number of trucks on local roadways that will be utilized daily during each phase of the proposed project.	Section 4.2 and Table 4.2-1 address anticipated traffic during each project phase.	ER	4.2	4-31	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Socioeconomics	Labor force	Provide an estimated breakdown in the number of employees needed for each phase of the proposed project (construction, operation, decommissioning, and aquifer restoration).	Discussed in Section 4.10 and 4.2, listed in Table 4.2-1.	ER	4.2	4-31	Yes	ER	4.10	4-111	Yes
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Socioeconomics	Labor force	Provide the number of people it would take to operate the facility, and the number of shifts that would run.	Discussed in Section 4.10 and 4.2, listed in Table 4.2-1.	ER	4.2	4-31	Yes	ER	4.10	4-111	Yes
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Transportation	Transportation Routes	Distinguish between the transportation routes proposed during construction, regular operation, aquifer restoration, and decommissioning.	Transportation routes are described in ER 4.2.	ER	4.2	4-119	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Transportation	Traffic Impact	What is the anticipated increase in traffic? What will be the estimated increase in traffic from current activities at the site to traffic during construction and operation? Provide the information in approximate # of vehicles associated with each stage and differentiate between the size and types of vehicles. Also address impacts to wildlife (collisions).	Table 4.2-2 provides estimated traffic impacts during all phases.	ER	4.2	4-32	Yes				

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ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Transportation	Waste Shipment	Specify the potential destinations of the dried yellowcake, the radioactive waste, and the non-radioactive waste.	Metropolis, IL is identified as the receiving facility for yellowcake. Waste facilities are addressed in 4.13.	ER	4.2	4-35	Yes	ER	4.13.1.1.1.4	4-168	Yes
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Transportation	Waste Shipment	Specify the approximate transportation routes for shipment of the dried yellowcake, radioactive waste, and non-radioactive waste to be used during construction, operation, aquifer restoration, and decommissioning.	Transportation routes provided in transportation impacts and destinations provided in waste management impacts.	ER	4.2	4-36	Yes	ER	4.13.1.1.1.4	4-168	Yes
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Transportation	Traffic Impact	Provide the approximate number of vehicle trips (per day) that are expected for construction and operation.	Table 4.2-2 provides estimated traffic impacts during all phases.	ER	4.2	4-32	Yes				
ML100610158	Lost Creek 3rd Round WDEQ Comment Responses	10/22/2009	Lost Creek	Lost Creek	Response to WDEQ Comments	Transportation	Road Construction	Discuss and/or depict the roads that will be needed to access monitoring wells (sometimes referred to as "tertiary" roads). These roads must be discussed in the text and must depicted on a figure. Tertiary roads must also be depicted on any other figures depicting the project's roads.	Tertiary roads shown on Figure 4.2-1 and described in text.	ER	4.2	4-34	Yes				
ML100610158	Lost Creek 3rd Round WDEQ Comment Responses	10/22/2009	Lost Creek	Lost Creek	Response to WDEQ Comments	Transportation	Road Construction	All of the site's roads, two-tracks, and travel routes must be accounted for in the text as well as site maps.	All proposed access roads are shown on Figure 4.2-1 and described in text.	ER	4.2	4-34	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Transportation	Traffic Impact	Provide an estimate of the daily or annual trucking activity during the construction phase	Table 4.2-2 provides estimated traffic impacts during all phases.	ER	4.2	4-32	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide maps clearly showing the location, size, and shape of surface water features in the proposed license area, including the area around the central plant facility. Also provide maps showing areas inundated by major flood events.	Surface water features and flood inundation boundaries are provided on Fig. 4.4-1.	ER	4.4	4-74	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Ecology	Ecological Impacts	Provide information in the impact of exploratory or delineation boreholes on local ecology. Include the number of boreholes completed and planned and the anticipated impacts .	Ecological impact associated with exploratory and delineation boreholes would not be significantly different from general construction or operational impacts, which are discussed in Section 4.5.	ER	4.5	4-79	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Air Quality	Dust	Provide information on the method of dust suppression during construction.	ER Section 5.6 describes dust control measures.	ER	5.6	5-53	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Historic and Cultural Resources	Historic and Cultural Resources Impacts	Provide information or plans that outline agreements and measures to be undertaken to meet federal compliance with handling of cultural resources in the event cultural resources are encountered during construction, operation, aquifer restoration, and decommissioning activities at the proposed project area. This information should include a description of any discussions Powertech has had with the South Dakota State Historical Preservation Office (SHPO) concerning Section 106 of the NHPA.	Discussed in Sections 4.8.1 and 5.8	ER	5.8	5-56	Yes	ER	4.8.1	4-102	Yes
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Alternatives	Mine planning	Discuss the process that would be used and, the steps that actually lead to the decision to use the ISL process to recover uranium	ISR process described in Section 1.2.5. Decision to develop full-scale ISR described on pg. 1-7.	ER	1.2.5	1-11	Yes	ER	1.2.1	1-7	Yes
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Alternatives	Wellfield layout	Discuss the well field layout and, the steps that actually lead to the decision to use the ISL process to recover uranium	Wellfield layout described in 1.2.5.2. A summary is provided in 1.0, specifically on page 1-2 regarding the use of geologic and groundwater models.	ER	1.2.5.2	1-15	Yes	ER	1.0	1-2	Yes
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Alternatives	Plant Siting	Provide information on other areas that were evaluated prior to confirming the project site. Also include information on alternative sites for the plant and building locations and routes for roads and pipelines.	Alternative plant site comparison included.	ER	2.1.3	2-7	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Alternatives	Plant Siting	Provide background information to justify the selection of the locations of the central processing plant, satellite facility, and roads. If other locations were considered, provide details on those locations and a justification for why those locations were less preferable to the chosen location.	Alternative plant site comparison included.	ER	2.1.3	2-7	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Alternatives	Mine planning	Provide additional information on your site-selection process to support the statements that the facilities were "located off of the ore zone on the most topographically suitable land within the project area" and that "the ease of access with the minimum disturbance was considered in selecting the plant locations.".	CPP site location selection is discussed on page 2-8.	ER	2.1.3.3	2-8	Yes				

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ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Alternatives	Plant Siting	Discuss the specific siting of the facility and, the steps that actually lead to the decision to use the ISL process to recover uranium	Facility siting described in 2.1.3.3. Decision to develop full-scale ISR described on pg. 1-7.	ER	2.1.3.3	2-7	Yes	ER	1.2.1	1-7	Yes
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Alternatives	Wellfield layout	Discuss the site development (facility layout) and, the steps that actually lead to the decision to use the ISL process to recover uranium	CPP site location selection is discussed on page 2-8.	ER	2.1.3.3	2-8	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Alternatives	Plant Processes	Provide information on other lixiviant compositions considered as well as alternative methods for underground uranium recovery.	Described in 2.1.3.2 (uranium recovery alternatives) and 2.1.3.4 (alternate lixiviants)	ER	2.1.3.4	2-9	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Alternatives	Effluent Disposal	Provide physical details (size, location, operations) or other information (costs, logistics, technology) on the liquid effluent disposal alternatives.	Described in 2.1.3.5.	ER	2.1.3.5	2-10	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Liquid Waste	Provide the basis for stating that deep well disposal is preferable to other liquid waste disposal options.	Text is included on page 2-10 & 2-11 to discuss why deep well disposal is preferable	ER	2.1.3.5	2-10	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Alternatives	Effluent Disposal	Provide additional physical details (i.e., approximate size, location, operations) on the two liquid effluent disposal alternatives to deep well injection (evaporation ponds and overland application) and the potential impacts resulting from these alternatives.	Waste disposal alternatives are described in ER 2.1.3.5. Area of ponds provided in TR 4.2.2.	ER	2.1.3.5	2-10	Yes	TR	4.2.2	4-32	Yes
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Cumulative Impacts	Transportation	Provide information on currently active and proposed future transportation development activities located in the vicinity of the proposed project area.	A detailed discussion of transportation is included in Section 2.2.3.	ER	2.2.3	2-19	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Cumulative Impacts	Water Resources	Provide information on currently active and proposed future projects related to water resource and water development activities located in the vicinity of the proposed project area.	Detailed discussions on cumulative impacts to these resources are provided in Section 2.2.6.	ER	2.2.6	2-20	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Cumulative Impacts	Mineral Development	Please provide information on historical (closed or abandoned), currently active, and proposed future projects related to mineral resource (uranium, coal, coal bed methane, oil, and natural gas) facilities located in the vicinity of the proposed project area. The response should define the geographic boundaries for studying each facility. These boundaries may be airsheds, watersheds, aquifer zones, census boundaries, or habitat areas depending on the type of resource. For each facility identified, the response should include information regarding areas of disturbance, groundwater and surface water impacts, grazing range impacts, socioeconomic impacts, air quality and noise impacts, threatened and endangered species impacts, and cultural resource impacts.	Detailed discussions on cumulative impacts to these resources are provided in Section 2.2.7.	ER	2.2.7	2-21	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Cumulative Impacts	Air Quality Impacts	Provide the rationale or documentation to support the statement that atmospheric conditions would result in negligible cumulative impacts.	A detailed discussion on cumulative impacts to air quality is provided in Section 2.2.8.	ER	2.2.8	2-32	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Cumulative Impacts	Land Development	Please provide information on any other land development facilities located in the vicinity of the proposed project area.	Future residential development is described in 3.1.12. Potential impacts are described in 4.1.	ER	3.1.12	3-12	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Cumulative Impacts	CBM Wells	Provide a map showing the current location of all coal-bed methane infrastructures within the Nichols Ranch Project area.	Section 3.1.12 indicates that there is no potential for CBNG development in the area.	ER	3.1.12	3-11	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Livestock Monitoring	Provide reporting on the range, population, residence time, or habitat of livestock within the license area and surrounding 2.0 mile radius.	Livestock production discussed in 3.1.3	ER	3.1.3	3-4	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Land Use	Residences	Describe the location and number of residences and residents within the proposed license boundary and the 1.6-km [1-mi] area of review for the proposed project.	Figure 3.1-3 shows the location of residences within 2 miles of the site. 3.1.5 describes approx. # of residents.	ER	3.1.5	3-22	Yes				

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ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Geology and Seismology	Evidence or further explanation that the 560 abandoned exploration holes drilled prior to 2000 were sealed and surface plugged in compliance with the State of Wyoming Regulations in effect at the time of drilling.	Abandoned wells and drill holes are discussed in Section 3.1.9 of the ER and in Addenda 2.6-B and 2.6-E of the TR.	ER	3.1.9	3-10	Yes	TR	Addendum 2.6-B & 2.6-E		Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Exploration Drill Holes	Provide an estimate of the number of exploration drill holes abandoned, and an assessment of the impact that these borings could have on production zone confinement.	Section 3.1.9 of the ER and Addendum 2.6-B of the TR discuss abandoned exploration holes. Potential impacts are discussed in ER 4.4.	ER	3.1.9	3-10	Yes	TR	Addendum 2.6-B		Yes
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Hydrology	Exploration Drill Holes	General - provide (as currently known) the approximate number of exploratory and confirmation/delineation borings, completed and proposed, to be drilled at the Lost Creek site.	Section 3.1.9 of the ER and Addendum 2.6-B of the TR discuss abandoned exploration holes.	ER	3.1.9	3-10	Yes	TR	Addendum 2.6-B		Yes
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Geology and Seismology	Discuss adequate abandonment procedures for historic borings.	Abandoned wells and drill holes are discussed in Section 3.1.9 of the ER and in Addenda 2.6-B and 2.6-E of the TR.	ER	3.1.9	3-10	Yes	TR	Addenda 2.6-B & 2.6-E		Yes
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Environmental justice	Provide updated race characteristics (e.g., 2008 data) for the counties and towns surrounding the proposed project location.	Updated through 7/1/09 (most current data)	ER	3.10.2	3-383	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Schools	Provide school information for the direct social zones of influence.	Provided	ER	3.10.2.1	3-363	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Labor force	Provide annual average labor, employment, and income characteristics for direct social zones within the region of interest	Provided	ER	3.10.3	3-363	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Tax base	Provide tax information for the direct social zones of influence.	Provided in tax base section	ER	3.10.3.3	3-370	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Housing	Provide updated housing unit statistics (e.g., 2008 data) for the counties and towns surrounding the proposed project location. In addition, provide housing unit statistics for affected towns within the region of interest, if available.	Updated through FY2008	ER	3.10.3.4	3-372	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Health and social services	Provide information on medical treatment personnel, facilities (e.g., doctors and hospitals), and emergency services in the vicinity of the proposed project location and their ability to provide accident response.	Medical and emergency services are described in 3.10.	ER	3.10.3.6	3-372	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Environmental justice	Provide additional data from the most recent source available on low-income characteristics for counties surrounding the proposed project location.	No low income areas, no significant minority populations	ER	3.10.4	3-376	Yes	ER	4.11	4-124	Yes
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Public and Occupational Health	Background Radiological Characteristics	Provide information on the background radiation levels in the general area (outside the site) for the proposed facility. Include an evaluation of the site baseline radiation monitoring data for identifying atypical radiation levels currently existing that are different than that for the surrounding area.	Sections 3.11.1 and 3.11.2 provide information on the background radiological conditions associated with the proposed project.	ER	3.11.1	3-397	Yes	ER	3.11.2	3-400	Yes
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Public and Occupational Health	Background Radiological Characteristics	Provide information on the area specific background levels.	Section 3.11.2 provides information on the background radiological conditions associated with the proposed project area.	ER	3.11.2	3-400	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Public and Occupational Health	Background Radiological Characteristics	Provide additional information indicating whether or not the background radiation or radioactive levels for the site are different than that assumed otherwise for Wyoming and or the normal background exposure.	Section 3.11.2 provides information on the background radiological conditions associated with the proposed project area.	ER	3.11.2	3-400	Yes				

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ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Environmental Measurements and Monitoring Programs	Radiological Monitoring	Provide an evaluation of impacts from several locations within the Nichols Ranch Unit and Hank Unit that were identified with elevated levels of radioactive materials, predominantly Ra-226, which was attributed to previous exploration activities, to public and worker dose.	Discussions in Section 3.11.2 of the ER and in Section 2.9 of the TR indicate that gamma ray surveys identified an area of elevated exposure rates in the southern portion of the project area, near the Nubeth R&D site. The discussions further state that the site poses no radiation exposure risk.	ER	3.11.2	3-400	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Public and Occupational Health	Background Radiological Characteristics	Provide information on any public health studies (radiological and chemical) that may have been performed for the region that should be considered in evaluating existing public health impact.	Section 3.11.5 provides a summary of health effects studies associated with the proposed project.	ER	3.11.5	3-402	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Public and Occupational Health	Background Radiological Characteristics	Discuss and provide references for previous public health studies (radiological or chemical) that may have been performed at and within the vicinity of the proposed project.	Section 3.11.5 provides a summary of health effects studies associated with the proposed project.	ER	3.11.5	3-402	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Transportation	Existing Road Condition	Provide a description including the surface (asphalt, gravel, or dirt) and condition (average, hazardous, etc.) of the roads that will be used to access the site so that a complete evaluation of the transportation impacts of the ISR facility can be conducted.	Road surfacing described in 3.2.1. Conditions were addressed using PASER method.	ER	3.2.1	3-27	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Transportation	Transportation Routes	Provide the roads planned to be used to access the site (both for construction and operation).	Access route described in Section 3.2.	ER	3.2.1	3-26	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Noise	Noise Impacts	Provide existing daily or peak hour traffic volumes and truck percentages on any of the local roadways to be utilized by daily activities at the proposed facility.	Traffic study results provided for local roads, including trucks.	ER	3.2.2	3-33	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Geology and Seismology	Provide a discussion of the true thickness of the overlying and underlying shales where isopach maps indicate they are less than ten feet thick, especially within the mine units.	Discussions of confining units (including thicknesses) are included in Section 3.3.2 of the ER and isopach maps are provided in Addendum 2.6-D of the TR.	ER	3.3.2	3-50	Yes	TR	Addendum 2.6-D		Yes
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Geology and Seismology	Describe site-specific minerals in the clays, silts, and carbonaceous media that are present in the ore zones of the two sub-aquifers of the Inyan Kara.	Ore mineral ology and geochemistry is discussed in Section 3.3.3.	ER	3.3.3	3-57	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Geology and Seismology	Provide a sufficient description of the geochemistry associated with site specific mineralogy, common ions present, and oxidation-reduction conditions.	Geochemistry is discussed in Section 3.3.3.	ER	3.3.3	3-57	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Geology and Seismology	Provide a description of the mineralogy and associated geochemistry of the mineralized zones consistent with NUREG 1569, which states, "A geologic and geochemical description of the mineralized zone and the geologic units immediately surrounding the mineralized zone is provided."	Geochemistry is discussed in Section 3.3.3.	ER	3.3.3	3-57	Yes				
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Geology and Seismology	Discuss the fact that the application was completed at a time the Wyoming Regulations were based on the UBC criterion but the regulations have adopted the IBC subsequently.	UBC and IBC discussed in 3.3.6.4, Seismic Risk.	ER	3.3.6.4	3-67	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Surface Water Hydrology	Surface Water Hydrology	Provide delineate between suspended and dissolved water sample results.	Suspended and dissolved results are differentiated in all tables, e.g., Table 3.4-14	ER	3.4.1	3-145	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Name, physically describe, and provide peak flow estimates at recurrence intervals for all drainages within the license area near or crossing the planned wellfields noted on topographic maps.	Drainages are described in Table 3.4-3 and peak flows are provided in Table 3.4-5.	ER	3.4.1.3	3-133	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide peak flow estimates at recurrence intervals for all drainages within the license area near or crossing the planned wellfields noted on topographic maps.	Drainages are described in Table 3.4-3 and peak flows are provided in Table 3.4-5.	ER	3.4.1.3	3-131 & 3-133	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Surface Water Hydrology	Surface Water Hydrology	Provide appropriate estimates of peak flood discharges and water levels produced by large floods. Provide an appropriate estimate of the aerial extent of significant peak flow during flooding. Discuss the safety measures to be undertaken for wellfields and monitoring wells located in areas that may be subject to erosion or inundation.	Peak flows for major flood events are provided in Table 3.4-5. 100-yr flood boundaries are shown on Figure 3.4-4.	ER	3.4.1.3	3-133	Yes				

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ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide maps showing areas inundated during major flood events within each proposed license area.	100-Year flood boundaries are shown on Figure 3.4-4.	ER	3.4.1.4	3-202	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide maps showing areas inundated during major flood events within each proposed license area.	100-Year flood boundaries are shown on Figure 3.4-4.	ER	3.4.1.4	3-202	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide clear designation of the flow classification of streams within the permit area. If multiple flow classifications exist, provide a map that shows the streams by classification.	Figure 3.4-6 depicts all stream classifications within the proposed project area.	ER	3.4.1.6	3-204	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide maps at appropriate scale clearly showing the location, size and shape of surface water features within each proposed license area.	Surface water features are provided on Figure 3.4-6.	ER	3.4.1.6	3-204	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide a map showing the locations of all natural and artificial surface water channels and ponds, specifically indicating if it is a natural or artificial feature.	Surface water features are provided on Figure 3.4-6.	ER	3.4.1.6	3-204	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	The terms "intermittent" and "ephemeral" appear to be used interchangeably in the TR and ER. Please confirm and identify on the map any channels with intermittent flow.	Surface water features are provided on Figure 3.4-6. Intermittent and ephemeral channels are distinguished.	ER	3.4.1.6	3-204	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide a separate map for each unit showing the exact locations of the surface water sampling sites given in Table D6A.1-1. The table provides coordinates which appear to indicate none of the surface water samples were located within any of the license areas.	The surface water monitoring network is shown on Figure 3.4-7.	ER	3.4.1.6.2	3-205	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Surface Water Hydrology	Surface Water Hydrology	Provide surface water samples representing a minimum of 12 consecutive months of data.	As discussed in Section 3.4.1.7.1, surface water samples were collected quarterly for one year and results are provided in Table 3.4-12.	ER	3.4.1.7.1	3-93	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide recent surface water samples from all sites within the license area.	A summary of surface water samples is provided in Tables 3.4-12 and 3.4-14. Detailed results are provided in Appendix 2.7-D of the TR.	ER	3.4.1.7.1	3-143	Yes	TR	Addendum 2.7-D		Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Groundwater and Surface Water Monitoring	Provide the location and permitted volume of discharge at all surface water sampling points.	Surface discharge locations and volumes are discussed in Section 3.4.1.8.	ER	3.4.1.8	3-95	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Surface Water Hydrology	Cumulative Impacts	Provide maps which show the NPDES permitted discharge points in or surrounding the license area which discharge into surface water features including drainages.	WYPDES outfalls near the project are provided on Figure 3.4-3. There are no CBNG outfalls associated with the project.	ER	3.4.1.8	3-201	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Surface Water Hydrology	Cumulative Impacts	Provide NPDES permit volumes and water quality standards for discharge for each discharge point. Also discuss the presence of structures or any other features which enhance the groundwater infiltration at these discharge points.	WYDES outfalls are discussed in Section 3.4.1.8 and Tables 3.4-15 through 3.4-17.	ER	3.4.1.8	3-95	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Hydrology	Provide maps which show the existing or planned National Pollution Discharge Elimination System (NPDES) permit Coal Bed Methane (CBM) water discharge points to surface water features or drainages in or surrounding each license area within a five-mile radius. (Radius revised to one-mile radius per discussion between Uranerz and NRC on October 22, 2008.)	WYPDES outfalls near the project are provided on Figure 3.4-3. There are no CBNG outfalls associated with the project.	ER	3.4.1.8	3-201	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Wetlands	Wetlands	Provide a map showing all "Waters of the U.S." and wetlands as defined by the Corps. Provide labels on the map to distinguish between ephemeral channels and man-made or natural ponds onsite.	Wetlands are discussed in Section 3.4.2 and in Addendum 3.4-A. Figure 3.4-13 show wetlands and waters of the US.	ER	3.4.2	3-211	Yes				
ML093220607	Moore Ranch 1st Response to RAI ER 2	10/13/2009	Uranium One	Moore Ranch	Request for Additional Information	Wetlands	Wetlands	Identify on a map, the classification (e.g., Cowardin) for each wetland and surface water feature. Also provide an inventory and specify on a map which areas are vegetated systems and which are unvegetated systems.	Wetlands are discussed in Section 3.4.2 and in Addendum 3.4-A. Figure 3.4-13 show wetlands and waters of the US.	ER	3.4.2.2	3-211	Yes	ER	Addendum 3.4-A		Yes

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ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Wetlands	Wetlands	Several National Wetlands Inventory wetlands classified as Palustrine Emergent wetlands are not included in the delineation inventory in Appendix D10. Provide descriptions with supporting data to justify their exclusion as surface waters/wetlands.	Wetlands are discussed in Section 3.4.2 and in Addendum 3.4-A. Figure 3.4-13 show wetlands and waters of the US.	ER	3.4.2.2	3-211	Yes	ER	Addendum 3.4-A		Yes
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Use	For each well with groundwater rights within a 2 mile radius of the site, provide the screen depth and identify the aquifer sands from which groundwater is pumped.	Table 3.4-44 provides location and depth information for sampled water supply wells.	ER	3.4.3	3-188	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide cross-sections showing the water levels in the overlying, ore zone, and underlying aquifers.	Provided in ER Figures 3.4-15 through 3.4-20.	ER	3.4.3	3-213	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide cross-sections that show water levels for the alluvium, "G sand" and "F sand" to clearly identify the surficial aquifer.	Provided in ER Figures 3.4-15 through 3.4-20.	ER	3.4.3	3-213	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide a surface map showing the names and locations of the sands that act as the surficial aquifer and contours of their water levels in feet below ground surface across the proposed license area.	Surficial aquifer potentiometric surface provided in Fig. 3.4-25.	ER	3.4.3	3-223	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide potentiometric contours in msl and groundwater flow direction and gradient for the FG horizon, HJ horizon, and KM horizon across the entire license area, in addition to the fault region provided previously.	Potentiometric contours provided in ER Figures 3.4-21, 22, 24 and 25.	ER	3.4.3	3-219	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide cross-sections showing water levels in msl for the overlying (DE and FG horizon), ore zone (HJ horizon) and underlying aquifers (KM horizon) in the proposed permit area.	Provided in ER Figures 3.4-15 through 3.4-20.	ER	3.4.3	3-213	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide a surface map showing the names and locations of the sands that act as the surficial aquifer (highest occurrence of groundwater) and contours of their water levels in feet below ground surface (bgs) across the proposed permit area.	Surficial aquifer potentiometric surface provided in Fig. 3.4-25.	ER	3.4.3	3-223	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Geology and Seismology	Provide abandonment records for abandoned water wells within the license area. For abandoned water wells that cannot be documented with abandonment records, please clarify whether such wells that are located at or near wellfields may potentially impact the containment of process fluids (i.e., improper well construction or poor well condition that may potentially lead to an excursion).	Abandoned wells and drill holes are discussed in Section 3.1.9 of the ER and in Addenda 2.6-B and 2.6-E of the TR.	ER	3.4.3	3-10	Yes	TR	Addendum 2.6-E		Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide the top of screen and bottom of screen in msl and indicate if each well was completed across the entire aquifer (FG. HJ, KM) horizon or one or more particular sands of each horizon (e.g., UHJ, MHJ, etc.). Also provide the perpendicular distance of each well from the fault.	A well construction summary is provided in Table 3.4-20.	ER	3.4.3.2.	3-156	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Groundwater Quality	A rationale for the number and location of wells selected for preoperational groundwater quality monitoring for the license area. For comparison, Regulatory Guide 4.14, Revision 1, Radiological Effluent and Environmental Monitoring at Uranium Mills provides guidance for preoperational monitoring at conventional uranium mills. While Regulatory Guide 4.14, Revision 1, was developed only for uranium mills, the regulatory objectives of Regulatory Guide 4.14, Revision 1, as well as some of the detailed guidance, are applicable to all types of uranium recovery facilities and the applicant should propose an appropriate preoperational monitoring program for the license area with these objectives and guidelines in mind.	ER Section 3.4.3.2.2 describes the location and number of wells selected for the regional baseline monitoring network.	ER	3.4.3.2.2	3-101	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Groundwater Quality	Provide an explanation of why the number, location, and completion intervals of wells selected for preoperational groundwater quality monitoring in all the horizons provide adequate coverage and are representative of the license area.	Groundwater quality monitoring is discussed in Section 3.4.3.2.2.	ER	3.4.3.2.2	3-101	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Groundwater Hydrology	Groundwater Quality	Include plans to acquire baseline surficial, "uppermost", aquifer water quality for the licensed area.	As described in Section 3.4.3.2.2, the surficial aquifer was monitored.	ER	3.4.3.2.2	3-101	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Hydrology	Provide the rationale or justification for only one location to establish the pre-operational groundwater quality. Spatial variations in water quality should be determined to establish a conceptual model for the aquifer.	ER Section 3.4.3.2.2 describes the location and number of wells selected for the regional baseline monitoring network.	ER	3.4.3.2.2	3-101	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide a description and discussion of the vertical hydraulic gradients across aquitards at the license area.	Gradients and hydraulic conductivity of confining layers are described in ER 3.4.3.3.	ER	3.4.3.3	3-106	Yes				

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ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Groundwater Hydrology	A notation for the type of water use for all wells (stock, drilling water, etc.). Also identify all artesian wells (water level above ground surface) in and surrounding the license area.	Groundwater well uses are indicated in Table 3.4-25.	ER	3.4.3.4	3-168	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Surface Water Hydrology	Surface Water Hydrology	Provide a table listing the data on a parameter-by-parameter, well-by-well or surface-water location by surface-water-location basis using appropriate statistical methods, consistent with Section 2.7.4 of NUREG-1569. Include results of all field-measured parameters including elevations and/or depth to water. For sampling locations that were dry or ice, please note that information in the appropriate column rather than omitting the data altogether from the table. For concentrations below the minimum detection level, please report the data as "less than" and the PQL.	Groundwater quality is discussed in Section 3.4.3.5 of the ER. Groundwater quality results are provided in Addenda 2.7-I through 2.7-L in the TR.	ER	3.4.3.5	3-113	Yes	TR	Addenda 2.7-I thru 2.7-L		Yes
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Quality	Identify the projected WDEQ class of use for the aquifers of importance in the project area.	Class of use standards are discussed in Section 3.4.3.5 and provided in Tables 3.4-30, 3.4-32, 3.4-35, 3.5-38, and 3.4-41.	ER	3.4.3.5	3-182	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Quality	Discrepancies between the WDEQ classification and actual use in and surrounding the license area should be identified, discussed, and reconciled.	A discussion is presented for each type of water supply well (stock, domestic, etc.)	ER	3.4.3.5	3-126	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Groundwater Monitoring	Provide groundwater samples representing a minimum of 12 consecutive months of data.	Groundwater quality is discussed in Section 3.4.3.5 of the ER. Groundwater quality results are provided in Addenda 2.7-I through 2.7-L in the TR.	ER	3.4.3.5	3-113	Yes	TR	Addenda 2.7-I thru 2.7-L		Yes
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Effluent Control Systems	Liquid Wastes	Adequately characterize the baseline groundwater quality in the vicinity of the storage ponds.	SA zone water quality is discussed in Section 3.4.3.5.2.1.	ER	3.4.3.5.2.2	3-119	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Ecology	Big Game	Provide the basis or supporting documentation for that statement that there is no crucial big game habitats or migration corridors in the permit area or surrounding 1.6-km [1-mi] perimeter.	Section 3.5.4.2.2 discusses big game and provides documentation of the lack of critical big game habitats associated with the proposed project.	ER	3.5.4.2.2	3-244	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Meteorology	Baseline Meteorological Data	Provide an annual wind rose summary.	Representations of wind roses from area monitoring sites are provided as Figures 3.6-13, 3.6-14 , 3.6-15, and 3.6-18.	ER	3.6.1.1.4	3-264	Yes	ER	Addendum 3,6-B		Yes
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Meteorology	Provide threshold information for wind direction and wind speed instruments. This information is needed to determine whether this wind direction and speed information is consistent with Regulatory Guide 3.63.	Threshold wind speed and direction information is provided in Table 3.6-5.	ER	3.6.1.1.4	3-289	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Meteorology	Baseline Meteorological Data	If no on-site data is collected, provide justification that data from nearby meteorological stations is representative of the proposed site.	Site specific meteorological data were collected on site as described in Sections 3.6.1.2.	ER	3.6.1.2	3-266	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Meteorology	Baseline Meteorological Data	Provide sufficient information regarding the representativeness of the meteorology of the ACC site to Moore Ranch.	A comparison between site-specific met. data and regional stations is provided.	ER	3.6.1.2	3-266	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Environmental Effects	Radiological Effects	Demonstrate that the meteorological data from Gillette and Casper, Wyoming, are representative of conditions at the site.	The appropriateness of area meteorological data is discussed in Section 3.6.1.2.	ER	3.6.1.2	3-266	Yes	ER	Addendum 3.6-B		Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Site Characterization	Meteorology	Provide information describing the terrain of the Antelope station for the staff to evaluate if the terrain of the Antelope station is representative of the Nichols Ranch ISR Project terrain. (Similar to #405)	The appropriateness of area meteorological data is discussed in Section 3.6.1.2. On-site data were provided.	ER	3.6.1.2	3-266	Yes	ER	Addendum 3.6-B		Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Site Characterization	Meteorology	Discuss the quantitative or qualitative criteria Uranerz used to conclude that the Pumpkin Buttes have little effect to the topography to determine if the meteorological data from Antelope is representative of the Nichols Ranch ISR Project site. (Similar to #405)	The appropriateness of area meteorological data is discussed in Section 3.6.1.2. On-site data were also discussed in this section.	ER	3.6.1.2	3-266	Yes				

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ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Site Characterization	Meteorology	Demonstrate that the period of data used is representative of long-term meteorological conditions in the site vicinity.	The appropriateness of area meteorological data is discussed in Section 3.6.1.2. Long-term conditions were provided.	ER	3.6.1.2	3-266	Yes	ER	Addendum 3.6-B		Yes
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Meteorology	Compare concurrent data from NWS (National Weather Service) station to demonstrate that data taken for Permit Area is representative of long-term meteorological data.	The appropriateness of the NWS data is discussed in Section 3.6.1.2.	ER	3.6.1.2	3-266	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Meteorology	Please clarify what years were used for determining long-term representativeness of meteorological conditions.	The appropriateness of area meteorological data is discussed in Section 3.6.1.2. Long-term conditions were provided.	ER	3.6.1.2	3-266	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Meteorology	Provide average monthly wind rose data (for each month), along with the average annual wind rose data.	Detailed discussions on site meteorological characteristics (including wind direction) are provided in Section 3.6 . Monthly wind roses are provided in Addendum 3.6-B.	ER	3.6.1.2.3	3-267	Yes	ER	Addendum 3,6-B		Yes
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Meteorology	Demonstrate that the wind direction data obtained onsite are representative of the long-term meteorological conditions in the site vicinity, consistent with Regulatory Guides 3.63, 3.46 and NUREG- 1569, Acceptance Criterion 2.5.3(3).	The appropriateness of the on-site wind data is discussed in Section 3.6.1.2.3.	ER	3.6.1.2.3	3-267	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Meteorology	Please demonstrate that basic reduced wind direction, wind speed, and atmospheric stability data is consistent with the recommendations in Regulatory Guide 3.63 or provide justification for an alternate methodology.	The appropriateness of the on-site wind data is discussed in Section 3.6.1.2.3.	ER	3.6.1.2.3	3-267	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Meteorology	Explain the method by which the applicant obtained the atmospheric stability. Regulatory Guide 3.63 recommends that an indication of the atmospheric stability can be obtained by a method such as isolation-cloud cover and wind speed (Pasquili-Gifford and similar methods), temperature lapse rate method, wind fluctuation method, split-sigma method, or Richardson Number.	Atmospheric stability is discussed in Section 3.6.1.2.3.	ER	3.6.1.2.3	3-267	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Meteorology	Provide threshold values for the meteorological instruments measuring wind direction and wind speed consistent with Regulatory Guide 3.63.	Threshold wind speed and direction information is provided in Table 3.6-5.	ER	3.6.1.2.3	3-289	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Meteorology	Baseline Meteorological Data	Discuss a source of mixing height data that is representative of the site.	Mixing height is discussed in Section 3.6.1.4	ER	3.6.1.4	3-271	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Meteorology	Provide information on the height of the meteorological instruments used to generate the data in this application and provide the average mixing layer or inversion height data. This information is important to assess doses to individual members of the public.	Instrument heights are provided in Table 3.6-5 and inversion mixing height is discussed in Section 3.6.1.4.	ER	3.6.1.4	3-289	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Meteorology	Provide information regarding annual average mixing layer heights.	Mixing heights are discussed in Section 3.6.1.4.	ER	3.6.1.4	3-271	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Meteorology	Provide information regarding average inversion height.	Inversion mixing height is discussed in Section 3.6.1.4.	ER	3.6.1.4	3-271	Yes				
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Meteorology	Specify the height at which the data was collected (2 meters or at other heights). Regulatory Guide 3.63 recommends that for atmospheric dispersion assessments, wind speed and wind direction be monitored at approximately 10 meters (33 feet) above the ground. Also, no joint frequency distribution data was provided. The joint frequency distribution shows how frequently each stability class occurs over a given time period.	Instrument heights are provided in Table 3.6-5 and joint frequency data are presented in Tables 3 through 6, Addendum 3.6-B.	ER	3.6.1.4	3-289	Yes	ER	Addendum 3.6-B		Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Meteorology	Baseline Meteorological Data	Discuss any bodies of water or special terrain features which may affect the meteorological conditions at the project.	Bodies of water or special terrain features are discussed in Section 3.6.1.5	ER	3.6.1.5	3-272	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Meteorology	Provide information about the effects of nearby water bodies or terrain on meteorological measurements.	Bodies of water or special terrain features are discussed in Section 3.6.1.5	ER	3.6.1.5	3-272	Yes				

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ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Meteorology	Describe any effects of nearby water bodies on meteorological measurements..	Bodies of water or special terrain features are discussed in Section 3.6.1.5	ER	3.6.1.5	3-272	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Meteorology	Baseline Meteorological Data	Demonstrate that the period of data used is representative of long-term meteorological conditions in the site vicinity.	The appropriateness of the meteorological conditions are discussed in Section 3.6.1.6.	ER	3.6.1.6	3-273	Yes				
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Meteorology	Demonstrate that meteorological data from Lost Soldier is representative of the Lost Creek Permit Area.	The appropriateness of the on-site meteorological conditions are discussed in Section 3.6.1.6.	ER	3.6.1.6	3-273	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Air Quality	Air Quality Impacts	Provide an assessment concerning compliance with Prevention of Significant Deterioration (PSD) regulations.	PSD rules and attainment areas are described in 3.6.	ER	3.6.2.1.3	3-276	Partial				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Noise	Background Sound Levels	Provide any sound level measurement data that was used to determine background existing sound levels. If measurements were not taken, provide the methodologies used to determine background existing sound levels.	Baseline noise measurements are discussed in Section 3.7.3 and summarized in Table 3.7-2. Addendum 3.7-A provides results.	ER	3.7.3	3-328	Yes	ER	Addendum 3.7-A		Yes
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Noise	Background Sound Levels	Please provide field noise measurement data to determine background ambient sound levels.	Baseline noise measurements are discussed in Section 3.7.3 and summarized in Table 3.7-2. Addendum 3.7-A provides results.	ER	3.7.3	3-328	Yes	ER	Addendum 3.7-A		Yes
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Land Use	Land Use Impacts	Provide a map showing the location of all utility lines onsite and specify whether or not these lines will be buried.	Proposed utilities are discussed in 4.1.1.1., including buried gas lines, overhead electrical, and buried electrical. Proposed pipelines are shown on Figure 1.2-6.	ER	4.1.1.1	4-8	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Land Use	Land Use Impacts	Provide the estimated volume and onsite storage location for the stockpiles for each phase of the proposed project (construction, operation, decommissioning, and aquifer restoration).	CPP area topsoil stockpile location is indicated on Figure 1.2-5. Access road stockpiles discussed in Section 4.1.1.1.1.	ER	4.1.1.1	4-5	Yes	ER	1.2	1-52	Yes
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Land Use	Land Use Impacts	Provide details on the termination of any landowner agreements for grazing and other uses as a result of the proposed development of the land for ISL operations.	Changes to existing land uses are discussed in Section 4.1.1.1.1.	ER	4.1.1.1.1	4-3	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Land Use	Land Use Impacts	Discuss how access will be restricted to buildings, ponds, monitor wells, potential irrigation areas, and other structures associated with project activities.	Restricted access discussed in Section 4.1.1.1.2.	ER	4.1.1.1.2	4-8	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Transportation	Road Reclamation	Specify which new or upgraded roads will not be subject to decommissioning. This information is needed to determine future land impacts.	All access roads will be reclaimed unless transferred to affected landowner.	ER	4.1.1.1.2	4-8	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Land Use	Future Land Use	Provide additional information on existing, pending, and potential future land use leases that overlap the proposed project area.	4.1.1.1.4 describes potential impacts to grazing permits.	ER	4.1.1.1.4	4-9	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Ecology	Ecological Impacts	Provide the details of any landowner/BLM agreements regarding the termination of grazing leases due to the proposed ISR operations.	4.1.1.1.4 describes potential impacts to grazing permits.	ER	4.1.1.1.4	4-9	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Housing	Provide information on impacts to housing for counties and towns surrounding the proposed project location. Discuss housing impacts during the construction, aquifer restoration, and decommissioning phases of the proposed project.	Addressed for each phase in 4.10.	ER	4.10.1.1	4-114	Yes	ER	4.10.1.2	4-119	Yes
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Schools	Provide information on educational impacts for counties and towns surrounding the proposed project location. Discuss educational impacts during the construction, aquifer restoration, and decommissioning phases of the proposed project.	Addressed for each phase in 4.10.	ER	4.10.1.1	4-116	Yes	ER	4.10.1.2	4-122	Yes

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ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Health and social services	Provide information on impacts to health and social services for counties and towns surrounding the proposed project location. Discuss impacts to health and social services during the construction, aquifer restoration, and decommissioning phases of the proposed project.	Addressed for each phase in 4.10.	ER	4.10.1.1	4-116	Yes	ER	4.10.1.2	4-122	Yes
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Local finance	Provide additional data on mining and mineral resource development in the vicinity of the proposed project area and information on the amount of revenue mining generates and note whether any state ad valorem taxes are levied.	Tax impacts, including ad valorem tax, are discussed in 4.10.1.2. Area mineral taxes are discussed in cumulative impacts.	ER	4.10.1.2	4-121	Yes	ER	2.2.9.2	2-43	Yes
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Local finance	Provide information on impacts to local finance for counties and towns surrounding the proposed project location.	Addressed for each phase in 4.10.	ER	4.10.1.2	4-120	Yes	ER	3.10.3.3	3-371	Yes
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Socioeconomics	Labor force	Provide labor force and employment information for the aquifer restoration and decommissioning phases of the proposed project.	Refer to 4.10.1.3 (aquifer restoration) and 4.10.1.4 (decommissioning)	ER	4.10.1.3	4-122	Yes	ER	4.10.1.4	4-128	Yes
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Waste Management	Brine Disposal	Provide an evaluation of the potential radiological impact for deep disposal which addresses the proposed total radioactivity, and potential radiological dose to members of the public for all feasible exposure pathways.	Potential radiological exposure from deep disposal is addressed in 4.12.	ER	4.12.1.2	4-129	Yes	ER	4.13.1.1.1.1	4-160	Yes
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Public and Occupational Health	Public and Occupational Health Impacts	Provide a technical justification or an evaluation of potential radiological impact for the use of deep well injection for disposal of byproduct liquid waste addressing proposed total radioactivity and potential radiological doses to members of the public for any feasible exposure pathways.	Potential radiological exposure from deep disposal is addressed in 4.12.	ER	4.12.1.2	4-129	Yes	ER	4.13.1.1.1.1	4-160	Yes
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Public and Occupational Health	Occupational Injuries	Provide an overall estimate of injury and illness for the facility operations including the anticipated total hours worked by facility personnel.	Work related accidents are discussed in Section 4.12.1.2.2.	ER	4.12.1.2.2	4-129	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Public and Occupational Health	Public and Occupational Health Impacts	Provide information (i.e., for the past 5 years) on the U.S. Department of Labor Bureau of Labor Statistics reported incident rate and lost-time incident rate for ISR facilities, including the associated North American Industry Classification System code. The U.S. Department of Labor Bureau of Labor Statistics reports incident rates for manufacturing facilities such as Dewey- Burdock, which can be used for comparing work injuries, illnesses, and accidents within an industry.	ER 4.12 addresses work-related accidents for mining and other related industries in Wyoming.	ER	4.12.1.2.2.1	4-129	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Public and Occupational Health	Maximally exposed member of the public	Provides assessments for the radiation exposure to members of the public and occupation exposure to radon. Additional information is needed for evaluating the modeling used for estimating both the doses to members of the public and to occupationally exposed individuals for assess overall health effects. The drilling of the injection and extraction wells has the potential to result in residual surface soils with elevated levels of radioactivity from cuttings where drilling encounters the uranium/radium bearing ore. Provide information how these soils will be managed to ensure residual levels do not exceed acceptable levels.	Potential exposure to members of the public are discussed in ER 4.12.1.2.3 and TR 7.3.6.	ER	4.12.1.2.3	4-141	Yes	TR	7.3.6	7-55	Yes
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss the analysis of the maximum exposed member of the public	Potential exposure to members of the public are discussed in ER 4.12.1.2.3 and TR 7.3.6.	ER	4.12.1.2.3	4-141	Yes	TR	7.3.6	7-55	Yes
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Soils	Soil Impacts	Provide information on how freezing and thawing issues related to the maintenance of header houses (i.e., a possible break in aboveground piping) will be addressed to minimize impacts to soils.	While freeze/thaw breaks are not specifically discussed, Section 4.12.1.2.3.3 discusses wellfield spill/pipeline failure details as they relate to soil contamination.	ER	4.12.1.2.3	4-145	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Public and Occupational Health	Radiological Accidents	Discussion in the ER indicated that an analysis done in NUREG/CR-6733 on the potential dose to an unprotected worker during a yellowcake thickener accident was unrealistic because protective measures and timely cleanup were not considered. Provide additional information applicable to ensuring doses from this accident remain small.	Section 4.12.1.2.4 discusses this issue.	ER	4.12.1.2.4	4-144	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Public and Occupational Health	Public and Occupational Health and Safety Impacts	Provide an analysis or discussion of a yellowcake thickener failure and catastrophic tank failure based on how the accident assumptions and scenarios presented in the ER are applicable to the Dewey-Burdock project, and discuss the particular mitigation measures employed to minimize accident impacts on occupational health.	Section 4.12.1.2.4 discusses this issue.	ER	4.12.1.2.4	4-144	Yes				

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ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Waste Management	Permeate	Provide additional description of the treatment and disposal methods that would be applied to waste streams before disposal.	Indicated that radium reduction might be needed using BaCl2 or zeolite (WRT)	ER	4.13.1.1.1.2	4-163	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Waste Management	Quantities	Provide information showing that there is sufficient capacity at the proposed waste disposal sites to be used for hazardous, mixed, and radioactive wastes.	Capacities of 4 potential disposal facilities is compared to anticipated quantity generated from Ross.	ER	4.13.1.1.1.4	4-168	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Waste Management	Volumes	Clarify how this waste material (settling pond bottom waste material) would be classified for transportation (e.g., low specific activity), the type of packaging that would be used, and the approximate amounts of the waste material that would be included in a typical waste shipment.	ER Waste Management (4.13) addresses pond sludge as solid 11e.(2) byproduct material.	ER	4.13.1.1.1.4	4-166	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Waste Management	Solid Waste	Provide how solid wastes would be managed, including storage location and disposal location.	AEA-regulated and non-AEA-regulated solid waste management are addressed in 4.13.	ER	4.13.1.1.2.1	4-169	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Waste Management	Solid Waste	Describe the types and expected volume of solid wastes generated during construction.	Solid waste generated during construction is addressed in 4.13.1.1.2.1.	ER	4.13.1.1.2.1	4-169	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Transportation	Waste Shipment	Provide the names and locations of facilities where it plans to send its nonradioactive, nonhazardous solid wastes. If no such plans have yet been formulated provide a list of facilities it believes are likely candidates for receipt of this waste.	Candidate facilities include Moorcroft, Sundance or Gillette.	ER	4.13.1.1.2.1	4-170	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Waste Management	Solid Waste	Describe the types and expected volume of solid wastes generated during operations.	Solid waste generated during operation is addressed in 4.13.1.1.2.1.	ER	4.13.1.1.2.1	4-170	Yes				
ML100610158	Lost Creek 3rd Round WDEQ Comment Responses	10/22/2009	Lost Creek	Lost Creek	Response to WDEQ Comments	Waste Management	Storage	Discuss specifically where petroleum and chemical products, or hazardous and non-hazardous waste streams will be stored. Preferably these containers will be stored in-doors where they are not subjected to the elements and have adequate secondary containment. If they are to be stored outdoors, please indicate whether there will be roofing, locked fencing, and secondary containment.	Hazardous waste storage is addressed in 4.13.	ER	4.13.1.1.2.3	4-173	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Waste Management	Septic System	Provide the approximate location and size of the septic system leach field.	Septic waste permitting and disposal are addressed.	ER	4.13.1.1.2.4	4-174	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Waste Management	Septic System	Provide the type of septic system being proposed. If collected in a tank, provide final disposal site.	Septic waste permitting and disposal are addressed.	ER	4.13.1.1.2.4	4-174	Yes				
ML100610158	Lost Creek 3rd Round WDEQ Comment Responses	10/22/2009	Lost Creek	Lost Creek	Response to WDEQ Comments	Waste Management	Septic System	Include the permit for the domestic sewage/septic system in the mine permit application. Additionally the disposal of domestic waste must be addressed.	Septic waste permitting and disposal are addressed.	ER	4.13.1.1.2.4	4-174	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Transportation	Road Construction	Identify the roads that would be upgraded, and how would they be improved.	Strata will implement roadway evaluation system and work with Crook County to upgrade and maintain roads as needed.	ER	4.2.1	4-14	Yes	ER	5.2.2	5-16	Yes
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Transportation	Road Maintenance	Provide the general type of maintenance plan that would be proposed for the roads used to access the site.	Strata will implement roadway evaluation system and work with Crook County to upgrade and maintain roads as needed.	ER	4.2.1	4-14	Yes	ER	5.2.2	5-16	Yes
ML100610158	Lost Creek 3rd Round WDEQ Comment Responses	10/22/2009	Lost Creek	Lost Creek	Response to WDEQ Comments	Transportation	Transportation Routes	Discuss the primary access road to the plant and secondary access roads to the mine units. Clarification is needed relative to road classifications and widths.	Access road construction is described, including road widths.	ER	4.2.1.1	4-15	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Noise	Noise Impacts	Provide any future projections of traffic volumes and the percentage of trucks on these roadways.	Traffic volumes were projected along I-90 and county roads.	ER	4.2.1.1	4-19	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Transportation	Waste Shipment	Provide information about the final destination of the radioactive waste, mixed waste, and nonradioactive waste. If this has not yet been decided, provide information on the most likely disposal sites and the proposed transportation routes to these sites.	Four options provided for 11e.(2) solid waste. Three options are provided for non-hazardous, non-11e.(2) solid waste.	ER	4.2.1.2	4-25	Yes	ER	4.2.1.2	4-28	Yes

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ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Transportation	Yellowcake Shipment	An assessment of the increase in truck traffic transporting yellowcake.	No. of shipments of yellowcake provided. Transportation route also provided.	ER	4.2.1.2	4-21	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Transportation	Resin Shipment	Please provide a discussion related to shipping and handling of third party resins, including potential impacts of shipping and transportation. Furthermore, such third parties must be identified in the license. Therefore, the parties must be identified in this license application or subsequent license amendment applications.	Loaded resin shipments addressed in ER 4.2.1.2 (pg. 4-24). ER 1.1 addresses licensing to receive uranium-loaded resin.	ER	4.2.1.2	4-24	Yes	ER	1.1	1-4	Yes
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Transportation	Resin Shipment	Discuss transportation related accidents associated with the shipping of third party ion exchange resins from other LC satellites or other producers, or how the resins will be handled.	Potential accidents involving loaded resin shipments addressed in ER 4.2.1.2.	ER	4.2.1.2	4-24	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Transportation	Chemical Shipments	Provide an estimate of the daily or annual chemical supply shipments during the operations phase	Process chemical shipments provided in transportation impacts	ER	4.2.1.2	4-23	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Drilling Contamination	Provide information on how soils which may become contaminated during drilling from contact with cuttings and fluid will be monitored and controlled to ensure residual levels do not exceed acceptable limits.	Soil contamination during drilling discussed in Section 4.3.1.1.1. TENORM waste management is discussed in Section 4.13.1.1.2.2.	ER	4.3.1.1.1	4-39	Yes	ER	4.13.1.1.2.2	4-171	Yes
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Impacts	Provide an analysis of the potential impacts to surficial soils and shallow groundwater during facility construction, including well field installation and testing. The analysis should address potential impacts from drilling operations, including the management of drilling fluids and wastes, on shallow groundwater and other potential spills that may occur during facility construction, including the release of fuels and lubricants.	Potential construction impacts to surface soils are described in ER 4.3.1.1.1. Potential construction impacts to shallow groundwater are discussed in Section 4.4.2.1.	ER	4.3.1.1.1	4-38	Yes	ER	4.4.2.1	4-52	Yes
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Provide a detailed site plan showing the proposed well locations, new road work, underground piping, utilities, and processing plants in relation to all channels, wetlands, and ponds. Also estimate the number of injection and production wells, and the number of new road crossings, pipe crossing, utility crossings, buildings and storage ponds that will be placed in existing water features. Provide justification for the encroachments if any, and efforts taken to avoid, minimize and mitigate these impacts.	Figure 4.4-1 depicts flood inundation boundaries in relation to proposed facilities. Section 5.4.1.2 describes flood protection.	ER	4.4.1	4-74	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Provide provisions for erosion and wellhead protection against the effects of flooding from all drainages that flow near or through planned wellfields or an explanation why protection is not necessary. All berms, culverts, rock riprap, drainage or diversion channels must be designed to meet the requirements of 10 CFR Part 40, Appendix A.	Figure 4.4-1 depicts flood inundation boundaries in relation to proposed facilities. Section 5.4.1.2 describes flood protection.	ER	4.4.1	4-74	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Provide a detailed map showing proposed well locations, new road work, underground piping, utilities, and processing plants in relation to all channels, wetlands and ponds. If details are unknown, please show on the detailed map the areas where they might occur.	Figure 4.4-1 depicts flood inundation boundaries in relation to proposed facilities. Section 5.4.1.2 describes flood protection.	ER	4.4.1	4-74	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Quantify the number of new road crossings, pipe crossings, utility crossings, and buildings that may be placed in surface water features.	Figure 4.4-1 shows that 3 stream crossings are anticipated for access roads.	ER	4.4.1	4-74	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Identify specific structures (e.g., road and pipeline crossings, buildings, storage areas, etc.) that would be located on/within surface (albeit ephemeral) water features (incl. wetlands).	Figure 4.4-1 depicts flood inundation boundaries in relation to proposed facilities. Section 5.4.1.2 describes flood protection.	ER	4.4.1	4-74	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Groundwater Hydrology	Groundwater Impacts	If water rights permit cannot be secured for the Madison aquifer provide information on the potential alternatives to meet water requirements during operations and aquifer restoration and how each alternative would impact groundwater levels, flow rates, and flow directions.	Detailed discussions on impacts to groundwater resulting from Ross Project activities are provided in Section 4.4.2.	ER	4.4.2	4-52	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Groundwater Hydrology	Groundwater Impacts	Provide information on expected water consumptive use of groundwater during construction of the proposed project such as dust control, drilling support, cement mixing, and aquifer pump tests	Construction impacts to groundwater quantity are described in 4.4.2.	ER	4.4.2.1	4-52	Yes				

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ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Impacts	Provide an analysis of the potential impact of a release at the surface on shallow groundwater which includes considerations for depth to water table, the permeability of the materials in the unsaturated zone, the potential adsorption of constituents in unsaturated zone materials, and the volume of any potential releases.	Potential impacts to shallow groundwater are discussed in Section 4.4.2.3.1.	ER	4.4.2.3.1	4-56	Yes				
ML093440306	Moore Ranch Response to SER Open Issues Part 1	12/4/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Excursions	Provide discussion/assurance that corrective actions used to capture an excursion will not lead to excessive dewatering of the aquifer.	While excursion corrective actions impacts on aquifers are not specifically discussed, Section 4.4.2.3.4 discusses general water quantity impacts related to operations.	ER	4.4.2.3.4	4-63	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Impacts	Provide a figure depicting predicted drawdowns throughout the model domain which includes all of the existing wells which could be potentially impacted either during operation or restoration.	Drawdown illustrations are provided in Figures 4.4-3 and 4.4-4 and TR Addendum 2.7-H.	ER	4.4.2.3.4	4-77	Yes	TR	Addendum 2.7-H		Yes
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Impacts	Provide the characteristics of the potentially affected wells referenced in RAI #116. Include the screen depths, available drawdown, the predicted drawdown during both ISR operation and restoration, and likely impact of those drawdowns on the assigned yield for each well.	Drawdown impacts to specific wells are provided in Tables 4.4-1 and 4.4-2 and TR Addendum 2.7-H.	ER	4.4.2.3.4	4-71	Yes	TR	Addendum 2.7-H		Yes
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Impacts	Provide a brief description of the disposal wells currently planned, including the strata into which injection is being proposed, the water quality and degree of isolation of those strata, and the potential environmental impacts of the proposed injection into those strata.	Impacts to aquifers resulting from deep well disposal are discussed in Section 4.4.2.3.5. and TR Addendum 4.2-A.	ER	4.4.2.3.5	4-66	Yes	TR	Addendum 4.2-A		Yes
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Ecology	Ecological Impacts	Please provide information as to how wildlife and livestock will be excluded (e.g., fencing) from areas of construction and site preparation activities.	Fencing to exclude wildlife from construction and operations areas is discussed in Section 4.5.1.2.	ER	4.5.1.2	4-87	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Air Quality	Emissions	Provide emission estimates discretely for all four ISR phases (construction, operations, aquifer restoration, and decommissioning).	Emissions estimates for all phases are provided in Table 4.6-1. Emission inventory provided in Addendum 4.6-A in ER.	ER	4.6.1	4-94	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Air Quality	Greenhouse Gases	Address greenhouse gas emission levels for the ISR phases by providing estimates in terms of CO2 equivalents, providing the basis for the emission levels, and including other sources such as electricity consumption.	CO_2 emissions for all phases of the project are included in Table 4.6-1.	ER	4.6.1	4-94	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Air Quality	Greenhouse Gases	Discuss the applicability of any greenhouse gas regulations, and if appropriate, address compliance with these regulations.	CO_2 emissions for all phases of the project are included in Table 4.6-1. No discussion of greenhouse gas regulations has been provided.	ER	4.6.1	4-94	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Air Quality	Dust	Clarify whether traffic from commuting workers was included in the fugitive dust emissions estimates, and if it was not, either provide an updated estimate that includes commuting worker traffic or provide the basis for excluding the information.	As described in Section 4.6.1.2, fugitive dust emission estimates include employee and contract worker vehicle travel.	ER	4.6.1.2	4-91	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Noise	Noise Impacts	Provide information on the noise impacts of the project during construction. Specifically, provide projections of typical machinery to be used at the project and the reference sound levels associated with construction activities. Also provide the projected truck traffic associated with construction on the roadways leading to the proposed facility.	Equipment sound levels provided, Table 4.7-1.	ER	4.7.1.1	4-101	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Noise	Noise Impacts	Provide projections of typical equipment and their reference sound levels that would be associated with activities during each phase of the proposed project.	Equipment sound levels provided, Table 4.7-1.	ER	4.7.1.1	4-101	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Noise	Noise Impacts	Please provide a list of equipment and vehicles that would be used at the site during construction and operation, and 'cut' sheets that present specifications (including noise levels) for those pieces of equipment.	Potential noise impacts during operation are described in 4.7.1.2.	ER	4.7.1.2	4-99	Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Transportation	Road Maintenance	Given the increase in traffic proposed by the ISR operation, provide information on the type of maintenance that is proposed for on-site roads.	ER Section 5.2 addresses maintenance on on-site roads.	ER	5.2.1	5-13	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Transportation	Road Maintenance	Discuss how the onsite and local roads will be maintained throughout the life of the project.	Road maintenance, including coordination with Crook County, is described in 5.2.	ER	5.2.2	5-16	Yes				

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ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Provide the specific measures that are currently proposed to minimize the potential impact upon these features.	Mitigation practices are described in Section 5.4.1.	ER	5.4.1	5-29	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Surface Water Hydrology	Storm Water	Provide how storm water would be managed.	Storm water management, permitting and BMPs are described in ER 5.4.	ER	5.4.1.1	5-29	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Surface Water Hydrology	Erosion Control/Flood Protection	Provide provisions for erosion protection against the effects of flooding from drainages which pass near or through planned well fields. Designs for erosion control should follow the requirements of 10 CFR Part 40 Appendix A.	Erosion protection for wellfield is discussed in Section 5.4.1.1 of the ER and in Section 3.1.9 of the TR.	ER	5.4.1.1	5-29	Yes	TR	3.1.9	3-25	Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Provide provisions for erosion and wellhead protection against the effects of flooding from all drainages in the license area which pass near or through planned wellfields, or explain why protection is not necessary. All berms, culverts, rock riprap, drainage, or diversion channels are suggested to follow a design which meets the requirements of 10 CFR Part 40, Appendix A.	Erosion protection for wellfield is discussed in Section 5.4.1.1 of the ER and in Section 3.1.9 of the TR.	ER	5.4.1.1	5-29	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Surface Water Hydrology	Surface Water Hydrology	Provide an estimate of high water marks of significant channel flow and provide specific plans for the protection of infrastructure (e.g., well heads and header houses) within the high water marks of significant channel flow.	Figure 4.4-1 depicts flood inundation boundaries in relation to proposed facilities. Section 5.4.1.2 describes flood protection.	ER	5.4.1.2	5-30	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Surface Water Hydrology	Erosion Control/Flood Protection	Discuss the potential for flooding of the area around the central plant facility and the provisions to protect critical equipment and components.	Flood protection for the facilities is discussed in Section 5.4.1.2 of the ER and in Section 3.1.9 of the TR.	ER	5.4.1.2	5-30	Yes	TR	3.1.9	3-25	Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Provide a discussion of the potential for flooding of the area around the central plant facility and the provisions to protect critical equipment and components.	Flood protection for the facilities is discussed in Section 5.4.1.2 of the ER and in Section 3.1.9 of the TR.	ER	5.4.1.2	5-30	Yes	TR	3.1.9	3-25	Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Provide a discussion of the potential for flooding of the area around the central processing plant and the provisions to protect critical equipment and components.	Flood protection for the facilities is discussed in Section 5.4.1.2 of the ER and in Section 3.1.9 of the TR.	ER	5.4.1.2	5-30	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Impacts	Provide justification for the encroachments and steps taken to avoid, minimize, and mitigate such impacts.	Wetland encroachment is described in Section 5.4.1.3	ER	5.4.1.3	5-31	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Surface Water Hydrology	Surface Water Features	For each surface discharge from an ISR facility, state whether the discharge will be to an artificially made or natural wetland or stream. Also map the locations where there will be a surface discharge and label whether the receiving water feature is intermittent or ephemeral, and artificially made or natural.	Section 5.4.1.5 describes how energy dissipation devices would be used to convey WYPDES discharge water to a receiving channel.	ER	5.4.1.5	5-33	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Impacts	Identify and discuss best management practices that are planned during the construction phase to minimize impacts to groundwater during facility construction.	Mitigation practices are outlined in Section 5.4.2.	ER	5.4.2	5-34	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide a discussion and statement of what actions the applicant plans to take to mitigate the impact of large water level drawdowns from consumptive use in the "A sand" on water wells within a five mile radius of the license area. Pumping drawdown analysis indicates large water level drawdown created by planned consumptive use over a wide area surrounding the license area.	Section 5.4.2.1.2 presents measures which will be used to mitigate potential drawdown impacts during operation and aquifer restoration. Section 4.4 of the ER and TR Addendum 2.7-H discuss potential impacts.	ER	5.4.2	5-36	Yes	TR	Addendum 2.7-H		Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Meteorology	Provide justification for using the downwind radon monitoring location.	As described in Section 6.1.1.1, radon will be monitored at all air particulate samplers as well as other areas of interest, including residences.	ER	6.1.1.1	6-3	Yes	TR	5.7.7	5-74	Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Meteorology	Provide information regarding instrumentation used to collect radon gas measurements.	Radon sampling instrumentation is discussed in Section 6.1.1.1.	ER	6.1.1.1	6-3	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Meteorology	Provide information regarding instrumentation used for gamma air sampling.	Gamma instruments are discussed in ER Section 6.1.1.1.	ER	6.1.1.1	6-3	Yes	TR	Addendum 2.9-B		Yes

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ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Meteorology	Provide criteria used in determining where to place the radon monitors and air particulate samplers.	Criteria used for sampler location selection are listed in Section 6.1.1.1.	ER	6.1.1.1	6-2	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Effluent Control Systems	Gaseous and Airborne Particulates	Provide a commitment to include analysis for Pb-210 in the operational air sampling program in accordance with Regulatory Guide 4.14 and to validate model results.	Pb 210 sampling is discussed in Section 6.1.1.1.	ER	6.1.1.1	6-2	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Commit to collecting pre-operational data on a seasonal basis for a minimum of 1 year before in situ recovery operations.	Pre-operational data collection and monitoring is discussed in Section 6.2.1 and was conducted as outlined for at least one year. 6.2.1 describes how physiochemical monitoring will continue prior to construction and operation.	ER	6.2.1	6-9	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Environmental Measurements and Monitoring Programs	Groundwater Monitoring	Provide information to justify excluding multiple major and trace elements from the proposed baseline and operational groundwater monitoring analyte list.	Table 6.2-1 describes proposed parameter list.	ER	6.2.3	6-16	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Environmental Measurements and Monitoring Programs	Surface Water Monitoring	Discuss surface water monitoring for the project area during operations	Detailed discussions on surface water monitoring are provided in Section 6.2.3.1.	ER	6.2.3.1	6-12	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Hydrology	Please provide an evaluation that wells screened in one HJ Horizon subhorizon will provide timely detection of an excursion for production in the other subhorizons. Regulatory Basis: 10 CFR Part 40 Appendix A, Criterion 7A.	Excursion detection is discussed in Section 6.2.3.3.	ER	6.2.3.3	6-13	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Wetlands	Wetlands	Provide documentation supporting the recommendation of the status of wetlands identified during the wetlands survey that was made to the USACE (e.g., description of vegetation, soils, etc.). If any wetlands are determined to be jurisdictional, describe what mitigation methods will be applied.	Documentation provided in report in Wetlands Addendum 3.4-A. Since submitting license application, USACE has verified initial delineation.	ER	Addendum 3.4-A		Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Site Characterization	Meteorology	Provide information on the maintenance, inspection, or service of the Antelope meteorological station. Meteorological calibration records are required to be maintained as part of the radiation safety records.	Addendum 3.6-A provides information on meteorological equipment and calibration.	ER	Addendum 3.6-A		Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Meteorology	Demonstrate that the applicant's system maintenance and servicing schedule during the onsite data collection period is consistent with Regulatory Guide 3.63 or provide justification for an alternate methodology. Meteorological systems should be inspected at least once every 15 days and serviced at a frequency that will minimize extended periods of outage and ensure an annual data recovery of at least 90% for each individual parameter measured (at least an annual 75% joint data recovery for wind speed, wind direction, and atmospheric stability).	Meteorological station maintenance is outlined in Addendum 3.6-A.	ER	Addendum 3.6-A		Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Meteorology	Demonstrate that the applicant's calibration program during the onsite data collection period is consistent with Regulatory Guide 3.63 or provide justification for an alternate methodology. Regulatory Guide 3.63 recommends that meteorological systems be calibrated at least semiannually to ensure that the system accuracies in this guide are met.	Meteorological station calibration is outlined in Addendum 3.6-A.	ER	Addendum 3.6-A		Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Environmental Measurements and Monitoring Programs	Meteorology Monitoring	Provide sufficient information demonstrating that the meteorological system will be calibrated in accordance with Regulatory Guide 3.63 (at least semiannually.	Addendum 3.6-A provides information on meteorological equipment and calibration, which was done according to the requirements of NRC Regulatory Guide 3.63.	ER	Addendum 3.6-A		Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Meteorology	Provide seasonal diurnal data for a 24-hour period.	Diurnal seasonal temperatures are provided in Figure 5 in Addendum 3.6-B.	ER	Addendum 3.6-B	Figure 5	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Meteorology	Provide information regarding total evaporation by month.	Monthly pan evaporation rates are provided in Figure 22 of Addendum 3.6-B.	ER	Addendum 3.6-B		Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Meteorology	Provide wind stability class in tabular format.	Tables 3-6 in ER Addendum 3.6-B present stability class data in tabular format.	ER	Addendum 3.6-B		Yes				

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ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Meteorology	Provide specific recovery data for wind and stability measurements. Regarding data recovery, the applicant reported only that all data had “a recovery rate of over 90 percent.” Regulatory Guide 3.63 recommends at least 90% annual recovery for each individual parameter measured with at least an annual 75% joint data recovery for wind speed, wind direction, and atmospheric stability.	% data recovery is provided in Figure 13 of Addendum 3.6-B.	ER	Addendum 3.6-B		Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Meteorology	Please provide quarterly and annual wind direction, wind speed, and atmospheric stability data compiled in joint frequency and joint relative frequency (i.e., decimal frequency) form for heights representative of effluent releases consistent with Regulatory Guide 3.63 or provide justification for an alternate methodology. In addition, stability categories should be established to conform as closely as possible with those of Pasquill.	Quarterly and annual wind data are provided in Addendum 3.6-B.	ER	Addendum 3.6-B		Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Meteorology	Please provide an annual wind rose summary for the 16 compass directions for the project site, consistent with Regulatory Guide 3.63.	An annual wind rose summary is provided in Figure 6 of Addendum 3.6-B of the ER.	ER	Addendum 3.6-B		Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Noise	Background Sound Levels	Provide the following information regarding field measurements taken at the site: 1) Type of instrument used. 2) Directionality of measurements. 3) Weather (meteorological) conditions at the time the measurements were taken. 4) Time of day when the measurements taken. 5) How the measurements recorded (continuous vs. averaged [over what period]). 6) The dB scale used. 7) The duration of the measurements. 8) Whether the measurements would be repeated at another time. 9) A table of the results along with a map of the locations of the measurements.	Information provided in Section 3.7 and Addendum 3.7-A.	ER	Addendum 3.7-A		Yes	ER	3.7.3	3-325	Yes
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Historic and Cultural Resources	Historic and Cultural Resources	Provide a description of previously reported cultural and historical sites. (The cultural and historical inventory that NRC received with the application was missing several pages).	The baseline cultural resources report is provided as Addendum 3.8-A.	ER	Addendum 3.8-A		Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Historic and Cultural Resources	Historic and Cultural Resources	Provide confirmation in the form of field maps, field notes, or identification of report sections, that a cultural resources assessment was completed for the access roads proposed for use during construction and for the permanent routes that will be used to access the facilities.	No access roads are proposed outside of the proposed license area. The baseline cultural resources report is provided as Addendum 3.8-A.	ER	Addendum 3.8-A		Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Historic and Cultural Resources	Historic and Cultural Resources	Provide a map which shows all previously surveyed land blocks and the locations of all sites and isolated finds.	The baseline cultural resources report is provided as Addendum 3.8-A.	ER	Addendum 3.8-A		Yes				
ML091900402	Moore Ranch 1st Response to RAI ER 1	6/19/2009	Uranium One	Moore Ranch	Request for Additional Information	Historic and Cultural Resources	Historic and Cultural Resources	Provide information on how the archeological and historic resources were identified within and near the proposed license area, and subsequently marked and protected.	The baseline cultural resources report is provided as Addendum 3.8-A.	ER	Addendum 3.8-A		Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Historic and Cultural Resources	Historic and Cultural Resources	Clarify if cultural resources assessment was completed for the proposed access roads and permanent routes used to access the facilities.	No access roads are proposed outside of the proposed license area. The baseline cultural resources report is provided as Addendum 3.8-A.	ER	Addendum 3.8-A		Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Historic and Cultural Resources	Historic and Cultural Resources	Explain why only 240 acres of the proposed project site were included in the Class III cultural resources survey. If additional surveys have been completed, provide that information.	The baseline cultural resources report is provided as Addendum 3.8-A.	ER	Addendum 3.8-A		Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Historic and Cultural Resources	Historic and Cultural Resources	Provide a single map showing the location and boundaries of documented archaeological sites and historic structures with respect to proposed facilities (i.e., central processing plant, satellite plant, well fields, ponds, potential irrigation areas) to be constructed within the proposed project area.	The baseline cultural resources report is provided as Addendum 3.8-A.	ER	Addendum 3.8-A		Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Public and Occupational Health	Public and Occupational Health Impacts	Provide a comparison of the annual use, projected air emissions and concentrations, and applicable permit levels to substantiate the statement made in the ER that "Emission rates for these chemicals are well below the threshold that would trigger a permit."	Emission inventory provided as Addendum 4.6-A in ER	ER	Addendum 4.6-A		Yes				

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ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Air Quality	Emissions	Provide emission estimates for vehicle traffic during each phase of the proposed project (construction, operation, decommissioning, aquifer restoration) including assumptions (i.e., number of vehicles, types of vehicles, fuel usage, type of fuel).	Emission inventory provided as Addendum 4.6-A in ER	ER	Addendum 4.6-A		Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Air Quality	Emissions	Explain how the emission levels relate to compliance with ambient air standards because the values are expressed in different terms, and if appropriate, provide supplemental information (such as emission estimates expressed in concentrations)	Emission inventory provided as Addendum 4.6-A in ER	ER	Addendum 4.6-A		Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Noise	Noise Impacts	Provide the types (and number) of vehicles (and equipment) that would be used to operate the site.	Equipment types provided in preliminary emissions inventory, ER Addendum 4.6-A.	ER	Addendum 4.6-A		Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Site Characterization	Site Location and Layout	Provide the coordinates of the central processing plant and the distance to major population centers.	Provided.	TR	2.1	2-3	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Site Characterization	Site Location and Layout	Provide the total area within both the proposed license area and the restricted area.	Section 2.1 defines the total permit area as well as the secure area within the permit area.	TR	2.1	2-2	Yes	ER	1.2.3	1-9	Yes
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Analyze and provide results for appropriate food samples, livestock, poultry, and their products, consistent with Regulatory Guides 4.14 Section 1.1.3, "Vegetation, Food and Fish Samples," and 3.46. In this response, please describe actions taken by the applicant to determine the agricultural use of adjacent lands.	Food sampling results are discussed in Sections 2.9.2.9, 2.9.2.10, 2.9.2.11, and 2.9.2.12.	TR	2.9	Various	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Provide a clarification and explanation for how selective completion of the mine unit monitoring well ring in specific sands in the HJ horizon will be sufficient to capture horizontal excursions outside the extraction zone. Furthermore, please justify the use of 500 feet for the monitoring well ring spacing.	Addendum 2.7-H presents analysis used to determine monitor well offset and spacing.	TR	Addendum 2.7-H		Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Description of the Proposed Facility	Wellfield Monitor Wells	Justify the spacing for the perimeter monitoring ring based on site-specific hydrogeological and geochemical conditions.	Addendum 2.7-H presents analysis used to determine monitor well offset and spacing.	TR	Addendum 2.7-H		Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Alternatives	Structures	Discuss the Structures (buildings and outside areas) and, the steps that actually lead to the decision to use the ISL process to recover uranium	TR Section 3.2 describes CPP and chemical storage facilities.	TR	3.2	3-48	Yes				
ML090370541	Moore Ranch 2nd Response to RAI_TR_2.1-3.3	10/27/2008	Uranium One	Moore Ranch	Request for Additional Information	Description of the Proposed Facility	Process Instrumentation and Controls	Provide detailed descriptions of process instrumentation and controls and radiation safety monitoring instrumentation including their minimum specifications and operating characteristics. Also include information on backup systems, monitoring criteria, and yellowcake dryer instrumentation and control. Descriptions should focus on how the instrumentation and controls are adequate to identify and remedy all potential processing problems quickly.	Section 3.3 provides detailed discussion of instrumentation and control.	TR	3.3	Various	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Description of the Proposed Facility	Chemical Storage Facilities	Provide detailed and specific descriptions of the process and wellfield instrumentation, controls and radiation safety monitoring instrumentation, including their minimum specifications and operating characteristics. The descriptions of the process and wellfield instrumentation and controls and radiation safety monitoring instrumentation need to be more detailed and specific, including their minimum specifications and operating characteristics (alarms, interlocks, etc.). The descriptions should focus on how the instrumentation and controls are adequate to quickly identify and remedy all potential processing problems that can increase exposures to radiological and chemical hazards.	Section 3.3 provides detailed discussion of instrumentation and control.	TR	3.3	Various	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Provide descriptions of the process and wellfield instrumentation, controls and radiation safety monitoring instrumentation, including their minimum specifications and operating characteristics. The descriptions should focus on how the instrumentation and controls are adequate to identify quickly and remedy all potential processing problems that can increase exposures to radiological and chemical hazards.	Section 3.3 provides detailed discussion of instrumentation and control.	TR	3.3	Various	Yes				

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ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Effluent Controls System	Gaseous and Airborne Particulates	Describe the work area ventilation system in more detail. In general, the current description of the ventilation system is not adequate. For example, the discussion should include how many fans are used to ventilate the general area facility, the intake and exhaust points for the general area ventilation, the general area ventilation intake flow rate into the facility, the exchange rate and how radiation monitors are used to measure effluent releases. Consider that open doorways and convection vents will assist in providing satisfactory work area ventilation.	A general description of the plant area ventilation system is included in Section 4.1.2.	TR	4.1	4-3 & 4-4	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Waste Management	Brine Disposal	Provide an explanation as to how waste fluids will be handled if the disposal wells become inoperable either for the short term or the long term.	Section 4.2.3 discusses the amount of excess storage that will be available in each lined retention pond during the various phases of operation and restoration.	TR	4.2.3	Various	Yes	ER	4.13	4-160 & 4-162	Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Waste Management	Brine Disposal	Provide an explanation for how the applicant will handle waste fluids should the disposal wells become inoperable short term or long term.	Section 4.2.3 discusses the amount of excess storage that will be available in each lined retention pond during the various phases of operation and restoration.	TR	4.2.3	Various	Yes	ER	4.13	4-160 & 4-162	Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Description of the Proposed Facility	Plant Equipment, Instrumentation, and Control	Provide information on the ability of the sump system to handle the volume of the largest hazardous materials source.	Section 7.5.1 discusses sump and secondary containment volumes for process areas and the overall plant foundation.	TR	7.5.1	7-74	Yes	TR	3.2	3-71	Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Effluent Control Systems	Liquids Waste	Discuss the plans to contain only the volume of the largest tank in the event of a spill. Based on a recent accident at another ISR facility, the plans to contain only the volume of the largest tank may not be sufficient.	Section 7.5.1 discusses sump and secondary containment volumes for process areas and the overall plant foundation.	TR	7.5.1	7-74	Yes	TR	3.2	3-71	Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Corporate Organization and Admin. Procedures	Site Management	Discuss corporate organization from senior management to site management. Include the independence of the plant supervisor, RSO and SERP for raising safety issues to senior management, and show the integration of groups that support construction, operation, and maintenance of the facility.	Corporate organization is discussed in Section 5.1	TR	5.1	Various	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Organizations	Provide information on the integration among management groups below senior management that support the operation and maintenance of the facilities. The applicant needs to show this integration aspect of the site organization, including integration between plant construction and plant management.	Management interaction is discussed in Section 5.1	TR	5.1	Various	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Corporate Organization and Administration	Specify which personnel will be onsite and which personnel are in corporate level positions. Show its aspect of the site organization, including the role of the different organizations within the management chain. The site level management text should discuss the independence of the Mine Manager, RSO, and SERP for raising significant safety issues to senior management. Also, please discuss and show the integration among groups that support construction, operation, and maintenance of the facility.	Section 5.1 discusses the work force at Ross.	TR	5.1	Various	Yes				
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Management Control Program	Address notification procedures for spills in wellfields, header houses, pipelines, or buildings.	Spill reporting and investigation procedures are discussed in Section 7.5.1.6 and 5.1.10.	TR	7.5.1.6	7-84	Yes	TR	5.1.10	5-7	Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Clarify the QA organization and how these individuals are organizationally integrated with the Radiation Safety Officer. Identify who has ultimate authority for the QA Program at the site. (QA/QC Program)	The corporate organization and authority are is discussed in Section 5.1	TR	5.1	5-2	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Management Control Program	Provide a site-specific records management plan to address procedures for document control and changes, corrections to documents, document updates and revisions, field documentation, laboratory documentation and reports received from subcontractors.	Record keeping is discussed in Sections 5.2.3 and 5.2.4.2.	TR	5.2	5-11 & 5-14	Yes				
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Management Control Program	Provide a discussion related to the requirements of 20 CFR 1902(e). This regulation addresses posting requirements at licensed facilities.	Radioactive material postings are discussed in Section 5.2.6.	TR	5.2.6	5-15	Yes				

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ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Description of the Proposed Facility	Plant Equipment, Instrumentation, and Control	As part of the discussion of potential spills from pipelines and well heads, provide the plans for inspection of these aspects of the facility, including frequency of inspection, and provide the contingency plans and procedures for responding to system failures resulting in liquid waste release, including notifications and recordkeeping.	Wellfield inspections are discussed in Section 5.3.3 and spill contingency plans and response procedures are outlined in Section 7.5.1.	TR	5.3.3	5-20	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Security	Please specify the type of fencing proposed to provide security for all wellfields and processing areas.	Plant security is discussed in Section 5.6. Fencing types are discussed in Section 3.0.	TR	5.6	5-29	Yes	TR	3.0	3-1	Yes
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Environmental Measurements and Monitoring Programs	Radiological Monitoring	Provide details on the proposed operational program, including sampling media, sampling locations (with an accompanying map), and frequency of sampling, types of analyses, detection levels, and quality control measures.	Operational radiation monitoring is described in TR Section 5.7.	TR	5.7	5-31	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Describe those areas where elevated exposure rates are anticipated.	Radiation safety and monitoring are discussed in Section 5.7	TR	5.7	Various	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Please discuss radiation safety monitoring devices and other process safety controls that will be used within the central processing plant. The discussion should focus on the availability and reliability of these systems. This should include a discussion of controls that are used to minimize or eliminate the hazards presented by radioactive materials or chemicals that may impact radiologicals safety.	Radiation safety and monitoring are discussed in Section 5.7. Radiological hazards and safe guards are also discussed in Section 7.5.	TR	5.7	5-31+	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Restoration	Volumes	Provide a justification for the method to estimate wellfield pore volume and the assumed 30% flare in the surety estimate. No technical details are provided for estimating the wellfield pore volume and the associated horizontal and vertical flare. Include a new schedule for restoration and surety estimate if the number of pore volumes for restoration is revised.	Justifications for flare estimates are contained in TR Addendum 2.7-H..	TR	Addendum 2.7-H		Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Restoration	Schedule	Provide a statement that NRC will be informed when a transition from production to restoration occurs in a mine unit and an acknowledgement that the applicant will adhere to the timeliness in decommissioning regulations of 10 CFR Part 40.42.	A statement has been included that NRC and LQD will be informed of transition from production to restoration. In addition, commitment to adhere to 10 CFR 40.42 has been included.	TR	6.1	6.1.5	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Restoration	Restoration Monitoring	Provide a description of how the water quality data from the horizontal wells will be combined with the data from the vertical monitoring wells to determine restoration progress.	Propose to sample all production wells monthly during active restoration to identify hot spots.	TR	6.1.3	6-11	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Restoration	Impacts to Surrounding Aquifers	Provide an explanation of why the groundwater restoration operations will not adversely affect groundwater used outside the production zone.	Bleed rate will be maintained all the time. Only impact will be drawdown effects that are addressed elsewhere.	TR	6.1.8	6-24	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Restoration	Impacts to Surrounding Aquifers	Provide additional description about impacts to nearby domestic wells in terms of water table drawdown during restoration and justification as to why the groundwater restoration will not affect those wells.	Reference another section in TR describing potential drawdown impacts to nearby domestic wells.	TR	6.1.8	6-24	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Restoration	Stability Monitoring	Provide a justification for the selection of a six-month stability monitoring time period to determine restoration success. Additionally, provide the criteria which will be used to establish that the water quality in the restored zone is stable.	12 month stability monitoring is proposed and a parameter list is provided in Section 6.1.2.	TR	6.1.2	6-4	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Restoration	Volumes	Provide an estimate, with supporting analysis, of how much waste water would be produced during restoration and the ability of the disposal wells to handle the rates and volumes.	Section 6.1.4.4 discusses waste fluid disposal capacity and mitigation measures to be implemented if one or more systems are interrupted.	TR	6.1.4.4	6-14	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Groundwater Restoration	Schedule	Explain the duration of restoration for the production areas, which ranged from one year to five years. In particular, if restoration is going to take longer than 2 years, an explanation and alternate schedule should be provided.	Section 6.1.5 indicates that a restoration schedule will be established for each module. If it will take longer than 2 years, an explanation and alternate schedule will be provided.	TR	6.1.5	6-15	Yes				

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ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Groundwater Restoration	Analogs	Provide additional details of how sites within close proximity to the proposed site are analogs for the proposed project area when comparing the restoration methods.	Restoration analogs discussed in Section 6.1.6 provide basis for ability to meet target restoration goals.	TR	6.1.6	6-17	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Groundwater Restoration	Analogs	Clearly explain (i) the relevancy of the analog sites to the Nichols Ranch Project and (ii) why seven pore volumes was an appropriate estimate for restoring the operating Production Area 1 in the first year of operation.	Restoration analogs discussed in Section 6.1.6 provide basis for ability to meet target restoration goals.	TR	6.1.6	6-17	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Groundwater Restoration	Volumes	Provide a technical basis beyond the similar formation argument (from an adjacent facility) for the use of this flare factor. The use of this flare value for the unconfined aquifer conditions at the Hank Unit, however, has not been established.	Justifications for flare estimates are contained in TR Addendum 2.7-H..	TR	Addendum 2.7-H		Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Groundwater Restoration	Restoration Monitoring	Clarify the sampling frequency of monitor ring wells and production wells.	During production and active restoration wells will be sampled biweekly. During stability monitoring, proposed to sample all wells every 3 months.	TR	6.1.3	6-11	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Groundwater Restoration	Stability Monitoring	Provide a methodology how to evaluate areas with higher concentrations (i.e., "hot spots") if they occur in a set of data used to show restoration is complete. These "hot spots" can act as point sources of contamination and may require specific attention if they remain.	Section 6.1.2 addresses hot spots and excursions during stabilization monitoring.	TR	6.1.2	6-4	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Groundwater Restoration	Stability Monitoring	The monitoring duration should be extended to 4 sampling events on a quarter-year basis rather than 3 events spaced two months apart (6 months).	12 month stability monitoring is proposed and parameter list is provided.	TR	6.1.2	6-4	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Groundwater Restoration	Schedule	For wellfield restoration schedules expected to take longer than two years, justification is required as per 10 CFR 40.42.	Section 6.1.5 indicates that a restoration schedule will be established for each module. If it will take longer than 2 years, an explanation and alternate schedule will be provided.	TR	6.1.5	6-15	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Schedule	State that the applicant is requesting an alternate schedule and acknowledge that changes to the restoration schedule must be requested through a license amendment application	Statement that if restoration takes longer than 24 months Strata will request alternate schedule as license amendment.	TR	6.1.5	6-15	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Analogs	Provide a technical basis for the applicants ability to meet the standards in Criterion 5B(5) of 10 CFR Part 40, Appendix A, through restoration.	Restoration analogs discussed in Section 6.1.6 provide basis for ability to meet target restoration goals.	TR	6.1.6	6-17	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Water quality analogs	Provide a description of the expected water quality in the mine unit at the beginning of restoration.	Table 6.1-8 provides anticipated post-mining water quality.	TR	6.1	6-33	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Schedule	Provide an explanation of the timeline for restoration of nine months for sweep, nine months of RO, and one month for homogenization considering the low conductivity of the HJ horizon and the described stacked sand restoration approach.	A discussion on restoring stacked roll fronts has been included in Section 6.1.7..	TR	6.1.7	6-22	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Volumes	Provide an estimate of porosity for each mine unit and an explanation of how this value is to be determined. (A valid justification for this number (e.g., wireline logs, core measurements) is needed as this value is critical for pore volume calculations).	Porosity was obtained from core samples.	TR	6.1.4.1	6-12	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Volumes	Provide a justification for the method to estimate well field pore volume and the assumed 20 percent vertical and horizontal flare (No. technical details are provided for estimating the well field pore volume and the associated horizontal and vertical flare.) Also please explain why a 10 percent vertical and 10 percent horizontal flare estimate was used in the surety calculations, when each flare was stated to be 20 percent.	Justifications for flare estimates and pore volumes are contained in TR Addendum 2.7-H.	TR	Addendum 2.7-H		Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Volumes	Provide a comprehensive discussion and justification for the estimate of six pore volumes (1 sweep, 5 RO) for restoration of MU1, which appears very low, using a basis of comparable field experience.	Provided in restoration analogs in Section 6.1.6.	TR	6.1.6	6-17	Yes				

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ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Volumes	Provide a substantial justification using analytical methods or numerical modeling regarding the estimate of six pore volumes for restoration. These estimates should also take into account unique issues presented by the sequential stacked sand restoration approach and address any difference in pore volumes needed if biological reductants are used.	Analogs are used as justification. A note was added to address possible future reduction in pore volumes if reductants are used. Still need to address restoring stacked roll fronts.	TR	6.1.4.2	6-13	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Schedule	Provide a description of the criteria that will be used to determine when well fields will be taken out of production and started in restoration to meet the regulatory requirements of timeliness of decommissioning as outlined in 10 CFR 40.42.	Provided criteria (uranium recovery and production plant capacity).	TR	6.1.5	6-15	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Schedule	Provide a statement that NRC will be informed when a transition from production to restoration occurs in a mine unit.	Provided statement that NRC and LQD will be informed of transition.	TR	6.1.5	6-15	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Reductants	Provide a description of the biological reduction method(s) to be used to achieve restoration for targeted constituents in the proposed wellfield extraction zone including: the efficacy of the chosen method; additives and rates; how progress will be monitored; estimates of pore volumes required when using biological reductants; and how the stability of water quality in zones treated with biological reductants will be monitored and established.	Prior to applying any reductant, Strata will submit plan for safe use to LQD and NRC.	TR	6.1.2.5	6-8	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Reductants	Provide a detailed description about the comprehensive safety plan regarding any reductant use.	Prior to applying any reductant, Strata will submit plan for safe use to LQD and NRC.	TR	6.1.2.5	6-8	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Volumes	Provide an estimate, with supporting analysis, of how much waste water would be produced during restoration and the ability of the disposal wells to handle the rates and volumes.	Section 6.1.4.4 discusses waste fluid disposal capacity and mitigation measures to be implemented if one or more systems are interrupted.	TR	6.1.4.4	6-14	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Volumes	Provide a description of how waste fluids will be handled if any or all of the disposal wells became inoperable.	Section 6.1.4.4 discusses waste fluid disposal capacity and mitigation measures to be implemented if one or more systems are interrupted.	TR	6.1.4.4	6-14	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Groundwater Restoration	Stability Monitoring	Provide a justification for the selection of a six month stability monitoring time period to determine restoration success. Additionally, the criteria which will be used to establish that the water quality in the restored zone is stable.	12 month stability monitoring is proposed and parameter list is provided.	TR	6.1.2	6-4	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Groundwater Restoration	Stability Monitoring	State how many wells will be sampled during stability monitoring. NRC Staff notes that NUREG-1569, Section 6.1.3(5) recommends that the number of wells used for stability monitoring be provided.	Noted that wellfield baseline packages will specify wells to be sampled during stability monitoring.	TR	6.1.2	6-4	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Groundwater Restoration	Stability Monitoring	State what constituents will be measured, in monthly samples that will be collected during stabilization, to ensure oxidation/reduction conditions do not fluctuate significantly	Redox sensitive parameters are included in stabilization monitoring (Table 6.1-2).	TR	6.1.2	6-4	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Groundwater Restoration	Stability Monitoring	Provide a description of how the stability trends will be evaluated statistically or otherwise and describe what actions would be taken if trends are determined to be significantly increasing.	Description of statistics provided under Restoration Success Criteria and trends are discussed with hot spots.	TR	6.1.2	6-4	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Groundwater Restoration	Stability Monitoring	Propose a strategy to address how “hot spots” will be identified and how they will be treated during restoration stability monitoring.	Text has been added addressing hot spots and excursions during stabilization monitoring.	TR	6.1.2	6-4	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Groundwater Restoration	Schedule	Provide a commitment to maintain hydraulic control on a wellfield for the period between operation and restoration.	Commitment is made for hydrologic bleed sufficient to control mining solutions between production and restoration.	TR	6.1.5	6-15	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Groundwater Restoration	Stability Monitoring	Specifically state how often it would monitor for excursions in the overlying/underlying and well ring monitoring wells during restoration and stability monitoring.	Excursion monitoring schedule is provided.	TR	6.1.3	6-11	Yes				

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ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Groundwater Restoration	Schedule	Provide a timetable for restoration of individual wellfields. This detailed information as well as other information such as the requirement for NRC notification of the termination of principal activities or an alternate schedule, needs to be included in the TR consistent with Section 3.1.1(4) of NUREG-1569 and in accordance with requirements of 10 CFR 40.42.	Indicated that a restoration schedule will be established for each module. If it will take longer than 2 years, an explanation and alternate schedule will be provided.	TR	6.1.5	6-15	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Groundwater Restoration	Goal	Ensure the target restoration goals (TRGs) will be based on a statistical analysis following ASTM D6312-98 (Re-approved 2005).	Note that statistical methods used to calculated TRVs will be in accordance with ASTM D6312.	TR	6.1.2.1	6-5	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Groundwater Restoration	Volumes	Include estimates on the pore volume for a wellfield, porosity or flare factors.	Porosity was obtained from core samples.	TR	6.1.4.1	6-12	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Groundwater Restoration	Stability Monitoring	The excursion monitoring program should continue during restoration similar to that conducted during operations but will accept a frequency of monitoring greater than once every two weeks. However, should the levels indicate an excursion status for a well during restoration, the applicant must document corrective actions to be undertaken.	Excursion monitoring during restoration is addressed as well as corrective actions.	TR	6.1.2	6-4	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Groundwater Restoration	Restoration Monitoring	Propose a monitoring program to document the effectiveness of the restoration program. The monitoring program should include a detailed description of the monitoring of the mining zone during restoration, including sampling density, parameters, and frequency to substantiate that it will be able to closely monitor and optimize their restoration strategy or to determine whether or not any flare or hot spots have been effectively captured during the restoration process.	Propose to sample all production wells monthly during active restoration to identify hot spots.	TR	6.1.3	6-11	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Groundwater Restoration	Stability Monitoring	Discuss the stability monitoring program to demonstrate that the restoration goal has been maintained. The monitoring program should consist of four quarterly events using a full suite of parameters for each sampling event. Discuss statistical methods to be used to determine whether or not a trend is observed or hot spots exist.	The stabilization monitoring program includes 5 rounds of monitoring with a full suite of analytes. Statistical methods to determine stability are discussed.	TR	6.1.2	6-4	Yes				
N/A	Moore Ranch WDEQ/LQD 1st Comment Response	3/14/2008	Uranium One	Moore Ranch	Comment Response	Reclamation	Reclamation Plan	Provide a commitment to report all sampling results on a quarterly basis.	Noted that sampling results would be reported to LQD quarterly or as required.	TR	6.1.2	6-4	Yes				
N/A	Moore Ranch WDEQ/LQD 1st Comment Response	3/14/2008	Uranium One	Moore Ranch	Comment Response	Reclamation	Reclamation Plan	Commit to providing LQD with a minimum of twelve month of monitoring during the groundwater stabilization period.	12 month stability monitoring is proposed and parameter list is provided.	TR	6.1.2	6-4	Yes				
N/A	Moore Ranch WDEQ/LQD 1st Comment Response	3/14/2008	Uranium One	Nichols Ranch	Comment Response	Reclamation	Reclamation Plan	Removal of well heads, wellfield piping and other equipment cannot begin after conclusion of wellfield stability period until after a wellfield restoration report has been prepared and submitted to both the WDEQ/LQD and the NRC and Uranerz has received approval of the wellfield restoration from both agencies. Only then may abandonment of the wellfield begin.	It is noted that P&A won't occur until approval of final restoration report by both NRC and LQD.	TR	6.1.2	6-4	Yes				
N/A	Moore Ranch WDEQ/LQD 1st Comment Response	3/14/2008	Uranium One	Nichols Ranch	Comment Response	Mine Plan	General Comment	Add discussions providing clear assessments of the impact to water resources (i.e., water quantity and quality) within the permit area and on adjacent lands during mining and reclamation. These assessment must discuss what may be reasonably expected and provide mitigation plans (ref: W.S.§35-11-428(a)(iii)(E).	A separate TR section is addressed assessing impacts on water resources during restoration.	TR	6.1.8	6-23	Yes				
N/A	Moore Ranch WDEQ/LQD 1st Comment Response	3/14/2008	Uranium One	Nichols Ranch	Comment Response	Reclamation Plan	General Comment	This entire section needs to be updated and revised to provide clear groundwater restoration standards specific to the initial wellfield.	It was noted that TRVs would be established for entire first mine unit.	TR	6.1.1.1	6-4	Yes				
N/A	Moore Ranch WDEQ/LQD 1st Comment Response	3/14/2008	Uranium One	Nichols Ranch	Comment Response	Reclamation Plan	Groundwater Restoration Methods	Please commit to providing LQD with a minimum of twelve months of monitoring during the groundwater stabilization period.	12 month stability monitoring is proposed and parameter list is provided.	TR	6.1.2	6-4	Yes				
N/A	Moore Ranch WDEQ/LQD 1st Comment Response	3/14/2008	Uranium One	Nichols Ranch	Comment Response	Reclamation Plan	Restoration Target Values Parameters	Please change "Ammonium" to "Ammonia". In addition, please add zinc, Radium-228, gross alpha and gross beta to the list of constituents.	These constituents are included in Table 6.1-2.	TR	6.1.2	6-4	Yes				
N/A	Moore Ranch WDEQ/LQD 1st Comment Response	3/14/2008	Uranium One	Nichols Ranch	Comment Response	Reclamation Plan	Restoration Monitoring	Please provide a commitment to report all sampling results on a quarterly basis.	Noted that sampling results would be reported to LQD quarterly or as required.	TR	6.1.2	6-4	Yes				

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ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Radiological Survey	Discuss how the pre-reclamation radiological survey and baseline radiological survey will be used to identify potential contamination areas.	Text is included in Section 6.2.	TR	6.2	6-39	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Radiological Surveys	Discuss how the background radiological characteristic data will be used in the post reclamation and decommissioning surveys.	Text, referring to baseline radiological data, is provided in Section 6.2	TR	6.2	6-39	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Exploration Drill Holes	Provide the location where abandonment methods are defined.	Well abandonment methods are described in Addendum 2.6-E.	TR	Addendum 2.6-E		Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Reclamation	Structure and Equipment Decommissioning and Decontamination	Please provide a commitment in the license application that the applicant will submit a decommissioning plan for NRC staffs review and approval at least 12 months before planned commencement of decommissioning.	Text is provided in Section 6.2.	TR	6.2	6-39	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Reclamation	Surface Reclamation and Decommissioning	Expand on the simple commitment in Section 6.2.6 to decontaminate structures and equipment to regulatory standards, and to either dismantle and dispose of structures or release them for unrestricted use, if appropriate. The expanded discussion should include: information on the program in place to control contamination of structures and equipment; details of survey and decontamination procedures, including a commitment that radioactivity along the interior surfaces of pipes, drain lines, and duct work will be determined by measurements at traps or other access points, and a commitment that pieces of equipment that are too big to scan will be considered contaminated in excess of the limits; and details of plans for surveying structures and equipment before release for unrestricted use.	Text is provided in Section 6.3.	TR	6.3	6-46+	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	For releasing potentially contaminated items from the facility, discuss specifically what contamination limits will be used.	Contamination limits are discussed in Section 6.3.	TR	6.3	6-46+	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Reclamation	Structure and Equipment Decommissioning and Decontamination	Please discuss how on-site disposal of non-contaminated materials is consistent with the requirements of 10 CFR Part 40, Appendix A, Criterion 2. Note that disposal of waste materials on Bureau of Land Management or State-owned land may require separate approvals. Please discuss the process of contamination surveys on large equipment or pieces with unique construction. If the equipment cannot be surveyed, it should be presumed to be contaminated in excess of the release limits.	Procedures for removal and disposal if structures and equipment are included in Section 6.3	TR	6.3	6-46+	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Financial Assurance	Provide the financial assurance cost estimate in current dollars or use an inflation adjustment for the current year.	Financial assurance is discussed in Section 6.5 and in detail in Addendum 6.1-A.	TR	6.5	6-62	Yes	TR	Addendum 6.1-A		Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Financial Assurance	Identify the financial assurance funding mechanism (i.e., surety bond, cash deposit, certificate of deposit, deposit of government securities, etc.).	As stated in Section 6.5, the funding mechanism is currently unknown, but Strata will comply before beginning uranium recovery.	TR	6.5	6-62	Yes	TR	Addendum 6.1-A		Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Financial Assurance	Provide a commitment that the applicant will 1) automatically extend the existing surety amount if the NRC has not approved the extension at least 30 days prior to the expiration date; 2) revise the surety arrangement within 3 months of NRC approval of a revised decommissioning plan, if estimated costs exceed the amount of the existing financial surety; 3) update the surety to cover any planned expansion or operational change not included in the annual surety update at least 90 days prior to construction; and 4) provide NRC a copy of the State's surety review and the final surety arrangement.	Text is provided in Section 6.5.	TR	6.5	6-62	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Reclamation	Financial Assurance	Identify the financial assurance funding mechanism (i.e., surety bond, cash deposit, certificate of deposit, deposit of government securities, etc.) that The applicant plans on using.	As stated in Section 6.5, the funding mechanism is currently unknown, but Strata will comply before beginning uranium recovery.	TR	6.5	6-62	Yes	TR	Addendum 6.1-A		Yes

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ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Reclamation	Financial Assurance	Provide indication in Section 6.2.8 that The applicant will automatically extend the existing surety amount for one year if the NRC has not approved a proposed revision at least 30 days prior to the expiration date for the existing surety; revise the surety arrangement within 3 months of NRC approval of a revised closure (decommissioning) plan, if estimated costs exceed the amount of the existing financial surety; update the surety to cover any planned expansion or operational change not included in the annual surety update at least 90 days prior to beginning associated construction; and provide NRC a copy of the State's surety review.	Text is provided in Section 6.5.	TR	6.5	6-62	Yes	TR	Addendum 6.1-A		Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Reclamation	Financial Assurance	Please indicate the year that the costs are referenced to. The estimate should be adjusted for inflation at the time of license issuance and should include an adjustment for annual inflation in future years.	Financial assurance is discussed in Section 6.5 and in detail in Addendum 6.1-A.	TR	6.5	6-62	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Reclamation	Financial Assurance	Please identify the financial assurance funding mechanism (Le., surety bond, cash deposit, certificate of deposit, deposit of government securities, etc.) that will be used	As stated in Section 6.5, the funding mechanism is currently unknown, but Strata will comply before beginning uranium recovery.	TR	6.5	6-62	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Environmental Effects	Radiological Effects	Provide an exposure pathway diagram that includes the relevant external exposure pathways or identify where this diagram exists in the application.	An exposure pathway diagram is provided in Figure 7.3-1	TR	7.3	7-66	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Environmental Effects	Radiological Effects	Provide an exposure pathway diagram that includes the relevant pathways to all effluents expected from facility operations or identify where this diagram exists in the application.	An exposure pathway diagram is provided in Figure 7.3-1	TR	7.3	7-66	Yes				
ML093440306	Moore Ranch Response to SER Open Issues Part 1	12/4/2009	Uranium One	Moore Ranch	SER Open Issue	Effects of Accidents	Effects of Accidents	Provide discussion of radiological release accidents involving the vacuum dryer or other plant equipment handling radioactive material.	Discussion of radiological release accidents are included in Section 7.5.	TR	7.5	Various	Yes	ER	4.12	4.12.5	Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Environmental Effects	Accidents	Provide information regarding the systems and procedures that it will use to prevent accidents at the facility or minimize the effects of such accidents on worker and public health. The requested information is described in Section C.6. of Regulatory Guide 3.5.	Discussion of radiological release accidents are included in Section 7.5.	TR	7.5	Various	Yes	ER	4.12	4.12.5	Yes
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Effluent Control Systems	Gaseous and Airborne Particulates	Evaluate the effluent control systems under accident conditions and identify any health and safety impacts of system failures and identify contingencies for such occurrences.	Impacts resulting from accidents/failures are discussed in Section 7.5	TR	7.5	Various	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Reclamation	Financial Assurance	Please provide justification for the timeline provided that indicates the time required for groundwater restoration is approximately 25 months (7 months for groundwater sweep, 9 months for reverse osmosis, and 9. months for stabilization), or revise the table to reflect an alternate timeframe. Note that the restoration timeframe should take the available required number of pore volumes for restoration as well as the deep disposal well capacity. The restoration timeframe may impact costs related -to electrical power, monitoring and sampling, and labor. Regarding the Financial Assurance estimate	Restoration timelines are discussed in Section 6.1.	TR	6.1.5	6-15	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Environmental Effects	Accidents	Provide an accident response program and reporting must be consistent with 20.2202 and 20.2203 and NUREG -1569, 7.5.3 (4).	Spill reporting and investigation procedures are discussed in Section 7.5.1.6 and 5.1.10.	TR	7.5.1.6	7-84	Yes	TR	5.1.10	5-7	Yes
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Environmental Effects	Accidents	Address emergency procedures including notification of personnel of potential severe weather, evacuation procedures, damage inspection and reporting, and cleanup and mitigation of spills.	Emergency management procedures are discussed in various section of 7.5.	TR	7.5	7-73+	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Describe how the applicant will monitor and keep records of the requirement that in addition to the annual dose limits, the licensee shall limit the soluble uranium intake by an individual to 10 milligrams per week in consideration of chemical toxicity.	Limits and control of soluble uranium are discussed in Section 5.7.4.4.	TR	5.7.4.4	5-58	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Groundwater Hydrology	Provide a demonstration that hydraulic conductivity determined from the drawdown portion of a single pumping well test is accurate. Hydraulic conductivity determined from the drawdown portion of a single pumping well test would likely be subject to large errors due to wellbore pumping head loss.	Multiple well pump tests were used at the proposed Ross ISR Project to determine hydraulic conductivities.	TR	2.7.3.2.3	Various	Yes	ER	3.4.3	3-99	Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide the results of the preoperational monitoring program to provide a determination of the baseline groundwater quality data in the vicinity of the storage ponds.	Provided.	TR	2.7.3.5.2		Yes				

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ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Demonstrate that complete baseline data, including expected variations in gamma dose rates, has been provided in accordance with 10 CFR 40, Appendix A, Criterion 7, and as recommended by Regulatory Guide 4.14.	For the most part, background radiological characteristics were collected in accordance with Regulatory Guide 4.14. As deviations are explained in the text.	TR	2.9.1	2-286	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Demonstrate that the applicant has sufficiently determined background radionuclide concentrations as described in Section 2.9 of NUREG- 1569.	Text in Section 2.9.1 states that field samples were collected using guidance from Section 2.9.2 of NUREG-1569.	TR	2.9.1	2-285	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Air Particulate Monitoring	Provide air particulate and radon samples representing a minimum of 12 consecutive months of data.	Data for the first three quarters of sampling are included in Section 2.9.2. The last quarter of data is included in TR Addendum 2.9-D.	TR	2.9.2	2-287	Yes	TR	Addendum 2.9-D		Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Site Characterization	Background Radiological Characteristics	Describe the analytical methodology and the lower limit of detection used to quantify concentrations of radionuclides in soil and sediment samples.	TR Addendum 2.9-A lists the analytical method and the lower detection limit for soil and sediment sampling.	TR	Addendum 2.9-A		Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Background RADS	Ground Water Sampling	Of the wells sampled for the baseline program, Identify which are considered upgradient and which are considered down gradient. Also identify a background groundwater sampling location and include the dates when all groundwater samples were taken.	Provided.	TR	2.9.2.1		Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Provide results of game animal sample analyses or a justification for not collecting them consistent with Regulatory Guide 4.14.	Provided.	TR	2.9.2.11 & 2.9.2.12	2-310 & 2-311	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Please confirm whether the applicant ruled out the presence of fish in all impoundments, and, if not, please provide the results of fish samples from those impoundments.	Provided.	TR	2.9.2.12	2-310	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Background Radiological Characteristics	Discuss preoperational surface water and sediment sampling.	Provided.	TR	2.9.2.2	2-291	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Background RADS	Air Particulate Monitoring	Describe the basis of the selection process for each air sampling location (particulate and radon) and how this comports with the guidance regarding location in NRC R.G. 4.14. Also identify a background air sampling location.	Provided.	TR	2.9.2.3	2-293	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Background Radiological Characteristics	Preoperational radionuclide air particulate samples are not discussed. Provide sufficient regulatory or technical justification to relieve them from the requirement of 10 CFR 40 Appendix A, Criterion 7. Please submit radionuclide air particulate sampling in accordance with 10 CFR 40, Appendix A, Criterion 7, for NRC review prior to any major site construction.	Provided.	TR	2.9.2.3	2-293	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Provide the criteria used to establish air particulate sampling locations, consistent with Regulatory Guide 4.14 and NUREG-1569, Acceptance Criterion 2.9.3(1).	As stated in Section 2.9.2.5, Strata located sampling sites according to Regulatory Guide 4.14.	TR	2.9.2.5	2-297	Yes	TR	Addendum 2.9-A	TR Addendum 2.9-A-12	Yes
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Ensure that a preoperational monitoring program be conducted at least one full year prior to any major site construction.	Preoperational monitoring was initiated on January 12, 2010, which is at least one-year prior to major site construction.	TR	2.9.2.5	2-297	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Background Radiological Characteristics	Demonstrate that the subsurface (greater than 15 cm below the surface) is properly characterized so as to be able to comply with 10 CFR 40 Appendix A, Criteria 6 (6).	As stated in Section 2.9.2.6, subsurface soil sampling was conducted over the intervals 0-15 cm, 0-30 cm, 30-60 cm, and 60-100 cm.	TR	2.9.2.6	2-299	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Please provide technical justification for the GPS based gamma survey transect spacing used by the applicant.	Gamma surveys were conducted using a GPS unit, on a 300 m grid, to satisfy Regulatory Guide 4.14.	TR	2.9.2.6	2-300	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Provide soil sample collection data that is consistent with Regulatory Guide 4.14 and NUREG-1569 or justification for an alternate methodology.	Soil samples were collected according to Regulatory Guide 4.14.	TR	2.9.2.6	2-299	Yes				

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ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Provide the laboratory reports for TLD results in the TR.	TLD Lab reports are contained in Addendum 2.9-c and 2.9-D.	TR	Addendum 2.9-C		Yes	TR	Addendum 2.9-D		Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Background RADS	Vegetation Sampling	Describe the basis of the selection process for each vegetation sampling location and how this meets the guidance regarding location in NRC R.G. 4.14.	Provided.	TR	2.9.2.8	2-304	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Crop Monitoring	Provide reporting on the collection of crop samples or justification for not collecting crop samples.	Provided.	TR	2.9.2.8	2-304	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Background Radiological Characteristics	Describe the type of vegetation sampled and demonstrate that the vegetation samples collected by the applicant, as suggested in Regulatory Guide 4.14, Revision 1. Regulatory Guide 4.14, Revision 1, Table 1 states that three vegetation samples should be collected near the site in different sectors that will have the highest predicted air particulate concentrations.	Provided.	TR	2.9.2.8	2-304	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Provide an assessment of land use for food sampling consistent with Regulatory Guide 4.14 and NUREG-1569, Acceptance Criteria 2.2.3(1)(f) and 2.9.3(1).	Criteria for the food sampling program is stated in Section 2.9.2.9, a discussion of land use is included in Section 3.1 of the ER.	TR	2.9.2.9	2-306	Yes	ER	3.1	3-2	Yes
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Provide the results of crop sample analyses, raised within 3 km of the mill site, or a justification for not collecting crop samples consistent with Regulatory Guides 4.14 and 3.46. In this response, please describe actions taken by the applicant to determine the agricultural use of adjacent lands, including vegetable gardens.	Results from vegetation sampling from grazing areas and garden samples are presented in Section 2.9.2.9.	TR	2.9.2.9	2-307	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Please clarify what types of vegetation were included in the vegetation sampling and state whether this includes forage samples.	Vegetation sampling is discussed in Section 2.9.2.9	TR	2.9.2.9	2-307	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Site Characterization	Background Radiological Characteristics	Clarify if identified grazing areas were analyzed as recommended by Regulatory Guide 4.14.	Grazing areas were sampled according to Regulatory Guide 4.14.	TR	2.9.2.9	2-306	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Provide the location of the screens in the production zone monitoring wells and the production zone ring monitoring wells that will be used for baseline water quality. Provide the location of the screens in the overlying and underlying monitoring wells.	Well installation methods are discussed in Section 3.1.2.1 and included on Figures 3.1-4 through 3.1-6.	TR	3.1.2.1	3-4, 3-32 through 3-34	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Description of the Proposed Facility	ISR Process and Equipment	Discuss that screw and glue joints have experienced many failures in ISR operations. Describe how the casing would be joined in the well completions.	Provided.	TR	3.1.2.1	3-4	Yes	ER	1.2	1.2.5.1.1	Yes
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Provide the MIT pressure or maximum well casing pressures.	Provided.	TR	3.1.2.3	3-9	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Description of the Proposed Facility	ISR Process and Equipment	Regarding that during wellfield operations, injection pressures at the wellheads would not exceed 90 percent of the mechanical integrity test (MIT) pressure. Provide the MIT pressure value or a fracture gradient.	The MIT pressure value is defined in Section 3.1.2.3 and the fracture gradient is discussed in Section 3.1.4.	TR	3.1.2.3 and 3.1.4	3-9	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Description of the Proposed Facility	Wellfield Operation	Include information regarding the manner in which hydraulic control will be maintained throughout the life of a wellfield, from the first injection of lixiviant to the end of restoration.	Provided.	TR	3.1.4	3-11	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Description of the Proposed Facility	Well field Design	Provide information on the number, design, operation, and monitoring of the well field header houses where fluids will be injected and recovered from the well fields.	Design details of the Module buildings is provided in Section 3.1.4. Monitoring and instrumentation details are included in Section 3.1.7.	TR	3.1.4 and 3.1.7	3-11	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Description of the Proposed Facility	In Situ Recovery Process and Equipment	Provide the design, operation, and monitoring of the wellfield header houses where fluids will be injected and recovered from wellfields.	Design details of the module buildings is provided in Section 3.1.4. Monitoring and instrumentation details are included in Section 3.1.7.	TR	3.1.4 and 3.1.7	3-11	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Include a schematic of header house piping and instrumentation and a statement on the frequency of header house inspections.	A schematic of the module building and piping is included in Section 3.1.4. Module building inspections are outlined in Section 5.3.3.	TR	3.1.4 and 5.3.3	3-11	Yes				

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ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Description of the Proposed Facility	In Situ Recovery Process and Equipment	Include a water balance diagram consistent with the guidance in Section 3.1.2 of NUREG-1569.	Provided.	TR	3.1.5	3-17	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Groundwater Hydrology	Wellfield Monitor Wells	Provide evidence that the spacing of monitoring ring wells is sufficient to detect an excursion.	Section 3.1.6 and Addendum 2.7-H discuss monitoring well layout and design.	TR	3.1.6	3-19	Yes	TR	Addendum 2.7-H		Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Radiation Safety and Monitoring	Monitoring Ring Wells	Provide a technical basis for the method used to determine the distances between monitoring wells, including information about the groundwater model used.	Section 3.1.6 and Addendum 2.7-H discuss monitoring well layout and design.	TR	3.1.6	3-19	Yes	TR	Addendum 2.7-H		Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Description of the Proposed Facility	Wellfield Operation	Revise the simulations and include extraction and injection wells operating at true rates to show that the gradient reversal will still be adequate.	Section 3.1.6 refers to Addendum 2.7-H, which presents recovery simulations and results.	TR	3.1.6	3-19	Yes	TR	Addendum 2.7-H		Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Description of the Proposed Facility	Wellfield Monitor Wells	Demonstrate how the monitoring well ring will intercept an excursion to support the 500 foot spacing.	Section 3.1.6 refers to Addendum 2.7-H, which presents analysis used to determine monitor well offset and spacing.	TR	3.1.6	3-19	Yes	TR	Addendum 2.7-H		Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Description of the Proposed Facility	Excursion Detection	Identify the locations for the underlying and overlying aquifer monitoring wells.	Approximate locations for the monitor wells are discussed in Section 3.1.6 and shown on Figure 3.1-14.	TR	3.1.6	3-42	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Description of the Proposed Facility	In Situ Recovery Process and Equipment	Provide general locations for the underlying and overlying aquifer monitoring wells.	Approximate locations for the monitor wells are discussed in Section 3.1.6 and shown on Figure 3.1-14.	TR	3.1.6	3-42	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Radiation Safety and Monitoring	Monitoring Ring Wells	Provide a clear definition or illustration of "monitoring ring wells".	Figure 3.1-14 illustrates the perimeter monitor well rings.	TR	3.1.6	3-42	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Description of the Proposed Facility	Process Fluid Spills and Leaks	Present methods for timely detection and cleanup of leaks in the well field, at the well heads, and in surface and buried lined in the well field.	Provided.	TR	3.1.7, 4.2.4.1, and 7.5.1	3-21	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Description of the Proposed Facility	In Situ Recovery Process and Equipment	Provide methods for timely detection and remediation of leaks in the wellfield at wellheads and in surface and buried lines in the wellfield.	Provided.	TR	3.1.7, 4.2.4.1, and 7.5.1	3-21	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Provide methods for timely detection and cleanup of leaks in the wellfield at wellheads and in surface and buried lines in the wellfield.	Provided.	TR	3.1.7, 4.2.4.1, and 7.5.1	3-21	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Please provide details regarding the quantities and storage locations of chemicals that will be used at the facility. This should include a list of federal, state, and local regulations that the applicant intends to use to ensure that chemicals that have the potential to impact radiological safety are handled in a safe and appropriate manner. Also, please provide a discussion of the operating conditions (temperature, pressures, and flow rates) that will exist during operation of the central processing plant for both radioactive and non-radioactive materials that may have an impact on radiological safety.	The chemical quantities, storage locations, and regulations are discussed in Section 3.2.8. Operating conditions within the plant are addressed for various processes throughout Section 3.2 and in Table 3.2-1.	TR	3.2.8	3-60	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Provide information on where the fuel may be stored and what leak protection would be available for the fuel storage.	Provided.	TR	3.2.8.2	3-68	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Description of the Proposed Facility	In Situ Recovery Process and Equipment	Provide a more in-depth description of the instrumentation, alarms and controls to ensure timely detection of any unanticipated release or spill, and frequency of inspection of these and other items included in spill prevention SOP(s).	Section 3.3.3 provides detailed discussion on alarms and controls of the CPP.	TR	3.3.3	3-82	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Gaseous and Airborne Particulates	Provide a description of the plant ventilation system in detail including the number and location of fans used, the intake flow rate, the exchange rate, operation conditions during extreme outdoor temperatures, and how radiation monitors will be used to measure effluent releases. Also describe the acceptable radiation monitoring criteria and flow rates for these systems.	A general description of the plant area ventilation system is included in Section 4.1.2.	TR	4.1.2	4-3	Yes				

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ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Please provide details on the type, size, and location of the ventilation systems that are planned for the facility.	A general description of the plant area ventilation system is included in Section 4.1.2.	TR	4.1.2	4-3	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Accidents	Gaseous Emissions and Airborne Particulates	Provide a comparison of the capacity of the redundant exhaust fans to the primary exhaust fans.	Redundant exhaust fans are discussed in Section 4.1.2.	TR	4.1.2	4-3	Yes	TR	5.7.1.1.1	5-32	Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Gaseous and Airborne Particulates	Describe the locations of discharge stacks and demonstrate how the locations of the stacks will prevent introducing radon into the ventilation intakes.	Provided.	TR	4.1.2	4-3	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Effluent Control Systems	Gaseous and Airborne Particulates	Regarding exhausting radon gas outside the plant, how will open doorways and convection vents affect radon effluent airflow and employee exposure both inside and outside the plant during favorable weather conditions?	Exposure to radon gas is discussed in Section 4.1.2.	TR	4.1.3	4-4	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Effluent Control Systems	Gaseous and Airborne Particulates	Specify the discharge location(s) for the yellowcake drying and packaging system.	Packaging of yellowcake is discussed in Section 3.2.4.	TR	3.2.4	3-56	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Public and Occupational Health	Public and Occupational Health and Safety Impacts	Provide information on non-radiological effluents, stating that such effluents would not be released into pathways that could impact public health and safety. However, no discussion is provided to substantiate this position.	Nonradiological emissions are described in TR 4.0 and ER 4.12 and 4.13.	TR	4.2.1.2	4-9	Yes	ER	4.12.1.2.1	4-127	Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Effluent Controls System	Liquids and Solids	Provide a demonstration that well development and pumping test water will have a minimal potential I radiological impact on soils or surface water.	Water from well development is discussed in Section4.02.1.2.1.	TR	4.2.1.2.1	4-9	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Introduction	Proposed Action	Provide information on the acreage occupied by ponds for the deep well disposal option.	Pond designs are presented in TR Section 4.2.2, including Figure 4.2-1.	TR	4.2.2	4-32	Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Introduction	Proposed Action	Provide information on the acreage ponds occupy for the land application option.	Pond designs are presented in TR Section 4.2.2, including Figure 4.2-1.	TR	4.2.2	4-32	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide an analysis of the required freeboard in the storage ponds. The storage ponds should have adequate freeboard to allow for transfer of liquids between the ponds in the event of a leak and prevent overtopping of the storage ponds by wave run-up or significant rainfall events. Note that wave run-up is dependent on the open area of the pond, the anticipated wind speeds, and the anticipated wind direction at the site.	Retention pond freeboard is mentioned in Section 4.2.2 and discussed in detail in Section 7.5.1.6	TR	4.2.2	4-13	Yes	TR	7.5.1.6	7-83	Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide a detailed discussion of the components of the liner system. The discussion should include: the required subgrade preparation techniques, the material and thickness for the impermeable liner, the anticipated liner seaming techniques, the permeability of the sand used in the leak detection layer, and chemical compatibility between the liner material and the liquids stored in the ponds.	Retention pond design is discussed in Section 4.2.2.	TR	4.2.2	4-12	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide a set of detailed drawings showing the planned location of the storage ponds, cross section of the liner system, and construction details.	Retention pond design is discussed in Section 4.2.2 and cross-sections are in Figure 4.2-1.	TR	4.2.2	4-12 & 4-33	Yes				
ML091680400	Lost Creek Response to RAIs ER	6/11/2009	Lost Creek	Lost Creek	Request for Additional Information	Waste Management	Brine Disposal	A more complete description of the storage ponds is needed, including: 1) size; 2) depth; 3) liner material; 4) operation; 5) maintenance; and 6) monitoring.	Retention pond design is discussed in Section 4.2.2.	TR	4.2.2	4-12	Yes				
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Effluent Control Systems	Liquid Wastes	Address the chemical compatibility between the polypropylene liner and the liquids that will be stored in the ponds.	As stated in Section 4.2.2.1, HDPE and PP liners are generally resistant to chemicals expected in the waste at the project.	TR	4.2.2.1	4-14	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide a discussion of any anticipated maintenance activities that may be required over the life of the storage ponds.	Retention pond monitoring and maintenance are mentioned in Section 4.2.2 and discussed in detail in Section 5.3.2.	TR	4.2.2 & 5.3.2	4-15 & 5-177	Yes	ER	6.2.3.5	6-15	Yes

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ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Effluent Control Systems	Liquid Wastes	Discuss the evaluation parameters for the leak detection system and groundwater monitoring. Ideally, these parameters should be the same to allow for a direct comparison of the leak detection liquids and surrounding groundwater, if a leak does occur.	Leak detection monitoring is discussed in Section 5.7.8.3.	TR	5.7.8.3	5-92	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Description of the Proposed Facility	Wellfield Operation	Demonstrate an adequate plan or methodology to maintain wellfield bleed rates, given the possibility that either or both disposal wells may become inoperable or have reduced capacity for more than 22 or 24 hours.	Sections 4.2.3.1.5 and 4.2.3.2.3 discuss the water storage and disposal capacities in case of upset conditions.	TR	4.2.3.1.5 and 4.2.3.2.3	4-19	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Liquid Waste	Provide the basis for the number of deep disposal wells that will be needed for liquid waste disposal. If deep disposal is not the only method planned for liquid effluent disposal, provide plans for the secondary method.	Deep disposal wells are discussed in Section 4.2.3.2.1	TR	4.2.3	4-22	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide a detection monitoring program to identify if the storage ponds are leaking. This program should include: the frequency for monitoring the leak detection system, justification for the selection of indicator parameters for sampling liquids found in the leak detection layer and surrounding groundwater monitoring wells, action levels for obtaining chemical samples of liquids in the leak detection system, notifications to be made upon leak identification, and follow up actions after a leak has been identified. Note that the indicator parameters selected should allow for a clear distinction to be made between the liquids contained in the pond and groundwater.	Retention pond inspections is discussed in Section 5.3.2.	TR	5.3.2	5-17	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide a discussion of the location of the ponds and the measures that will be taken to protect the ponds from surface water run off. This may require a review of the upstream catchment area and any diversion channels or slope protection around the embankments.	Retention pond design and detection system is discussed in Section 4.2.2 and indicated on Figure 4.2-1.	TR	4.2.3	4-12	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Description of the Proposed Facility	Effluent Disposal	Provide a description of the number, location, design, and capacity of deep disposal wells.	Deep disposal wells are discussed in Section 4.2.3.2.1.	TR	4.2.3.2.1	4-22	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Liquid Waste	Provide the status of the application to the State of Wyoming for the Class I UIC Permit.	Strata submitted a Class I UIC application on June 23, 2010.	TR	4.2.3.2.1	4-22	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Description of the Proposed Facility	In Situ Recovery Process and Equipment	Provide a description of the number, location, design, and capacity of deep disposal wells.	Deep disposal wells are discussed in Section 4.2.3.2.1.	TR	4.2.3.2.1	4-22	Yes	ER	4.1.1.1.1	4-6	Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Effluent Control Systems	Liquids Waste	Demonstrate UIC approval from WDEQ of the deep well injection wells and plans prior to operations.	Strata submitted a Class I UIC application on June 23, 2010.	TR	4.2.3.2.1	4-22	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Description of the Proposed Facility	Instrumentation and Control	Provide information regarding the instrumentation and controls -that are planned for the deep disposal wells.	Instrumentation for deep disposal wells is discussed in Section 4.2.3.2.1.	TR	4.2.3.2.1	4-23	Yes	TR	Addendum 4.2-A		Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide the basis for reaching a conclusion on the number of deep wells needed for liquid waste disposal and a description of the location, target formation depth, design, and capacity of deep disposal wells.	Deep disposal wells are discussed in Section 4.2.3.2.1.	TR	4.2.3.2.1	4-22	Yes	ER	4.1.1.1.1	4-6	Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Restoration Flow rates and Quality	Describe the deep disposal wells to be installed including the number of wells, locations etc. Provide an estimate and supporting analysis of how much waste water will be produced during restoration and the ability of the deep disposal wells to handle the rates and volumes. Also describe how the wastes will be handled in the event that the deep disposal wells become inoperable.	Deep disposal wells and waste estimates are discussed in Section 4.2.3.	TR	4.2.3	4-15	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Liquid Waste	Provide information on how EMC will ensure backup storage capacity for liquid waste in the event that the deep disposal wells need to be shut down for a short time.	Pond storage capacities are discussed in Section 4.2.3.2.3.	TR	4.2.3.2.3	4-24	Yes				

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ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Effluent Controls System	Liquids and Solids	Provide the basis for the number of deep wells needed for liquid waste disposal.	The number of deep disposal wells required is discussed in Section 4.2.3.2.3.	TR	4.2.3.2.3	4-25	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Effluent Control Systems	Liquids Waste	Demonstrate that the deep well liquid waste disposal method and facilities proposed are adequate to handle production and restoration efforts.	The number of deep disposal wells required is discussed in Section 4.2.3.2.3.	TR	4.2.3.2.3	4-25	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Description of the Proposed Facility	Instrumentation and Control	Provide the maximum number of disposal wells to be installed at the facility.	The number of deep disposal wells required is discussed in Section 4.2.3.2.3.	TR	4.2.3.2.3	4-25	Yes	ER	4.1.1.1.1	4-6	Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Waste Management	Brine Disposal	Provide the basis for reaching a conclusion on the number of deep wells that will be needed for liquid waste disposal.	The number of deep disposal wells required is discussed in Section 4.2.3.2.3.	TR	4.2.3.2.3	4-25	Yes	ER	4.13	4.13.1	Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Liquid Waste	Provide information on the ability of the sump system to handle the volume of the largest hazardous material source.	Provided.	TR	3.2.9, 7.5.2	3-68	Yes				
ML093440306	Moore Ranch Response to SER Open Issues Part 1	12/4/2009	Uranium One	Moore Ranch	SER Open Issue	Waste Management	11(e).2 Waste	Provide the location of and plans for storage of 11(e).2 byproduct material that is awaiting shipment to a disposal facility.	11e.(2) solid waste storage is addressed.	TR	4.3.1	4-35	Yes	ER	4.13	4.13.2	Yes
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Solid Waste	Provide the details of a waste disposal agreement for 11e.(2) byproduct material disposal at an NRC or agreement state licensed facility. Also discuss why contaminated soil from operations are not included in the listing of solid contaminated waste.	The waste disposal agreement is discussed in Section 4.3.1.1.	TR	4.3.1.1	4-37	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Waste Management	11e.(2) Solid Waste	Provide the details of a waste disposal agreement for 11(e).2 byproduct material disposal at an NRC or agreement state licensed facility. Also discuss why contaminated soil from operations are not included in the listing of solid contaminated waste.	Indicated that waste disposal agreement will be obtained and listed specifics about NRC notification if it expires or is terminated. Addressed contaminated soil.	TR	4.3.1.1	4-37	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Waste Management	11e.(2) Solid Waste	Provide information on the handling, storage, and controls of radioactive byproduct material.	Storage, handling and disposal discussed in Section 4.3.1.1.	TR	4.3.1.1	4-37	Yes	ER	4.13	Various	Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Effluent Controls System	Liquids and Solids	Please provide a statement that the applicant will notify NRC staff within 7 days if any disposal agreement is terminated and will submit a new agreement to NRC staff for approval within 90 days of expiration or termination. Also, discuss why soils contaminated from operations (spills, leaks, etc.) are not included in the listing of contaminated solid wastes.	This information is provided in Section 4.3.1.1.	TR	4.3.1.1	4-37	Yes	ER	4.13.1.1.1.4	4-167	Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Reclamation	Reclamation of Disturbed Areas	Provide the details of a waste disposal agreement for 11e.(2) prior to operation.	This information is provided in Section 4.3.1.1.	TR	4.3.1.1	4-37	Yes	ER	4.13.1.1.1.4	4-167	Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Waste Management	11e.(2) Solid Waste	Provide a commitment to develop an agreement for off-site disposal of 11e.(2) byproduct material disposal at an NRC or Agreement State licensed facility. The agreement should include commitments to notify NRC within 7 days if it is terminated and to submit a new agreement for NRC approval within 90 days of expiration or termination.	This information is provided in Section 4.3.1.1.	TR	4.3.1.1	4-37	Yes	ER	4.13.1.1.1.4	4-167	Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Corporate Organization and Administration	Please identify the department that is responsible for construction of the facility and details on the integration of construction activities with overall plant management.	Section 5.1.4 discusses the construction manager.	TR	5.1.4	5-3	Yes				
ML093440306	Moore Ranch Response to SER Open Issues Part 1	12/4/2009	Uranium One	Moore Ranch	SER Open Issue	Management Control Program	Reporting and Recordkeeping	Provide a focused discussion of reporting requirements based on the Standard Review Plan 5.2.3 (13) and relevant regulations in Parts 20 and 40.	Reporting and record keeping are discussed in Section 5.2.3.	TR	5.2.3	5-11	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide a description of the applicant's reporting and record keeping that is in conformance with10 CFR Subpart L and Subpart M	Record keeping in accordance to 10 CFDR 20 Subpart L is discussed in Section 5.7.2.	TR	5.2.3	5-11	Yes				
ML093440306	Moore Ranch Response to SER Open Issues Part 1	12/4/2009	Uranium One	Moore Ranch	SER Open Issue	Management Control Program	Reporting and Recordkeeping	Provide a discussion of reporting requirement related to radiological release accidents.	Reporting and record keeping are discussed in Section 5.2.5.	TR	5.2.5	5-15	Yes				

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ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Management Control Program	Specify the contents of an annual report that will be submitted to the NRC.	Text provided in Section 5.3.6.	TR	5.3.6	5-21	Yes				
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Management Control Program	The applicant has not completely identified which reports will be submitted to the NRC. The licensee should submit the ALARA audit report, land use survey, monitoring data, corrective action program report, semi-annual effluent monitoring reports, and the SERP information to the NRC on an annual basis.	Reporting is discussed in Section 5.2.5.	TR	5.2.5	5-15	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Management Control Program	Include a Land Use Survey in your discussion of the information required to be submitted annually to NRC.	Text is provided in Section 5.2.5.	TR	5.2.5	5-15	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Management Control Program	Recordkeeping	Discuss which records will be maintained until termination of the project. Also discuss appropriate safeguards that will be sued to protect from tampering and loss, and state that records will be readily retrievable for NRC inspection. Reporting requirements should be in accordance with NRC regulations located in 10 CFR Part 40.	Various sections throughout Chapter 5 discuss records and how they will be maintained.	TR	5.0	Various	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Management Control Program	Cultural Resources Management	Provide discussion related to preservation of cultural resources and perform a cultural resources inventory before any development work is performed.	As stated in Section 5.2.7, Strata will conduct a cultural resources inventory prior to any development activity. Detailed discussions regarding CR inventories already preformed are in Section 4.8 of the ER.	TR	5.2.7	5-15	Yes	ER	4.8	4-102 to 4-104	Yes
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Management Control Program	Please provide a commitment to administer a cultural resources inventory before engaging in any development activity not previously assessed by NRC, and that any disturbances associated with such development will be completed in compliance with the National Historic Preservation Act, the Archeological Resources Protection Act, and their implementing regulations. In addition, please provide a commitment to cease any work resulting in the discovery of previously unknown cultural artifacts to ensure that no unapproved disturbance occurs.	Text provided in Section 5.2.7.	TR	5.2.7	5-15	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Management Control Program	Provide a commitment to administer a cultural resources inventory before engaging in any development activity not previously assessed by NRC, and that any disturbances associated with such development will, be completed in compliance with the National Historic Preservation Act, the Archeological Resources Protection Act, and their implementing regulations. In addition, commit to cease any work resulting in the discovery of previously unknown cultural artifacts to ensure that no unapproved disturbance occurs.	Text provided in Section 5.2.7.	TR	5.2.7	5-15	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Management Control Program	Include a commitment to administer a cultural resources inventory before engaging in any development activity not previously assessed by NRC, and that any disturbances associated with such development will be completed in compliance with the National Historic Preservation Act, the Archeological Resources Protection Act, and their implementing regulations.	Text provided in Section 5.2.7.	TR	5.2.7	5-15	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Liquid Waste	As part of the discussion of potential leaks and spills from pipelines and wellheads, provide the plans for inspection of these aspects of the facility including frequency, contingency plans and response procedures, and notifications and recordkeeping.	The inspection program is discussed in Section 5.3.1.	TR	5.3.1	Various	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Management Audit and Inspection Program	Discuss the definition of the qualified designee, other than the RSO or Radiation Safety Officer, tasked to conduct a daily walkthrough inspection of the plant.	The inspection program is discussed in Section 5.3.1.	TR	5.3.2	Various	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Effluent Control Systems	Gaseous and Airborne Particulates	Provide details of a ventilation survey program consistent with Regulatory Guide 8.30 or justification for an alternate program.	Ventilation system testing will be preformed in accordance with Regulatory Guide 3.56.	TR	5.3.3	5-20	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Training	Discuss how information will be provided to pregnant women, and other personnel, to help make decisions regarding radiation exposure during pregnancy.	Text is provided in Section 5.5.1.	TR	5.5.1	5-26	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Training	Provide a proposed training program that includes nonradiological hazards for workers.	Text is provided in Section 5.5.1.	TR	5.5.1	5-27	Yes				

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ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Effluent Controls	Discuss the effluent controls and monitoring (i.e., ventilation, confinement and /or filtration) for uranium. Also address the effluent controls and monitoring for uranium under nonroutine operations such as during emergencies and maintenance.	Effluent control is discussed in Section 5.7.1.	TR	5.7.1	Various	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discussed how the effluent control techniques will ensure that the magnitude of such effluents is known with a sufficient degree of confidence to estimate public exposure.	Effluent control techniques are discussed in Section 5.7.1	TR	5.7.1	5-31+	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Effluent Controls System	Gaseous and Airborne Particulates	Provide a map or diagram that shows the ventilation system.	Figure 5.7-1 shows the plant ventilation system.	TR	5.7	5-8	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Effluent Controls	Discuss how the effluent control techniques used for the plant building will ensure that the magnitude of effluents such as Radon is known to a sufficient degree of confidence as to estimate public exposure.	Effluent control in the CPP is discussed in Section 5.7.1.1.1.	TR	5.7	5-31	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Dryer Effluent Controls	Provide data or information to substantiate the statement that the vacuum dryers will not discharge any uranium when operating. Identify the release point of the discharge of air from the vacuum dryer and packaging system.	Emissions from vacuum dryers are discussed in Sections 5.7 and 7.5.	TR	5.7.1.1.1	5-31	Yes	TR	7.5	7-73	Yes
ML100250919	Moore Ranch Response to SER Open Issues Part 3	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Gaseous and Airborne Particulates	Provide sufficient information regarding the manner in which the applicant will calculate or measure effluent releases from monitored release points. Provide sufficient information regarding how the applicant plans to meet the requirement in 10 CFR 40.65 for reporting the quantity of each of the principal radionuclides released to unrestricted areas. Regulatory Guide 3.59 addresses methods, models, data, and assumptions acceptable to the NRC staff for estimating airborne emissions of radioactive and toxic materials from uranium milling.	Compliance with 10 CFR 40.65 and RG 3.59 are discussed in Section 5.7.1.1.2	TR	5.7.1.1.2	5-34	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Demonstrate that there are no emissions from the yellowcake dryer exhaust, as well as, no emissions from other operational activities at the facility.	Yellowcake particulate emissions are discussed in Section 5.7.1.1.2.	TR	5.7.1.1.2	5-33	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Effluent Control Systems	Gaseous and Airborne Particulates	Discuss particulates derived from radon progeny and how they will be sampled or accounted for in its effluent discharges.	Sampling of radon progeny is discussed in Section 5.7.1.1.2.	TR	5.7.1.1.2	5-36	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Effluent Control Systems	Gaseous and Airborne Particulates	Discuss procedures that meet 10 CFR 40, Appendix A, Criterion 8, that states that checks must be made and logged hourly of all parameters (e.g., differential pressures and scrubber water flow rates) that determine the efficiency of yellowcake stack emission control equipment operations.	The vacuum dryer system is discussed in Section 5.7.1.1.2 and text is provided in Section 3.3.3 that indicates hourly checks.	TR	5.7.1.1.2	5-34	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Provide information to determine if the ventilation process is adequate to ensure that radon daughter concentrations in the facility are maintained below 25% of the derived air concentration (DAC) from 10 CFR 20, and if controls will ensure all airborne releases are ALARA consistent with 10 CFR 40, Appendix A, Criterion 8.	Section 5.7.1.1.2 states that the vacuum dryer is in compliance with 10 CFR 40, Appendix A, Criterion 8.	TR	5.7.1.1.2	5-34	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Provide information on the testing, maintenance, and inspection of the ventilation equipment, including frequencies and minimum performance specifications. Where applicable, compare proposed testing, maintenance, and inspection to the manufacturers' recommendations.	Ventilation system testing will be preformed in accordance with Regulatory Guide 3.56 and is discussed in Section 5.7.1.1.2.	TR	5.7.1.1.2	5-34	Yes				
ML093130083	Lost Creek SER Open Issues	11/9/2009	Lost Creek	Lost Creek	SER Open Issue	Description of the Proposed Facility	Instrumentation and Control	Address instrumentation and controls related to radiation safety monitoring.	Instrumentation and control related to radiation safety is discussed in Section 5.7.1.2.1.3.	TR	5.7.1.2.1.3	5-38	Yes	TR	3.3	3-80	Yes
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Management Control Program	Discuss or demonstrate a corrective action program at the site that integrates components of the Quality Assurance program.	The QA program (including the corrective action) is discussed in Section 5.7.9.	TR	5.7.10	5-94	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Provide field quality objectives for field and analytical methods that are industry standards and laboratory quality objectives that will include precision, bias, accuracy, representativeness, comparability, and sensitivity. (QA/QC Program)	The QA program (including the corrective action) is discussed in Section 5.7.9.	TR	5.7.10	5-92+	Yes				

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ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss using a sampling process design that defines the sample locations and sampling frequency and determine the types of analyses that will be conducted on the samples collected from these locations. (QA/QC Program)	The QA program (including the corrective action) is discussed in Section 5.7.9.	TR	5.7.11	5-92+	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Ensure that field measurements and sample collections will follow procedures attached to nationally recognized consensus standards, such as EPA methods, ASTM, or instrument manufacturer recommended procedures. (QA/QC Program)	The QA program (including the corrective action) is discussed in Section 5.7.9. Field measurements and sample collections are discussed in TR Addendum 2.9-A.	TR	5.7.12	5-92+	Yes	TR	Addendum 2.9-A		Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Ensure laboratory requirements for subcontractor and site-owned laboratories will have a QA/QC program. (QA/QC Program)	The QA program for on-site laboratories is discussed in Section 5.7.9.	TR	5.7.14	5-92+	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss verification and validation in the license application. (QA/QC Program)	The QA program is discussed in Section 5.7.9.	TR	5.7.17	5-92+	Yes				
ML092450317	Moore Ranch 2nd Response to RAI ER_TR Part 1 of 2	8/27/2009	Uranium One	Moore Ranch	Request for Additional Information	Radiological Environmental Monitoring	Operational Monitoring	Specify details such as the sampling locations (with a map), media, frequency, type of analysis, detection levels, and quality control measures of the radiological monitoring program that will be conducted during operations.	External radiation monitoring is discussed in Section 5.7.2.	TR	5.7	Various	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide the number and category of personnel that will be included in the external radiation monitoring program.	A general discussion of personnel included in the monitoring program is provided in Section 5.7.2.	TR	5.7.2	5-39	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide sufficient data for NRC staff to evaluate the placement of operational air particulate and radon sampling stations.	The plant airborne radiation monitoring program is discussed in Section 5.7.3.	TR	5.7.3	5-44	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Radiation Exposure Monitoring Program	Discuss the detection range of the external gamma survey meters. Ensure that the external radiation exposure monitoring program is sufficient to detect and control gamma radiation from uranium decay products.	External gamma survey equipment is discussed in Section 5.7.2.1 and meets minimum requirements.	TR	5.7.2.1	5-41	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss conducting surface contamination surveys of unrestricted or clean areas of the facility. Frequent contamination surveys of work areas, restrooms, lunchrooms, hallways, etc., are needed to ensure contamination is controlled properly and that employees are following procedures and not transferring radioactivity in unrestricted areas.	Surveys of unrestricted areas are discussed in Section 5.7.2.1.	TR	5.7.2.1	5-40	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Provide details of survey equipment calibration methods regarding the external radiation exposure monitoring program for the proposed facility.	Calibration of survey equipment is discussed in Section 5.7.2.1	TR	5.7.2.1	5-40	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Describe the type of survey instruments (i.e., G-M, Proportional, etc.), including instruments used for beta measurements that will be used to conduct exposure rate surveys, and the range of each type of survey instrument.	Gamma and beta survey instrumentation are discussed in Sections 5.7.2.1 & 5.7.2.2	TR	5.7.2.1 & 5.7.2.2	Various	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Radiation Exposure Monitoring Program	Discuss plans to conduct beta surveys in the plant and what action levels will be taken to protect personnel working in potential beta and gamma radiation fields.	Beta survey methods are discussed in Section 5.7.2.2.	TR	5.7.2.2	5-42	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Radiation Exposure Monitoring Program	Discuss plans to conduct beta surveys in the plant, and identify personnel monitoring for beta.	Beta survey methods are discussed in Section 5.7.2.2.	TR	5.7.2.2	5-42	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Assuming that beta monitoring will be required at some point during plant operations, provide information on the beta monitoring program detailing frequency of surveys, acceptable equipment, calibration methodology, and location for the type of detector proposed.	Beta survey methods are discussed in Section 5.7.2.2.	TR	5.7.2.2	5-42	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Address the potential for beta-gamma contamination that could result from maintenance activities in the applicant's program for personnel surveys.	The potential for contamination during maintenance is discussed in Section 5.7.2.2.	TR	5.7.2.2	5-42	Yes				

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ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Gaseous Emissions and Airborne Particulates	Provide details regarding the Continuous Working Level (CWL) monitor system regarding calibration frequency and methods.	Personal monitoring devices will be provided to regular plant employees and determine a monitoring routine in accordance with NRC regulations.	TR	5.7.2.3	5-44	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss using personnel dosimeters such as Thermoluminescent Dosimeters (TLDs) or Optically Stimulated Luminescence (OSL) dosimeters to measure occupational exposure to external gamma and beta radiation. Discuss the Radiation Safety Officer (RSO) will use historical and current monitoring and survey data to ensure that external radiation exposures are less than 10 percent of the occupational dose limit for all unmonitored workers and when the monitoring program will be reviewed to ensure that unmonitored employees have not exceeded 10 percent of the dose limits.	Personnel dosimetry is discussed in Section 5.7.2.3.	TR	5.7.2.3	5-44	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Identify the group or category of workers who will receive the greatest external occupational dose. Define all groups or category of workers and identify those groups or category of workers who will receive occupational doses in excess of 10% of the applicable external occupational dose limit.	Personnel dosimetry is discussed in Section 5.7.2.3.	TR	5.7.2.3	5-44	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Identify the frequency of exposure rate surveys at other locations other than the process areas.	The frequency of exposure rate surveys is discussed in Section 5.7.2.3.	TR	5.7.2.3	5-44	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Discuss the applicant's employee monitoring program as it relates to individuals entering a high radiation area.	Employee monitoring for high radiation areas is discussed in Section 5.7.2.3.	TR	5.7.2.3	5-44	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Gaseous and Airborne Particulates	Provide sufficient information regarding the manner in which the applicant will calculate or measure effluent releases from monitored release points. Additionally, the applicant has not provided sufficient information regarding how it plans to meet the requirement in 10 CFR 40.65 for reporting the quantity of each of the principal radionuclides released to unrestricted areas.	External radiation monitoring is discussed in Section 5.7.2.	TR	5.7.3	Various	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Gaseous Emissions and Airborne Particulates	Provide information regarding the administrative action level for uranium based on its DAC.	DAC compliance is discussed in Section 5.7.3.1.	TR	5.7.3.1	5-44	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Airborne Radiation Monitoring	Describe the frequency of airborne particulate sampling in the plant.	Airborne sampling frequency is discussed in Section 5.7.3.1	TR	5.7.3.1	5-45	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Airborne Radiation Monitoring	Describe the plans for documentation of radiation exposures and how they will be consistent with the requirements of 10 CFR 20.2102, 20.2103, 20.2106, and 20.2110.	Documentation will be compliant with Regulatory Guide 8.7.	TR	5.7.3.1	5-45	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Bioassay Program	Describe the reporting and recordkeeping procedures for occupational doses as provided in Regulatory Guide 8.7.	Documentation will be compliant with Regulatory Guide 8.7.	TR	5.7.3.1	5-45	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Contamination Control	Describe the reporting and recordkeeping procedures for occupational doses as provided in Regulatory Guide 8.7.	Documentation will be compliant with Regulatory Guide 8.7.	TR	5.7.3.1	5-45	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Radiation Exposure Monitoring Program	Ensure that portable radiation meters used to conduct beta and gamma surveys have a lower limit of detection that allows measurement of 10% of the applicable limits.	Portable radiation meters are discussed in Section 5.7.3.1.	TR	5.7.3.1	5-48	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss the measurement process of airborne uranium performed by gross alpha counting of air filters for uranium air particles. Provide justification that the air filters will contain only uranium or explain how it will evaluate a mixture of radionuclides including uranium. Th-230 and Ra-226 may also be present in the air, and thus, a mixture of radionuclides may be present on the air filters.	Airborne uranium particle monitoring regarding gross alpha counting is discussed in Section 5.7.3.1.	TR	5.7.3.1	5-46	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss the sample volume that will be adequate to achieve the lower limits of detection (LLD) for uranium in air. Define the lower limit of detection for uranium. Discuss the lower limit of detection (LLD) for the alpha scaler used to measure radon samples. Regulatory Guide 8.30 recommends that the quantity of the air sampled and the method of analysis should be 10 percent of 10 CFR 20 Appendix B limit.	Text is provided in Section 5.7.3.1.	TR	5.7.3.1	5-48	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Discuss in more detail the frequency of sampling regarding the airborne radiation monitoring program.	Airborne radiation monitoring is discussed in Section 5.7.3.1.	TR	5.7.3.1	5-44+	Yes				

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ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Provide clarification for establishing airborne radioactivity areas (See Regulatory Guide 8.25, Section 1.7). Regulatory Guide 8.31, Section 3.3, provides design objectives for ventilation systems. This design objective should be sufficient to maintain airborne concentrations to less than 25% of the DAC. Thus, establishing an administrative limit of one DAC would exceed the design objective of Regulatory Guide 8.31. Regulatory Guide 8.30, Section 4.0, provides guidance to establish administrative action limits to protect the workers and investigate air sample results that are above the normal fluctuations and that should be less than 25% of the DAC.	Airborne particle monitoring is discussed in Section 5.7.3.1	TR	5.7.3.1	5-44+	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss beta surveys and provide information on the lower limits of detection on the beta and gamma radiation survey instruments. Indicate that beta surveys will be performed and the monitoring equipment has a lower limit of detection that allows measurement of 10% of the applicable limits.	Lower limits of detection are discussed in Section 5.7.3.1.	TR	5.7.3.1	5-46	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Provide an LLD(s) (lower limit of detection) that is representative of particulate uranium throughout the plant.	LLDs are discussed in Section 5.7.3.1.	TR	5.7.3.1	5-44	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Regarding the exposure calculation methods, please clarify that all internal doses will be calculated using data that is based on ICRP Publication 30.	Text is provided in Section 5.7.3.1.	TR	5.7.3.1	5-55	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Please address 10 CFR20.1204(g) regarding mixtures of radionuclides and provide a technical justification for using a gross alpha count and attributing all dose to natural uranium.	Mixtures of radionuclides as related to 10 CFR 20.1204(g) are discussed in Section 5.7.3.1	TR	5.7.3.1	5-44	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Please provide a technical basis for the use of "Class D" uranium throughout the plant. This discussion should address all forms of uranium that may be encountered during routine and off-normal circumstances including maintenance.	Justification for Class D designation is included in Section 5.7.3.1.	TR	5.7.3.1	5-55	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Provided a statement that survey and calibration records will be kept for 3 years and will reflect updated 10 CFR Part 20 requirements that the applicant maintain records used to demonstrate compliance and evaluate dose, intake, and releases to the environment until license termination.	Text on page 5-45 states that records will be maintained in accordance with RG 8.7	TR	5.7.3.1	5-45	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Provide justification for using inhalation class D for the uranium in its facility. Regulatory Guide 8.22 recommends that for exposures to Class W or Y materials alone, in vivo lung counts or alternate sampling times and action levels should be considered. NRC staff cannot conclude that performing urinalysis alone is consistent with Regulatory Guide 8.22.	Justification for Class D designation is included in Section 5.7.3.1.	TR	5.7.3.1	5-55	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	In regards to airborne particulate monitoring, provide a description of the applicant's air sampling program during the first year of operations to ensure that the proposed program adequately provides measurements of the concentrations representative of the concentrations to which workers are exposed.	Airborne particulate monitoring is discussed in Section 5.7.3.1.	TR	5.7.3.1	Various	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide an LLD formula for calculating the lower limit of detection (LLD) for particulate air samples consistent with Regulatory Guide 8.30 or a technical justification for an alternate methodology.	The formula for calculating LLD for uranium in the air is included in Section 5.7.3.1.	TR	5.7.3.1	5-48	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide methodologies to calculate the intake of natural uranium by personnel in work areas where airborne radioactive materials could exist.	Methods for calculating intake of natural uranium are discussed in Section 5.7.3.1.	TR	5.7.3.1	5-48	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Identify the air particulate locations as suggested in Regulatory Guide 4.14, Revision 1, Table 1, or provide a justification for not including air particulate samples.	Air particulate monitoring locations are discussed in Section 5.7.3.1.1.	TR	5.7.3.1.1	5-50	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Identify all radionuclides and concentrations that may exist in air and determine the dose from this mixture.	Radionuclide particulates in the air are discussed in Section 5.7.3.1.1.	TR	5.7.3.1.1	5-49	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	What correction factors, if any, will be applied to determine the dose rate for the proposed facility	The correction factor for Rn-222 is discussed in Section 5.7.3.2.	TR	5.7.3.2	5-51	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Specify the LLD for radon daughter measurements.	Text is included in Section 5.7.3.2.	TR	5.7.3.2	5-50	Yes				

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ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	In regards to airborne particulate monitoring, provide facility drawings that depict the facility layout and the location of samplers for airborne particulates.	As indicated in Section 5.7.3.2, the locations for airborne sampling are on Figure 5.7-5.	TR	5.7.3.2	5-50	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Please provide the locations of radon monitors.	Rn-222 sampling locations are provided on Figure 5.7-5.	TR	5.7.3.2	5-102	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Evaluate the respiratory program, demonstrate that respiratory protection will be routinely used for operations within drying and packaging areas and identify the criteria for determining when respirators will be required for special jobs emergency or situations.	Respiratory protection is discussed in 5.7.3.3.	TR	5.7.3.3	5-52	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Provide methodologies that show the equations and input parameters for all intake pathways regarding exposure calculation methods.	Exposure calculations are discussed in Section 5.7.4.	TR	5.7.4	Various	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Discuss the predominant method for calculating intake of uranium and whether this predominant method justifies the basis for the DAC value of 10 CFR 20, Appendix B Table 1, Column 3 for natural uranium.	Exposure calculations are discussed in Section 5.7.4.	TR	5.7.4	Various	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Provide a description of how the applicants external radiation exposure monitoring program will meet the requirements of 10 CFR 20, Subpart L, which specifies record keeping requirements and 10 CFR 20, Subpart M, which defines reporting requirements.	Record keeping is discussed in Section 5.7.4 and in 5.2.3.	TR	5.7.4	5-53	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Demonstrated how exposures will be calculated. (Regarding solubility class of natural uranium)	Exposure calculations are discussed in Section 5.7.4.	TR	5.7.4	5-52+	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Please justify the use of the proposed DAC for calculating the committed effective dose equivalent (CEDE).	CEDE calculations are discussed in Section 5.7.4.	TR	5.7.4	5-53	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Justify the basis for assigning a solubility classification "D" to all uranium	Solubility classifications are discussed in Section 5.7.4.1.	TR	5.7.4.1	5-54	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Provide the technical basis for selecting the "D" solubility class for airborne uranium to determine if the proper classification and DAC is being used to show compliance with 10 CFR 20, Subpart C.	Solubility classifications are discussed in Section 5.7.4.1.	TR	5.7.4.1	5-56	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Regarding the determination of the inhalation classification of yellowcake produced at the Dewey-Burdock facility, provide an air particulate monitoring program consistent with guidance given at the November 2009 uranium recovery workshop held in Denver, CO (ML093510162) or a technical justification for an alternate methodology.	Justification for Class D or W designation related to yellowcake is included in Section 5.7.4.1.	TR	5.7.4.1	5-55	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss occupancy time determinations and what they are based on. (e.g. actual time and scheduled time, what if actual time is greater than scheduled time)	Time of exposure is discussed in Section 5.7.4.2.	TR	5.7.4.2	5-57	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Radiation Exposure Monitoring Program	Address the limit of 10 mg/week of uranium required by 10 CFR 20.1201(e) in consideration of the chemical toxicity.	Intake of soluble uranium is discussed in Section 5.7.4.4.	TR	5.7.4.4	5-58	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Describe how monitoring and record keeping of the requirement in 10 CFR 20.1201(e) stating that in addition to the annual dose limits, the licensee shall limit the soluble uranium intake by an individual to 10 milligrams in a week in consideration of chemical toxicity will be done.	Soluble uranium limits and control are discussed in Section 5.7.4.4.	TR	5.7.4.4	5-58	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss procedures to limit the soluble uranium intake by an individual to 10 mg per week. This requirement is defined in 10 CFR 20.1201(e).	Soluble uranium intake is Discussed in Section 5.7.4.4	TR	5.7.4.4	5-58	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Describe how the applicant will monitor and keep records of the requirement in addition to the annual dose limits, to limit the soluble uranium intake by an individual to 10 milligrams in a week in consideration of chemical toxicity.	Limits and control of soluble uranium are discussed in Section 5.7.4.4.	TR	5.7.4.4	5-58	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Demonstrate that a report required by 10 CFR 20.2205 will be transmitted to the individual or the Commission.	Notification of overexposure will be done in accordance with 10 CFR 20.2205.	TR	5.7.4.5	5-59	Yes				

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ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Identify reporting requirements of reports to individuals exceeding dose limits as defined in 10 CFR 20.2005.	Overexposure reporting is discussed in Section 5.7.4.5.	TR	5.7.4.5	5-59	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Training	Provide the applicant's specific policy on declared pregnant women consistent with Regulatory Guide 8.13 and NUREG-1569, Acceptance Criteria 5.5.3(2).	Text is provided in Section 5.7.4.6	TR	5.7.4.6	5-59	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Provide and discuss the methods used to calculate prenatal and fetal radiation exposures. In the discussion, identify when the more detailed methodology will be used.	Prenatal exposure is discussed in Section 5.7.4.6.	TR	5.7.4.6	5-59	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Reevaluate the trigger for determining the dose to the fetus of a declared pregnant worker. If the proposed DAC changes, please provide a revised trigger for calculating the dose to the fetus based on the new DAC value.	Prenatal exposure is discussed in Section 5.7.4.6.	TR	5.7.4.6	5-59	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide a description of the applicant's prenatal radiation exposure program that is consistent with Regulatory Guide 8.13.	Prenatal exposure is discussed in Section 5.7.4.6.	TR	5.7.4.6	5-59	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss the most conservative DAC that will be used for establishing action levels.	Action levels calculations are discussed in Section 5.7.4.7.	TR	5.7.4.7	5-59	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Discuss and define action levels that would require more frequent exposure rate surveys.	Action levels calculations are discussed in Section 5.7.4.7.	TR	5.7.4.7	5-59	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Provide a description of how bioassay results will be used to confirm results derived from its airborne radiation monitoring program and exposure calculations. Specifically, provide discussion on methods for evaluating bioassay data that result in calculated intakes.	The use of bioassay results in conjunction with air sampling is included in Section 5.7.4.7.	TR	5.7.4.7	5-59	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Radiation Exposure Monitoring Program	Discuss the use of urinalysis as the method of bioassay and provide justification for using the Class "D" inhalation for uranium in air. Regulatory Guide 8.22 recommends that for exposures to Class "W" or Class "Y" material, in vivo lung counting or alternate sampling times and action levels should be considered.	The bioassay program is discussed in Section 5.7.5.	TR	5.7.5	5-60	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Radiation Exposure Monitoring Program	Discuss a method for assigning a dose for positive bioassay results, and provide a technical basis for how the uptake will be converted to a dose and assigned to the individual in accordance with 10 CFR 20 Subpart C.	The bioassay program is discussed in Section 5.7.5.	TR	5.7.5	5-60	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Specifically state what frequency specimens will be collected and evaluated for workers in the bioassay program.	The frequency of bioassay sampling is discussed in Section 5.7.5.1.	TR	5.7.5.1	5-62	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Specify the inhalation class for airborne uranium that will be used to evaluate the bioassay program. Provide a technical justification for relying on urinalysis as a primary bioassay technique.	Inhalation classes used to evaluate the bioassay program are discussed in Section 5.7.5.1.	TR	5.7.5.1	5-61	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Specify the actions that will be taken when positive bioassay results are confirmed.	Corrective actions related to positive bioassay results are discussed in Section 5.7.5.3.	TR	5.7.5.3	5-65	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Contamination Control	Describe in detail the contamination control program for maintenance activities that may involve the release of interior surfaces of pipes, drain lines, or duct work as well as equipment and scrap.	The Contamination Control Program is discussed in Section 5.7.6.	TR	5.7.6	5-66	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Discuss how contamination will be measured in the drying and packaging areas and at what contamination limits would the applicant enforce the use of personal protective equipment (PPE) including respiratory protection.	The Contamination Control Program is discussed in Section 5.7.6	TR	5.7.6	5-66+	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide action levels for gamma dose rates and dosimeter results or justification for an alternate program.	Action levels are discussed in Section 5.7.6	TR	5.7.6	5-66+	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Propose limits for surface contamination in restricted areas.	Surface contamination limits are discussed in Section 5.7.6.1.1.	TR	5.7.6.1.1	5-67	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Provide a consistent approach to surveying contamination in parts of the plant where work with uranium is not performed,	Surveys for surface contamination in unrestricted areas are discussed in Section5.7.6.1.1.	TR	5.7.6.1.1	5-67	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Describe the applicant's procedures for determining the radioactivity of interior surfaces of pipes, drain lines, duct work or similar items.	Surveys of internal surfaces is discussed in Section 5.7.6.1.3.	TR	5.7.6.1.3	5-68	Yes				

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ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Equipment Decom.	Provide a commitment that radioactivity along the interior surface of pipes, drain lines, and duct work will be determined by measurements at traps or other access points and a commitment that pieces of equipment that are too big to be scanned will be considered to be contaminated in excess of the limits.	Surveys of internal surfaces is discussed in Section 5.7.6.1.3.	TR	5.7.6.1.3	5-68	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Radiation Exposure Monitoring Program	Provide sufficient information regarding the ability to account for and detect Ra-226, as defined in Enclosure 2 to Policy and Guidance Directive 83-23, as well as other possible contaminants that may be present as a result of the uranium recovery operations.	Survey methods to detect RA-226 on skin and clothing are discussed in Section 5.7.6.2.	TR	5.7.6.2	5-68	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Radiological Environmental Monitoring	Radiation Exposure Monitoring Program	Provide sufficient information regarding the ability to account for and detect Ra-226 as defined in Enclosure 2 to Policy and Guidance Directive 83-23, as well as other possible contaminants that may be present as a result of the uranium recovery operations, with respect to any gross alpha contamination on the skin or clothing.	Survey methods to detect RA-226 on skin and clothing are discussed in Section 5.7.6.2.	TR	5.7.6.2	5-68	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide information on who will conduct skin decontaminations and who will verify that background levels have been achieved after contamination has been detected.	Skin and personal clothing surveys are discussed in Section 5.7.6.2.	TR	5.7.6.2	5-68	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss what actions will be taken and what criteria will be used in the case of persons with contamination above background.	Contamination in excess of background is discussed in Section 5.7.6.2.1.	TR	5.7.6.2.1	5-69+	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide details on limits and action levels for personnel with beta-gamma contamination.	Action levels for beta-gamma contamination are discussed in Section 5.7.6.2.1.	TR	5.7.6.2.1	5-69	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide details on limits and action levels for areas with beta-gamma contamination.	Action levels for beta-gamma contamination are discussed in Section 5.7.6.2.1.	TR	5.7.6.2.1	5-69	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Specify the staff that will perform the surveys of items leaving the restricted areas.	Text provided in Section 5.7.6.3.1.	TR	5.7.6.3.1	5-70	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Describe the applicant’s approach for applying covering material to contaminated surfaces.	Covering contaminated material is discussed in Section 5.7.6.3.1	TR	5.7.6.3.1	5-71	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide a description of survey instrumentation sufficient to measure expected gamma dose rates during operation.	Survey methods and instrumentation are discussed in Section 5.7.6.4	TR	5.7.6.4	5-73	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss proposed daily inspections of the plant by the RSO, HPT, or trained worker to check for proper containment of yellowcake and mining solutions, proper storage of PPE, radiation protection signage, access control, and security measures. Clarify if these inspections are the same as those described under Radiation Safety Inspections in Section 5.3. Daily radiation safety inspections performed by workers other than the RSO or HPT is not consistent with Regulatory Guide 8.31.	Daily plant inspections are discussed in Section 5.7.6.5.	TR	5.7.6.5	5-74	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Demonstrate that the applicant can account for and detect Ra-226 as well as other naturally occurring daughter products that may be present as a result of the uranium recovery operations, such as Th-230. Ensure the proposed program will be consistent with Enclosure 2 to Policy and Guidance Directive 83-23 and that it will meet the requirements in 10 CFR 20 Subpart F.	Monitoring of naturally occurring radionuclides are discussed in Section 5.7.7.1.	TR	5.7.7.1	5-75	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Explain the manner in which the applicant’s air sampling procedures are consistent with Regulatory Guide 4.14 and NUREG- 1569, Acceptance Criterion 5.7.7.3(1). (weekly filter change, or more frequently as required by dust loading and analysis of quarterly composite of the weekly sample)	Ambient monitoring is discussed in Section 5.7.7.1.1 and includes the indicated text.	TR	5.7.7.1.1	5-75	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide information that confirms that placement of operational air sampling locations is consistent with Regulatory Guide 4.14 or justification for an alternate methodology. (operational air sampling locations should be the same as those for preoperational air samples)	Text is provided in Section 5.7.7.1.1.	TR	5.7.7.1.1	5-75	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Explain the manner in which the applicant's radon sampling procedures are consistent with Regulatory Guide 4.14 and NUREG-1569, Acceptance Criterion 5.7.7.3(1) . (Regulatory Guide 4.14 recommends analysis for Rn-222 on a monthly basis)	Radon monitoring (Rn-222) is discussed in Section 5.7.3.2.	TR	5.7.7.1.1	5-50	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide an operational direct radiation monitoring program consistent with Regulatory Guide 4.14 and NUREG-1569, Acceptance Criterion 5.7.7.3(1).	Operational airborne monitoring consistent with RG 4.14 is discussed in Section 5.7.7.1.1.	TR	5.7.7.1.1	5-75+	Yes	TR	2.9.2.8	2-304+	Yes

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ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Airborne Effluent and Environmental Monitoring	Discuss the soil sampling program during operations including a description of the subsurface soil sampling. Identify the locations and address the suggestions in R. G. 4.14 that the samples can be taken in the same location as the air particulate monitoring.	Soil and sediment monitoring is discussed in Section 5.7.7.1.2.	TR	5.7.7.1.1.2	5-76	Yes	ER	6.1.3	6-4	Yes
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Discuss sediment sampling during operations. Regulatory Guide 4.14, Table 2, suggests that sediment sampling be conducted as an annual grab sample in one or two of the surface water sampling locations from each water body. The sediment samples should be analyzed for natural uranium, Th-230, Ra- 226, and Pb-210.	Soil and sediment monitoring is discussed in Section 5.7.7.1.2.	TR	5.7.7.1.1.2	5-76	Yes	ER	6.1.3	6-4	Yes
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide an operational surface water sampling and analysis program that states the surface water samples will be analyzed for dissolved and suspended natural uranium, Ra-226, Th-230, Pb-210 and Po-210, consistent with Regulatory Guide 4.14 and NUREG-1569, Acceptance Criterion 5.7.7.3(1).	Text is provided in Section 5.7.7.1.2.	TR	5.7.7.1.2	5-76	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Description of the Proposed Facility	Recovery Plant, Processing, and Chem. Storage Facilities	Provide a monitoring strategy (number, location of wells)for detecting excursions.	Provided.	TR	5.7.8.2	5-88	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Radiation Safety and Monitoring	Groundwater and Surface Water Monitoring	Provide the location of surface water sampling points and a description of surface water sampling methods.	Surface water sampling is discussed in Section 5.7.8.1 and locations are provided on Figure 5.7-7.	TR	5.7.8.1	5-79 & 5-104	Yes	ER	6.1.5.1	6-5	Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Ensure the overlying and underlying aquifer wells sampled four times prior to wellfield operation, with a minimum of two weeks between samples. NUREG-1569 Section 5.7.8.3 (1) states that at least four independent sets of samples should be collected, with adequate time between sets to represent any pre-operational temporal variations. Sample for all constituents in all four samples.	Text is provided in Section 5.7.8.1.	TR	5.7.8.1	5-83	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Please describe the method that will be used to establish upper control limits, consistent with Section 2.7.8.3 of NUREG 1569.	UCLs are described in TR Section 5.7.8.2	TR	5.7.8.2	5-88	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Provide a discussion on the use of chloride, conductivity, and total alkalinity for excursion indicators in the overlying aquifer at the license area if the overlying aquifer is also impacted by future CBM produced water infiltration.	Excursion monitoring parameters is discussed in Section 5.7.8.2.	TR	5.7.8.2	5-88	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide site-specific justification for the use of total dissolved solids or its related parameter, conductivity at the project site as an excursion indicator.	UCLs (including conductivity) would be utilized for early warning of potential excursions and are discussed in Section 5.7.8.2.	TR	5.7.8.2	5-88	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Discuss the monitoring frequency and the criteria for determining when an excursion has occurred regarding the excursion monitoring program.	Wellfield monitoring (including excursion monitoring) is discussed in Section 5.7.8.1.	TR	5.7.8.2	5-86+	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Provide the corrective action and notification plans consistent with Section 5.7.8.3 of NUREG -569, which states, “The excursion monitoring operational procedures must also include corrective action and notification plans in the event of an excursion. …”	Excursion monitoring and corrective actions are discussed in Section 5.7.8.2.	TR	5.7.8.2	5-90+	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Post Restoration Water Quality	Demonstrate that EMC will be able to return the groundwater quality to the NRC required restoration standard of baseline water quality or the standards listed in Criterion 5B(5)(b) of Appendix A to 10 CFR Part 40.	Groundwater target restoration goals are discussed in Section 6.1.1.	TR	6.1.1	6-2+	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Restoration	Goal	Provide a statement that the applicant will return the groundwater quality to the standards listed in Criterion 5B(5) of 10 CFR Part 40, Appendix A.	Discuss that restoration will be conducted in accordance with Criterion 5(B)(5).	TR	6.1.1	6-3	Yes				
ML090370542	Moore Ranch 2nd Response to RAI_TR_4.1-7.1	10/27/2008	Uranium One	Moore Ranch	Request for Additional Information	Groundwater Restoration	Volumes	Report the specific pore volume for each well field and show the calculations and assumptions.	Pore volume calculations are presented for a typical wellfield module.	TR	6.1.4.0	6-12	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Restoration	Analogs	Provide a technical basis demonstrating the applicant's ability to meet the standards in Criterion 5B(5) of 10 CFR Part 40, Appendix A. Generally such demonstrations may be based on either experience with previous ISL operations, research and development investigations in similar host rock, computations, or pilot tests.	Restoration analogs provide basis for ability to meet target restoration goals.	TR	6.1.6	6-17+	Yes				

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ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide a discussion of how the pond areas will be decommissioned and reclaimed.	Pond decommissioning and reclamation is discussed in Section 6.2.1.	TR	6.2.1	6-40	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Reclamation	Radiological Survey	Provide a pre-operational topographic map or provide discussion on why one is not needed. Also provide discussion on either the development of a post reclamation topographic map or why one is not needed.	Pre-construction topography is discussed in Section 6.2.7 and provided in Figure 2.1-3.	TR	6.2.7	6-44 & 1-17	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Reclamation	Reclamation of Disturbed Areas	Discuss plans for decommissioning non-radiological hazardous constituents as required by 10 CFR Part 40, Appendix A, Criterion 6 (7), regarding the land clean-up program.	Decommissioning of non-hazardous constituents is discussed in Section 6.3.4.	TR	6.3.4	6-48	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Background Radiological Characteristics	Demonstrate that the proposed preoperational soil sampling methodology is sufficient to allow LCI to clean up land as a result of spills and accidents, including on proposed transport routes, and meet the requirements of 10 CFR 40, Appendix A, Criterion 6(6), for decommissioning for radionuclides other than radium.	Section 6.4.1, discusses establishment of the radium benchmark dose and methods for determining cleanup standards for other radionuclides.	TR	6.4.1	6-50	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Reclamation	Surface Reclamation	According to 10 CFR 40 Appendix A, Criterion 6(6), it states, "Byproduct material containing concentrations of radionuclides other than radium in soil, and surface activity on remaining structures, must not result in a total effective dose equivalent (TEDE) exceeding the dose from cleanup of radium contaminated soil to the above standard (benchmark dose), and must be at levels which are as low as is reasonably achievable." Discuss how byproduct material containing concentrations of radionuclides other than radium in soil, and surface activity on remaining structures will not result in a total effective dose equivalent (TEDE) exceeding the dose from cleanup of the radium contaminated soil to the above standard (benchmark dose) and will be at levels which are as low as is reasonably achievable (ALARA).	Cleanup criteria are discussed in Section 6.4.1.	TR	6.4.1	6-50+	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Reclamation	Surface Reclamation and Decommissioning	Provide information on how the cleanup criteria for radium in soils as provided in 10 CFR Part 40, Appendix A, Criterion 6(6), will be met.	Cleanup criteria are discussed in Section 6.4.1.	TR	6.4.1	6-50+	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Reclamation	Surface Reclamation and Decommissioning	Provide acceptable cleanup criteria for Th-230 for areas that already meet the radium cleanup criteria but that still have elevated thorium levels.	Considerations for thorium are discussed in Section 6.4.1.2.	TR	6.4.1.2	6-52+	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Reclamation	Reclamation of Disturbed Areas	Identify instruments and techniques that will be used in the pre-reclamation radiological survey program to identify areas of the site that need to be cleaned up to comply with NRC concentration limits.	Text is provided in Section 6.4.2.	TR	6.4.2	6-54	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Reclamation	Method for Conducting Post Recl. And Decom. Radiological Surveys	Discuss the evaluation of compliance with cleanup criteria in terms of soil concentrations that will be supplemented by field gamma surveys. The applicant states it will conduct final GPS-based gamma surveys in affected areas and buffer zones. Define more specifically what constitutes affected areas.	Gamma surveys will be conducted using a GPS unit, as discussed in Section 6.4.3.	TR	6.4.3	6-54	Yes				
ML093570297	Moore Ranch Response to SER Open Issues Part 2	7/27/2009	Uranium One	Moore Ranch	SER Open Issue	Operations	Radiation Safety Controls and Monitoring	Define "potentially contaminated areas" with regard to cleanup of surface soils and conducting final GPS-based gamma surveys in "potentially contaminated areas."	Gamma action levels regarding soil are discussed in Section 6.4.3.	TR	6.4.3	6-54	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Reclamation	Structure and Equipment Decommissioning and Decontamination	Please discuss the quality control program that will be followed during decommissioning.	Quality control is discussed in Section 6.4.4.	TR	6.4.4	6-54	Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Public and Occupational Health	Public and Occupational Health Impacts	Additional information/bases is needed to describe/document the modeling used for estimating source term and basis for the various pathway modeling parameters used in the MILDOS-Area modeling.	Source term estimates are described in TR 7.3 and ER 4.12.	TR	7.3.4.4	7-52	Yes	ER	4.12.1.2.3.2	4-140	Yes
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Site Characterization	Meteorology	Provide a summary of the MILDOS calculations and their effect on atmospheric dispersion of effluents and the resulting dose to the public. Propose a source of mixing height data that is representative of the project area.	MILDOS modeling results are described in TR 7.3 and ER 4.12.	TR	7.3.4.4	7-52	Yes	ER	4.12.1.2.3.2	4-140	Yes
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Operations	Radiation Safety Controls and Monitoring	Provide an analysis of the maximum expected dose to members of the public in restricted areas and other areas within the permit area with regards to 10 CFR 20.1301/1302. This analysis should include contractors receiving a public dose while in restricted areas and other areas within the permit area.	Exposure rates to the public are discussed in Section 7.3.6 and provided in Table 7.3-5.	TR	7.3.6	7-55+ & 7-62	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Operations	Radiation Safety Controls and Monitoring	Evaluate the member(s) of the public likely to receive the highest exposure from licensed operations in an airborne effluent and environmental monitoring program that complies with 10 CFR 20.1501.	Potential exposure to members of the public are discussed in Section 7.3.6.	TR	7.3.6	7-58	Yes				

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ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effluent Control Techniques	Liquid Waste	Discuss the health and safety impacts of the liquid system failure scenarios presented in Section 4.2.3 (leaks and spills).	Effects of liquid waste and process fluid accidents are discussed in Section 7.5.1.	TR	7.5.1	7-73+	Yes				
ML082060527	Moore Ranch 1st Response to RAI TR	7/11/2008	Uranium One	Moore Ranch	Request for Additional Information	Effects of Accidents	Effects of Accidents	Provide an evaluation of potential accidents, measures to be implemented to prevent accidents, and emergency plans and training.	Effects of accidents are discussed in Section 7.5.	TR	7.5.1	7-73+	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Effluent Control Systems	Liquid Wastes	Provide additional information related to releases on site. The discussion should address the following issues: the health and safety impacts of a spill, inspection practices, inspection frequencies, measures planned to contain spills on or below the ground surface within wellfields or near evaporation ponds, details of the planned fluid detection system, procedures for determining if a radiation work permit will be needed to address a release, notification, and recordkeeping efforts related to spills.	Liquid waste accidents are discussed in Section 7.5.1.	TR	7.5.1	7-73+	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Environmental Effects	Accidents	Address preventive measures, consequences from, and actions and equipment used to stop, a major pipe or tank rupture in the facility. In the discussion, please provide the manner in which major piping/tank ruptures will be stopped and also the capacity of the sumps/bermed areas.	Liquid waste accidents from pipes, tanks and process vessels are discussed in Sections 7.5.1 and 3.2.9.	TR	7.5.1	7-73+	Yes	TR	3.2.9	3-68	Yes
ML093440306	Moore Ranch Response to SER Open Issues Part 1	12/4/2009	Uranium One	Moore Ranch	SER Open Issue	Description of the Proposed Facility	Process Fluids Spills and Leaks	Provide discussion on the likelihood of and measures for preventing a multiple tank failure such that might occur if one failed tank fell into another tank.	Text is provided in Section 7.5.1.1.	TR	7.5.1.1	7-74	Yes				
ML100740111	Nichols Ranch Response to SER Open Issues	2/24/2010	Uranerz Energy	Nichols Ranch	SER Open Issue	Environmental Effects	Accidents	Discuss contingency plans for a failure of a larger spill related to multiple tank failure or an in plant pipe or joint failure releasing a volume larger than the largest tank. (regarding the concrete foundation with curbed walls with enough capacity to contain the volume of the largest tank)	Multiple tank failure contingency plans are discussed in Section 7.5.1.1.	TR	7.5.1.1	7-74	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Accidents	Gaseous Emissions and Airborne Particulates	Provide an analysis of the volume of bermed area compared to the largest yellowcake slurry vessel, regarding accident scenarios involving yellowcake slurry.	Process vessel failure is discussed in Section 7.5.1.1.	TR	7.5.1.1	7-73+	Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Effluent Control Systems	Liquid Wastes	Address the contingency plans for a failure that exceeds the capacity of the sumps and the curbed floor (volume). Potential exposure to members of the public that may be in the exposed area (e.g. a hunter) and verification that the soil is not contaminated must be included in the corrective action and accident scenario.	Spill containment and remediation are discussed in Section 7.5.1.1.	TR	7.5.1.1	7-74	Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Operations	Management Control Program	Specify that spills, leaks, or excursions will be reported per 10 CFR Part 40.60.	Text provided in Section 5.2.5.	TR	7.5.1.6	7-84	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Environmental Effects	Accidents	Provide verification that the accident response program includes notification to NRC in compliance with the requirements of 10 CFR 20.2202 and 20.2203.	NRC notification is discussed in Section 7.5.1.6.	TR	7.5.1.6	7-84	Yes				
ML101460286	Dewey-Burdock TR RAIs	5/28/2010	PowerTech	Dewey-Burdock	TR RAIs	Environmental Effects	Accidents	Provide a discussion on accident consequences, including preventive and mitigating measures for, fires and explosions at the Dewey-Burdock facility. In the discussion, include the potential for wildfires.	Fires and explosions are discussed in Section 7.5.3.	TR	7.5.3	7-88	Yes				
ML090080451	Lost Creek Response to RAIs TR	12/12/2008	Lost Creek	Lost Creek	Request for Additional Information	Site Characterization	Geology and Seismology	Provide the land surface elevation in mean sea level (msl) on all of the cross sections and the distance in feet between wells.	Geologic cross sections include surface elevation and distance between boreholes.	TR	Addendum 2.6-D		Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Groundwater Hydrology	Exploration Drill Holes	Provide information on all known exploratory wells that extend below the Lakota Formation in the proposed project area.	Exploration/delineation drillholes are tabulated in TR Addendum 2.6-B.	TR	Addendum 2.6-E		Yes				
ML091610140	Nichols Ranch Response to RAIs ER	5/8/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Groundwater Hydrology	Groundwater Impacts	Provided sufficient information to fully understand the potential impacts due to this large drawdown area.	Reference TR Addendum 2.7-H (groundwater model)	TR	Addendum 2.7-H		Yes				
ML093500010	Lost Creek SER Open Issues	12/18/2009	Lost Creek	Lost Creek	SER Open Issue	Site Characterization	Meteorology	Provide a minimum of twelve months of consecutive collected radon data as recommended by Regulatory Guide 4.14, or justification for collecting less data.	Four quarters of radon sampling were conducted and results are provided in Addendum 2.9-C of the TR.	TR	Addendum 2.9-C		Yes				
ML100770383	Dewey-Burdock ER RAIs	4/14/2010	PowerTech	Dewey-Burdock	ER RAIs	Groundwater Hydrology	Deep Disposal Wells	Provide information on deep aquifers that could be used for deep well disposal of wastewater at the proposed project. This information should include the technical basis and rationale for the choice of deep aquifers for liquid waste disposal at the proposed site.	Deep disposal well aquifers are discussed in TR Addendum 4.2-A.	TR	Addendum 4.2-A		Yes				
ML090820538	Nichols Ranch Response to RAIs TR	3/11/2009	Uranerz Energy	Nichols Ranch	Request for Additional Information	Site Characterization	Geology and Seismology	Explain how a porosity of 0.05 was determined for the "A sand" and "F sand" at the Nichols Ranch and Hank units.	Porosity is presented in TR Addendum 6.1-A, RAP.	TR	Addendum 6.1-A	10	Yes				