

**Reno Creek ISR Preliminary Draft Supplemental EIS: EPA Region 8 Comments\* – submitted via e-mail to Jill Haverly (NRC) on Monday, October 19, 2015**

Lead Agency: Nuclear Regulatory Commission (NRC)

\*The following comments are based on our preliminary review of the Reno Creek ISR and should not be construed as a complete list of comments/issues. We may identify additional comments during the public comment period for the Draft Supplemental EIS.

Comment Category	Chapter	Page No.	Lines	Section/Subject	Comment
Air, General					<p>This was our first opportunity to see the air modeling efforts of the project, and the level of detail in our comments reflect that. We are available to discuss our comments in more detail if you like.</p> <p>We recommend that for future uranium ISR project, the EPA be invited to provide input on the air quality analysis earlier in the project.</p>
Air, General					<p>Given our concerns around the air quality analysis as a whole and the lack of information provided for some of the impact assessments, including far-field air quality impacts and HAPs, it is difficult to determine the relevance or importance of the predicted impacts, especially for the primary emission sources from drilling operations and fugitive dust generating activities. The Pre-DSEIS indicates that the nearest residence to the proposed Reno Creek Project boundary is about 0.68 km [0.42 mi] northwest. The nearest residence along the path of predominant wind direction is about 2.7 km [1.7 mi] east-northeast of the proposed project. Because of the proximity of these residences, it is particularly important that the analysis is comprehensive and representative so that the results can be used to inform appropriate project development and mitigation options.</p> <p>If a comprehensive and representative analysis is not completed, or is completed and suggested the need for mitigation, we recommend the following mitigation, which should sufficiently reduce the risk of potential significant impacts to air quality. Our recommendation is focused on reducing impacts from fugitive dust and drill rig emissions based on the dust</p>

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					<p>generating activities and drilling activities that are necessary to develop and operate an ISR processing facility.</p> <p>For drill rigs, we recommend the use of lower emitting engines (Tier 2 emission rates, or better). It may also be possible to use add-on controls such as catalyst and diesel particulate filters to achieve lower emission rates using Tier 1 engines for the drill rigs. This would reduce any concerns related to impacts to 1-hour NO<sub>2</sub>, PM<sub>2.5</sub> and PM<sub>10</sub>, as well as HAPS. For fugitive dust, we recommend the implementation of a fugitive dust control plan that has a primary goal of avoiding visible dust plumes at the project site, and includes actions and timeframes for action if a visible plume is observed. We also support the use of Tier 3 construction equipment, as was assumed for the analysis, and recommend this be carried forward as either an applicant committed measure or mitigation measure.</p>
Air, Model Results	4, Appendix C	Page 4-99 and Appendix C		4.7.1.1	<p>A footnote for Table 4-9 and sections of Appendix C note that the model results may not be in the same form as all of the NAAQS standards. This is confusing because it does not clearly explain the form of the model results. We recommend excluding this footnote and creating a separate footnote for each standard that explicitly explains how the model results were used to calculate concentrations in the table.</p>
Air	Appendix C				<p>We are concerned that Appendix C does not explain how the model results were used to calculate the concentrations for the 1-hour SO<sub>2</sub> standard. Not having this information, we are unable to determine if the concentrations were calculated properly. We recommend adding a section in Appendix C that explains how the 1-hour SO<sub>2</sub> concentrations were calculated.</p>
Air					<p>We are concerned that modeled exceedances of the NAAQS for each pollutant is not provided in the preliminary DSEIS. We recommend reporting any modeled exceedance of the NAAQS for each pollutant, as opposed to reporting only design value violations. Our recommended approach is:</p> <ul style="list-style-type: none"> <li>For each modeled scenario and each model year, report the maximum modeled value for each pollutant, and provide a spatial map of the model output to show where the maximum concentrations occur and how the modeled concentration gradient varies within the domain. AERMOD can be configured to output the results in a form to generate this information and support</li> </ul>

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				<p>spatial maps (see aermod_userguide_under-revision: RECTABLE, MAXTABLE, POSTFILE, PLOTFILE). EPA has also released software called AERPLOT for receptor and contour plotting (see <a href="http://www.epa.gov/ttn/scram/dispersion_related.htm#aerplot">http://www.epa.gov/ttn/scram/dispersion_related.htm#aerplot</a>).</p> <ul style="list-style-type: none"> <li>• If there are values that exceed the NAAQS, discuss: <ul style="list-style-type: none"> <li>○ how many exceedances occur,</li> <li>○ when those exceedances occur,</li> <li>○ the magnitude of the concentrations relative to the NAAQS, and</li> <li>○ the spatial extent of the impacts (including spatial plots of the concentrations associated with the exceedances).</li> </ul> </li> </ul> <p>Providing this information for each model year provides a better statistical representation for predicting when impacts from the sources may generate unhealthy conditions at any given time during the project. We recommend using the annual modeled exceedances, if any, to determine the need for air quality mitigation, taking into account conditions affecting the dispersion of the pollutants (e.g., wind speed, wind direction, deposition, rainfall, etc.).</p>
Air	2	2-35	Nonradiological Emissions	<p>Modeled pollutant concentrations, for comparison to short term NAAQS (i.e., averaging periods other than the annual standards), may be under predicted if annualized emission estimates are used when modeling impacts to short term standards</p> <p>The report notes that the peak year emission estimates were used as input for the AERMOD modeling since this represents the highest amount of emissions for a single project year which corresponds to the highest impact on air quality. The Ambient Air Quality Modeling Protocol and Results Reno Creek ISR Project [June 2014] also notes the emissions rates in tons per year and appears that these annual emission rates were used in the AERMOD modeling. We recommend conducting additional AERMOD simulations for the short-term standards (i.e., 1-hour, 3-hour, and 24-hour standards) that are based on the relevant hourly rate to ensure that the impacts are not under-predicted for the project.</p>
Air, Model Results	4	Page 4-97 and	Model Analyses Not Conducted	<p>There is not currently sufficient analysis to determine the potential for significant impacts to air quality related values (AQRVs), increment at Class I and Sensitive Class II areas, or hazardous air pollutants (HAPs).</p>

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		Appendix C, C-9			<p>The Pre-DSEIS notes that site-specific modeling for air quality related values (AQRVs), Hazardous Air Pollutants (HAPs), and increment comparison at Class I and Sensitive Class II areas were not conducted for the project and that these analyses were not conducted based on screening test results and specific modeling for the Dewey-Burdock ISR Project, and because the project does not qualify as a major source of any criteria pollutant or hazardous air pollutant (HAP). These criteria for screening may not be able to inform the decision maker of the potential for impacts since all air pollutant sources are not included in the determination of whether a source is major for criteria pollutants or HAPs.</p> <p>Analyses of AQRVs are typically discussed with other federal and state agencies to ensure that the methodologies are appropriate for these assessments. It is not clear whether other agencies were contacted to discuss the approach for AQRVs. We recommend discussing the potential need for analyzing AQRVs, and increment comparison for Class I and Sensitive Class II areas with the collaborating agencies to determine whether these site-specific modeling analyses are needed.</p>
					<p>We are concerned that there is a potential concern for impacts from HAPs to nearby residences and recommend that the near field analysis be amended to include an assessment of air quality impacts related to HAPs. Our experience with analyses of HAPs have indicated a potential concern for multiple large diesel combustion sources, such as drill rigs.</p>
Air	4, Appendix C	4-98 and Appendix C, page C-8		PM10 Analysis – Simulation with Dry Depletion	<p>The Pre-DEIS notes that there is precedence for using the dry depletion option in EISs for similar projects such as the Dewey-Burdock ISR project, where the NRC staff relied on the model results that implemented the dry depletion option when reaching conclusions concerning the magnitude of the impacts to air quality. While the project conditions meet the guidelines for implementing this modeling option, we have concerns with the current and previous implementation of this option for these types of projects. As a result, we do not recommend basing decisions or determining impact magnitude on results that use the dry depletion option until this option is implemented properly.</p>

				<p>If the modeling analysis uses dry depletion in AERMOD, we recommend including a justification in the SEIS that directly supports the requirements outlined in EPA’s 2012 AERMOD User’s Guide Addendum and Appendix W of 40 CFR Part 51. For instance, the justification could include information that supports that gravitational settling and deposition is a significant problem in the project area, how the particulate matter sources are sufficiently quantified, and outline the data used to develop the required inputs for each of the particulate matter sources (i.e., PARTDIAM, PARTDENS, and MASSFRAX). Further, the justification should include information from studies that directly relate to AERMOD’s particulate deposition and this project’s PM<sub>10</sub> sources. For instance, we understand that the dry depletion algorithm in ISC3 and AERMOD is similar; however, the model formulations and meteorological components of these models are different. Therefore, we cannot assume that studies related to ISC3 fully relate to AERMOD and do not recommend using studies that have used ISC3 for justification. Additionally, the justification should only include information from studies that are related to PM<sub>10</sub> because it appears that most of the available studies are related to PM<sub>2.5</sub>.</p> <p>We also recommend that all receptors be modeled with dry depletion for only those sources associated with fugitive dust emissions to ensure that the impacts associated to PM<sub>10</sub> are predicted properly over the entire domain. The Pre-DSEIS states that the dry depletion option was not applied to all the receptors in the domain because of the model execution time associated with enabling AERMOD’s dry depletion option. We understand that depletion adds time to the simulation. However, because depletion fundamentally removes mass, depletion subsequently impacts the distribution of the modeled concentrations. Therefore, it is essential to model the entire domain with depletion. One recommended approach to appropriately and efficiently apply the depletion option could be to divide the receptors from the original domain into quadrants, run parallel simulations where each simulation represents a quadrant with all of the sources, and then merge the results of the simulations together.</p>
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					It is not clear whether dry depletion was applied to all PM <sub>10</sub> sources or to PM <sub>10</sub> sources associated with fugitive dust emissions. The dry depletion should only be applied to mechanically-generated emissions.
Air	5	5-25		5.7	<p>The Pre-DSEIS uses the results from the Powder River Basin Coal Review to qualitatively assess the ozone and cumulative analysis. The EPA has significant concerns with the cumulative analysis for the Powder River Basin (PRB) Coal Review. In particular, the modeling developed for the PRB Coal Review did not perform within acceptable levels. As a result we do not feel confident in the predicted cumulative far-field air quality impacts and do not think they are reliable for evaluating air quality impacts. Also, the cumulative air quality analysis for the PRB Coal Review did not analyze any differences to cumulative air quality between potential levels of future development.</p> <p>The Pre-DSEIS indicates that the cumulative impact on air quality within the region of influence resulting from other past, present, and reasonably foreseeable future actions is MODERATE and that pollution levels should remain below NAAQS thresholds over the project lifespan. However, due to the performance issues we've noted it is difficult to determine whether this assessment is representative. We recommend discussing with the collaborating agencies whether air quality analyses from other projects could be utilized for Reno Creek.</p>
Groundwater	3.5.3			Groundwater Quality	<p><i>Groundwater Resource Characterization</i></p> <p>It is important to characterize both the existing and potential groundwater drinking water resources in the planning area, as the proposed actions may have adverse impacts to drinking water quality. The narrative portion describing regional aquifers is well done. We think the draft document lacks site specific information. Much of the missing information may be contained in references AUC 2012 &amp; AUC 2014. We recommend that key information from the references be summarized in the DSEIS and that it include the following information:</p> <ol style="list-style-type: none"> <li>1) A description of all aquifers in the study area, noting which aquifers are Underground Sources of Drinking Water (USDWs) (See 40 CFR</li> </ol>

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					<p>Section 144.3) - The information provided in section 3.5.3 is useful at a regional level but only includes the upper aquifers. In order to get a completed understanding of the aquifers, we recommend that the stratigraphic column of the onsite geology (Figure 3-8) indicate each of the aquifers down to, and including, the Madison Formation and indicate if they are USDWs.</p> <p>2) Maps depicting the location of sensitive groundwater resources such as municipal watersheds, source water protection zones, and recharge areas. The area of reference and map should be extensive enough to depict the nearest municipal supplies. In particular, we suggest depicting the uses of water from the Fort Union Formation, a productive aquifer for stock and domestic use including serving as the source for municipal supplies in Wright and Gillette.</p>
Groundwater	1	1-9	Table 1-2		Table 1-2 indicates that there is a plan to provide a domestic water supply to the Central Processing Plant. We are concerned that any new drinking water supply within the study area may be impacted. Therefore in the DSEIS, please identify where this water supply well will be located, what aquifer will be tapped, if it will be considered a public water supply and what mitigation measures, if any, will be required to protect the well.
Groundwater	3	3-2	Table 3-1		Table 3-1 identifies 6 residences within five miles of the production area. We recommend that the DSEIS provide information about the source of domestic water for each of the residences, including a map showing the location of the residences.
Groundwater		3-48, 3-124		3.5.3.2	There is some confusion around the number of monitoring wells used to assess groundwater quality. Page 3-48, line 24 states that there are 39 monitoring wells, page 3-124, line 4 states 43, and Figure 3.22 includes 41 wells. Please clarify in the DSEIS the number of monitoring wells used.
Groundwater	2 & 3	2-10 3-3, 3-4	Figures 2-5 & 3.4		Map 3.4 shows only oil and gas wells. Interaction between these wells could be a major concern regarding ground water protection. We recommend the addition of a map and discussion of proposed wells, existing producing wells, and nonproducing wells in the area of review including their status (e.g., idle, shut-in, plugged and abandoned), if available. Please refer to the State of

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			Table 3-4 Table 3-11		Wyoming Engineer for location and abandonment information. Specifically, we suggest that the location and status of the 324 wells used for CBM production within 2 miles 46 within the project area and the 144 oil and gas wells within 5 miles be depicted. In addition, we recommend including the location of uranium exploration wells (the EIS states that there were 2665 identified exploration holes but only 100 were plugged and abandoned). The map 3.4 shows only two oil/gas wells, temporarily abandoned in the project area. Is this their current status?
Groundwater	3		3-48	Paragraphs 1&2  Figure 3.22	<p>The geographic extent of the wells used to characterize the upper confining layer was not clear in the EIS. The nature and extent of the production zone is critical to ensure that there are no excursions. The production zone cross sections depicted in Figures 3.18, 3.19 and 3.20 suggest that the production zone aquifer may not be confined based upon Freeze and Cherry’s definition of an ‘unconfined’ aquifer or a water-table aquifer in their book titled “Groundwater”, “an aquifer in which the water–table forms the upper boundary.” The number of potential wells that have not been plugged and abandoned within the study area, as discussed in the previous comment, may contribute to the lack of containment. We are concerned if the production zone is unconfined because of the difficulty to contain a contamination front. We recommend sufficient pump tests be completed for each production zone, demonstrating confinement prior to any commencement of production. Documentation of pump tests and demonstration of confinement are a part of the UIC permitting process overseen by WDEQ. We recommend that the DSEIS include State specific requirements in this section.</p> <p>Wells GW1-GW17 are not depicted on any maps, page 3-57 line 1, some of these wells are referred to as domestic and stock water wells and we recommend they be depicted on a map.</p>
Groundwater	4				<p>In Chapter 4 the description of the potential impacts of each of the operation alternative by phase is very helpful. However, because of the lack of specificity in the groundwater characterization in Chapter 3, it is difficult to compare the alternatives regarding groundwater protection.</p> <p>The NRC relies on other regulatory bodies without identifying the options for mitigation within each alternative. For example, what mitigation would be</p>



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				implemented for land disposal in comparison with solar evaporation ponds? Which alternative would be the most protective of groundwater?
UIC, General				Given the volatility in uranium prices and mining operations ceasing temporarily, we recommend the DSEIS include the assurances and measures that will be in place when mining activities temporarily cease. For example, how will an inward well field gradient will be maintained, what becomes of the fluids produced, and are requirements for monitoring reduced?
UIC	2	2-12	Box	<p>Recommend changing the language in the box as follows (additions in <b>bold</b>):</p> <p><i>“The EPA Underground Injection Control (UIC) Program is responsible for <del>regulating construction, operation, permitting, and closure</del> of injection wells that place fluids underground, <b>which includes regulating construction, operation, and closure of these wells</b>. The types of injection wells regulated by the EPA UIC Program are defined below</i></p> <p><i><b>Class I</b> (Industrial and Municipal Waste Disposal Wells) are used to inject hazardous <del>and</del> Nonhazardous, <b>and radioactive</b> wastes into deep, isolated rock formations that are thousands of meters [feet] <b>below surface</b>. <del>below the lowermost underground source of drinking water (USDW).</del></i></p> <p><i><b>Note: Class I must inject below a USDW but there is no requirement that it is 1000’s of meter below the lowermost USDW.</b></i></p> <p><i><b>Note: Class IV wells are now banned.</b></i></p> <p><i><b>Note: Class V by definition are wells that do not fall into any of the other categories.</b></i></p>
UIC		2-12	39 47	<p>Recommend changing the language in the referenced lines as follows (additions in <b>bold</b>):</p> <p><i>An <del>EPA-administered</del> <b>underground injection control (UIC)</b> program regulates the design, construction, testing, operation, and closure of injection wells.</i></p>

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					<p><i>The proposed operation requires the applicant to obtain a UIC permit from WDEQ <del>EPA</del> to use Class III injection wells.</i></p> <p>Please note that the WDEQ regulates the UIC program in Wyoming, not EPA.</p>
UIC		2-13	20		<p>Recommend changing the language in the referenced line as follows (additions in <b>bold</b>):</p> <p><i>indicator parameters exceed upper control limits (UCLs) established by the license and verified by NRC <del>and EPA</del> or the state.</i></p> <p>For underground injection control, the State has primacy and EPA has an oversight role. Please review the document and change EPA to WDEQ. EPA’s approval is only needed for the aquifer exemption.</p>
UIC		2-15		Testing	<p>The document only speaks to Part I mechanical integrity tests (MIT), just as important is Part II MIT. At a minimum the quality of cement behind casing needs to be evaluated and the State may require additional periodic tests. We recommend that the DSEIS include State specific requirements in this section.</p>
UIC		2-18	18		<p>Recommend changing the language in the referenced lines as follows (additions in <b>bold</b>):</p> <p><i>to detect leakage of the injection <b>well tubing, packer, and well-casing.</b></i></p>
UIC		2-27	25-26		<p>We suggest changing,</p> <p>“Hence, groundwater in exempted aquifers cannot be considered as a source of drinking water after restoration.”</p> <p>To,</p> <p>“After an aquifer is exempted, it is no longer afforded the protection as a USDW under the SDWA, even after restoration.”</p>
UIC		2-27			<p>Recommend changing the language in the referenced line as follows (additions in <b>bold</b>):</p>

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			26		<p>However, outside of the aquifer exemption boundary, the aquifer is still protected as <b>an underground</b> source of drinking water,</p> <p>Note: A USDW and a source of drinking water are two different things.</p>
UIC		2-27	31		<p><del>Therefore, groundwater at the aquifer exemption boundary must meet 10 CFR Part 40, 32 Appendix A, Criterion 5B(5) water quality requirements.</del></p> <p>Recommend deleting this line altogether since in the UIC regulations a contaminant is broadly defined, as stated in lines 29-31.</p>
UIC		2-45	14		<p>Recommend changing the language in the referenced lines as follows (additions in <b>bold</b>):</p> <p><i>If <b>EPAWDEQ</b> does not grant the applicant a UIC permit, the applicant will need to seek an NRC license amendment to approve another disposal option before it initiated operations.</i></p> <p>Note: it was stated in an earlier section that AUC already obtained a permit from WDEQ.</p>
UIC		2-45		2.1.1.2	<p>Table 2-7 includes a comparison of Different Liquid Wastewater Disposal Options, including the use of a Class V Injection well. We recommend including in section 2.1.1.2 a discussion of Class V injection as an alternative as well and include the plans for disposing of the brine produced.</p>
UIC		4-51	28		<p>Recommend changing the language in the referenced line as follows (additions in <b>bold</b>):</p> <p><i>The aquifer exemption criteria are described in 40 CFR 146.6-<del>and requires demonstration that</del> <b>These criteria include whether the aquifer does not is currently serve as a source of drinking water and it cannot now and will not in the future serve as a source of drinking water.</b> <del>whether the water quality is economically or technologically impractical to use for a public water system, whether the TDS content of the groundwater is more than 3,000 ppm and less than 10,000 ppm, and assurance that the aquifer is not reasonably expected to supply a public water system.</del></i></p>
UIC		4-51			<p>Recommend changing the language in the referenced line as follows (additions in <b>bold</b>):</p>

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			34		<p><i>WDEQ has submitted <del>an</del> two aquifer exemption requests to the EPA (WDEQ, 2015, need a second reference). The first exemption request was for production zones in the Lower Wasatch at depths of between 170 ft and 450 ft deep (Class III permit). Additionally, WDEQ also proposed that the Teckla and Teapot aquifers (add depths?) to be exempted (Class I permit) underlying the project site meet the criteria for aquifer exemption because (i) they do not currently serve as a source for drinking water; and (ii) these aquifers cannot and will not in future serve as a source of drinking water because their location and depth makes recovery of water for drinking purposes economically or technologically impractical.</i></p>
UIC		4-51	50		<p>Note that the Taffner#1 well has been plugged and abandoned.</p> <p>Also, it appears that the sentence beginning, “They include the (i) Taffner#1 well” is not complete.</p>
UIC		4-53	31		<p>Lines 31-34 state, “In addition, NRC staff have proposed a license condition that if a CBM well is present inside a production area, AUC will provide a monitoring plan to NRC prior to finalizing the design of each wellfield package to ensure the casing cement does not provide a conduit for fluid migration.</p> <p>If the well is in the Area Of Review, monitoring is not adequate. The well construction and cement needs to be analyzed and remedial action is required if there is a potential for fluid migration. This should be required under the UIC permit. We recommend all wells be carefully reviewed to determine whether or not there is a potential for fluid migration along the wellbore, not just CBM wells.</p>
		4-54	13		<p>Recommend changing the language in the referenced line as follows:</p> <p><i>WDEQ would only permit Class I deep disposal wells if the groundwater quality in the injection zone would not be suitable for domestic or agricultural uses (e.g., high salinity), if the <del>groundwater</del> aquifer <del>could</del> is not be designated as a USDW, and if the injection zone was confined above and below by sufficiently thick and continuous low-permeability layers.</i></p>

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UIC		6-7 2-40	1-3	Groundwater Resources	<p><i>Monitor process effluents injected into Class I deep injections wells to comply with (i) release standards in 10 CFR Part 20, Subparts D and K and Appendix B and ....</i></p> <p>We recommend changing or removing this language. It is confusing considering that Class I requires an aquifer exemption if the injection zone is a USDW and does not require treatment. If injection occurs into a USDW, it is a Class V well and requires the treatment mentioned in the text referenced.</p>
UIC		6-7		Groundwater Resources	<p><i>Obtain water appropriation permits to utilize groundwater from the Madison and Inyan Kara aquifers.</i></p> <p>Please explain how the above referenced text is a mitigation measure. The Madison is a prolific aquifer and used widely in the PRB, but mainly at the outcrop.</p>
UIC		7-7	11		<p>We recommend expanding on what water quality standards the document is referring to that the NRC will consult with EPA on. Is this a consultation with EPA on the restoration goals?</p>
UIC				Mitigation	<p>One of the risk to these ISR projects is often times the lack of data on previously abandoned boreholes. Sometimes these boreholes are discovered after production. We recommend a more comprehensive set of pump tests to help determine the location of these boreholes.</p>
UIC		Section 7		Monitoring Program	<p>This section appears to be missing a discussion of Deep Injection Well monitoring. We recommend that Deep Injection Well monitoring be included.</p>
UIC	4, 5 and 9	throughout  9-5	Table 5-3	Groundwater	<p>The exemption of an aquifer forever removes it from protection under the Safe Drinking Water Act, however impacts will still exist. We recommend that the evaluation of this long term result would not be SMALL and recommend reconsidering the impacts rating.</p> <p>We recommend including a discussion of Deep Injection Well impacts to groundwater. The groundwater quality of the injection zone will be diminished, and although it is not a USDW and not protected, the impacts would not be small.</p>

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General					As you are aware, the EPA is in the process of revising the requirements under 40 CFR Part 192, for uranium in situ recovery facilities. We recommend you consider the effect revisions to Part 192 would have on the monitoring plan for the Reno Creek facility, and update the DSEIS accordingly.
Radiation	2	2-30	45-47		<p>The Pre-DSEIS states that the pond liners and leak detection system will be surveyed and, “If radiological contamination is found, the liners and detection system will be removed and disposed of in a licensed disposal facility.”</p> <p>It is our understanding that the pond liner and detection system are considered to be uranium byproduct material (i.e., 11e.2 material) by definition alone, independent of radiological survey levels. We recommend that the document be revised to reflect this and indicate that disposal will take place at an appropriately licensed disposal facility despite survey levels.</p>
Radiation	2	2-31	42-43		It is our understanding that byproduct material (i.e., 11e.2 material) cannot be decontaminated and no longer considered byproduct material. We recommend the document clarify the definition of byproduct and how the materials will be disposed of based on the clarified definition.
Waste Disposal	2	2-45	16-18		The Pre-DSEIS indicates that surface water discharge and land application have been used historically to manage and dispose of liquid byproduct material. We recommend providing examples of where this type of liquid management and disposal was used.
Pond Design	2	2-45	32-33	2.1.1.2.1	The Pre-DSEIS cites the NRC’s regulatory requirements for the design of evaporation ponds at the facility. The EPA also has design criteria that come out of the 40 CFR Part 61 Subpart W requirements for ponds. We recommend including that evaporation ponds must also meet the requirements of 40 CFR 264.221.
Waste Disposal	2	2-47	Table 2-7		<p>Table 2-7 indicates that settling basins and storage ponds would be needed if Class V injection wells are used for liquid wastewater disposal but does not list the required 40 CFR Part 61 NESHAP Construction Approval. We recommend including a NESHAP Construction Approval under the <i>Relevant Regulations and Permits</i> for Class V Injection Wells.</p> <p>We also recommend that throughout the Table 2-7 “NESHAP permit” be changed to “NESHAP Construction Approval.”</p>

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Groundwater, Consumptive Use					<p>The Pre-DSEIS summarizes the anticipated drawdown from consumptive groundwater use during restoration at the project. Recognizing that activities such as groundwater sweep result in a large amount of groundwater consumed, we recommend the DSEIS include quantitative information on groundwater consumptive use, including site specific information that will impact the quantity consumed, anticipated volume consumed, factors determining whether or not groundwater sweep will be used, and mitigation measures to minimize consumptive use.</p>
Climate Change					<p>We believe the Council on Environmental Quality's December 2014 revised draft guidance for Federal agencies' consideration of GHG emissions and climate change impacts in NEPA outlines a reasonable approach, and we recommend that the NRC use that draft guidance to help outline the framework for its analysis of these issues in DSEIS.</p>