UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY & LICENSING BOARD

In the Matter of	)	Docket No. 40-9091-MLA
	)	
STRATA ENERGY, INC.,	)	ASLBP No. 12-915-01-MLA-BD01
	)	
(Ross In Situ Recovery Uranium Project)	)	May 6, 2013

NATURAL RESOURCES DEFENSE COUNCIL'S & POWDER RIVER BASIN RESOURCE COUNCIL'S JOINT MOTION TO RESUBMIT CONTENTIONS & ADMIT ONE NEW CONTENTION IN RESPONSE TO STAFF'S SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.309, and Scheduling Order dated April 12, 2013, Intervenors Natural Resources Defense Council (NRDC) and Powder River Basin Resource Council (PRBRC) hereby move for the admission of updated and amended contentions regarding the Draft Supplemental Environmental Impact Statement (DSEIS) for Strata Energy's proposed Ross Project in-situ leach (ISL)[1] uranium mine issued by Nuclear Regulatory Commission Staff (NRC or the Staff) on March 21, 2013.

NRDC and PRBRC respectfully submit these updates to previously admitted contentions (*i.e.*, Contentions 1-A, 2-A, 3-A, and 4-A), and one new contention. The amended contentions simply assert that the DSEIS fails to address previously-identified inadequacies contained in the applicant's Environmental Report and that NRC Staff failed to adequately address those inadequacies in its DSEIS. The new contention concerns the failure to properly define the major federal action at issue in this DSEIS in light of the now concrete plans and schedule for Strata

[1] In situ leach (ISL) is also referred to as in situ recovery (ISR). For the purposes of this motion, the terms are used synonymously.

Energy's "Lance District Development," and therefore the failure to consider the full scope of the proposed uranium recovery and processing activities at issue.

While recognizing NRC regulations may not require NRDC and PRBRC to resubmit our contentions, we file these resubmitted contentions as all our objections that applied to the ER now apply to the DSEIS. We present them now out of an abundance of caution to preclude any subsequent assertion by the Staff, the Applicant or a reviewing tribunal that Petitioners have not pursued their rights as secured by the U.S. Constitution, the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4323 *et seq.*, or regulations promulgated by the Council on Environmental Quality ("CEQ") or NRC. As to this category of contentions, Petitioners raise them at this juncture in order to preserve these issues for further litigation and to create a complete record. These contentions are denoted with an "A" (i.e., Contention 2-A supplements NRDC-PRBRC-2 with arguments under NEPA).

II. BACKGROUND

A. Procedural Background

On October 27, 2011 and pursuant to 10 C.F.R. § 2.309 and the Nuclear Regulatory Commission's (NRC, or Commission) Federal Register notice published at 76 Fed. Reg. 41,308 (July 13, 2011), Petitioners NRDC and PRBRC submitted a Petition to Intervene and Request for a Hearing in the above-captioned matter. To safeguard their and their members' environmental, aesthetic, health-based and economic interests, Petitioners articulated five contentions in their Petition. These contentions address various deficiencies in Strata Energy, Inc.'s (Strata) source materials license application for the proposed Ross In Situ Recovery (ISR) Uranium Project in Crook County, Wyoming.

Following briefing on standing and the admissibility of each contention, the Atomic Safety & Licensing Board (ASLB, or the Board) conducted a day-long hearing on these matters on December 20, 2011. On February 10, 2012, the Board issued LBP-12-3, "Memorandum and Order, Ruling on Standing and Contention Admissibility." This 53-page opinion held that Petitioners had established standing[2] and admitted two of their five contentions in whole while admitting the remaining three in part. *See* LBP-12-3 at 1–2, 18–25, 28, 32, 36, 37, and 39–40. On February 21, both Strata and NRC Staff (or Appellants) filed appeals of LBP-12-3 and argued Joint Petitioners had not demonstrated standing to challenge Strata's application for a license for an in situ uranium recovery project in Crook County, Wyoming. Strata also asked the Commission to eliminate two contentions from the proceeding, should it decline to reverse the Board's standing determination. NRDC and PRBRC opposed both appeals. On May 11, 2012 the Commissioners issued CLI-12-12 and affirmed the Board's standing determination and declined to consider Strata's remaining claims. *See* CLI-12-12 at 1-2.

On March 21, 2013, Staff issued the Draft Supplemental Environmental Impact Statement for the Ross ISR Project (DSEIS). Comments on the DSEIS are due on May 13, 2013 and amended or new contentions on the DSEIS are due this day. *See* Order of Apr. 12, 2013.

B. Legal Standards

Consistent with provisions in 10 C.F.R. § 2.309(f)(2), a timely new or amended contention must be based on information that previously was unavailable, arise from information that is materially different from previous information, and be filed in a timely fashion. 10 C.F.R.

[2] NRDC's and PRBRC's standing was confirmed in this Board's Order of February 2012 and the Commission's Order of May 2012. See LBP-12-3, "Memorandum and Order, Ruling on Standing and Contention Admissibility" at 1–2, 18–25; and CLI-12-12. As such, pursuant to 10 C.F.R. § 2.309(c)(4), NRDC and PRBRC are not required to address standing in this filing.

§ 2.309(f)(2)(i)-(iii). In addition to Section 2.309(f)(2) or (c)(1)'s standards, a new or amended contention must also satisfy the general contention admissibility requirements of 10 C.F.R. § 2.309(f)(1).

NRC regulations dictate that contentions arising pursuant to the National Environmental Policy Act (NEPA) must initially be "based on the applicant's environmental report [ER]." 10 C.F.R. § 2.309(f)(2). If admitted, those contentions may be amended, or new contentions proffered, as long as "there are data or conclusions in the NRC draft or final environmental impact statement . . . or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents." *Id.* In the April 12, 2013 Order, the Board set a schedule that new or amended contentions that are properly based on significantly new data or conclusions in the DSEIS will be considered timely if filed on or before May 6, 2013. We file one new contention this day and update our existing, admitted contentions to apply to the Staff's DSEIS.

III. CONTENTIONS

Pursuant to 10 C.F.R. § 2.309, Petitioners offer updates to the previously admitted contentions. Each contention challenges the sufficiency of the DSEIS under NRC regulations, as specified therein, as well as its compliance with NEPA.

The law of admissibility for this proceeding is well established. "[I]n passing on the admissibility of a contention. . . 'it is not the function of a licensing board to reach the merits of [the] contention.'" *Sierra Club v. NRC.*, 862 F.2d 222, 226 (9th Cir. 1988) (quoting *Carolina Power and Light Co.*, 23 N.R.C. 525, 541 (1986)). Instead, the Board evaluates the admissibility of contentions in a manner similar to a federal court's review of claims in a well-pled complaint:

> The relevant inquiry is whether the contention adequately notifies the other parties of the issues to be litigated; whether it improperly invokes the hearing process by raising non-justiciable issues, such as the propriety of statutory requirements or agency regulations; and whether it raises issues that are appropriate for litigation in the particular proceeding.

Sierra Club, 862 F.2d at 228 (citing *Tex. Utils. Elec. Co.*, 25 N.R.C. 912, 930 (1987) and *Phila. Elec. Co.*, 8 A.E.C. 13, 20–21 (1974)); *see also* LBP-12-3 at 25 and *Crow Butte Res.*, Nuclear Reg. Rep. P 31589, 2009 WL 1393858 at *11, 14 (May 18, 2009) (holding that the applicant's "arguments go to the merits" and that "[w]hether the [petitioner] has proved its claim is not the issue at the contention pleading stage").

Pursuant to 10 C.F.R. § 2.309(f)(2), Petitioners styled their original NEPA contentions as against the ER. S*ee id.* ("On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report."). Because an applicant's ER generally serves as the basis for the Commission's eventual DSEIS, Petitioners raised NEPA considerations at that time in order to preserve any objections if flaws found in the ER also appear in the Draft SEIS. And in fact, those flaws have appeared in the DSEIS, and thus today we submit updates to our previously admitted contentions. In addition, the DSEIS reveals a new concern for which we submit a new Contention.

Environmental Contention 1-A: The DSEIS fails to adequately characterize baseline (*i.e.*, original or pre-mining) groundwater quality.

CONTENTION: The DSEIS fails to comply with 10 C.F.R. §§ 51.45, 51.70 and 71, 10 C.F.R. Part 40, Appendix A, and NEPA because it lacks an adequate description of the present baseline (*i.e.*, original or pre-mining) groundwater quality and fails to demonstrate that groundwater samples were collected in a scientifically defensible manner, using proper sampling

methodologies. The DSEIS's departure from NRC guidance serves as additional evidence of these regulatory violations. NRC, NUREG-1569, Standard Review Plan for In Situ Leach Uranium Extraction License Applications, §§ 2.7.1, 2.7.3, 2.7.4 (2003).[3]

A. Bases and Supporting Evidence and the Board's Admission of Contention 1

This contention is supported by the original declarations of Drs. Moran, Sass, and Abitz, particularly Moran Decl. at ¶¶ 36–56, Sass Decl. at ¶¶ 8–15, 22–23, and Abitz Decl. at ¶¶ 15–27. It is further supported by a second declaration from Dr. Abitz filed this day. *See* Second Declaration of Dr. Richard Abitz ("2d Abitz Decl."), ¶¶ 6-23. The declarations explain both that baseline water quality data is necessary to properly evaluate environmental impacts in the SEIS, and that collecting this data later risks allowing the further deterioration of the baseline as a result of activities that may occur in the area in the meantime. *Id.*

Our Petition to Intervene explained the requirements that must be satisfied for the Applicant to adequately consider the environmental impacts associated with groundwater quality, and need not be repeated here. *See* Petition to Intervene at 10-12. However, based on those standards and the deficiencies in the ER the ASLB admitted Contention 1, explaining that the "question framed by this contention – whether NRC regulations and NEPA require a groundwater baseline characterization for an ISR site – is not new to NRC adjudications." LBP-12-3 at 28. In particular, the Board explained that in the *Dewey-Burdock* proceeding the applicant had similarly asserted that it need not collect baseline water quality data prior to licensing, and that Board had rejected the argument. *Id.* at 28-29.

[3] The resubmitted contention is the precise contention admitted by this board in LBP-12-3 on February 10, 2012. The only difference is resubmission with the regulatory cite of 10 CFR §§ 51.70 and 51.71 as they apply to the staff's NEPA responsibilities regarding the DSEIS.

Agreeing with that earlier Board, the ASLB admitted Contention 1, explaining that the applicant and Staff are "*incorrect* in their assertion that 10 C.F.R. § 40.32(e) prohibit[s] the applicant from gathering complete information on baseline water quality." *Id.* at 28 (emphasis added). To the contrary, because the applicable regulations *permit* the collection of such data, and the data is plainly critical to a meaningful analysis of the environmental impacts associated with the project, the Board concluded that this Contention should be admitted. The effect of the Board's conclusion was the admission of the contention and agreement that Joint Petitioners have framed an admissible contention that has a factual dispute, *i.e.*, the adequacy of the baseline water quality description in the ER and whether the applicant must take any additional steps to fulfill its legal responsibility under 10 C.F.R. § 51.45 to provide information in its ER outlining a description of the existing water quality baseline sufficient to enable the staff to prepare its own environmental impact statement. *Id.*

B. The DSEIS's Failure to Resolve Contention 1, Necessitating Contention 1-A

Rather than take the necessary steps to resolve this critical gap in the environmental analysis for the project, in the DSEIS the Staff adopts the review of baseline water quality found in the ER, and adheres to the position previously rejected in this proceeding – *i.e.*, that the baseline water quality assessment can permissibly occur in great measure *after* Strata receives its license.[4] Thus, the DSEIS states that although some minimal and wholly inadequate pre-

[4] In its December 5, 2011 filing, NRC Staff averred that Criterion 5B(5)(a) requires no pre-license characterization of baseline water quality, but offered no support or citation for this claim. NRC Resp. at 16–17. The Staff further argued that NUREG-1569's standards for baseline water quality assessments "are not requirements," and that the "acceptability of programs proposed in applications are instead determined by NRC Staff on a case-by-case basis during the individual licensing review." *Id.* at 17. In sum, both Strata and the Staff argued that the original authorities Petitioners properly cited—10 C.F.R. § 51.45, Criteria 5 and 7, and NUREG-1569—do not require the kind of technical adequacy or sufficiency of detail that Petitioners assert the

licensing baseline values will be collected,[5] only *after* licensing will the necessary groundwater quality data be collected to determine "concentration-based levels that would permit identification of any excursions from the respective wellfields." DSEIS at 2-24, line 14.[6]

Simply put, multiple authorities mandate that an application include an adequate assessment of baseline water quality prior to licensing. 10 C.F.R. § 40.32(e) requires a pre-license evaluation of "any appropriate conditions to protect environmental values," which, in the case of ISL uranium mining, necessarily entails an analysis of existing water quality. Similarly, 10 C.F.R. § 51.45(b) and 71 requires a "description of the environmental effects of the proposed action;" and neither Staff nor Strata can plausibly claim that "the affected environment" does not encompass the groundwater in its current qualitative state. Criterion 5B(5)(a) of 10 C.F.R. Part 40, Appendix A specifies that "the concentration of a hazardous constituent must not exceed . . . [t]he Commission approved background concentration of that constituent in the ground water," a determination that necessitates an initial, adequate characterization of baseline water quality. As

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regulations require with regard to a baseline water quality assessment, Strata Resp. at 45–46, NRC Resp. at 17–19, and attacked the technical conclusions provided by Petitioners' experts. Strata Resp. at 46–47; NRC Resp. at 19–21. The Board rejected these arguments. LBP 12-13, at 28-32.

[5] Our original declarations explained why the baseline data collected for the ER is inadequate. *See* Moran Decl. at ¶¶ 36–56, Sass Decl. at ¶¶ 8–15, 22–23, and Abitz Decl. at ¶¶ 15–27. As explained in our Supplemental Declaration those deficiencies have not been remedied in the DSEIS. 2d Abitz Decl. ¶¶ 6-23.

[6] *See also*, "Later, prior to actual uranium-recovery wellfield operation, but *after the initial NRC license* is issued for wellfield construction, the ground water in each wellfield would be analyzed for the post-licensing, pre-operational baseline concentrations of constituents specified by the NRC (NRC, 2003a). DSEIS, at 2-24, line 41 (emphasis added); *accord id.* at 6-8, line 7 ("The Applicant proposes a ground-water monitoring program to acquire post-licensing, pre-operational data in order to establish the parameters necessary to detect excursions outside the ore zone during active uranium-recovery operation and to observe aquifer-restoration performance as it proceeds").

the *Dewey-Burdock* opinion explains, Criterion 7 of Appendix A requires an applicant to provide "complete baseline data on a milling site and its environs." *Dewey-Burdock*, Docket No. 40-9075-MLA at 64. Finally, NUREG-1569 discusses in several sections the need for "reasonably comprehensive" data shown to have been "collected by acceptable sampling procedures." NUREG-1569 §§ 2.7.3; *accord id.* at §§ 2.7.3, 2.7.4; *see also* 2d Abitz Decl. ¶¶ 6-23.

General NEPA principles also dictate that baseline water quality data be collected *before* NRC makes a final decision on the license, not afterwards, as currently planned. Indeed, the CEQ regulations implementing NEPA's mandates require that where there is information that "is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, *the agency shall include the information in the environmental impact statement*." 40 C.F.R. § 1502.22(a) (emphasis added). Thus, as reviewing courts have explained, "an agency is required to engage in reasonable research *to supply missing information* about negative impacts that a project may produce." *Ocean Mammal Inst. v. Cohen*, No. 98-CV-160, 1998 WL 2017631, at *5 (D. Haw. Mar. 9, 1998) (emphasis added); *see also id.* (federal agencies "have an affirmative duty under NEPA and its implementing regulations to undertake research in order to prepare a comprehensive EIS that federal government officials can use to make a reasoned decision"); *State of Idaho By and Through Idaho Pub. Util. Commn v. ICC*, 35 F.3d 585, 596 (D.C. Cir. 1994) (promise to address potential impacts in the future is "no substitute for an overarching examination of environmental problems at the time the [original] decision is made").

Thus, Contention 1A, the same Contention as admitted Contention 1 but directed against the DSEIS, meets the legal standards described in 10 C.F.R. § 2.309(f)(1). The Board should affirm this updated contention so that Petitioners may argue the merits of their claim that DSEIS lacks an adequate description of the present baseline for groundwater quality.

Environmental Contention 2-A: The DSEIS fails to analyze the environmental impacts that will occur if the applicant cannot restore groundwater to primary or secondary limits.

CONTENTION: The DSEIS fails to meet the requirements of 10 C.F.R. §§ 51.45, 51.70, 51.71 and NEPA because it fails to evaluate the virtual certainty that the applicant will be unable to restore groundwater to primary or secondary limits.[7]

A. Bases and Supporting Evidence, And The Board's Admission of Contention 2.

This admitted contention is supported by the original declarations of Drs. Moran and Abitz, particularly Moran Decl. at ¶¶ 66–67, 70–75 and Abitz Decl. at ¶¶ 28–29.

It is further supported by a second declaration from Dr. Abitz filed this day. 2d Abitz Decl. ¶¶ 24-29. The declarations explain that the applicant and NRC staff have neither substantiated their claim that impacts on groundwater quality will ultimately be small, nor have they provided analysis that demonstrates how they arrive at or even quantify such a determination (*see, e.g*., DSEIS at 4-37, "[t]he potential impacts of the operation of the Proposed Action to ground-water quality in the confined aquifers above and below the ore zone would, therefore, be SMALL.")).

Our Petition to Intervene explained the legal requirements that must be satisfied for the applicant to adequately address this water quality restoration issue, and need not be repeated here. *See* Petition to Intervene at 16-18. The Board admitted Contention 2, finding that NEPA and NRC implementing regulations require an analysis of "irreversible and irretrievable commitments of resources which would be involved in the proposed action." LBP-12-3 at 33 (internal quotation omitted). In the context of ISR uranium mining, NEPA regulations

[7] The resubmitted contention is the precise contention admitted by this board in LBP-12-3 on February 10, 2012. The only difference is resubmission with the regulatory cites of 10 CFR §§ 51.70 and 51.71 as they apply to the staff's NEPA responsibilities regarding the DSEIS.

necessarily implicate groundwater; thus, the Board rightly observed that "unless the baseline can be restored, there will be an 'irreversible and irretrievable' commitment of a resource the parameters of which must, under NEPA and agency regulations, be outlined in the applicant's ER." *Id*. Grappling with the implications of Contention 2, the Board reasoned that any environmental analysis of the impacts resulting from an "alternative concentration limit" (ACL) would necessitate

> … some determination about what that ACL would be. But, as SEI and the staff assert, given the differences that exist among well fields, it likely cannot be known at this juncture exactly what alternative concentration will be deemed necessary to protect human health and the environment under the nineteen factors of Appendix A, Criterion 5B(6). Joint Petitioners, on the other hand, suggest that the magnitude of the endeavor could be narrowed to a range of possible ACLs based on the historical experience of other ISL/ISR sites. What this essentially calls for is a bounding analysis, something that is not unheard of in the context of NEPA analyses and does not seem untoward in this instance, given the importance of NEPA as a mechanism for providing information regarding the parameters of "irreversible and irretrievable" resource commitments. As such, we do not consider this concern a reason for precluding this contention's admission.

Id. at 34 (citations omitted). Finally, cognizant of the fact that at some distant future date Petitioners might have an opportunity to challenge the sufficiency of a specific, proposed ACL, the Board found "the ability of any interested person to obtain an AEA hearing at that point would not provide the relief Joint Petitioners *should be able to obtain now*, consistent with NEPA, *i.e.*, a public explanation of the impacts of being unable to restore the mined aquifer to primary or secondary baseline and, instead, having to use an ACL, as that alternate limitation might be implemented per a reasonable bounding analysis." *Id*. at 35 (emphasis added).

B. The DSEIS's Failure to Resolve Contention 2, Necessitating Contention 2-A

The DSEIS does not substantially differ from the ER in its treatment of the underlying matters in Contention 2. The restoration process, which relies heavily on the generic analysis of

restoration processes described in the Generic EIS, is described in the DSEIS at 2.1.1.3. The affected environment is described in a manner similar to that in the ER in the DSEIS at 3.5.3 and 3.12.1.

In contrast to this, Drs. Moran and Abitz both provided specific historical and technical evidence demonstrating why Strata is unlikely to achieve primary (baseline water quality) or secondary (EPA-issued safe drinking water levels) restoration standards during decommissioning. *See* Moran Decl. at ¶¶ 66–67, 70–75; Abitz Decl. at ¶¶ 28–29; *see also* 2d Abitz. Decl. ¶¶ 24-29. Neither Strata nor the NRC Staff have provided any evidence suggesting that the Ross Project will not cause significant aquifer degradation, even if Strata complies with an NRC-provided ACL. In short, the starting and finishing lines for measuring the degradation of water quality as a result of the project are not disclosed.[8]

Contention 2A meets the legal standards described in 10 C.F.R. § 2.309(f)(1). The Board should affirm this updated contention so that Petitioners may argue the merits of their claim that Strata's ER and Staff's DSEIS require a bounding analysis and explanation of the environmental impacts that result from the eventual adoption of an ACL rather than primary or secondary groundwater standards.

[8] In reality, ISL mining operations have yet to achieve either primary or secondary groundwater restoration standards, but have thus far always required the Commission (or the relevant Agreement State) to establish an alternative (that is, more lenient) restoration standard. As Petitioners' experts attest, all the available information indicates that the operators of the proposed Strata ISL mining facility will be no more likely to achieve primary or secondary groundwater restoration standards during decommissioning than any of their predecessors, unless the bar is set very low, by employing "pre-operational" Target Restoration Values that are established post-licensing, postdrilling, and post-casing and pressure-testing of each individual wellfield or possibly even each individual "wellfield module" – the DSEIS is unclear on this point.

Environmental Contention 3-A: The DSEIS fails to include adequate hydrological information to demonstrate SEI's ability to contain groundwater fluid migration.

CONTENTION: The DSEIS fails to assess the likelihood and impacts of fluid migration to the adjacent groundwater, as required by 10 C.F.R. §§ 51.45, 51.70, 51.71 and NEPA, and as discussed in NUREG-1569 § 2.7.[9]

A. Bases and Supporting Evidence, and the Board's Admission of Contention 3

This admitted contention is supported by the original declarations of Drs. Moran, Sass, and Abitz, particularly Moran Decl. at ¶¶ 14-31; Sass Decl. ¶¶ 8-15 and 24-26, and Abitz Decl. at ¶¶ 7-15. It is further supported by a second declaration from Dr. Abitz filed this day. 2d Abitz Decl. ¶¶ 30-37. The declarations explain the bases for the Contention that the applicant and NRC staff have failed to demonstrate that Strata can contain fluid migration that may pollute the environment as a result of the project.

Our Petition to Intervene explained the legal requirements that must be satisfied for the applicant to adequately address this fluid migration issue, and need not be repeated here. *See* Petition to Intervene at 19-20. The Board admitted Contention 3, explaining that "[t]he declarations of Drs. Moran, Sass, and Abitz contain detailed discussions regarding boreholes and aquifer isolation in the immediate vicinity of the Ross facility that raise questions about the groundwater hydrology associated with the site as detailed in the SEI application sufficient to establish a material issue of fact." LBP-12-3 at 36.

[9] The resubmitted contention is the precise contention admitted by this board in LBP-12-3 on February 10, 2012. The only difference is resubmission with the regulatory cites of 10 CFR §§ 51.70 and 51.71 as they apply to the staff's NEPA responsibilities regarding the DSEIS.

B. The DSEIS's Failure to Resolve Contention 3, Necessitating Contention 3-A

The DSEIS does not resolve the concern regarding the risk of fluid migration. The DSEIS reveals that the testing done to insure protection against fluid migration *failed* – in fully one-third of the tests conducted, "pumping of the OZ aquifer showed a possible response in the DM aquifer." DSEIS at 4-35, lines 40-41. Moreover, the Applicant claimed that this failure was due to "improperly plugged previous exploration drillholes that have not yet been properly abandoned." *Id.* at lines 42-43.

This is one of the precise concerns raised in the admitted Contention – the risks of fluid migration due to the thousands of drillholes in the area. *See* Pet. to Intervene at 21-22. The information in the DSEIS only serves to heighten that concern, for several reasons. First, while the applicant earlier estimated there were approximately 5,000 of these holes, *see* Moran Decl. ¶ 22, the DSEIS lowers that number to less than 2,000, without explanation as to why more than 3,000 holes apparently are of no concern. Second, while the DSEIS states that the applicant will properly plug *all* these holes, there is no information provided to demonstrate either that the applicant will be able to identify all the holes, or that it will be able to fill them in a manner that insures they do not continue to contribute to fluid migration. 2d Abitz Decl. ¶¶ 30-37.

Moreover, the DSEIS also does not address Petitioners' more fundamental concern that irrespective of these holes, the hydrological connections between the aquifers in the area pose a serious risk of fluid migration. Indeed, while the applicant claims that the failed fluid migration tests are due to exploratory wells that will be plugged, the DSEIS contains no information demonstrating that the failure was not due to the hydrological connectivity that exists irrespective of these wells. *Cf. Center for Biological Diversity v. BLM*, 698 F.3d 1101 (9th Cir.

2012) (rejecting agency's refusal to consider the hydrological connectivity between groundwater and surface water).

The DSEIS attempts to address this concern by asserting that the Applicant will be required to "install a ring of monitoring wells around each wellfield" to "allow monitoring of the SM and DM aquifers as well as the OZ aquifer around their perimeters." DSEIS at 4-36, lines 15-18. However, as with the groundwater quality issue more generally, *see supra* at 7-10, the agency cannot avoid studying vital environmental concerns related to a project by promising to collect data on the matter *later*. *Id (citing State of Idaho,* 35 F.3d at 596 (promise to address potential impacts in the future is "no substitute for an overarching examination of environmental problems at the time the [original] decision is made"). Rather, the data must be collected and included in the DEIS to inform the decision to be made.

Contention 3A meets the legal standards described in 10 C.F.R. § 2.309(f)(1). The Board should affirm this updated contention so that Petitioners may argue the merits of their claim that Strata's ER and Staff's DSEIS fails to adequately address the risks of fluid migration.

Environmental Contention 4/5A-A: The DSEIS fails to adequately assess cumulative impacts of the proposed action and the planned Lance District expansion project.

CONTENTION: The DSEIS violates 10 C.F.R. § 51.45, 51.70, 51.71 and NEPA, and the Council on Environmental Quality's (CEQ) implementing regulations for NEPA because it fails to consider adequately cumulative impacts, including impacts on water quantity, that may result

from the proposed ISL uranium mining operations planned in the Lance District expansion project.[10]

A. Bases and Supporting Evidence, and the Board's Admission of Contention 4/5A.

This admitted contention is supported by the original declaration of Dr. Moran, particularly ¶¶ 7-8, 59-63, 69, 76-78, 96-98. It is further supported by a second declaration from Dr. Abitz filed this day 2d Abitz Decl. ¶¶ 38-43, and by the Declaration of Christopher E. Paine, filed this day as well. The declarations explain the bases for the Contention that the applicant and NRC staff have failed to consider the cumulative effects on the environment, including on groundwater quantity, associated with the full scope of ISL uranium mining anticipated to occur in the foreseeable future in the Lance District.

Our Petition to Intervene explained the legal requirements associated with considering cumulative effects and need not be repeated here. *See* Petition to Intervene at 25, 27-28. The Staff agreed that Petitioners had submitted an admissible contention regarding cumulative impacts associated with groundwater quantity, LBP-12-3 at 38, and the Board admitted that aspect of this Contention, citing the "specific criticisms of SEI's water use and restoration analysis" in the ER, *id.* at 37, which "presents a material dispute with SEI's application that is within the scope of this license proceeding." *Id.* at 38; *see also id.* at 43.

As for other cumulative impacts, the Board also admitted that portion of the original Contention 5 that raised cumulative impacts more generally, rejecting the applicant and Staff's argument that cumulative impacts need not be considered. *Id.* at 40. In particular, the Board

[10] The resubmitted contention is the precise contention admitted by this board in LBP-12-3 on February 10, 2012. The only difference is resubmission with the regulatory cite of 10 CFR §§ 51.70 and 51.71 as it applies to the staff's NEPA responsibilities regarding the DSEIS.

admitted that portion of this Contention concerning the planned expansion of SEI's Lance District ISL program, noting that the ER indicates that "additional facilities would likely operate as satellites of the Ross facility and would utilize the same CCP that SEI proposes to construct for the Ross project." *Id.* at 42. As for the applicant's statement that the expansion poses no greater impacts because the "impacts will be distributed proportionately throughout the region of influence," *id.* at 42, even the Staff – as well as the Board – agreed that the contention was admissible "with regard to the lack of specificity about SEI's planned satellite facilities, and the potential impact resulting from the Ross facility's CPP being used for SEI's additional facilities and possible use of third parties." *Id.* The Board similarly admitted the Contention as to cumulative effects of groundwater quality. *Id.* at 43; *See also* 40 C.F.R. § 1502.22(a) ("If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement."); *see also*, 10 C.F.R. 51.71(d) ("The analysis for all draft environmental impact statements will, to the fullest extent practicable, quantify the various factors considered.").

B. The DSEIS's Failure to Resolve Contention 4/5A, Necessitating Contention 4/5A-

The DEIS does not adequately address cumulative impacts. Although the existence of a broader ISR program is recognized, DSEIS at 5-1-3-50, the impacts of this larger program are not analyzed in a manner that allows a consideration of the on-the-ground impacts associated with various impacted aspects of the environment.

For example, with respect to groundwater quantity – an issue the cumulative effects of which the Board has already admitted into this proceeding – the DSEIS contains *one paragraph* summarily stating that the cumulative impacts will be "SMALL," and that any such effects will

be "essentially restored within 24 years after the issuance of the NRC license to the Applicant." *Id.* at 5-25, line 31. However, there is no meaningful quantitative analysis of the projected cumulative consumptive uses of groundwater from uranium mining and other resources extraction activities that draw on the Lance and Fox Hills aquifers, and no *explanation* provided of how restoration will occur, or what it means to characterize the impacts as "small." 2d Abitz Decl. ¶¶ 38-43.

This is inadequate. An agency may not rely on "conclusory or unsupported suppositions," *McDonnell Douglas Corp. v. U.S. Dep't of the Air Force*, 375 F.3d 1182, 1186-87 (D.C. Cir. 2004), and it is insufficient to simply *assert* that an effect will be resolved at some point in the future. Moreover, courts have frequently rejected agency's use of conclusory labels like "small" and "moderate" to characterize impacts, where the agency does not explain the basis for these labels. *E.g. Greater Yellowstone Coal. v. Kempthorne*, 577 F. Supp. 2d 183, 201 (D.D.C. 2008); *Sierra Club. v. Mainella*, 459 F. Supp. 2d 76, 100-01 (D.D.C. 2006).

The cumulative impacts analysis associated with groundwater quality is similarly lacking. DSEIS at 5-25 to 5-26. For this and other impact areas, the cumulative impacts analysis, like the ER, fails to consider the cumulative impacts associated with the more extensive "Lance District Development" that the DSEIS acknowledges is "scheduled" for the area (*Id* Figure 2.6 at 2-8 and t 5-3 to 5-5.) surrounding the "Ross Project." Thus, while the DSEIS recognizes there are "four satellite areas within the Lance District that the NRC staff identifies as reasonably foreseeable," *id.* at 5-3-5, as in the ER the DSEIS fails to consider the cumulative impacts associated with this much larger project. *See* Declaration of Christopher Paine ("Paine Decl.") ¶¶ 23-56.

New Environmental Contention Number 6: NRC has failed to properly define the scope of the proposed major federal action here, which encompasses a much larger project in the same

geographic area, as revealed in the DSEIS and in documents drafted by Strata's Australian parent company, Peninsula Energy, Ltd.

CONTENTION: The DSEIS violates 10 C.F.R. §§ 51.70 and 71, NEPA, and the Council on Environmental Quality's (CEQ) implementing regulations for NEPA because it fails to consider the environmental impacts of, and appropriate alternatives to, the applicant's actual proposed project, and instead improperly segments the project by framing the Proposed Action under review as only a small part of the Applicant's planned and scheduled In Situ Recovery (ISR) activities in the Lance District.

Basis and Discussion:

NEPA requires that "[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated *in a single impact statement*." 40 C.F.R. §1502.4(a). Proposals meet the standard for a single course of action where they "have similarities that provide a basis for evaluating their environmental consequences together, *such as common timing or geography*." 40 C.F.R. §1508.25(a) (emphasis added). Thus, as the Supreme Court has explained, "when several proposals for . . . actions that will have a cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental consequences must be considered together" in a single NEPA document. *Kleppe v. Sierra Club*, 427 U.S. 390, 406 (1976).

Here, as has now become evident via a recent review of documents from the Applicant's Australian corporate parent (Peninsula Energy), the "proposed action" over which NRC is conducting this NEPA review is simply one part of a much larger project in the same geographic area. *See* Declaration of Christopher Paine ("Paine Decl.") ¶¶ 23-53. Accordingly, the applicant must prepare an ER, and NEPA review must be completed, on the *entire project*.

In particular, as detailed in the Paine Declaration, in preparing comments on the DSEIS over the past several weeks, Petitioners discovered a series of public statements by Peninsula Energy which reveal the actual scope of the project to be much larger than the scope considered in the DSEIS (and the ER). *Id.* ¶ 23. In these documents Peninsula Energy has repeatedly stated that, contrary to what is analyzed in the ER and DSEIS, it will develop the entire "Lance Project," not just the sub-component called the "Ross Project." *Id.* ¶¶ 23-53.

The declaration summarizes a large number of those documents, but to highlight just a few here, as recently as March, 2013, Peninsula Energy explained that it will develop "the Ross, Kendrick and Barber Production Units feeding a Central Processing Plant with a capacity of 750klbs per annum with the sequential inclusion of the Kendrick and Barber Production Units ramping up over several years to 2.2mlbs per annum steady-state production." Paine Decl. ¶ 34 (*citing* http://www.pel.net.au/images/peninsul---singaefehu.pdf). Indeed, the document makes it clear that the *reason* the applicant has proposed something considerably smaller than its entire proposed project is precisely to avoid a full and complete analysis of the environmental impacts associated with the project as a whole. Thus, the company states:

> All new project area permitting is designed so they are contiguous with the Ross permit area and are deemed amendments to the Ross SML (once issued) rather than standalone applications. *This strategy will significantly reduce the permitting process and timing*.

Id. at 4 (emphasis added). In other words, the company is telling the public, and its shareholders, that *the whole project will be developed*, while it is only analyzing a small portion in the DSEIS. Indeed, the Central Processing Plant (CPP) to be developed under the "Ross Project" may not even constitute an economically viable investment without the revenue assumptions based on exploiting these additional "production units."

This most recent announcement is consistent with a host of statements by Peninsula Energy referring to the development of the much broader "Lance Project." *Id.* ¶¶ 23-53; *see also, e.g., id.* ¶ 35 (discussing production "assumed to be permitted for development at Kendrick and Barber and to follow Ross into production at 12 month intervals feeding the CPP"); *id.* ¶ 23 ("the proposed Ross ISR site . . . forms *a part of the total project area* . . .") (emphasis added).

The DSEIS similarly acknowledges this explicit and broader scope, including:

* the "Ross Amendment," whereby the project is to be expanded to the north and west to increase the operating life of the project by supplying additional yellowcake. DSEIS at 5-3 ("As uranium production from early wellfields within the Ross Project area begins to diminish . . . additional wellfields in the Ross Amendment Area could be brought into production");

* the "Kendrick Satellite Area," which will be contiguous with the Ross Project, and by operating simultaneously will "allow the Applicant to increase its production of yellowcake to approximately 680,000 kg/yr." *Id.;*

* the "Richards Satellite Area," which is contiguous to the Kendrick area, will have "uranium-rich solutions . . . piped to the Rodd Projects' CPP for uranium recovery." *Id.* at 5-5; and

* the "remote IX-only plant" at the "Berber satellite area," whereby "the pregnant, uranium-rich solutions brought to the surface at the Berber satellite area would be treated by IX to yield uranium-loaded resins, which would then be trucked to the Ross Project's CPP for further processing." *Id.*

In light of the actual scope of the project, the applicant must prepare an ER – and then a DSEIS must be prepared – that considers the *entire* major federal action at issue. *E.g. Fund for Animals v. Clark*, 27 F. Supp. 2d 8, 13 (D.D.C. 1998) ("[i]f agency actions are similar in that they share common timing or geography, such actions should also be addressed in the *same environmental document* so as to assess adequately their combined impacts") (emphasis added).

That review must consider the environmental impacts of the entire project. It must also consider reasonable alternatives to that entire project – including, *e.g.*, alternatives whereby something *less* than the entire proposed Lance District ISL mining would occur.[11]

By failing to consider the overall project, the applicant and NRC are unlawfully segmenting the project into smaller parts. *E.g. Thomas v. Peterson*, 753 F.2d 754, 758 (9th Cir. 1985) ("close interdependence" between two aspects of a project warrant review in a single EIS); *Florida Wildlife v. U.S. Army Corps of Engrs.*, 401 F. Supp. 2d 1298, 1318 (S.D. Fla. 2005) (first phase of a project "that was never intended to stand alone" may not be artificially segmented from the larger project that is "conceptualized as an integrated whole, progressing in phases"). Accordingly, the Board should admit this new Contention that the Staff and Applicant have unlawfully segmented this project, and must consider preparing an ER – and then a DSEIS – that considers the *entire* major federal action it intends to undertake in this area.

The Contention Complies With 10 C.F.R. § 2.309

Contention No. 6 complies with 10 C.F.R. § 2.309, which requires Petitioners submitting a new contention to demonstrate that: (a) the information on "which the filing is based was not previously available," (b) the new information is "materially different from the information previously available," and (3) the filing is timely submitted based on "the availability of the subsequent information." 10 C.F.R. § 2.309(c).

[11] The alternatives analysis that will be required for the entire project distinguishes Contention 6 from Contention 4/5A-A concerning cumulative impacts. Thus, even assuming *arguendo* that the full scope of the environmental impacts associated with the entire project can properly considered as part of a cumulative impacts analysis, restricting the scope of the proposed project would constrain the scope of alternatives to exclude, *inter alia*, developing something less than the entire project.

Here, the applicant and NRC Staff have presented the much smaller Ross Project as the proposed action. It was not until reviewing Peninsula Energy materials, and the DSEIS, in recent weeks that Petitioners came to appreciate that the connection between the Ross Project and the applicant's much broader plans for ISL mining in this same geographic area is sufficiently close to warrant consideration in a single EIS. Paine Decl. ¶¶ 22-56; *see also id.* ¶¶ 4-12 (discussing the smaller scope of the project at issue in this proceeding). Thus, since Contention No. 6 is based on materially different information that was not previously available, the Contention is timely.

CONCLUSION

For the foregoing reasons, the Petitioners have demonstrated that their updated contentions and new contention are admissible, and they are entitled to a hearing on these contentions.

Respectfully submitted,

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Date: May 6, 2013

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing *Joint Motion To Resubmit Contentions & Admit One New Contention In Response To Staff's Supplemental Draft Environmental Impact Statement* and accompanying attachments in the above-captioned proceeding were served via the Electronic Information Exchange (EIE) on the 6th day of May 2013, which to the best of my knowledge resulted in transmittal of same to those on the EIE Service List for the captioned proceeding.

Shannon Anderson (electronic signature)

Date: May 6, 2013