

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:

STRATA ENERGY, INC.

(Ross In Situ Uranium Recovery Facility)

)
)
) Docket No.: 40-9091-MLA

)
) Date: April 23, 2014
)
)
)
)

**APPLICANT STRATA ENERGY, INC'S RESPONSE TO NATURAL RESOURCE
DEFENSE COUNCIL AND POWDER RIVER BASIN RESOURCE COUNCIL
NEW AND AMENDED CONTENTIONS ON FINAL SUPPLEMENTAL
ENVIRONMENTAL IMPACT STATEMENT**

I. INTRODUCTION

Strata Energy, Inc. (Strata), by its undersigned counsel of record, hereby submits this Response to the Natural Resource Defense Council and Powder River Basin Resource Council (hereinafter the "Intervenors") New and Amended Contentions on Final Supplemental Environmental Impact Statement (FSEIS) (hereinafter the "Response"). For the reasons discussed below, Strata respectfully submits that Intervenors failed to proffer any new or amended contentions satisfying NRC requirements at 10 C.F.R. § 2.309 and have not adequately demonstrated that its previously admitted contentions should migrate to the FSEIS.

II. BACKGROUND AND PROCEDURAL HISTORY

NRC Staff commenced its "acceptance review" of Strata's license application on May 2, 2011 and, on June 28, 2011, announced that the "acceptance review" had resulted in formal docketing of Strata's license application. NRC issued a Federal Register notice dated July 13, 2011, which announced the formal docketing of Strata's license application and the opportunity

to request an administrative hearing within a sixty (60) day time period.¹ Based on the Federal Register notice issuance date, Strata's license application was publicly available for review by the Council and any other interested parties for more than five (5) months.

On October 27, 2011, the Council filed its request for a hearing in response to which both Strata and NRC Staff filed responses dated December 5, 2011. On December 20, 2011, the Licensing Board held oral argument at which the Council's request for hearing, including arguments on standing and potentially admissible contentions was heard. By Order dated February 10, 2012 (LBP-12-3), the Licensing Board granted standing to the Council and admitted four (4) contentions on Strata's license application. Each admitted contention has been classified as an "environmental" contention.

During the course of this proceeding, Strata's license application and its associated administrative record have been supplemented with additional documentation and analysis, pursuant to NRC Staff requests for additional information (RAI). These RAIs were divided into two classes of questions: (1) safety and (2) environmental. On March 30, 2012 (ML121030406 & ML1210030465) and April 6, 2012 (ML121020357 & ML121020361), Strata provided NRC Staff with responses to each set of RAIs and on April 13, 2012 (TR RAIs) and April 20, 2012 (ER RAIs), these responses were made publicly available in NRC's ADAMS database.

On February 28, 2013 (ML13059A45, publicly available on February 28, 2013), NRC Staff issued its final Safety Evaluation Report (SER) and final draft license for the proposed Ross project in which NRC Staff determined that, unless environmental issues warranted a different decision, Strata should receive its requested combined source and 11e.(2) byproduct material license. The Council did not file any new or amended contentions on these RAI responses or the Final Ross SER within the allotted thirty (30) day timeframe provided in 10

¹ See 76 Fed. Reg. 41308 (July 13, 2011).

CFR Part 2. Then, on March 31, 2013 (ML13078A036), NRC Staff issued its Draft Supplemental Environmental Impact Statement (DSEIS) for the proposed Ross project in which NRC Staff determined that, unless safety issues warranted a different decision, Strata should receive its requested combined source and 11e.(2) byproduct material license, thus concurring with NRC Staff's conclusions in the Final Ross SER. On May 6, 2013, the Council submitted five (5) amended contentions and one (1) new contention for the Licensing Board's consideration. On July 26, 2013, the Licensing Board allowed three (3) previously admitted contentions to migrate to the DSEIS and did not allow one (1) previously admitted contention regarding cumulative impacts to migrate to the DSEIS. *See* LBP-13-10 at 11-22. In this Order, the Licensing Board also refused to admit a new contention offered by Intervenors regarding the scope of the DSEIS' described Proposed Action which was further rejected after Intervenors' Motion for Reconsideration. By this Response, Strata respectfully requests that the Licensing Board deny each of the new or amended contentions and those contentions offered for migration to the FSEIS requirements for the reasons discussed below.

III. STATEMENT OF LAW

Typically, NRC 10 CFR Part 2 regulations at Part 2.309(f)(1) delineate requirements for admissible contentions. However, a petitioner may file new or amended contentions based on documents admitted to the administrative record after submission of an applicant's license/license amendment/license renewal application such as an FSEIS. *See* 10 CFR § 2.309(f)(2). NRC's standards for admitting new or amended contentions based upon documents such as the FSEIS are found at 10 CFR Part 2.309(f)(2) which, in turn, refers back to 10 CFR Part 2.309(c)(2)(i-iii) standards for admission.

Part 2.309(c) entitled *Filings after the deadline; submission of hearing request, intervention petition, or motion for leave to file new or amended contentions* states that a request to admit new or amended contentions must satisfy three specific requirements: “(1) the information upon which the filing is based was not previously available; (2) the information upon which the filing is based is materially different from information previously available; and (3) the filing has been submitted in a timely fashion based on the availability of the subsequent information.” 10 CFR § 2.309(c)(2)(i-iii) (2013). Each of these requirements must be satisfied for a new or amended contention to be admitted. Further, the Licensing Board has decided that, notwithstanding that an intervenor’s contentions are based on NRC Staff’s FSEIS, the intervenor still bears the responsibility of demonstrating that the contentions merit admission. *Private Fuel Storage* (Independent Spent Fuel Storage Installation), LBP-00-28, 52 NRC 226 (2000). The intervenors carry the burden of showing that any late-filed contentions are admissible. *See Amergen Energy Company, LLC*, (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260-61 (2009). A Licensing Board should not need to sift through the administrative docket to determine if information is new and how it is materially different from information previously available. *Cf Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 46 (2001) (“The Commission should not be expected to sift unaided through large swaths of earlier briefs filed before the Presiding Officer in order to piece together and discern the intervenors’ particular concerns or the grounds for their claims.”).

An intervenor’s time to submit contentions tolls when the information upon which a contention is based first becomes available and not later when NRC Staff issues its DSEIS. *See Private Fuel Storage, LLC* (Independent Spent Fuel Storage Facility), LBP-00-27, 52 NRC 216 (2000). An intervenor must submit a new contention “in a timely fashion based on the

availability of the subsequent information.” 10 CFR § 2.309(c)(2)(ii). Generally, a “good cause” finding based on “new information” can be resolved by a straightforward inquiry into when the information at issue was available to the petitioner. *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-15, 44 NRC 8 26 (1996). The finding of good cause for the late filing of contentions is related to the total previous unavailability of information. *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 & 2), LBP-83-39, 18 NRC 67, 69 (1983). A contention based on a FSEIS which contains no new information relevant to the contention, lacks good cause for filing. *See Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 & 2), LBP-82-79, 16 NRC 1116, 1118 (1982). A submitted document, while perhaps incomplete, may be enough to require that a contention related to it be filed promptly. *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 & 2), LBP-83-39, 18 NRC at 69 (1983).

An intervenor must also offer a contention that is not based on an incomplete or inaccurate reading of an FSEIS. *Cf Georgia Institute of Technology*, (Georgia Tech Research Reactor), LBP-95-6, 41 NRC 281, 300 (1995) (rejecting a contention based on a mistaken reading of the Safety Analysis Report). An intervenor also cannot proffer an admissible contention that merely alleges deficiencies in an FSEIS; but rather, it must identify the specific analysis in the document and explain how it is incorrect. *See USEC, Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) (internal citations omitted) (“An expert opinion that merely states a conclusion (*e.g.*, the application is ‘deficient,’ ‘inadequate,’ or ‘wrong’) without providing a reasoned basis or explanation for that conclusion is inadequate[.]”).

With respect to NEPA's "hard look" requirement, an FSEIS represents a "hard look" at potential impacts by NRC Staff. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989). But, this "hard look" standard does not require an assessment of every conceivable potential environmental impact in an FSEIS. *Ground Zero Ctr. For Non-Violent Action v. U.S. Dept. of the Navy*, 383 F.3d 1082, 1089-90 (9th Cir. 2004) (citing *NoGWEN Alliance of Lane County, Inc. v. Aldridge*, 855 F.2d 1380, 1385 (9th Cir. 1988)). The "hard look" requirement requires only that NRC Staff provide "[a] reasonable thorough discussion of the significant aspects of the probable environmental consequences." *Trout Unlimited v. Morton*, 509 F.2d 1276, 1283 (1974).

IV. ARGUMENT

As part of its March 31, 2014 submission, Intervenors submitted four (4) contentions for migration, Contentions 1-3 which migrated previously from Strata's license application to the DSEIS and Contention 4 which was initially admitted on Strata's license application, amendments to each of these 4 contentions, and two (2) new contentions. Strata will address Contentions 1-4, both Intervenors' requests for migration and amendment in individual sections and each new contention in its own separate section.

A. Contention 1 Migration and Amendment: The FSEIS Fails to Adequately Characterize Baseline Groundwater Quality

Intervenors' Contention 1 or the allegation that Strata and, now, NRC's FSEIS has failed to obtain adequate groundwater data to develop "baseline" groundwater quality for the proposed Ross ISR project should not be permitted to migrate to the FSEIS nor should it be amended in this proceeding. Intervenors allege that Contention 1 should migrate to the FSEIS, because of

the Licensing Board's previous admission of this contention claiming that NRC regulations permit the gathering of full "baseline" water quality data in advance of the issuance of an operating license and that the FSEIS "adopts the DSEIS-associated information and/or analysis that was challenged as inadequate in the DSEIS." Intervenor Brief at 8. Intervenor also allege that the change of language in the FSEIS to "post-licensing, pre-operational" water quality does not eliminate the alleged inadequacy of the data or the failure to adequately characterize "baseline" groundwater quality. *Id.* at 9.

With respect to amending Contention 1, Intervenor further claim that NRC regulations at 10 CFR Part 40, Appendix A, Criterion 7 require that complete "baseline" water quality data must be collected prior to the issuance of a license. *Id.* at 21. Intervenor also claim that 10 CFR Part 40.32(e) requires complete "baseline" water quality data, because the regulation should be interpreted to include such an implied requirement as an "environmental value." *Id.* Intervenor also cite to a past Powertech ruling on the relevance of Part 40.32(e) regarding "baseline" water quality data and a citation to NUREG-1569² on the need for 'reasonably comprehensive' groundwater data. Intervenor Brief at 21.

As a general matter, Intervenor and the Licensing Board continue to operate under the mistaken legal conclusion that NRC regulations permit the gathering of detailed wellfield and monitor well system groundwater quality data prior to the issuance of a license. This mistaken legal conclusion apparently is based on the language in 10 CFR Part 40, Appendix A, Criterion 7 that refers to the gathering of "complete baseline data" in a pre-operational monitoring program for *multiple resource areas*, including groundwater, surface water, soil, meteorology, etc.

² United States Nuclear Regulatory Commission, NUREG-1569, *Standard Review Plan for In Situ Leach Uranium Extraction License Applications*, (June, 2003).

However, both Intervenor and the Licensing Board fail to differentiate between the meaning of the language in Criterion 7 and that in Criterion 5(B)(5) which specifically refers to different data standards from “baseline” in Criterion 7 specific to groundwater quality. In other words, the “change in language” referred to by Intervenor is not merely an editorial change; but rather, it represents a major substantive change in the nature of the groundwater quality data to satisfy Criterion 7 “baseline” versus Criterion 5(B)(5) “Commission-approved background.”³ In order to properly understand this difference, it is important to understand the legal and regulatory background of how the Commission has mandated the regulation of groundwater at ISR project sites.

Under 10 CFR Part 40, Appendix A, the Commission has mandated that post-restoration groundwater at ISR sites satisfy the groundwater quality standards delineated at Criterion 5(B)(5) which are, “Commission-approved background” *or* a “maximum concentration limit” (MCL), whichever is higher, *or* an “ACL.” See 10 CFR Part 40, Appendix A, Criterion 5(B)(5). Herein lies the difference between Intervenor’s and the Licensing Board’s mistaken interpretation of Criterion 7 requirements for data that apply to ISR groundwater “baseline” and the wholly different requirements for data to satisfy Criterion 5(B)(5)’s groundwater restoration standards. Criterion 7 refers to, and Intervenor consistently cite to the need to gather pre-operational “baseline” groundwater quality data. Criterion 7 “baseline” data is a separate class of data used to determine a reasonable, general characterization of pre-operational site groundwater quality

³ Furthermore, Strata does not understand what Intervenor refer to when they claim that 10 CFR § 40.32(e) somehow requires complete baseline data, because this regulation should be interpreted to include such an implied requirement as an environmental value. Intervenor’s Brief at 21. It appears to be an attempt to create a requirement that does not exist as no such requirement is expressly or impliedly set forth in Part 40.32(e).

conditions prior to license issuance per Chapter 2 (Site Characterization) of NUREG-1569.⁴ However, as can be seen in Criterion 5(B)(5), the Commission’s requirements for ISR groundwater quality data post-license issuance are termed “Commission-approved background”—in other words, an entirely different groundwater quality data standard per NUREG-1569, Chapter 5 *Operations*. This latter standard is differentiated from the pre-operational groundwater quality analysis or “baseline” in syntax because it is a different standard of data that is far more detailed than that which can be obtained with only pre-operational “baseline” groundwater quality data pre-license issuance. This difference is described in detail in Chapters 2 and 5 of NUREG-1569, which is the document that informs ISR license applicants what *NRC Staff expects in a license application* if it is to satisfy technical/safety requirements in 10 CFR Part 40, Appendix A and environmental requirements in 10 CFR Part 51.

Current NRC legal and regulatory interpretations applying to the difference between pre-operational “baseline” groundwater quality data and “Commission-approved background” groundwater quality data hinge on the distinction between what is expected by NRC Staff in Chapter 2 versus Chapter 5 of NUREG-1569 which is reflected in NRC Staff’s application of 10 CFR Part 40.32(e) to ISR operations by NRC Staff. As is explicitly stated in the current *Final Rule* for Part 40.32(e),⁵ Part 40.32(e) does not permit an ISR license applicant to construct an entire ISR uranium recovery system prior to license issuance, including a full wellfield(s) and associated monitor well network(s). A complete wellfield and monitor well network(s) represent the only possible configuration of wells for an entity to get a determination of “Commission-approved background” (i.e., upper control limits (UCL) and restoration target values (RTV)).

⁴ Accordingly, Intervenor’s citation to NUREG-1569 requiring “reasonably comprehensive” groundwater data is entirely misleading and incorrect as Strata will demonstrate hereinafter.

⁵ See generally 78 Fed. Reg. 32340 (May 29, 2013).

Accordingly, it is impossible for an ISR *license applicant* to determine what Intervenor mistakenly refer to as “baseline,” but which is “Commission-approved background” until a license is issued. Intervenor’s claim that NRC’s regulations permit the gathering of complete “baseline” data pre-license issuance and do not and should not allow determination of what they call “baseline” after license issuance. However, neither Intervenor nor the Licensing Board can modify NUREG-1569’s (Commission-approved guidance for ISR license applications that went through public comment prior to finalization) interpretation of NRC regulations such as Part 40.32(e) with respect to what data that guidance informs ISR license applicants to submit pre-license and post-license issuance.

Subsequent NRC legal and regulatory interpretations of Criterion 5(B)(5) and its legal applicability to ISR operations support Strata’s legal position on this issue. Currently, NRC has determined that Criterion 5(B)(5) applies as a matter of law to ISR facilities. With this in mind, some examples of Commission-endorsed interpretations in legal proceedings and approved guidance must be addressed by this Licensing Board. First, in the *Hydro Resources, Inc.* ISR litigation, the Licensing Board and the Commission endorsed the approach of allowing ISR license applicants to determine “baseline” groundwater quality under Criterion 7 prior to license issuance while determining “Commission-approved background” post-license issuance without depriving an intervenor of its right to a hearing under Section 189 of the AEA. *See In the Matter of Hydro Resources, Inc.* (Crownpoint Uranium Project), LBP-99-30, 50 NRC 77, 93, 99 (1999). This legal determination is consistent with the conclusion that an ISR *license applicant* is prohibited under the previous and, as can be seen under the new Final Rule as well, the current version of Part 40.32(e), from attempting to install an entire wellfield and monitor well network to have “Commission-approved background” determined prior to license issuance.

Further, the Commission-approved ISR guidance in NUREG-1569 specifically states that an ISR license application will not be based on complete “Commission-approved background” groundwater quality. Indeed, NUREG-1569 cites to Part 40.32(e) making it clear that “[a] licensing review is not intended to be a detailed evaluation of all aspects of facility operations....Reviewers should keep in mind that the development and initial *licensing* of an *in situ* leach facility is not based on comprehensive information....Therefore, reviewers should verify that sufficient information is presented to reach only the conclusion necessary for initial licensing.” NUREG-1569 at xviii & 1-1. These conclusions render Intervenors’ Contention 1 inadmissible because it constitutes an impermissible collateral attack on the Commission’s regulations and rejection of Commission-approved guidance. *See* 10 CFR § 2.335. By allowing this Contention to move forward, the Licensing Board will be circumventing Commission legal precedent based upon the *Hydro Resources, Inc.* litigation in LBP-99-13 and the subsequent 15 years of ISR license application reviews that have resulted in the issuance of five (5) new ISR operating licenses (i.e., Moore Ranch, Hank/Nichols Ranch, Lost Creek, Dewey-Burdock, and Crownpoint) and, potentially, a sixth (Ross) by the time of this filing. Thus, the Licensing Board should not have allowed this Contention 1 to be admitted on Strata’s license application and the DSEIS; but now, with the FSEIS complete and license issuance imminent, it should be apparent that this Contention should not proceed forward in an attempt to re-define Commission-approved regulations, legal interpretations, and guidance.

Contention 1 also should not be amended as Intervenors’ claims are essentially the same as those proffered previously. Intervenors like to refer to “general NEPA principles” when claiming that a soon-to-be ISR licensee, such as Strata, should not be allowed to establish “Commission-approved background” post-license issuance. These claims fail to acknowledge

that NRC is an independent regulatory agency and is not strictly subject to NEPA interpretations of the Council on Environmental Quality (CEQ); but rather, it is subject to 10 CFR Part 51 requirements, which represent the Commission's interpretation of its NEPA responsibilities. If the Commission chooses to implement its AEA statutory obligations through regulations and Commission-approved guidance that permit exactly the type of groundwater quality data collection and analysis approaches currently prescribed for *all* ISR facilities, then it is empowered to do so. If the Intervenor are dissatisfied with these approaches, they are free to submit a petition for rulemaking to the Commission for its consideration. Further, it also is worth noting that Strata's proposed Ross ISR project is the fifth new ISR operating license to be issued using SEISs tiered off the GEIS and utilizing the same legal and regulatory interpretations and approaches to groundwater quality data.

Finally, each of the FSEISs associated with these projects are, by rule, submitted to the United States Environmental Protection Agency (EPA) for a thirty (30) day concurrence period, as well as EPA having an opportunity to comment on each DSEIS. Nowhere in any of EPA's DSEIS comments or FSEIS concurrence/non-concurrence letters has it identified any concerns with the Commission's approach to groundwater quality data in light of CEQ regulations. Thus, Intervenor's claims that CEQ regulations require complete "Commission-approved background" prior to license issuance are not supported by EPA.

Intervenor's Contention 1 and their expert Declarations also contain many inaccuracies. For example, Paragraph 19 of the Joint Declaration of Dr. Richard Abitz and First Declaration of Dr. Lance Larson (hereinafter the "Joint Declaration") states that the "late-addition" of 2011 water quality data in the FSEIS supports the failure to properly establish "baseline" water quality

data. This is patently false as the 2011 water quality information was included as a response to a comment in the DSEIS and, more specifically, as a response to ER RAI WR-4 and ER RAI EM-1. The response to these two RAIs was not provided to establish “baseline” water quality; but rather it was submitted in excel tabulations to facilitate analysis of water quality data and to provide more information to describe the affected environment for Chapter 3 of the DSEIS/FSEIS and related impact analyses in Chapter 4 of the DSEIS/FSEIS. Another example is Intervenor’s claim in Paragraphs 25, 28, and 35 of the Joint Declaration that Strata and the FSEIS do not have adequate evidence that the groundwater in the recovery zone exceeds the MCL for uranium and radium-226. Intervenor’s claim ignores the May 15, 2013⁶ letter from EPA Region 8 confirming the groundwater reclassification and an aquifer exemption for the recovery zone. Thus, based on this exemption, groundwater in the exempted portion of the recovery zone aquifer does not meet some MCLs or drinking water standards, including those for uranium or radium-226.

B. Contention 2 Migration and Amendment: The FSEIS Fails to Analyze the Environmental Impacts That Will Occur if the Applicant Cannot Restore Groundwater to Primary or Secondary Limits

Intervenor’s Contention 2 or the allegation that Strata’s license application and, now, the FSEIS do not contain an analysis of the “virtual certainty that the applicant will be unable to restore groundwater to primary or secondary limits” and that it should have analyzed a “reasonable range of hazardous constituent concentration values that are likely to be applicable if the applicant is required to implement an Alternate [sic] Concentration Limit....” Intervenor’s Brief at 10. Intervenor’s claim migration of Contention 2 should be permitted, because the FSEIS

⁶ See ML13144A108.

adopts the DSEIS approach to groundwater restoration and does not include an analysis of potential ranges of hazardous constituents in the impact analysis. *Id.* at 12.

Intervenors also attempt to amend Contention 2 by alleging that the FSEIS does not challenge their statement that ISR operators have not successfully restored *all* groundwater parameters to pre-operational standards and that its description of groundwater restoration techniques does not analyze what “contamination” will be left in the recovery zone portion of the identified aquifer after groundwater restoration is complete and if an alternate concentration limit (ACL) is required. *Id.* at 24. These allegations are accompanied by analyses focusing on other ISR facilities and their restoration efforts and conclude that the FSEIS does not differ from the DSEIS and Strata’s ER in its description of the restoration process. *Id.* at 24-25.

Intervenors’ Contention 2 is based solely on the perceived need for an ISR *license applicant* to assess the potential environmental impacts associated with the future, potential but unknown need for ACLs at the proposed Ross ISR project. Intervenors continuously speculate that it is a foregone conclusion that Strata will require ACLs in the future and that they should be evaluated using a range of values for hazardous constituents. However, the potential future, but unknown, need for ACLs at the proposed Ross ISR project is nothing more than mere speculation and, because of this uncertainty, 10 CFR Part 51 does not require an evaluation of such ACLs in the FSEIS. Perhaps, more importantly, neither *the provisions of Criterion 5(B)(5) nor NUREG-1569 require such an evaluation* and, as will be noted later, NRC Staff will not consider an ACL application until post-operation active restoration efforts are demonstrated to be as low as reasonably achievable (ALARA).

Further, Contention 2, like Contention 1, completely ignores NRC's regulatory process for ISR facilities and how ACLs are evaluated for such facilities. As is the case with *all* uranium recovery facilities (conventional mills, heap leach facilities, and ISR facilities), ACLs are a separate licensing action that carries with it multiple stringent requirements under Criterion 5(B)(6), all of which that are relevant to ISR must be satisfied in a wellfield (not site) specific license amendment application. There are multiple examples of NRC Staff reviewing and approving ACLs in license amendment applications for conventional uranium mills and, currently, an example of an ongoing review of an ACL for an ISR facility (Cameco Resources' Smith Ranch Mine Unit B). Each of these ACLs are evaluated in a license amendment application separate from the initial licensing of the project site and were or will be subject to, at a minimum, a site-specific 10 CFR Part 51 EA assessing the potential impacts of the use of ACLs in light of the ALARA standard (which is one of the requirements for an ACL).⁷ As can be seen in various sections of the FSEIS and License Condition 10.6, the Proposed Action's approach to groundwater restoration is to commit to restoring recovery zone groundwater to the standards in Criterion 5(B)(5), initially "Commission-approved background" or an MCL, whichever is higher.

Moreover, it is completely impractical and, bordering on impossible, for an ISR *license applicant* to assess the potential environmental impacts of an ACL on a constituent-specific basis, because the license applicant is not permitted to establish "Commission-approved background" until after its requested license is issued and the wellfield has been in operation with operational data collection and analysis *and restoration has been attempted*. There is no practical way for an ISR *license applicant* to accommodate what Intervenor are requesting and

⁷ See FSEIS at Appendix B1, page B-176 for the nineteen (19) subjects that must be addressed in an application for an ACL.

what the Licensing Board seems to indicate may be necessary, because pre-operational “baseline” water data is not truly conclusive as to the actual groundwater quality conditions in the entire or portions of the recovery zone wellfield and outside and above and below where the wellfield’s monitor well system will be installed. Only post-license issuance can this type of data be gathered and this type of requested analysis be performed. Additionally, as a practical matter, even after “Commission-approved background” is established for a given wellfield, analysis of potential ACLs would be nothing more than mere speculation since water quality and geochemical conditions can differ significantly between wellfields and even portions of wellfields. In other words, to the extent necessary *after restoration efforts are approaching completion*, ACL proposals are developed as site-specific, constituent-specific, risk-based standards and which only can be determined after the licensee has depleted the specific wellfield and attempted to complete restoration either to “Commission-approved background’ or an MCL, whichever is higher, or to an ACL that is ALARA. Only then can an adequate ACL application be developed. Thus, Strata believes that Contention 2 rests on a legally impermissible foundation⁸ and is outside the scope of this proceeding, which is the Proposed Action identified in the FSEIS and not an ACL which carries its own independent legal and regulatory analysis post-restoration if deemed appropriate.

Again, as is the case with Contention 1, Contention 2 and Intervenor’s experts continue to offer statements that are incorrect. For example, Paragraph 32 of the Joint Declaration states that the NuBeth restoration was unsuccessful after eight (8) months and that this indicates that restoration of wellfields at the proposed Ross ISR project will not be successful. This statement

⁸ Indeed, the Licensing Board’s opinion (LBP-13-10) which suggests that this type of analysis is required pre-license issuance represents an impermissible modification of NRC regulatory requirements set forth in 10 CFR Part 40, Appendix A, Criterion 5(B)(5). If a litigant is not allowed to collaterally attack a Commission requirement, neither can the Licensing Board.

is patently false as both NRC and the State of Wyoming concluded that the NuBeth restoration was completed and Strata's data post-restoration confirms this fact. Further, Figure 2-6 of the FSEIS indicates 3.5 years for this restoration at Ross and not the 8 months referenced by Intervenor's experts. Another example is an alleged showing in Paragraph 33's Table that there is insufficient information to conclude that restoration for uranium was successful over time. This statement is refuted by additional information presented in the NuBeth report (ML13274A287) which shows that uranium concentrations continued to trend downward following the 1979 sampling results from the identified wells. These inaccuracies, as well as several others, cast substantial doubt on the competence and accuracy of Intervenor's experts and, accordingly, the viability of Contention 2 based on the administrative record currently before the Licensing Board.

C. Contention 3 Migration and Amendment: The FSEIS Fails to Include Adequate Hydrological Information to Demonstrate Strata's Ability to Contain Groundwater Fluid Migration

Intervenor's Contention 3 or the allegation that Strata's license application and, now, the FSEIS does not include adequate information to demonstrate that Strata will be able to prevent recovery solution migration during licensed operations should not be permitted to migrate to the FSEIS and should not be amended. *See* Intervenor's Brief at 13. Intervenor's state in Footnote 7 that the proffered Contention 3 is essentially identical to the same Contention 3 offered on the DSEIS with the addition of a citation to 10 CFR § 51.90-95. *Id.* at Footnote 7. Specifically, Intervenor's point to two (2) separate issues of concern including failure to analyze potential impacts from unplugged historic exploratory boreholes and alleged inadequacy of test wells and pump tests to demonstrate the ability to control groundwater during licensed operations. *Id.* at 13. Intervenor's also attempt to amend Contention 3 by alleging that the FSEIS' conclusions that

the issue of unplugged historic exploratory boreholes will not be an issue due to normal ISR processes are incorrect and that it is deficient in its explanation of how recovery fluids will be contained during licensed operations. *Id.* at 27-29.

Contention 3 is rife with inaccurate statements and misguided conclusions and fails to show that the migration of this contention to the FSEIS or an amendment of this contention should be allowed. For example, Paragraph 48 of the Joint Declaration alleges that Strata should have used uranium as an excursion parameter and that NRC Staff failed to analyze and model subsurface geochemistry.⁹ Intervenors do not even attempt to justify uranium as an excursion parameter given industry history and experience and the practice of identifying the most mobile constituents in the recovery zone, so that the monitor well ring can properly serve as an “early warning” system for potential excursions. Intervenors also do not account for the fact that NUREG-1569 specifically states that uranium does not serve as an appropriate excursion parameter. NUREG-1569 at 5-41. Paragraph 51 alleges that proposed groundwater corrective actions for excursions “do not have credible scientific basis....” However, this allegation fails to address Strata’s TR Addendum 2.7-H demonstrating that adjusting pumping rates is effective in recapturing injectate in wellfield-scale modeling.

Paragraph 53 alleges that the FSEIS does not cite to NUREG-6870 entitled *Consideration of Geochemical Issues in Groundwater Restoration at Uranium In-Situ Leach Mining Facilities* which is patently false, because this document is cited in Section 5 of the FSEIS on the top of Page 5-30. Paragraph 55 states that Strata has not plugged any abandoned NuBeth boreholes

⁹ Intervenors’ Declaration of Larson in §§ 48-50 do not directly address Strata’s ability to contain fluid migration; but rather, they refer to subsurface groundwater geochemistry, which is a significant departure from hydraulics and fluid movement. This differs from Intervenors claims reflected in the Declarations of Moran, Sass, and Abitz which contain discussions regarding boreholes and aquifer isolation.

since October of 2010, which is also incorrect as the total number of NuBeth boreholes that exist are 1,483 and, as of May 9, 2013, 625 boreholes have been located and 86 have been plugged by Strata.¹⁰ This information was included as a response to a comment from Intervenor on the DSEIS.

Paragraph 61 alleges that there is a “higher probability” for groundwater contamination between the OZ and SM zones due to communication between them. This is false because pump tests discussed in Strata’s TR Addendum 2.7-F states, “[n]o effects from pumping were measured in any of the overlying SA or SM unit wells at the six well clusters.” This list of inaccuracies and false statements, along with many others, demonstrates that Intervenor has not justified migration of Contention 3. Lastly, Intervenor has not specifically identified any new or materially different information from the DSEIS warranting admission of this Contention as an amended contention. Without more, this Contention 3 should not migrate or be admitted as new to the FSEIS.

D. Contention 4 Migration and Amendment: The FSEIS Fails to Adequately Assess Cumulative Impacts of the Proposed Action and the Planned Lance District Expansion Project

Intervenor’s Contention 4 or the allegation that the FSEIS does not adequately assess the potential cumulative impacts associated with the proposed Ross ISR project *and* potential future, but not yet applied for at NRC, Lance District projects (i.e., satellite facilities) should not be admitted to this proceeding. Intervenor’s explicitly recognize that the Licensing Board “is unlikely to permit this contention to migrate to the FSEIS” and that this is submitted merely to “preserve this issue for further review.” Intervenor’s Brief at 16. Intervenor intimates that the

¹⁰ The NuBeth boreholes that were abandoned in accordance with State of Wyoming requirements, if not disturbed by subsequent surface soil disturbances, contain a metal plate at the surface which enables Strata to locate them with the assistance of a metal detector. *See* Strata Ross TR at 3-20.

Contention should be migrated to the FSEIS because “the information in the FSEIS is not sufficiently different to warrant an amended contention...” *Id.* at 17.

Strata agrees with Intervenorors that this Contention should not be permitted to migrate to the FSEIS, because Intervenorors offer no information demonstrating that the Contention should migrate despite the fact that it did not migrate to the DSEIS. Intervenorors continue to posit that NRC Staff has omitted a cumulative impact analysis, where both the DSEIS and the FSEIS provides cumulative impacts analyses on the reasonably foreseeable uranium recovery operations in the required analysis area. *See* FSEIS at 5-5-6 & Chapter 5. Further, Contention 4 also should not be amended as the information in the FSEIS is not new or materially different from the DSEIS. The cumulative impacts analysis in the FSEIS is basically identical to that offered in the DSEIS, and Intervenorors make no attempt to distinguish these two documents otherwise. Further, the only attempt Intervenorors make to identify new information is by claiming, once again, and in new Contention 5, that the cumulative impact analysis should evaluate potential future, but not yet applied for at NRC, Lance District satellite facilities. However, as stated above and beginning on Page 5-5 of the FSEIS, NRC Staff does address “reasonably foreseeable” potential future Lance District projects in its analysis. Thus, Strata asserts that this Contention should not migrate to the FSEIS or be amended.

E. New Contention 5: The FSEIS Fails to Properly Define the Proposed Action to Include Additional Potential Sites in the Lance District

Intervenorors Contention 5 or the allegation that NRC’s FSEIS does not adequately define the Proposed Action to include additional potential future, but not yet applied for at NRC, satellite facilities in the Lance District using the proposed Ross ISR project as the “toll milling” location was previously rejected by this Licensing Board in LBP-13-10. The Licensing Board

previously rejected Intervenor's claims that potential future satellite projects in the Lance District are economically tied to the proposed Ross ISR project and that all such projects, whether discussed in public press releases or not, should be included within the scope of the DSEIS' (and the FSEIS') Proposed Action. Here, Intervenor's attempt to re-introduce Contention 5 by claiming that the FSEIS analysis should have accounted for these potential future, yet unapplied for at NRC, satellite facilities in the Proposed Action because, as discussed by their affiant Christopher Paine, the proposed Ross ISR project is not a standalone ISR project with "independent utility."

Intervenor's claim that Strata would not invest "tens of millions of dollars to construct and operate a large ISL facility, only to shut it down and decommission it after 4-5 years." Intervenor's Brief at 34. Intervenor's also claim that the alleged "cumulative" and "similar" impacts of the proposed Ross ISR project and potential, future satellite projects should be considered in a single environmental impact statement (EIS), because these other "proposed actions" have "cumulatively significant impacts." *Id.* at 35. Further, Intervenor's claim that Strata's public disclosure of pre-production drilling updates renders potential, future satellite projects "reasonably foreseeable" enough to be included in a single EIS under 40 CFR § 1508.25(a)(2). *Id.* Finally, Intervenor's allege that the proposed Ross ISR project and potential future, yet unapplied for at NRC, satellite facilities have "similar" impacts that warrant evaluation in a single EIS. *Id.* at 36. As discussed in Strata's previous pleading on new/amended contentions for the DSEIS and in LBP-13-10, this new Contention 5 should not be admitted to this proceeding.

Initially, Intervenor's Contention 5 demonstrates a complete lack of understanding of NRC's regulatory process for individual licensing actions. As discussed in Strata's previous filing on new/amended contentions for the DSEIS, the Atomic Energy Act of 1954, as amended, (AEA) jurisdiction does not allow NRC to proactively advocate the development of nuclear materials, such as source material, by private companies or other entities. *See* 42 U.S.C. § 2014. Instead, the AEA merely allows NRC to *react* to license applications from private companies or entities and to evaluate the proposals offered in such license applications. Thus, the scope of NRC's site-specific technical and environmental reviews is strictly limited to the "four corners" of a license application. Regardless of whether or not an entity identifies additional properties that potentially may be viable for source material development, it is wholly and solely up to the entity possessing the rights to develop such properties as to whether they will seek a license to engage in AEA-licensed processes such as ISR and not NRC. This conclusion is further substantiated by NRC's response to comments in Appendix B of the FSEIS, where NRC Staff specifically notes that "[i]f the NRC approves the Ross Project license application, Strata would only be authorized to operate on the Ross Project site, so development of the wider area described by the commenter would not be a direct consequence of licensing the Ross Project." FSEIS, Appendix B at B-20.

NRC's regulatory program is solely concerned with the technical/safety and environmental aspects of the site-specific activities sought to be conducted under a requested license application. Other aspects of potential licensing actions such as the economic considerations of operating an ISR facility and producing source material uranium are not within the Commission's purview. *See e.g., In the Matter of International Uranium (USA) Corporation* (White Mesa Mill), CLI-00-01, 51 NRC 9 (February 10, 2000). NRC is not concerned with the

economic motives of its licensees such as whether they choose to produce source material uranium at prices higher than the commodity is worth on the open market. *Id.* Indeed, at least two current NRC licensees have obtained licensing permission to conduct full-scale ISR operations with a CPP and, due to economic forces, have decided to employ alternative production methodologies. Uranium One Americas received the first new ISR operating license with an FSEIS tiered off the GEIS for the Moore Ranch property and, instead, has deemed economic conditions not favorable enough to develop the property. Uranerz Energy Corp. received the second new ISR operating license with an FSEIS tiered off the GEIS for the Hank and Nichols Ranch properties and, instead of constructing the CPP, the company is producing source material uranium using satellite technology and has its loaded ion-exchange (IX) resin “toll milled.” However, NRC’s review of their license applications and subsequent regulation of these facilities does not address the economic aspects of the companies’ internal economic decisions; but rather, its focuses on the technical/safety and environmental aspects of the proposed operations.

In the instant case, Strata has submitted a license application for development of the proposed Ross ISR project, including construction and operation of a central processing plant (CPP) for the production of source material uranium in the form of yellowcake. Strata’s license application limits the scope of the requested licensing action to the development of the Ross project’s resources and does not include any other properties that it wishes to develop at this time in its NRC license application. However, as discussed in its response to ER RAI CI-1(B), Strata has identified additional satellite properties that could be considered “reasonably foreseeable” for purposes of a cumulative impacts analysis, which NRC Staff has conducted in the FSEIS. *See*

FSEIS at Chapter 5; *see also Biodiversity Conservation Alliance v. BLM*, Slip Op. at 10 (Dist. WY).

Whether or not Strata chooses to operate the proposed Ross ISR project as an independent ISR project with no other satellite properties generating source material uranium feed for the Ross CPP is not within the purview of NRC's regulatory authority. Further, given that Strata has identified the estimated project lifecycle and a resource that can be developed economically, it defies logic that the proposed Ross ISR project does not possess "independent utility." Indeed, Intervenor fails to note that the economic rationale for the proposed Ross ISR project is addressed in FSEIS, Chapter 7 entitled *Cost-Benefit Analysis*, where NRC Staff concludes, "the economic benefits of the Proposed Action would be greater than the associated costs." FSEIS at 7-8. Further, Strata reserves the right within the envelope of activities proposed in its license application to develop a commercially viable CPP in stages as economic circumstances warrant.

Intervenor's Contention 5 also fails to note that NRC's regulatory program specifically requires full technical/safety and environmental reviews, including cumulative impact analyses, on all site-specific license amendment applications for satellite ISR properties such as the properties referred to by Strata in its March 30, 2012 response to ER RAI CI-1(B). As per the discussion above, upon receipt of a site-specific license amendment application for a potential future satellite facility by Strata, NRC Staff will conduct a full technical/safety review resulting in production of an SER and a full environmental review resulting in production of an environmental assessment (EA) or SEIS, depending on the level of potential environmental impacts. *See United States Nuclear Regulatory Commission, NUREG-1748, Environmental*

Review Guidance for Licensing Actions Associated with NMSS Programs (August, 2003). Any such license amendment application and its NRC review will result in an evaluation of potential technical/safety and environmental impacts in light of the then-currently licensed operations at the proposed Ross ISR project and the potential impacts from shipment of resins from these satellites to the Ross CPP, including transportation and worker safety. Further, each license amendment application for satellite properties will be subject to a notice of opportunity for a hearing wherein potential intervenors can raise any concerns they may have in the context of that proposed licensed operation. Despite Intervenors' consistent reference to CEQ regulations, these references ignore the scope of NRC's AEA authority and ask the Licensing Board to turn NRC's regulatory process "on its head" and impermissibly expand NRC's regulatory authority over technical/safety and environmental reviews beyond what is *proposed* by the license applicant. See FSEIS, Appendix B at B-20. Thus, Contention 5 should not be admitted as it is an attempt to impermissibly alter and expand NRC's AEA authority and its established regulatory processes as reflected in its regulations, guidance, and adjudicatory decisions.

Intervenors' Contention 5 and the Christopher Paine declaration also are rife with inaccuracies and omissions that cannot support admission of this Contention. The following examples, while not exhaustive, are illustrative of these inaccuracies and omissions. First, the reference to a March 27, 2014 "Mines and Money" conference in Hong Kong regarding the potential scope of ISR operations in the United States fails to account for the *standard disclaimer* used by Strata with such presentations that company operations and resource development are dependent on business and international market conditions at the time development decisions are made. This disclaimer also applies to Paragraph 45 in the Paine declaration where the affiant states that Strata has "definite plans" to develop additional properties and their uranium

resources in the future. As stated in the aforementioned disclaimer, all such decisions are currently contingent upon business and international market conditions, thereby rendering Mr. Paine's statements inaccurate and/or misguided.

It is also worth noting on this point that all but one of Intervenors' references, the aforementioned March 27, 2014 *Mines and Money* presentation, were released in 2013. Each of these references was issued well past the mandatory 30 day timeframe for which to file a contention. Further, Intervenors make no attempt to show how the information contained in the 2014 reference is new or materially different to warrant admission of Contention 5. Thus, Contention 5 should be rejected for failure to satisfy Part 2.309(c)(2) requirements for new contentions.

Second, the Paine Declaration alleges that the FSEIS' inclusion of Figure 2.6 regarding potential schedule for Lance District development demonstrates that potential future, but not yet applied for at NRC, satellite facilities are included as "co-equal components" in Strata's schedule. But, this Declaration does not address the note included in the FSEIS under this figure which, in pertinent part, states that these potential future, but not yet applied for at NRC, satellite properties can be considered a "reasonably foreseeable development scenario," that will be contingent on a number of factors including exploration drilling, pre-licensing efforts, and site characterization studies. *See* FSEIS at 2-8. The failure to account for this figure demonstrates that the substance of the Paine Declaration cannot serve as grounds for admission of Contention 5.

In addition, as stated previously, ER RAI CI-1(B) provided a potential schedule for submission of license amendment applications for each of the potential future satellite or

expansion projects. Indeed, this description included each of the potential future projects referenced by the Council in Contention 6. This information was made publicly available to the Council with the submission of Strata's RAI responses dated March 30, 2012, well before the FSEIS's issuance. Thus, Contention 5 should be rejected as untimely under 10 CFR § 2.309(c)(2)(iii) and for the Council's inability to identify new or materially different information in the record upon which to base this Contention. *See* 10 CFR § 2.309(c)(2)(ii).

F. New Contention 6: The FSEIS Should Be an Environmental Impact Statement Tiered from the GEIS (NUREG-1910)

Intervenors' Contention 6 or the allegation that the FSEIS analyses of the proposed Ross ISR project should have been included in a full EIS tiered off of the ISR GEIS (NUREG-1910) should not be admitted to this proceeding for multiple reasons. Intervenors allege that NRC Staff should have engaged in a full EIS process, with full scoping, rather than prepare a supplement to the GEIS relying on the scoping from the GEIS development process. Intervenors Brief at 40. Intervenors also rely on an NRC Inspector General (IG) report¹¹ and its statements regarding NRC's licensing process for nuclear power reactors where full site-specific EISs are prepared to tier off the existing GEIS for such facilities. *Id.* at 41. Essentially, Intervenors' Contention 6 alleges that the FSEIS was prepared in error because it did not take the form of an EIS with full scoping. *Id.* Contention 6 should not be admitted to this proceeding.

Initially, Contention 6 should not be admitted to this proceeding as untimely filed. In one instance, the filing of this contention is untimely because Intervenors' claim that the IG's report

¹¹ United States Nuclear Regulatory Commission, Office of Inspector General, OIG-13-A-20, *Audit of NRC's Compliance With 10 CFR Part 51 Relative to Environmental Impact Statements* (August 20, 2013) (hereinafter "IG Report").

“for the first time provided Intervenor with evidence to present a substantial question on this issue to the Board.” Intervenor’s Brief at 43. If this is the case, Contention 6 should have been raised no more than thirty (30) days after such report was made publicly available or 30 days after August 20, 2013. On the other hand, the underlying facts in the IG’s report or, as Intervenor claim, the inadequacy of preparing site-specific SEISs for new ISR projects such as Ross, was publicly available in the ISR GEIS in May of 2009 and the initial hearing request published on November 16, 2011.¹² Thus, on this issue, Contention 6 does not meet the timeliness standards for a new contention and should be rejected.

Contention 6’s supporting argument and the Paine Declaration make numerous statements regarding the need for a scoping process for the proposed Ross ISR project’s environmental review, none of which adequately support admission of Contention 6 to this proceeding. First, every argument rendered by Intervenor and statements from Mr. Paine fail to account for the fact that, the Commission has delegated the authority to NRC Staff to evaluate specific license applications and to analyze the potential impacts associated with such applications in accordance with NRC regulations, not the IG’s office. While the IG’s office is permitted to review NRC Staff’s process in evaluating and granting proposed licensing actions, it is not empowered to interpret and implement the Commission’s regulations; but rather, NRC Staff is empowered to this end. *Id.* Thus, the IG report cited by Intervenor is nothing more than a cursory evaluation of NRC’s regulatory program, which it is not empowered to interpret, and it is apparent from a review of their comments that the IG’s Staff is not at all familiar with the substance of such regulations and the practicalities of Part 51 environmental reviews, as well as the significant opportunities for public involvement throughout NRC’s regulatory program.

¹² IG Report at 22.

Therefore, Intervenor's apparent reliance on this report is insufficient to warrant admission of Contention 6.

Further, as the entity empowered to interpret and implement the Commission regulations for uranium recovery and environmental reviews, NRC Staff vehemently disputed the findings of the IG's office in Appendix D to that report. With specific respect to the use of SEISs without full EIS-level scoping, NRC Staff states that the IG report incorrectly characterizes the five (5) SEISs produced for new ISR operating licenses as stand-alone EISs and that, "Table 5 incorrectly implies that for the six applications reviewed, there was no opportunity for broad public comment. In fact, the public had significant opportunities to provide comments on each of the draft SEISs, as well as the Generic EIS that provides the analytical foundation for each of the SEISs." IG Report, Appendix D at 2. Further, as stated by NRC Staff, "there is no requirement in 10 CFR Part 51 to conduct a scoping process for a SEIS, specifically, 10 CFR § 51.92(d) provides that the NRC staff need not conduct scoping when a supplement to an EIS is prepared." *Id.* As can be seen from NRC Staff's detailed comments on the draft IG report, both the IG's office and Intervenor's incorrectly rely on a misinterpretation of what constitutes an SEIS under 10 CFR Part 51 and, as such, mistakenly conclude that NRC Staff should have conducted a full EIS process with scoping. Intervenor makes no attempt to contradict NRC Staff's comments on this report and, thus, Contention 6 should not be admitted to this proceeding.

It is also worth noting that both the IG's and Intervenor's apparent reliance on the process employed by NRC Staff in evaluating nuclear power reactor applications ignores the fundamental difference in risk levels associated with such reactors versus those associated with

ISR operations. Nuclear power reactors and their potential technical/safety-related and environmental impacts have risk levels that totally dwarf those associated with ISR operations. To attempt to equate the level of environmental analysis associated with an ISR project to that of a new nuclear power reactor facility is to engage in an analysis of absurdities. As the Commission, by policy, is a risk-informed agency, it is not appropriate to compare environmental analyses and their processes for nuclear power reactors to that of ISR operations.

V. CONCLUSION

For the reasons discussed above, Strata respectfully submits that Intervenor's previously admitted contentions should not migrate to the FSEIS and should not be amended as requested. Further, Strata respectfully requests that the Licensing Board reject Intervenor's proffered new Contentions 5 and 6 for failure to satisfy the requirements of 10 CFR Part 2.309(c)(2).

Respectfully submitted,

**/Signed (electronically) by/
Christopher S. Pugsley, Esq.**

Anthony J. Thompson, Esq.
Christopher S. Pugsley, Esq.
Thompson & Pugsley, PLLC
1225 19th Street, NW
Suite 300
Washington, DC 20036
COUNSEL TO STRATA

Dated: April 23, 2014

