

July 3, 2014

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
STRATA ENERGY INC.)	Docket No. 40-9091-MLA
)	
(Ross <i>In Situ</i> Uranium Recovery)	ASLBP No. 12-915-01-MLA
Site))	

NRC STAFF ANSWER TO NATURAL RESOURCES DEFENSE COUNCIL'S AND
POWDER RIVER BASIN RESOURCE COUNCIL'S
MOTION FOR SUMMARY DISPOSITION ON CONTENTION 1

INTRODUCTION

Pursuant to 10 C.F.R. § 2.1205, and the Atomic Safety and Licensing Board's (Board's) Order Granting Requests to Revise Dispositive Motion Briefing Schedule; Revised General Schedule, dated June 2, 2014, the staff of the U.S. Nuclear Regulatory Commission (Staff) responds to the Natural Resources Defense Council's (NRDC's) and Powder River Basin Resource Council's (PRBRC's) (collectively Joint Intervenors' or Intervenors') Motion for Summary Disposition on Environmental Contention 1. As set forth more fully below, the Staff opposes the Intervenors' Motion because the Motion is grounded in a misunderstanding of applicable law, NRC regulations and regulatory guidance, and applicable case law. For these reasons, in accordance with 10 C.F.R. §§ 2.1205(c) and 2.710(d)(2), the Staff respectfully submits that Joint Intervenors' Motion should be denied.

BACKGROUND

I. Procedural History

On January 4, 2011, Strata submitted an application for a combined NRC source and 11e.(2) byproduct material license.¹ As detailed in the Staff's Response to Joint Petitioners' initial hearing request, Strata's license would involve the construction and operation of an *in situ* uranium recovery and processing facility (ISR) in Crook County, Wyoming.² Along with its application for an NRC license, Strata submitted a Technical Report (TR) supporting its application and an Environmental Report (ER) addressing its proposed facility's impact on the environment. The ER, which is required by NRC regulations in 10 C.F.R. Part 51, helps inform the Staff's independent review of a license application and thereby helps the Staff meet the requirements of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4321 *et seq.*³

On October 27, 2011 the Intervenors filed a petition to intervene and request for a hearing wherein they proffered five contentions, characterized by the Board as "environmental/NEPA" contentions.⁴ The Board admitted four contentions, as reformulated by the Board in its February 10, 2012 order.⁵ The contentions admitted by the Board challenged

¹ Letter from Strata Energy, Inc. Submitting Combined Source and 11e.(2) Byproduct Material License Application Requesting Authorization to Construct and Operate Proposed Ross In Situ Leach Uranium Recovery Project Site (Jan. 4, 2011) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML110120055). The Application's supporting documentation can be found in ADAMS by searching under Docket No. 04009091.

² See NRC Staff Response to Petition to Intervene and Request for Hearing by the Natural Resources Defense Council & Powder River Basin Resource Council (Dec. 5, 2011), at 1-2.

³ Subsequent to Strata's submission of its ER in 2011, Strata provided additional information relevant to the Staff's NEPA review. In March 2012, Strata submitted responses to the Staff's requests for additional information (RAIs) pertaining to the ER. Letter from Mal James, Strata Energy, Inc., to John Saxton, NRC (Mar. 30, 2012) (ADAMS Accession No. ML121030406).

⁴ Petition to Intervene and Request for Hearing by the Natural Resources Defense Council & Powder River Basin Resource Council (Oct. 27, 2011) (Intervention Petition); *Strata Energy, Inc.* (Ross In Situ Uranium Recovery Project), LBP-12-3, 75 NRC 164, 192 (2012).

⁵ *Strata Energy, Inc.*, LBP-12-3, 75 NRC at 210, 212.

the application's characterization of baseline groundwater quality (Environmental Contention 1); its analysis of environmental impacts that will occur if the Applicant cannot restore groundwater to primary or secondary limits (Environmental Contention 2); the adequacy of the hydrological information used to demonstrate the Applicant's ability to contain groundwater fluid migration (Environmental Contention 3); and the adequacy of the application's assessment of cumulative impacts of the proposed action and the planned Lance District expansion projects (Environmental Contention 4/5A).⁶

On March 21, 2013, the Staff issued a DSEIS for public comment.⁷ The DSEIS addressed environmental impacts related to the construction of the Ross facility and ISR operations at the site, as well as impacts from the restoration of aquifers used during ISR operations and decommissioning of the site. After issuance of the DSEIS, the Intervenor sought to update or amend their admitted contentions to apply to the Staff's DSEIS and to add a new environmental contention.⁸ Resubmitted Contentions 1 through 4/5A addressed the same issues as the contentions previously admitted in this hearing – baseline groundwater quality, restoration of groundwater quality, fluid migration, and cumulative impacts – while new Contention 5 raised the new claim that the DSEIS improperly segmented the scope of the proposed federal action, which led to a failure to consider the environmental impacts of, and appropriate alternatives to, the Applicant's actual proposed project.

On July 26, 2013, the Board admitted "resubmitted" Contentions 1 through 3, finding that these contentions challenged information in the DSEIS that was sufficiently similar to

⁶ *Id.*

⁷ *Supplemental Environmental Impact Statement for the Ross In-Situ Uranium Recovery Project in Crook County, Wyoming*, 78 Fed. Reg. 19,330 (Mar. 29, 2013).

⁸ 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 (May 6, 2013), at 1.

information in Strata's ER.⁹ In so doing, the Board found that the contentions "migrated" from the ER to the DSEIS.¹⁰ The Board declined to migrate admitted Contention 4/5A to the DSEIS, leaving it admitted as against the ER, and rejected the Intervenor's remaining contention.¹¹

On February 28, 2014, the Staff issued the FSEIS for the Ross Project.¹² The FSEIS updated the information in the DSEIS and the Staff's analysis of environmental impacts. The FSEIS also added a new Appendix B, which presented public comments on the DSEIS and the Staff's responses to the comments. On March 31, 2014 the Intervenor filed a motion wherein the Intervenor sought to migrate their admitted contentions to the Staff's FSEIS or, in the alternative, to amend their admitted contentions to apply to the FSEIS.¹³ The Intervenor also sought admission of two new environmental contentions. On May 23, 2014, the Board issued an order allowing Contentions 1 and 3 to migrate from the DSEIS to the FSEIS, transforming the contentions into FSEIS-related contentions.¹⁴ The Board also admitted Contention 2 as an amended contention challenging the FSEIS.¹⁵ The Board declined to migrate admitted

⁹ *Strata Energy, Inc.* (Ross In Situ Uranium Recovery Project), LBP-13-10, 78 NRC ___, ___ (2013) (slip op.).

¹⁰ *Id.* at ___ (slip op. at 13, 15, 17).

¹¹ *Id.* at ___ (slip op. at 20).

¹² *Final Supplemental Environmental Impact Statement; Issuance – Proposed Ross Project in Crook County Wyoming for In-Situ Leach Uranium Milling Facilities*, 79 Fed. Reg. 13,683 (Mar. 11, 2014). The FSEIS is Supplement 5 to NUREG-1910 (ADAMS Accession No. ML14056A096).

¹³ Natural Resources Defense Council's & Powder River Basin Resource Council's Joint Motion to Migrate or Amend Contentions, and to Admit New Contentions in Response to Staff's Final Supplemental Environmental Impact Statement, at 1 (Mar. 31, 2014).

¹⁴ Order (Ruling on Motion to Migrate/Amend Existing Contentions and Admit New Contentions Regarding Final Supplement to Generic Environmental Impact Statement) (May 23, 2014) (unpublished) (ADAMS Accession No. ML14143A184) ("May 23, 2014 Order").

¹⁵ *Id.* at 2.

Contention 4/5A to the FSEIS or to admit it as an amended contention, thereby leaving it admitted as against the ER. Finally, the Board rejected the Intervenor's two new contentions.¹⁶

On June 13, 2014, the parties each filed a separate motion for summary disposition of certain admitted contentions. The Staff and Strata each requested that the Board grant summary disposition of Contention 4/5A, and the Joint Intervenor's requested summary disposition of Contention 1.¹⁷ The Staff responds now to the Joint Intervenor's request.

II. The Issues in Dispute

To determine whether there is a genuine issue of material fact, the finder of fact must determine what issues are in dispute. Under NRC practice, the issues in dispute are determined by the scope of the admitted contention.¹⁸ The scope of a contention is defined both by its terms and its bases.¹⁹

Contention 1, as admitted by the Board, is as follows:

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

CONTENTION: The FSEIS fails to comply with 10 C.F.R. §§ 51.90-94, 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 FSEIS'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).

¹⁶ *Id.*

¹⁷ See NRC Staff's Motion for Summary Disposition of Contention 4/5A (Jun. 13, 2014); Licensee Strata Energy, Inc.'s Motion for Summary Disposition (Jun. 13, 2014); Natural Resources Defense Council's & Powder River Basin Resource Council's Motion for Summary Disposition on Environmental Contention 1 (Jun. 13, 2014).

¹⁸ See *Entergy Nuclear Generation Company and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 308-09 (2010).

¹⁹ *Id.* at 309.

Contention 1 is supported by declarations filed on behalf of the Joint Intervenors by Drs. Abitz, Moran, Sass, and Larson.²⁰

When the Board admitted Contention 1 in the first instance, it framed the question presented by the contention as whether NRC regulations and NEPA require a groundwater baseline characterization for an ISR site.²¹ Referring to a recent Board decision in *Dewey-Burdock*, the Board focused at length on the specific question of whether Strata was required under 10 C.F.R. § 51.45 to establish baseline groundwater quality information for the Ross Project prior to receiving its license, or whether Strata was even in fact precluded from obtaining this information prior to the issuance of its license, per the terms of 10 C.F.R. § 40.32(e).²² The Board alluded specifically to the parties' arguments concerning the dictates and applicability of 10 C.F.R. § 40.32(e), 10 C.F.R. Part 40, Appendix A, Criteria 5B(5)(a) and 7, and NUREG-1569, and found that Contention 1 raised a factual dispute regarding the adequacy of the baseline water quality description in Strata's ER.²³

In a July 2013 order, the Board found that Contention 1 was eligible for migration to the Staff's DSEIS, as the Staff's DSEIS maintained "the central analytical deficiency" alleged by the Intervenors to exist in Strata's ER.²⁴ As characterized by the Board in its subsequent migration of Contention 1 to the Staff's FSEIS, that "central analytical deficiency" is the fact that Strata and the Staff "improperly intend to postpone until after licensing collecting the information that could meet 10 C.F.R. Part 40, App. A, Criterion 5B(5)(a) and Criterion 7 standards on 'background' groundwater constituents and 'complete baseline data' for an ISR site, as those are to be

²⁰ NRC Staff Response to Natural Resources Defense Council's and Powder River Basin Resource Council's Joint Motion to Migrate or Amend Contentions, and to Admit New Contentions in Response to Staff's Final Supplemental Draft Environmental Impact Statement (Apr. 14, 2014), at 7 n.5.

²¹ *Strata Energy, Inc.*, LBP-12-3, 75 NRC at 193.

²² *Id.* at 193-95.

²³ *Id.* at 194.

²⁴ *Strata Energy, Inc.*, LBP-13-10, 78 NRC at ___ (slip op. at 13).

implemented pursuant to the [S]taff's NUREG-1569 guidance to applicants to provide '[r]easonably comprehensive water sampling data shown to be collected by acceptable sampling procedures.'"²⁵

LEGAL STANDARDS

I. Legal Standards Governing Motions for Summary Disposition

The standards for summary disposition under 10 C.F.R. § 2.1205 are set forth under 10 C.F.R. § 2.710(d)(2).²⁶ A party is entitled to summary disposition as to all or any part of the matters involved in the proceeding "if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law."²⁷ "The standards are based upon those the federal courts apply to motions for summary judgment under Rule 56 of the Federal Rules of Civil Procedure."²⁸ A party that opposes a motion for summary disposition "may not rest upon [] mere allegations or denials," but must state "specific facts showing that there is a genuine issue of fact" for hearing.²⁹ There cannot merely be the existence of "some alleged factual dispute between the parties," for "the requirement is that there be no genuine issue of material fact."³⁰ "Only disputes over facts that might affect the outcome' of a proceeding would preclude summary disposition."³¹

²⁵ May 23, 2014 Order at 5 (some internal quotations omitted).

²⁶ 10 C.F.R. § 2.1205(c) ("In ruling on motions for summary disposition, the presiding officer shall apply the standards for summary disposition set forth in subpart G of this part").

²⁷ 10 C.F.R. § 2.710(d)(2).

²⁸ *Pilgrim*, CLI-10-11, 71 NRC at 297 (citing *Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993)).

²⁹ *Id.* (citing 10 C.F.R. § 2.710(b)).

³⁰ *Id.* (quoting *Anderson v. Liberty Lobby*, 477 U.S. 242, 247-48 (1986) (emphasis in original)).

³¹ *Id.*

The ruling on a summary disposition motion, however, should not be a “trial on affidavits.”³² At the summary disposition stage, “the judge's function is not himself to weigh the evidence and determine the truth of the matter but to determine whether there is a genuine issue for [hearing].”³³ “The evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in his favor.”³⁴ If “reasonable minds could differ as to the import of the evidence,” summary disposition is inappropriate.³⁵

II. Legal Standards Applicable to Applicant’s Duty to Supply Groundwater Information

Every applicant for a license to possess and use source material in conjunction with uranium or thorium milling, or byproduct material at sites formerly associated with such milling, must submit an environmental report that complies with the requirements of 10 C.F.R. § 51.45. 10 C.F.R. § 51.45 requires, in part, that the environmental report contain a description of the affected environment. The environmental report should contain sufficient data to aid the Commission in its development of an independent analysis.

Every applicant for such a license is also required by the provisions of 10 C.F.R. § 40.31(h) to include in a license application proposed specifications relating to milling operations and the disposition of tailings or wastes resulting from such milling activities. 10 C.F.R. Part 40, Appendix A, *Introduction*. Appendix A sets forth, among other things, the technical criteria for applicants and licensees relating to the siting, operation, decontamination, decommissioning, and reclamation of mills and tailings or waste systems and sites at which such mills and

³² *Id.*

³³ *Id.* (quoting *Anderson*, 477 U.S. at 249).

³⁴ *Id.*

³⁵ *Id.* at 297-98.

systems are located. *Id.* Although the Appendix A criteria were developed for conventional uranium milling facilities, they have since been applied in limited fashion to ISR facilities.³⁶

Appendix A requires applicants and licensees to provide two types of water quality information to the Commission: (1) “baseline” water quality information that describes the existing groundwater conditions at an ISR site, collected at least one year prior to the commencement of any major site construction (Criterion 7); and (2) water quality information collected prior to the commencement of operations that is used to set the “Commission approved background concentration” of constituents in the groundwater, and which is used only to detect lixiviant excursions and to establish standards for aquifer restoration after uranium recovery is complete (Criterion 5B(5)).

A. Site-Characterization Groundwater Information

Criterion 7 of 10 C.F.R. Part 40, Appendix A, requires the licensee to establish two groundwater monitoring programs, the first of which consists of a preoperational monitoring program that is used to provide “complete baseline data” on the milling site and its environs. Criterion 7 states, “At least one full year prior to any major site construction, a preoperational monitoring program must be conducted to provide complete baseline data on a milling site and its environs.” The Staff expects the license application to characterize the baseline of the proposed license area groundwater in accordance with NUREG-1569, Section 2.7, or to submit procedures to characterize this information prior to major site construction, in accordance with Criterion 7 and Regulatory Guide 4.14.³⁷ 10 C.F.R. 51.45(b) also requires the applicant to submit site-characterization groundwater quality information to inform the Staff’s review of the

³⁶ *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3, 8-9 (1999) (“While, as a general matter, Part 40 applies to ISL mining, some of the specific requirements in Part 40, such as many of those found in Appendix A, address hazards posed only by conventional uranium milling operations, and do not carry over to ISL mining”) (internal reference omitted).

³⁷ Affidavit of John L. Saxton Concerning Joint Intervenors’ Motion for Summary Disposition of Contention 1 (Jul. 3, 2014), at ¶ 4 (“Saxton Affidavit”).

environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects. In the Staff's FSEIS, the information submitted by Strata in satisfaction of 10 C.F.R. 51.45(b) and Criterion 7 is referred to as "pre-licensing, site characterization" groundwater information, to clarify that it is distinct from the set of water quality information that Strata will be required to provide after issuance of its license, but prior to commencement of operations, in accordance with Appendix A, Criterion 5B(5).³⁸

B. Post-Licensing, Pre-Operational Groundwater Information

Criterion 5B(5) of 10 C.F.R. Part 40, Appendix A, requires that at the point of compliance³⁹ the concentration of a hazardous constituent must not exceed (a) the Commission approved background concentration of that constituent in the groundwater, the respective value; (b) the respective value given in the table in paragraph 5C of Appendix A if the constituent is listed in the table and if the background level of the constituent is below the value listed; or (c) an alternate concentration limit established by the Commission. The background concentration of the constituent is developed pursuant to conditions imposed by the NRC in the licensee's source and byproduct material license. The license issued to Strata by the NRC reflects this requirement in Condition No. 11.3, which requires the licensee to establish background water quality data for the ore zone, overlying and underlying aquifers prior to injection of lixiviant in a wellfield. License Condition No. 11.3 sets forth specific standards and criteria for obtaining information that will satisfy the requirements of Criterion 5B5(a).

³⁸ See FSEIS at 2-25-2-26.

³⁹ The "point of compliance" is the site specific location in the uppermost aquifer where the ground-water protection standard must be met. 10 C.F.R. Part 40, Appendix A, *Introduction*.

III. Legal Standards under NEPA

The National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321 *et seq.*, requires federal agencies, including the NRC, to take a hard look at the environmental impacts of their actions. This standard is, however, subject to a “rule of reason.” Under NEPA’s rule of reason, the Staff need not address every environmental effect that could potentially result from the proposed action.⁴⁰ Rather, the Staff need only provide “[a] reasonably thorough discussion of the significant aspects of the probable environmental consequences[.]”⁴¹ The Commission has stated that “there is no NEPA requirement to use the best scientific methodology, and NEPA ‘should be construed in light of reason if it is not to demand’ virtually infinite study and resources.”⁴² The Commission has cautioned that “[o]ur boards do not sit to ‘flyspeck’ environmental documents or to add details or nuances. If the [EIS] on its face ‘comes to grips with all important considerations’ nothing more need be done.”⁴³

The Commission follows federal circuit court precedent in limiting the scope of the Staff’s NEPA review. “NEPA does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts.”⁴⁴ The proper inquiry is not whether an effect is “theoretically possible,” but whether it is “reasonably probable that the situation will obtain.”⁴⁵ The Staff “need not address every impact that could possibly result, but rather only those that are reasonably

⁴⁰ *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)).

⁴¹ *Trout Unlimited v. Morton*, 509 F.2d 1276, 1283 (9th Cir. 1974); *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1026-27 (9th Cir. 1980).

⁴² *Pilgrim*, CLI-10-11, 71 NRC at 315.

⁴³ *Exelon Generation Co, LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 811 (2005) (citing *Systems Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005) (footnote omitted)).

⁴⁴ *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005) (emphasis in original).

⁴⁵ *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 49 (1978).

foreseeable or have some likelihood of occurring.”⁴⁶ As the Commission has emphasized, “[a]n environmental impact statement is not intended to be ‘a research document.’”⁴⁷ NEPA does not require the Staff to analyze every conceivable aspect of proposed project.⁴⁸ Although the Staff can always gather more data in a particular area, it “must have some discretion to draw the line and move forward with decisionmaking.”⁴⁹

DISCUSSION

In their motion, the Intervenors seek summary disposition of Contention 1 on the grounds that no genuine issue of material fact exists and the Intervenors are entitled to a decision as a matter of law. Motion at 8. However, the Intervenors’ argument in support of their motion is premised on a misunderstanding of the applicable law, and moreover raises issues that signal the existence of a genuine dispute on a material issue of fact. Therefore, the Board should deny the Intervenors’ motion for summary disposition of Contention 1.

The Intervenors state that NEPA, regulations promulgated by the Council on Environmental Quality (CEQ), and regulations promulgated by the NRC require the Staff “to collect robust baseline water quality information, and establish baseline water quality levels, during the NEPA process and before issuance of an ISR license.” Motion at 8, 9. The Intervenors claim that the Staff does not dispute that it has “neither . . . collected the groundwater quality information necessary to establish baselines, nor . . . set such baselines.” Motion at 8 (emphasis omitted). In support of their claim that the Staff’s environmental review has failed to comply with these authorities, the Intervenors point to general regulatory

⁴⁶ *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-09-07, 69 NRC 613, 631 (2009).

⁴⁷ *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-22, 72 NRC 202, 208 (2010) (citing *Town of Winthrop v. FAA*, 533 F.3d 1, 13 (1st Cir. 2008)).

⁴⁸ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 349 (2002).

⁴⁹ *Id.* at 315.

requirements for an adequate assessment of environmental impacts, the Part 40, Appendix A criteria that applicants/licensees must meet, and NUREG-1569, the Staff's Standard Review Plan for *In Situ* leach uranium recovery facility applications. Motion at 9-11. Joint Intervenors argue that because the "necessary water quality data will be collected *after* the license is issued," Motion at 8, the Staff's environmental review was inadequate as a matter of law. This argument, however, is premised on a fundamental misunderstanding of the applicable requirements.

Joint Intervenors repeatedly state that the Staff failed to collect and analyze "baseline" groundwater quality information in the Ross SEIS, intending instead to defer collection of necessary information until after the license has been issued. See, e.g., Motion at 8, 17, 18. However, the Intervenors' use of the term "baseline" broadly, and inaccurately, encompasses two different types of groundwater quality information that are collected and used for two different purposes. As described in the section above, there are generally two different types of groundwater quality information that an ISR applicant/licensee must provide to the NRC – (1) "pre-licensing, site-characterization," or "baseline," groundwater quality information, and (2) "post-licensing, pre-operational," or "background," groundwater quality information. The first set of information is required to be provided prior to issuance of the license and must be analyzed in the Staff's SEIS. The latter is not required at this stage, and has limited relevance for the Staff's assessment, under NEPA, of conditions at the Ross Project site.

The pre-licensing, site-characterization "baseline" water quality information gathered by an applicant is used to describe existing groundwater conditions at an ISR site. This information must be submitted to the NRC under 10 C.F.R. § 51.45(b), which requires that the applicant submit an Environmental Report that describes the affected environment. This information must also be submitted under Criterion 7 in Appendix A of 10 C.F.R. Part 40, which states that an ISR applicant must conduct preoperational monitoring for at least one year prior to major site construction. The Staff agrees with the Intervenors that under Part 51, baseline site-

characterization groundwater information must be collected and analyzed in the SEIS prior to issuance of a license. This information is in fact analyzed in Section 3.5.3.3 of the SEIS.

By contrast, post-licensing, preoperational background water quality information is gathered to establish the water quality standards in designated regulatory compliance monitoring wells used to detect lixiviant excursions and to establish standards for aquifer restoration after uranium recovery is complete. These monitoring wells are used by a licensee to generate background data before operations in a wellfield begin, as required under Criterion 5B(5) in Appendix A. The post-licensing, pre-operational background information is not used to characterize the ISR environment generally, but rather to establish specific standards for aquifer restoration once activities in the wellfield have ceased. In short, the post-licensing, pre-operational background information a licensee must provide under Criterion 5B(5) is *monitoring data*, not “baseline” groundwater information.

Furthermore, there is no statutory or regulatory requirement that the applicant submit this type of data prior to issuance of its license, or that the SEIS consider this type of monitoring data. Rather, the SEIS describes the process by which the monitoring data will be obtained, in order to explain the process of ISR operation (in SEIS Section 2), and describes how this data will be used to detect excursions and to support aquifer restoration, in order to analyze the environmental impacts of the Ross Project (in SEIS Section 4). In its SEIS for the Ross Project, the Staff describes this process by reference to the condition in Strata’s license requiring the establishment of a monitoring well network and collection of this monitoring data. See Motion at 8 (quoting FSEIS at 2-25). Should the licensee propose a change to the facility or its procedures that would have impacts different from those considered in the SEIS for

groundwater quality, the licensee must seek a license amendment, which will trigger additional NEPA review.⁵⁰

Although the NRC does not require the applicant to submit post-licensing, pre-operational background data with its application, it does not follow that the NRC lacks sufficient information to consider an ISR project's impacts under NEPA. Pursuant to 10 C.F.R. Part 51, Subpart A, Appendix A, the Staff's SEIS must describe the environment to be affected by the proposed action, using data and analyses commensurate with the importance of the impact. NUREG-1748, Section 5.3.4, describes the type of information that should be included in an EIS to describe the affected environment for water resources. NUREG-1748 states that site-specific and regional data on the characteristics of surface and ground water quality should be provided in "sufficient detail to provide the necessary data for other reviews dealing with water resources."

The site-characterization information an applicant must submit under 10 C.F.R. § 51.45(b) and Criterion 7 of 10 C.F.R. Part 40, Appendix A, combined with any responses to requests for additional information on the subject of groundwater quality, allow the Staff to evaluate the quality of groundwater that may be affected by the proposed ISR activities and determine how those activities might reasonably affect water quality. As the Staff noted in its response to Joint Intervenors' submission of Contention 1, Strata submitted information on its Criterion 7 preoperational monitoring program as part of its application for a license, and the adequacy of that information was not challenged by the Intervenors.⁵¹ In response to requests for additional information, Strata provided further groundwater information for the Staff's safety

⁵⁰ Source and Byproduct Materials License SUA-1601, Ross Project in Crook County, Wyoming (ADAMS Accession No. ML14069A335), Condition 9.4(B)(vii); *see also Hydro Resources*, CLI-99-22, 50 NRC at 17.

⁵¹ NRC Staff Response to Petition to Intervene and Request for Hearing by the Natural Resources Defense Council & Powder River Basin Resource Council (Dec. 5, 2011), at 20-21.

and environmental reviews.⁵² The SEIS, in particular Section 3.5.3.3, uses the information submitted by Strata in satisfaction of 10 C.F.R. § 51.45(b) and Criterion 7 to assess the affected environment for groundwater resources at the Ross Project site and to inform the SEIS's review of reasonably foreseeable environmental impacts of the proposed action.

Therefore, the Intervenor's premise that the necessary groundwater quality data was left uncollected until *after* the license is issued, and commensurately left unconsidered in the Staff's environmental review of the project, is incorrect. See Motion at 8. As the Staff has explained, the SEIS assesses all of the groundwater information necessary for the Staff to meet its obligation under NEPA and 10 CFR Part 51 to adequately characterize the affected environment and assess the reasonably foreseeable impacts of the proposed action. The Staff did not need to collect data of the type required by Criterion 5B(5) to establish approved background levels of hazardous constituents in order to assess baseline groundwater quality at the Ross Project site in its SEIS.⁵³ Nor does it appear that the Joint Intervenor argues that the Criterion 5B(5) information, in isolation, was required to be assessed prior to issuance of the license. Rather, the Intervenor consistently treat both distinct types of groundwater data as a single set of "baseline" information. See Motion at 16 ("To the contrary, as set out in *Criteria 5 and 7*, [the Standard Review Plan], and Joint Intervenor's declarations, what is necessary is simply a scientifically rigorous data collection effort, and an appropriate methodology to use that data to disclose and consider baseline water quality levels.") (emphasis added); see also Saxton Affidavit at ¶¶ 7-9 (explaining that Joint Intervenor's reference to portions of NUREG-1569 fails to recognize the separate review standards for different types of groundwater programs collected for different purposes).

⁵² See Strata RAI Question and Answer Responses – Technical Report (Apr. 11, 2012) (ADAMS Accession No. ML121020343); Strata RAI Question and Answer Responses – Environmental Report (Mar. 30, 2012) (ADAMS Accession No. ML121030404).

⁵³ *Hydro Resources*, CLI-99-22, 50 NRC at 17.

Because the Intervenor's conflate these two types of data, the Intervenor's argue that, pursuant to Criteria 5 and 7, it is not necessary to establish the entire monitoring well network to collect this information. *Id.*; see *also* Joint Third Decl. of Dr. Richard Abitz and First Decl. of Dr. Lance Larson at 15 n.4. While this is generally true of the comprehensive baseline groundwater information required pursuant to Criterion 7, this assertion does not account for the deficiencies in the Criterion 5B(5) monitoring data that would result from the establishment of background concentrations gathered by way of the Intervenor's recommended data collection approach. The Intervenor's recommended approach would be less comprehensive than the approach imposed by the NRC in Strata's License Condition No. 11.3. See Saxton Affidavit at ¶ 9. Furthermore, divorcing the collection of Criterion 5B(5) background concentration information from the area and timeframe closest to the commencement of operations would render the data collected less useful for its intended purpose, which is to establish the water quality standards at designated regulatory compliance monitoring wells used to detect leachant excursions during operations and to establish standards for aquifer restoration after uranium recovery is complete. *Id.* Because Criterion 7 specifies the collection of comprehensive baseline data, and that information was already provided by Strata and considered by the Staff in its SEIS, there is no NEPA-related reason to impose prejudicial changes to the NRC's practice regarding the collection of Criterion 5B(5) groundwater information.

In sum, because the Intervenor's position relies on the conflation of requirements governing the collection and analysis of two distinctly different, non-equivalent sets of water quality data, and discounts the actual collection and assessment of the required water quality information, the Intervenor's have not shown that they are entitled to judgment as a matter of law. Furthermore, the Intervenor's additional arguments concerning the number of monitoring wells they perceive as sufficient to gather "baseline" water quality information, as well as the assertions in their experts' affidavits concerning impacts of the Nubeth site, biased concentration samples, and other deficiencies they perceive in the Staff's analysis of water

quality information for the Ross Project site, signal the existence of a factual dispute with the Staff over the adequacy of the Staff's assessment of the groundwater quality information that was required to be gathered and analyzed in the FSEIS.

CONCLUSION

For the foregoing reasons, the Board should decline to grant the Joint Intervenors' motion for summary disposition of Contention 1.

Respectfully submitted,

/Signed (electronically) by EM/

Emily Monteith

Richard S. Harper

Counsel for NRC Staff

Dated at Rockville, Maryland
this 3rd day of July, 2014

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R § 2.305, I hereby certify that copies of the foregoing "NRC STAFF ANSWER TO NATURAL RESOURCES DEFENSE COUNCIL'S AND POWDER RIVER BASIN RESOURCE COUNCIL'S MOTION FOR SUMMARY DISPOSITION ON CONTENTION 1" in the above-captioned proceeding have been served via the Electronic Information Exchange (EIE) this 3rd day of July, 2014.

/Signed (electronically) by/

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Date of Signature: July 3, 2014