PUBLIC SUBMISSION

As of: 6/23/15 3:33 PM
Received: June 18, 2015
Status: Pending_Post
Tracking No. 1jz-8ji3-2wbd
Comments Due: June 18, 2015
Submission Type: Web

Docket: NRC-2014-0178
Standard Review Plan for Conventional Uranium Mill Heap Leach Facilities

Comment On: NRC-2014-0178-0005
Standard Review Plan for Conventional Uranium Mills and Heap Leach Facilities; Reopening of Public Comment Period

Document: NRC-2014-0178-DRAFT-0015
Comment on FR Doc # 2015-08797

Submitter Information

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General Comment

Attached are the comments of the National Mining Association on the Nuclear Regulatory Commissions (NRC) draft Standard Review Plan for Conventional Uranium Mills and Heap Leach Facilities (draft NUREG-2126). .

Attachments

12/18/2014
79FR75597

NMA NUREG2126 comments

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KATIE SWEENEY
Senior Vice President & General Counsel

June 18, 2015

Doug Mandeville
U.S. Nuclear Regulatory Commission

RE: Standard Review Plan for Conventional Uranium Mills and Heap Leach Facilities (draft NUREG-2126).

Dear Mr. Mandeville:

The National Mining Association (NMA) appreciates the opportunity to provide comments on the Nuclear Regulatory Commission's (NRC) draft Standard Review Plan for Conventional Uranium Mills and Heap Leach Facilities (draft NUREG-2126). The draft comments identify various areas of improvement needed to ensure the plan properly reflects applicable legal definitions and NRC policies. NMA is the national trade association representing the producers of most of America's coal, metals, including uranium, industrial and agricultural minerals. NMA's members include the producers of domestic uranium as well as companies that have exploration projects or pending applications for development of domestic uranium mining projects.

GENERAL COMMENTS

1. Throughout the draft NUREG-2126 document, NRC Staff refers to highly technical matters associated with heap leach milling facilities. While it has some more recent experience with conventional mills, NRC Staff has not licensed a heap leach mill since the passage of UMTRCA. NMA strongly encourages NRC Staff to pay particular attention to comments from industry members with significant technical expertise on heap leach milling and to incorporate, to the extent practicable, examples from such comments that would provide the reader with clarification on NRC requirements or even to modify/clarify NRC requirements to reflect the realities represented by comments of experienced industry operators.

2. As will be noted in the Specific Comments below, NRC Staff should ensure that all discussions on regulatory requirements and the technical/safety acceptance criteria are further buttressed by and directly tied to references to guidance documents, policy statements and, where possible, legal precedent that are acknowledged to explicitly interpret relevant NRC

regulations. Conventional and heap leach milling facilities have not been licensed and its regulatory regime has not been interpreted nearly as much since UMTRCA's passage as that of in situ leach uranium recovery (ISR) programs. NRC Staff would be well-served to pay particular attention to past legal precedent and either support its conclusions appropriately or, where necessary, modernize past interpretations such as those differentiating between mining and "milling" to ensure new technologies and methodologies adequately protect public health and safety but are not over-regulated or duplicated. Adherence to past interpretations such as Health Physics Position-184 does not account for changes in technology.

3. As NRC Staff is well-aware, there have been several administrative litigations for ISR facilities that have concluded or are pending an evidentiary hearing. Many of these litigations have raised questions that, on their face, are clear to the regulators or to the regulated community; but however, they may not be as clear to members of the public and interested stakeholders and such entities would greatly benefit from a complete explanation for how NRC regulations and guidance reflect the staff's legal and regulatory conclusions regarding *compliance* with relevant regulatory requirements and apply to matters such as development of groundwater corrective action criteria. It would not require much effort on the part of the agency to include such matters at appropriate locations in the final NUREG-2126 guidance.

SPECIFIC COMMENTS

1. **Page XII (lines 1-10):** NMA believes NRC Staff has correctly described the applicability of the future finalized version of NUREG-2126 to conventional or heap leach mill facilities regarding compliance with applicable uranium recovery regulations. As a corollary, NMA and other industry members have attempted to argue that NUREG-1569 entitled *Standard Review Plan for In Situ Leach Uranium Extraction License Applications* acceptance criteria represent NRC Staff's interpretation of the Commission's regulations pursuant to NRC regulations and NRC Manual 0124, which expressly delegates such authority from the Commission to NRC Staff.[1] Indeed, NUREG-1569 sections preceding the aforementioned acceptance criteria indicate that satisfaction of such criteria is a way to obtain a license:

> "The review plan provides general guidance on acceptable methods for compliance with the existing regulatory framework.[2] As described in an NRC white paper on risk-informed, performance-based regulation (SECY-98-144), however, the applicant has flexibility to propose other methods as long as it demonstrates how it will meet regulatory requirements."[3]

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[1] [1] *See* 10 CFR § 1.41(b)(18&19); *see also* United States Nuclear Regulatory Commission, *NRC Manual, Chapter 0124: Organization and Functions Office of Nuclear Material Safety and Safeguards* (October 27, 1989). This is directly applicable to uranium recovery as the Uranium Recovery Branch was part of NMSS prior to being separated into the Office of Federal and State Materials and Environmental Management Programs (FSME).

[2] *See Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760 (1977).

In its 2005 *Yankee* decision, the Commission further elaborated on the role of NRC Staff guidance with respect to regulatory compliance:

> "We recognize, of course, that guidance documents do not have the force and effect of law. Nonetheless, guidance is at least implicitly endorsed by the Commission and therefore is entitled to correspondingly special weight."

Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-05-15, 61 NRC 365, 375, n.26 (2005); *see also Consumers Power Co.* (Big Rock Point Nuclear Plant), ALAB-725, 17 NRC 562, 568 & n.10 (1983) (finding that NUREGs are entitled to considerable prima facie or special weight).

Further, with respect to NUREG-1569 (which could also be the case with NUREG-2126 if reviewed and approved by the Commission), the Commission issued a Staff Requirements Memorandum (SRM) that contained revisions and an authorization to publish. Indeed, with respect to the SRM cited above, then-Commissioner Dicus stated that, as published, NUREG-1569 and its acceptance criteria "are an acceptable means of implementing the Commission's policy decisions for uranium recovery facilities, *in lieu* of rulemaking."[4] From NMA's point-of-view, this factor renders NUREG-1569 Commission-approved guidance.

With respect to NUREG-2126, NRC Staff's statement in the preface to the draft is on point. NMA recommends that the revised NUREG-2126 prepared after close of the comment period and evaluation of submitted comments be sent to the Commission for finalization and publication so that it may have the same force as NUREG-1569.

2. **Page XII (lines 24-32):** NRC Staff attempts to distinguish instances where ore from a mine is transported directly to a mill versus being altered at some point prior to arrival at a conventional or heap leach milling facility. In the instance of the former, it is well-understood that NRC's Atomic Energy Act (AEA) jurisdiction does not extend to mined ore until it crosses the license boundary. It appears this interpretation is intended to provide a clear line of jurisdiction between a State's police powers to regulate mining and NRC authority to regulate uranium milling and 11e.(2) byproduct material. It is important to note that it was Congress' intent to consolidate and isolate 11e.(2) byproduct material, at the time, at conventional or heap leaching milling facilities for eventual transfer to the identified long-term custodian (typically the United States Department of Energy (DOE)) for long-term surveillance and monitoring (LTSM) pursuant to Section 83 of the AEA. This is the reason that *all* wastes generated at conventional and heap leach milling facilities are eligible for disposal in mill tailings impoundments as 11e.(2) byproduct material.

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[3] To this point, NUREG-1569 also states "the Commission directed the staff to update its regulatory guidance related to *in situ* leach uranium extraction facilities, and in doing so, to provide guidance on use of risk-informed, performance-based regulatory philosophies. NUREG-1569 incorporates this direction from the Commission." NUREG-1569, *Notice of Availability of a Standard Review Plan (NUREG-1569) for Staff Reviews for In Situ Leach Uranium Extraction License Applications* at 4.

[4] *Id.* (*Commissioner Comments on SECY-02-0204* at 1 (Commissioner Dicus Comments)).

In the instance of the latter, NRC states that "alteration" of mined ore prior to arrival at a conventional or heap leach milling facilities will be evaluated on a case-by-case basis. Clear guidance should be provided in the document. Evaluations on a case by case basis will lead to ambiguity and different facilities being regulated differently even when performing the same operations. This makes poor business sense as well as case by case evaluations could give certain operators an unfair advantage. This statement seems to NMA to reflect a considerable degree of NRC staff lacking a clear understanding of the various permutations of the issue – on the one hand, its chemical modification and in the other it could be ore sorting by underground ____ and ore crushers. This raises the complex issues of whether NRC has jurisdiction of the "altered" ore prior to its arrival. NMA suggests that NRC thinks long and hard about inserting itself into activities at mine sites given the varying nature of such practices and NRC staff's lack of expertise in such matters. Moreover, what this portion of NUREG-2126 does not do is properly identify the activities that could result in alteration of mined ore that could trigger NRC's AEA jurisdiction. NMA believes that, with emerging technologies potentially in line for use at mine sites and due to the fact that NRC typically limits its jurisdiction at a mine site and its activities, NUREG-2126 should be clear as to what activities constitute "processing" that would necessitate a source material license and what activities would satisfy the definitions of "uranium milling" and "11e.(2) byproduct material." By providing guidelines to potential licensees on these items, NRC Staff would afford such entities an opportunity to assess its own processes to determine what type of licensing/permitting authority would be implicated and what regulatory authorities should be consulted prior to applying for such licenses/permits.

3. **Page XIII (lines 1-9):** As has been discussed on previous occasions, NMA believes that prior guidance for license applicants has failed to properly articulate the acceptance criteria and general formatting requirements for license renewals. For example, NUREG-1569 contains acceptance criteria for license renewals over the full range of resource areas but does not contain a separate section or appendix that lays out a straightforward approach for preparation of license renewal applications which should focus on what, if anything, has significantly changed the nature and potential risks of proposed amended activities.

As a general matter, this approach should focus directly on the main purpose of license renewal applications, which is to assess the delta between the original approved license application and the current status of the operating facility. This delta may vary over a wide range of license renewal applications due to the extensive data gathered by an operating facility (e.g., Cameco Resources Crow Butte or Smith Ranch facilities), the express lack of operating data from facilities that have not yet been constructed and/or operated (e.g., Hydro Resources, Inc. Crownpoint Uranium Project) or the lack of more current operating data from facilities that are on standby (e.g., Kennecott Uranium Company's Sweetwater Conventional Mill). However, the primary reason for addressing a site-specific delta is to avoid having to re-review previously approved licensing actions that were deemed to be adequately protective of public health and safety or the environment without identifying data or other analyses that could represent the need for additional evaluation. As part of risk-informed, performance-based regulation, NRC Staff should not spend additional time and resources (including those of the licensee) on matters that have not changed based on either site-specific data or analyses or that have not been the subject of a previously approved modification of existing regulations or guidance. This is particularly true in light of NRC's policy of rotating staff which almost without fail leads to additional,,

unnecessary "reinvention of the wheel" due to staff ignorance, no matter how well-meaning or talented. NMA recommends that NRC Staff strongly consider developing a guidance document to accompany NUREG-2126 that lays out guidance for license renewal applications in one appendix or a separate Regulatory Guide.

4. **Page XIV:** NRC Staff discusses its general technical/safety review pursuant to 10 CFR § 40.31(h) in this portion of NUREG-2126. The contents of a proper 10 CFR Part 40 safety review has been the subject of numerous instances of administrative litigation at the Atomic Safety and Licensing Board (ASLB) over the past several years with hearing requestors claiming that a license applicant's technical report (TR) is inadequate because it lacks certain information pursuant to this regulation. Given that NRC Staff claims that compliance with NUREG-2126 is a way to satisfy NRC regulations for a license, NUREG-2126 must re-emphasize that satisfaction of its acceptance criteria is a way to satisfy Part 40.31(h). This is critical because parties granted standing for a merits-based administrative hearing are permitted to challenge NRC Staff's site-specific Safety Evaluation Report (SER) and failure to challenge such a report during a proceeding should result in summary disposition of any and all contentions based on that subject-matter.

Further, this portion of NUREG-2126 does not mention the concept of risk-informed regulation or the 10 CFR § 40.32(e) construction rule. Both items have been the subject of much discussion between NRC Staff and industry since the advent of NUREG-1910 and should be further clarified in the context of NUREG-2126, which is designed to offer license applicants a clear cut pathway for uranium milling or heap leach applicants to satisfy NRC uranium milling regulations. Since the Part 40.32(e) construction rule was designed for these types of facilities, as evidenced in the original administrative rulemaking record from 1984, NRC Staff should provide for additional clarification of this rule in NUREG-2126.

NMA also believes that NRC Staff should incorporate a table similar to Table 1 of NUREG-1569 that shows which, if any, NUREG-2126 acceptance criteria are intended to apply to either/or both the technical/safety and environmental reviews. This will allow license applicants that do not currently have a modern example of an environmental report (ER) or environmental impact statement for conventional or heap leach milling to gather additional guidance on what to include in its ER by relying upon guidance from NUREG-2126.

5. **Page XVI (lines 4-18):** NRC Staff identifies four (4) elements to be included in an SER and to memorialize its safety/technical review. The order of these elements appears to properly symbolize NRC's jurisdiction under the AEA which is to approve a license application in whole, approve with conditions or deny. NMA believes that a properly written SER should contain all of these elements and would make the SER much more defensible. Often, SER are not issued for public comment and, thus, are not the subject of detailed written comments that may add additional clarification on the report's conclusions. NMA also suggests that any imposed license condition that does not reflect the actual content of a license application should be thoroughly explained with technical analyses, taking into account risk-informed regulation, and justified with reference to a regulation and/or technical guidance. This justification is critical because industry has identified, on many occasions, licensing decisions and license conditions that are inconsistent with existing regulations and/or guidance and that appear to be

unilateral staff modifications of such regulations and/or commission approved guidance. NRC Staff should strive to make this approach universal across all resource areas and all forms of uranium recovery so that license applications can be written with these positions in mind and, as a result, can streamline the licensing process.

6. **Page XVI (lines 43-44):** NRC Staff correctly states that the licensee (individuals and organizations) performing licensed AEA operations and that possess and use AEA materials such as source and 11e.(2) byproduct material have the primary responsibility for the safe conduct and handling of such operations and materials which is precisely why they need clear cut guidance that assists them in preparing regulatory acceptable proposals.

7. **Page 2-23:** Groundwater models have been identified as a useful tool for NRC Staff in evaluating a site-specific license application. NRC Staff is correct that groundwater simulation models are not required in license applications, not even for ISR license applications. NMA questions the level of relevance of a site-specific groundwater simulation model for a conventional or heap leach milling facility as they are designed to be zero-discharge facilities, whereas ISR facilities are conducted in a subsurface aquifer. This does not mean that a groundwater simulation model is not relevant and could not serve to further facilitate expedited review of a license application if warranted by site-specific conditions. Indeed, knowledge of the subsurface would make the assessment of the affected environment stronger, but NRC Staff should ensure that NUREG-2126 account for risk-informed regulation in its description of the acceptance criteria and provide license applicants with sufficient guidance as to the level of detail in a site-specific groundwater simulation model.

8. **Page 2-24(a):** NRC Staff's statement that groundwater quality measurements/samples were acquired by "acceptable methods" and identifying only one example should be supplemented with an explation why this is an acceptable method and how such criteria can be translated to other examples. Better yet, additional examples of acceptable methods that other agencies have approved also would be helpful.

9. **Page 3-1(1):** In this section, NRC Staff identifies the description of ore to be processed at a conventional or heap leach milling facility. This would be an appropriate place in NUREG-2126 to discuss alternate and equivalent feed and the guidance associated with such materials. A discussion of alternate feed is especially critical as the requirements associated with processing such material are not yet codified in 10 CFR Part 40 regulations and there is no detailed discussion of the legal approvals rendered by the Commission on such guidance in the *International Uranium (USA) Corporation* line of cases. This would provide license applicants with further guidance as to the licensing requirements for future processing would be. Also, on this subject, NRC Staff should consider discussion of potential performance-based license conditions for alternate feed materials that would allow for a range of constituents or types of materials that could be processed at the facility and that could be permitted for receipt and processing using a Safety and Environmental Review Panel (SERP) approval. "Equivalent feed" materials could also use clarification regarding acceptance for processing at IX licensed conventional and heap leach milling facilities, as the primary form of such material identified are uranium-loaded ion-exchange (IX) resins from water treatment operations. While these could be considered equivalent feed for conventional or heap leach milling facilities that have IX-

stripping capability, ISR facilities typically are referenced for such materials. NRC Staff should not restrict the facilities where such equivalent feed could be processed.

NRC Staff's proposed "case-by-case" analysis of what is and what is not processing and/or "uranium milling" should not be performed in a vacuum. With the advancement of technology for mining and the development of new techniques for removing ore from its place in nature in a more cost-effective and efficient manner, NRC Staff must be mindful of the reasons for exerting jurisdiction over given activities and must not hastily apply interpretations of the past where such applications do not fit the site-specific scenarios proposed or, in some cases, not proposed by a license applicant. NRC Staff should work with State-based mining authorities to determine what their occupational protection programs are, including worker dose, because NRC was not concerned with regulating transport of ore to a mill from a public or occupational dose perspective at the mine site or in transport. NRC also should not attempt to exercise jurisdiction at two separate geographic locations under different AEA authority (i.e., one site with a source material license and one site with a uranium milling license) in order to avert dual, overlapping regulatory authority with the States. Duplicative and unnecessary regulation where no occupational hazard exists or where it is sufficiently regulated by another regulatory program is inconsistent with risk-informed regulation and should be avoided.

10. **Page 3-7(3):** NRC Staff references that adequate information on sand and slime characteristics, spatial extent, and spatial variation of depth and thickness of each layer should be provided for an existing facility. NRC Staff should clarify whether this applies to a newly proposed facility and, if so, how such characteristics can be identified pre-operations.

11. **Page 3-8(6-7):** NRC Staff discussed disposal approaches for tailings and requires that adequate information be proposed for full below-grade disposal or any alternative. The reference points for compliance are NRC regulations at 10 CFR Part 40, Appendix A, Criteria 1, 3, and 4(c). However, NMA believes it would be helpful for NRC Staff to provide references to the various guidance documents that may in whole, or in part, either clarify or supplement NUREG-2126 acceptance criteria. Most importantly, NRC Staff cannot and should not discuss this issue without explicit reference to and description of its current surface stabilization guidance.

12. **Page 3-10(19-21):** In its tailings/leachate collection system acceptance criteria, there is no discussion of potential overlapping issues associated with the United States Environmental Protection Agency's Clean Air Act (CAA) regulations at 40 CFR Part 61, Subpart W. For the past several years, industry has presented arguments regarding the jurisdiction of EPA over uranium recovery facilities and has attempted to demonstrate that it cannot extend such jurisdiction to evaporation or other site ponds. However, with respect to mill tailings impoundments, industry has argued that there is considerable overlap with respect to EPA's CAA and NRC's 10 CFR Part 40 requirements. As such, NMA has asserted repeatedly that NRC should pursue discussions with EPA to rescind Subpart W in a manner similar to previously rescinded 40 CFR Part 61, Subparts I and T. Further, NMA believes that this portion of NUREG-2126 would be more useful with explicit references to Subpart W requirements and how they coincide or are different and therefore unnecessary or perhaps useful respectively.

13. **Page 3-39:** In Section 3.4.1, NRC Staff states that NRC direct regulatory jurisdiction over hazardous materials is limited to instances where they have a potential effect on radiological health and safety. However, NRC Staff is ignoring that the 2000 "concurrent jurisdiction" decision grants NRC federal, preemptive jurisdiction over both the radiological *and* non-radiological components of 11e.(2) byproduct material. NRC Staff should ensure that NUREG-2126 specifically addresses this issue.

14. **Page 3-44(7)-36:** NUREG-2126 states that release of process wastewaters to surface waters should comply with 40 CFR § 440.34 and 10 CFR § 20.1302(b). However, NMA believes that NRC Staff 's current position on these facilities is that they are designed to be "zero discharge." NRC Staff should clarify what the current position on this issue is.

15. **Page 3-47 (lines 1-8):** NRC Staff discusses release of liquid wastes to surface waters. NRC currently has no requirements for such releases of *non*-radiological constituents. In addition, there is an issue with discharges of 11e.(2) byproduct material from such facilities, as is the case with ISR facilities where neither process bleed nor restoration fluid can be released to surface water. NRC Staff should clarify for industry what, if any, new or unknown requirements for this issue are currently being applied and the legal justification for same.

16. **Page 3-50:** This section of NUREG-2126 describes the applicable regulatory requirements for conventional and heap leach milling facilities regarding waste management practices. NRC Staff references 40 CFR Part 190 as applicable for nuclear power operations. This reference should be revised to reflect the fact that these regulatory requirements are designed for the "fuel cycle" and as such apply to uranium recovery facilities except for radon. Also, the reference to 40 CFR § 440.34 prohibiting discharges to surface waters should be further clarified to show that these facilities are designed to be zero discharge. This section might also appropriately include references to guidance documents and other items such as alternate and equivalent feed as these guidance documents are routinely applied as an avenue to satisfy NRC regulations.

17. **Page 3-51 (line 3):** NRC Staff's reference to demonstrating compliance with 10 CFR Part 40, Appendix A, Criterion 2 and its written guidance does not seem to make sense. Under UMTRCA, Congress intended that all conventional and heap leach milling facilities could transfer all waste materials as 11e.(2) byproduct material to the site's tailings impoundments for eventual transfer to DOE. It makes little to no sense that a conventional or heap leach milling facility would begin opening smaller disposal sites outside a license boundary unless it sought expansion of that boundary in the future. But, even if this occurred, it would only result in one site to be transferred to DOE and not multiple sites. Indeed, the only real application of Criterion 2 that is currently in effect is the requirement for ISR facilities to dispose of their solid 11e.(2) byproduct material at licensed 11e.(2) disposal facilities such as conventional mills. NRC Staff should review the current Criterion 2 guidance and determine how the language in this section should be worded.

18. **Page 4-1:** In the introduction to Chapter 4 of NUREG-2126, NRC Staff should insert a discussion of NRC 10 CFR Part 40 requirements for foreign ownership and/or control of uranium recovery facilities as there have been several examples of transfers of control where

controversy arose regarding foreign entities purchasing controlling stakes in United States-based uranium recovery companies. To be clear, NRC regulations do not prohibit the purchase of a controlling stake in such companies, as shown in 10 CFR § 40.46. Indeed, this regulation specifically only prohibits foreign ownership and/or control of the "Corporation," which 10 CFR § 40.4 specifically defines as the United States Enrichment Corporation (USEC). Despite any potential political controversy or the like, NRC Staff should be clear on its policies towards such transfers of control, including potential application of Regulatory Issue Summary 2014-0_ to such licensing actions under 10 CFR § 40.46(a).

19. **Page 4-6 (lines 44-48):** NMA believes that NRC Staff should provide explicit instructions on the types of standard operating procedures (SOP) for conventional and heap leach milling facilities that must be in place prior to licensing and what may be developed prior to pre-operational inspection. Also, in at least one licensing example in the past several years, there have been questions raised regarding how SOPs and best management practices can be adequately described in an SER or a 10 CFR Part 51 environmental review document, including the standards, tests or other procedures that can be followed to achieve compliance with a particular license requirement or condition.

20. **Page 4-7:** NRC Staff references the criteria for SERP reports and that they should be sufficiently comprehensive to allow staff to thoroughly evaluate the change, test or experiment. Since the process is internal to the licensee perhaps NRC Staff should consider amending that language to make the description at least as comprehensive as required by current NRC regulatory practice to satisfy regulations or guidance for a license amendment. Since this is done with opportunity for public involvement we believe it should be as comprehensible as possible.

21. **Page 5-5 (1):** This first acceptance criteria specifically discusses a license applicant's data for groundwater quality pre-license issuance and proposed procedures for determining appropriate groundwater corrective action criteria post-license issuance and pre-operations. Given the significant attention paid to this issue in recent ISR administrative litigations and the conclusions in RIS 2009-05 on application of Criterion 5B(5) groundwater corrective action criteria to ISR groundwater restoration, NRC Staff would be well-served if it included a complete description of what groundwater quality data is needed to assess the affected environment in Criterion 7 for a license application are obtained and how a license application includes *procedures* for determining Criterion 5B(5) groundwater corrective action standard are approved in the application and imposed as a license condition. As EPA has issued a Proposed Rule to amend its 40 CFR Part 192 UMTRCA-based *generally applicable standards* and has specifically targeted these two (2) NRC Criteria, an NRC-based legal description of the origin of Criterion 5B(5), the reasons for Criterion 7 "baseline" groundwater quality determinations pre-license issuance, development of a complete, site-specific groundwater program under both Criteria, and the legal precedent for such determinations (e.g., HRI litigation at the Commission level (CLI-06-01)) would be appropriate here. Further it should be clear that Criterion 7 applies to a variety of site "baseline" conditions (e.g. soils, air, vegetation, etc.).

22. **Page 5-6 (lines 5-11):** Here, NRC Staff provides a discussion of how Criterion 7 specifically asks for one (1) year of complete "baseline" for groundwater quality on a site-specific basis. This is critical as it is NRC's prescriptive requirements for initial "baseline" water

quality development and not EPA's. NRC Staff should clarify this point and further its discussion from Comment #21 above to show this is but the first set of groundwater quality data that is gathered prior to determination of Criterion 5B(5) CAB and commencement of licensed operations.

23. **Page 5-11 (Section 5.3):** NRC Staff's discussion here about operational airborne monitoring should address a number of issues. First, the discussion should reference 40 CFR Part 190 for the fuel cycle and its application to uranium recovery facilities except for radon. This is a set of generally applicable regulations that NRC has incorporated into relevant 10 CFR Parts 20 and 40 regulations and should be referenced. Second, NRC Staff should seriously consider amending 10 CFR § 40.65 on radon monitoring as its efficiency and its implementation are not consistent. ISR operators have had difficulty complying with these requirements or have had problems comprehending its implementation and the same likely can be said for conventional and heap leach milling facilities. Radon monitoring is an issue elsewhere in the document as well. The activities of radon in air are typically measured continuously via TrakEtch (RadTrak) type detectors that use a plastic chip that collects alpha tracks from the decay of radon over the monitoring/installation period. They are generally exchanged quarterly. The following language in Section 2.8.1.3 (" *Preoperational 13 radon samples were collected for 1 week during each month for 12 consecutive 14 months and have been analyzed for Rn-222.")* is inconsistent with currently used techniques for determining radon activities in air. If a TrakEtch (RadTrak) unit were only deployed for a one-week period (exposure time), the results obtained would probably be inadequate to achieve Data Quality Objectives (DQO) and sensitivity requirements. Prior to finalizing this guidance, NRC Staff should address compliance with this regulation and changes to existing or future guidance to accommodate any issues. As is the case with Chapter 6 of NUREG-2126, NRC Staff must finalize its guidance to be consistent with best management practices in order to finalize this document. Also, NRC Staff must ensure that interpretations of such guidance do not vary from project manager to project manager as has recently been the case as this violates the premise on Page 6-6 that a license applicant/license should perform airborne radiological monitoring consistent with guidance which interpret the relevant regulation. NMA also notes that an interpretation of a regulation or guidance that is impossible to comply with on its face is invalid.

If you have any questions regarding these comments, please contact me at ksweeney@nma.org or (202)463-2627.

Sincerely,

/s/

Katie Sweeney