PR 30,36,39,40,51,70, and 150
(75FR43865)

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November 29, 2010

United States Nuclear Regulatory Commission
Attn: Office of the Secretary, Rulemakings and Adjudications Staff
Washington, DC 20555-0001

RE: National Mining Association's Comments on Docket No. NRC-2010-0075 Regarding Proposed Rule for Licenses, Certifications, and Approvals for Material Licensees

Dear Sir or Madam:

By this letter, the National Mining Association (NMA) hereby submits its comments on the United States Nuclear Regulatory Commission's (NRC) Proposed Rule published in the Federal Register on July 27, 2010. *See* 75 Fed. Reg. 43865 (July 27, 2010). Initially, the comment period for the Proposed Rule expired on September 27, 2010. However, due to requests from several interested stakeholders, including NMA and the Nuclear Energy Institute (NEI), the comment period was extended to November 29, 2010.

NMA is the national trade association representing the producers of most of America's coal, metals, including uranium, industrial and agricultural minerals; the manufactures of mining and mineral processing machinery, equipment and supplies; and engineering, transportation, financial and other businesses that serve the mining industry. NMA's uranium recovery members include current conventional and/or in situ leach uranium recovery (ISR) licensees, as well as potential future conventional and/or ISR license applicants.

The following comments of the Proposed Rule will be divided into two (2) sections: (1) Introduction and Background; and (2) Comments.

I. INTRODUCTION AND BACKGROUND

With the re-emergence of the nuclear power industry, all stages of the commercial nuclear fuel cycle are experiencing a resurgence; but this resurgence may be threatened by global economic issues and domestic regulatory inefficiencies. As a result, there is a need for prompt, efficient licensing actions for new domestic sources of uranium production that avoid unnecessary and burdensome delays. The resurgence has prompted, uranium recovery companies to seek regulatory approval from agencies such as the United States Nuclear Regulatory Commission (NRC) and its Agreement States for new uranium recovery project sites, the vast

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majority of which will be uranium recovery using the in situ recovery (ISR) technique. Where uranium deposits are ISR-amenable, this technique is the lowest-impact, most environmentally protective, technologically cost-efficient form of uranium recovery. As such, the ISR technique has become the predominant form of uranium recovery in the United States.

Traditionally, ISR projects are developed in a "phased" manner involving a variety of project-specific steps, including pre-licensing exploration and site development and post-licensing site construction, production, and ultimately final site decommissioning and decontamination (D&D) including groundwater restoration. At the completion of the developmental stages, ISR project sites typically have two types of facilities: (1) subsurface facilities in the form of wellfields sequentially developed over an identified underground uranium ore body(ies) and (2) surface facilities including, but not limited to, a central processing facility with ion-exchange columns, yellowcake drying and packaging circuits, and storage pads and various other structures and infrastructure including offices, laboratories, storage warehouses, roads and power lines. The development of the subsurface and surface facilities at ISR project sites can be regulated by a number of overlapping regulatory regimes depending on the geographic location of the proposed site (i.e., State in which it is located) and the ownership status of the land (lands supervised by Bureau of Land Management (BLM), United States Forest Service (USFS), States, Native American Tribes, private entities, etc.) on which ISR operations are to occur.

Currently, the construction activities related to development of ISR projects is governed, in part, by 10 CFR § 40.32(e). NRC promulgated this regulation in 1980 as a component of the uranium recovery regulations developed in response to the enactment of the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA) and its definition of 11e.(2) byproduct material. Specifically, § 40.32(e) was promulgated to address the need for environmental review of potentially significant and long-lasting environmental impacts from construction activities at *conventional uranium mills* and the potential "irrevocable and irretrievable" commitments associated with long-term, low level radioactive waste disposal at uranium mill tailings facilities, including their eventual transfer to the United States Department of Energy (DOE) or the resident State for mandatory long-term surveillance and monitoring in perpetuity as a general licensee of NRC. Consistent with (1) Congressional intent in enacting UMTRCA to protect public health and safety from the potential impacts of *uranium and thorium mill tailings* and the facilities at which such tailings are generated, managed, and stored, (2) the 1980 Generic Environmental Impact Statement on Uranium Milling (NUREG-0706) scope, analyses and conclusions, and (3) the administrative record associated with the promulgation of 40.32(e), it is apparent that NRC intended to apply Part 40.32(e)'s pre-licensing site construction requirements *only* to conventional uranium mills with attendant 11e.(2) byproduct material disposal facilities and not to ISR facilities. As the newly released GEIS for ISR Facilities entitled *Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities* (NUREG-1910) demonstrates, the potential public and worker health and safety or environmental impacts associated with the construction of ISR facilities are short-term and minimal, at worst and, at best, essentially non-existent.

Given the fact that ISR facilities pose little potential threat of significant and long-lasting environmental impacts and no "irrevocable and irretrievable" resource commitments NMA

suggested in the attached White Paper (that has previously been submitted to NRC),that 10 CFR § 40.32(e) should be applied to ISR facilities using a "three-tiered" model framework similar to that employed by NRC Staff for power reactor sites when determining whether pre-licensing site construction activities at such sites should be permitted. Further, NMA's White Paper reasoned that given the emerging need for short and long-term domestic uranium production and the low risk associated with ISR operations, NRC should use its "discretion" to allow maximum flexibility for pre-licensing site construction decisions. Such flexibility would better enable ISR projects to advance quickly to active uranium recovery operations after a license is granted, result in savings of millions of dollars of financial resources and encourage of financial investment in such domestic uranium production. Additionally, NMA emphasized that a "flexible" risk-informed NRC policy on pre-licensing site construction activities merely provides such operators with the "option" of engaging in such activities based on their internal assessment of whether site-specific circumstances dictate that such activities make good sense.

Based on these generic issues, NMA prepared the attached White Paper outlining the legal and regulatory issues associated with the language and interpretation of the provisions of 10 CFR § 40.32(e), as well as a detailed accounting and analysis of the administrative rulemaking record for Part 40.32(e). This White Paper concludes that the limitations on pre-licensing site construction imposed by Part 40.32(e) are directly applicable only to conventional uranium recovery facilities due to the potential irreversible and irretrievable impacts associated with the construction of uranium mill tailings impoundments and the long-term requirements for containment and management of 11e.(2) byproduct material in the form of mill tailings.

Given the inapplicability of § 40.32(e) the White Paper specifically recommended that NRC Staff develop a three-tiered approach to pre-licensing site construction encompassing all required ISR site construction activities, including installation of wellfields with associated monitoring well networks and construction of central processing plants. The White Paper proposed that this three-tiered approach follow the conceptual approach designed by NRC Staff in creating the limited work authorization (LWA) program for nuclear power reactors.

After providing NRC Staff and the Commission with a detailed briefing on the substance of the White Paper, NMA submitted the White Paper for NRC Staff's consideration in an effort to develop *an LWA-like approach* to pre-licensing site construction for ISR sites in the same manner that NRC Staff has copied 10 CFR § 50.59's performance-based licensing requirements to Part 40 uranium recovery facilities even though Part 40 contains no Part 50.59-like regulatory provisions. After reviewing the White Paper, NRC Staff issued a legal memorandum stating that the NMA recommendations would not be permissible under the current regulatory scheme because ISR operations constitute "milling" and, therefore, fall under the scope of Part 40.32(e), including its express limitations. However, NRC Staff did state that ISR license applicants can submit an application under 10 CFR § 40.14 for a specific exemption from NRC's 10 CFR Part 40 licensing requirements. Since this pronouncement, at least one NMA member (Lost Creek, LLC) has successfully applied for and received a specific exemption for limited pre-licensing site construction.

Given that it is not Commission policy to regulate by exemption, NRC Staff has initiated this rulemaking to harmonize the definitions of "construction" and "commencement of

construction" so that NRC license applicants, including those applying for licenses to construct and operate ISR projects, can have clarity as to what pre-licensing site construction activities are permissible at proposed project sites. As will be shown in the comments below, with respect to Part 40 licensees, it is NMA's position that NRC Staff's legal/regulatory position on this Proposed Rule is significantly flawed in that it is inconsistent with current law and Commission precedent and the Part 40.32(e) administrative rulemaking record which, as interpreted by NRC Staff in its RIS and Proposed Rule, relies on *post hoc rationalization* that is at odds with the Part 40.32(e) administrative rulemaking record which essentially never mentions ISR facilities.

II. GENERAL COMMENTS

1. As a general proposition, NRC Staff's legal position respecting pre-licensing site construction is that the current version of 10 CFR Part 40.32(e) permits only "site exploration" activities (i.e., "roads necessary for site exploration, borings to determine foundation conditions, or other preconstruction monitoring or testing to establish background information related to the suitability of the site or the protection of environmental values") at proposed ISR facilities but does not permit "non-safety or non-security related site preparation activities" (i.e., s "clearing land, site grading and erosion control, and construction of main access roadways, non-security related guardhouses, utilities, parking lots, or administrative buildings not used to process, handle or store classified information."). *See* SECY-10-0018 at 1. Based on this legal position, NRC Staff's determined that no facility used to conduct licensed operations, including wells, central processing plants (e.g., foundations, internal equipment, and external structures), and other administrative facilities (e.g., laboratories, offices, storage sheds, etc.) may be constructed under the current Part 40.32(e) without a specific exemption granted by the Commission.

Based on the Commission's determination that ISR operations are essentially "milling underground" (*see* United States Nuclear Regulatory Commission, SRM-SECY-99-0013, *Recommendations on Ways to Improve the Efficiency of NRC Regulation at In Situ Leach Uranium Recovery Facilities*, NRC Staff concludes that anything beyond site exploration in Part 40.32(e) is not permitted without a license or a specific exemption. In support of this decision, NRC Staff notes:

> "the NRC amended its regulations in Parts 30, 40, 70, and 150 to require that an environmental review be completed by the NRC prior to commencement of construction of a mill which produces byproduct material."

75 Fed. Reg., 43865, 43866 (July 27, 2010).

NRC also notes that, "in reaching this decision:

> [M]illing results in the production of large quantities of byproduct material as tailings per year. When construction of a mill commences, nearly irrevocable commitments are made *regarding tailings disposal*. Given that each mill tailings pile constitutes a *low-level waste burial site containing long-lived radioactive materials*, the Commission believes that prudence requires that specific methods of tailings disposal, mill decontamination,

site reclamation, surety arrangements, and arrangements to allow for transfer of site and tailings ownership be worked out and approved before a license is granted."

Id. at 43866-43867, *quoting* 45 Fed. Reg. 65521, 65529 (October 3, 1980) (emphasis added).

NRC Staff's simplistic reliance on the definition of "milling" ignores the entirety of NRC's Part 40.32(e) rulemaking record and the intent of the Commission in that rulemaking which differentiates between conventional uranium mills with mill tailings, as noted above, and ISR facilities which do not involve low-level waste burial sites containing long-lived radioactive materials and which are released for "unrestricted use" in their entirety. When it was finalizing NUREG-0706,[1] NRC sought to develop amendments to 10 CFR Parts 40 and 150 (for Agreement States) to reflect the Congressional mandates set forth in UMTRCA for the management of *uranium mill tailings*. On August 24, 1979, NRC published both effective and proposed rules in the Federal Register "to implement the requirements of UMTRCA and the conclusions reached in the draft GEIS on uranium milling."[2] More specifically, as stated in the Final Rule for these amendments:

> "The amendments to Part 40 and 150 take into account the conclusions reached in a final generic environmental impact statement on uranium milling [NUREG-0706] and the requirements mandated in the Uranium Mill Tailings Radiation Control Act of 1978, as amended, public comments received on a draft generic environmental impact statement on uranium milling, and public comments received on proposed rules published in the Federal Register."[3]

The need for these regulations was described in the Final Rule's response to comments:

> "A number of commenters took the position that there is no great sense of urgency for regulations on uranium mill tailings management and mill operations. However, each year new mills are proposed and *many millions of tons of tailings are generated at existing mills*. As new mills are constructed and more tailings are generated, the options for dealing with tailings disposal become fewer. It is critically important that the siting and design criteria of the regulations be implemented for new facilities so that mistakes of the past are not repeated."[4]

The Final Rule thus promulgated 10 CFR § 40.32(e) to deal directly with the extent to which a proposed conventional uranium mill project site could be developed and constructed pursuant to these "siting and design criteria" prior to the issuance of a uranium milling license. Part 40.32(e) imposed a requirement on NRC to make "a positive finding on an applicant's proposed plans as meeting the requirements and objectives in Appendix A *prior to*

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[1] United States Nuclear Regulatory Commission, NUREG-0706, *Generic Environmental Impact Statement on Uranium Milling*, (1980).
[2] 45 Fed. Reg. 65521 (October 3, 1980).
[3] *Id.*
[4] *Id.* (emphasis added).

commencement of construction of a mill which produces byproduct material [i.e., uranium mill tailings]."[5] As a result, Part 40.32(e) states:

> "In the case of an application for a license for a uranium enrichment facility, or for a license to possess and use source and byproduct material for uranium milling, production of uranium hexafluoride, or for the conduct of any other activity which the Commission determines *will significantly affect the quality of the environment*, the Director, Office of Federal and State Materials and Environmental Management Programs or his designee, before commencement of construction of the plant or facility in which the activity will be conducted, on the basis of information filed and evaluations made pursuant to subpart A of part 51 of this chapter, has concluded, after weighing the environmental, economic, technical and other benefits against environmental costs and considering available alternatives, that the action called for is the issuance of the proposed license, with any appropriate conditions to protect environmental values."[6]

Based on this requirement, the Commission concluded in the regulation that "[c]ommencement of construction prior to this conclusion is grounds for denial of a license to possess and use of source and byproduct material in the plant or facility."[7] Therefore, "the denial of applications for licenses where construction is started before the appropriate environmental appraisals are completed and documented" is required.[8]

However, it is crystal-clear from NRC's accompanying explanatory language that this requirement is to be imposed only on a conventional "mill which produces byproduct material" as tailings, where it states:

> "Construction activities are likely to result in significant and long lasting environmental impacts, the propriety of which cannot be ascertained until these environmental appraisals are completed and documented."[9]

Moreover, NRC adds that:

> "The Commission also notes in this regard that milling results in the production of large quantities of byproduct material as tailings each year. When construction of a mill begins, *including its tailings disposal area*, irrevocable commitments are made regarding tailings disposal."[10]

Finally, NRC concludes that:

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[5] 45 Fed. Reg. at 65521.

[6] 10 CFR § 40.32(e). (emphasis added). This rule's current language incorporates amendments and administrative revisions added in 1984, 1992, and 2008; however, the substance of the regulation has not changed since its finalization in 1980.

[7] *Id.*

[8] 45 Fed. Reg. at 65521.

[9] *Id.*

[10] *Id.*

> "Given that each mill tailings pile constitutes a low-level waste burial site containing long lived radioactive materials, the Commission believes that prudence requires that specific methods of tailings disposal, mill decontamination, site reclamation, surety arrangements, and arrangements to allow for transfer of site and tailings ownership be worked out and approved before a license is granted."[11]

NRC's description of "milling" in the context of the Final Rule is entirely consistent with NUREG-0706 and the Congressional mandate articulated in UMTRCA. The primary goal of UMTRCA is the safe management and disposal of *uranium mill tailings*, including short-term management in accordance with EPA and NRC regulatory requirements and long-term management in accordance with Section 83's requirements for transfer of all 11e.(2) byproduct material to a mandatory long-term custodian for perpetual long-term surveillance and monitoring.[12]

This description of "milling" is, however, entirely inconsistent with the generic construction parameters for ISR facilities for a number of reasons. First, as stated above by NRC in NUREG-0706 and discussed in NRC's recently released NUREG-1910, ISR facilities do not generate large quantities of uranium mill tailings and do not require (and indeed, currently, are not permitted to have on-site 11e.(2) disposal facilities) *any* tailings disposal areas for the operation of the facility or the closure of the site after cessation of operations and groundwater restoration. Initially, ISR-generated 11e.(2) byproduct material management pursuant to 10 CFR Part 40, Appendix A, Criterion 2 requires the disposal of such materials at licensed 11e.(2) disposal facilities, including existing conventional uranium milling facilities. Liquid wastes classified as 11e.(2) byproduct material at such facilities can be disposed of using a Class I UIC deep-disposal well, if available, or by the use of evaporation ponds for liquid disposal with the resulting 11e.(2) sediment ultimately transported to a licensed 11e.(2) disposal facility for disposal. In either case, ISR facilities do not require tailings management facilities with potentially significant environmental impacts that could be considered an "irrevocable and irretrievable resource commitment" in the form of a "low-level waste burial site" as contemplated by NRC when promulgating the current Part 40.32(e) requirements.

With respect to the threat of significant long-lasting environmental impacts and "irrevocable and irretrievable resource commitments," title transfer requirements for 11e.(2) byproduct material under Section 83 of the AEA do not apply to ISR facilities.[13] Conventional uranium milling facilities typically require tailings management facilities that are conservatively

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[11] *Id.*

[12] It is important to note that NRC likened the potential "irrevocable and/or irretrievable commitments" associated with conventional uranium milling facilities to those presented by facilities "in which source materials are possessed and used for the production of uranium hexafluoride and commercial waste disposal by land burial" and amended Part 40.32(e) to include such facilities. Once again, these facilities present potential significant impacts that are more similar to *conventional uranium milling facilities* and not at all similar to ISR facilities.

[13] *See* 10 CFR Part 40.4 (depleted underground ore bodies resulting from ISR operations are not considered 11e.(2) byproduct material).

designed surface impoundments with liner and leachate collection and detection systems to ensure that no leakage of 11e.(2) byproduct material occurs and that require a licensee to disturb large portions (i.e., 40-80 acres) of a proposed site. Further, these impoundments also serve as the future repository for other materials at the site including, but not limited to, parts of the mill itself, windblown tailings, and other discrete 11e.(2) surface wastes and groundwater corrective action residuals. However, while conventional uranium milling facilities are specifically designed to control and manage these materials and for eventual transfer to a mandatory long-term custodian, ISR facilities are released for *unrestricted use* after completion of operations, site D&D, including groundwater restoration and, therefore, do not contain any residual, long-lived radioactive materials above NRC-mandated regulatory levels.[14] Thus, since ISR facilities do not require the tailings management and disposal facilities required by conventional uranium milling facilities for operations and post-operational long-term control of 11e.(2) byproduct material on-site, NRC's promulgation of Part 40.32(e) was not intended to apply to ISR facilities.

The potential impacts associated with construction activities at ISR sites already have been assessed in the ISR GEIS and have been found to pose "low" levels of potential impacts. For example, the ISR GEIS states with respect to land use impacts:

> "Ecological, historical, and cultural resources could be affected, but would be protected by careful planning and surveying to help identify resources and avoid or mitigate impacts. For all land use impacts except ecological, historical and cultural resources, the potential impacts would be SMALL."[15]

In addition, along with these minimal potential impacts, the construction of surface and subsurface facilities at ISR sites are largely, if not completely, standardized and pose essentially the same potential impacts at every ISR site. As a result, the programmatic assessment of the construction of these facilities should provide the necessary viable regulatory bases for all proposed pre-licensing site construction activities. Additionally, the amount of land area that potentially could be disturbed as a result of pre-licensing site construction activities generally is much less than the ten (10) percent of a proposed site which NRC Staff notes is the amount of a proposed site that would be disturbed as a result of *all* ISR operations, *including wellfields*.[16] As a matter of fact, the construction of an ISR project's surface facilities generally results in a disturbance of a minimal portion of the total site area. Thus, the potential for significant or long-term impacts from pre-licensing site construction at ISR facilities is negligible. Indeed, there is no potential for any potential adverse radiological impacts from such pre-licensing construction activities as no AEA-licensed material is produced, possessed or used at the site prior to issuance of an NRC license.

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[14] In addition, the aquifer in the recovery zone at an ISR site must be an "exempted" aquifer under EPA regulations which mandates that such aquifer cannot now nor ever in the future serve as a source of public drinking water. Thus, so long as the recovery zone aquifer is restored in accordance with applicable regulatory requirements, then such aquifer will also be returned to its status prior to ISR operations.

[15] NUREG-1910 at xxxviii. It is important to note that NMA's comments on NUREG-1910 stated that ecological, historical, and cultural resource impacts should not be analyzed in the land use impact section of its analysis. However, in either scenario, land use impacts were found to be "SMALL."

[16] *See* NUREG-1910 at xl.

Further, NRC also considered financial assurance arrangements,[17] including the availability of funds for long-term surveillance and monitoring after transfer of the site to the mandatory long-term custodian, when promulgating Part 40.32(e). In addition to the lack of a need for funds for title to transfer at ISR sites, the largest portion of financial assurance associated with ISR facilities is groundwater restoration. However, groundwater restoration is not necessary until an ISR operator commences and then completes active uranium recovery operations that generate source material in a given wellfield pursuant to an NRC license and has no relationship to pre-licensing site construction of ISR surface or subsurface facilities, including wellfields. As a result, ISR sites do not represent the same types of potential impacts related to financial assurance as the long-term commitment of resources contemplated for conventional uranium milling facilities by NRC in the Part 40.32(e) rulemaking.

Finally, in many cases, ISR operators may have additional financial assurance in place to address any pre-licensing site construction, since they may require additional permits from other regulatory entities such as States, BLM, and USFS. These regulatory entities frequently require some form of environmental review such as an environmental assessment (EA) and a financial assurance mechanism for a variety of structures and facilities such as office buildings, roads, storage warehouses, and wells. For example, the Wyoming Department of Environmental Quality (WDEQ) currently requires ISR operators to obtain a State Permit to Mine, which is accompanied by a financial assurance requirement for all activities on lands in the State, including the drilling of wells.[18] BLM has a similar financial assurance requirement pursuant to its regulations for obtaining an approved Plan of Operations for ISR site activities on BLM lands.[19] Thus, if a license is not granted, there still will be no significant adverse environmental impacts from pre-license wellfields, monitor well networks or UIC-permitted deep disposal wells, much less *any* potential adverse radiological impacts from AEA materials of which there will have been none.

2. NMA also believes that the Proposed Rule and NRC Staff's current interpretation of Part 40.32(e)'s provisions are inconsistent with existing Commission precedent regarding its jurisdiction pursuant to the AEA and the National Environmental Policy Act (NEPA). NRC Staff's current legal position is that pre-licensing site construction activities that have a *reasonable nexus* to public health and safety will not be permitted in the absence of a license or a specific exemption. The Proposed Rule reflects this position with a recognition that the definition of construction, as revised, will permit specific types of activities defined as outside the scope of construction because the AEA does not authorize NRC to require an applicant to obtain the Commission's permission prior to undertaking site preparation activities "that do not implicate radiological health and safety or the common defense and security." This is reflected in the Commission's October 9, 2007 rule for LWAs which recognized that, as stated above, the AEA does not authorize the Commission to require an applicant to obtain permission to conduct

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[17] *See* 10 CFR Part 40, Appendix A, Criteria 9 & 10.

[18] As a practical matter, NRC has no authority over wellfields prior to the injection of lixiviant pursuant to an AEA uranium recovery license; prior to beginning active uranium recovery operations, all ISR site wells (injection, production, monitoring) are nothing more than water wells with a State (or other agency) bond in place to assure that such wells are reclaimed.

[19] *See* 43 CFR § 3809 *et seq.*

site preparation activities "that do not implicate radiological health and safety or common defense and security considerations." *See* 75 Fed. Reg. at 43866.

Taking into account the comments discussed in Item II(1) above and the Commission's current responsibilities under the AEA, NEPA, and its risk-informed, performance-based regulatory approach, NRC Staff's legal position on Part 40.32(e)'s applicability to ISR operations is not sustainable. Currently, as stated by NRC Staff, its NEPA obligations and responsibilities arise only when NRC undertakes a "Federal" action. *See* 75 Fed. Reg. at 43867. Accordingly, NRC Staff determined that certain items excluded from the definition of "construction" in the LWA program which "do not have a reasonable nexus to radiological health and safety or the common defense and security...were 'non-Federal actions." SECY-10-0018 at 4. Further, NRC states that "because these site preparation activities lacked a reasonable radiological nexus to radiological health and safety or common defense and security, and did not require NRC approval or oversight, these activities were non-Federal activities within the context of NEPA (they were not an environmental effect of the federal action being reviewed)." *Id.* As such, NRC determined that the "effects of these non-Federal activities would only be considered in the agency's environmental review to that extent necessary to establish an environmental baseline against which the incremental effect of the NRC's subsequent major Federal action (i.e., issuance of a license) would be measured." *Id. citing* 72 Fed. Reg. 57416, 57247 (October 9, 2007). This approach projected over the entire fuel cycle, NRC believes, will "provide for a more efficient and effective licensing process." *Id.*

However, NMA argues that that this approach is far too narrowly interpreted in the context of ISR facilities which results in significant inconsistencies with Commission precedent and policy. As a preliminary matter, the AEA charges the Commission with the responsibility of protecting public health and safety from *significant* risks to radiological health and safety and the common defense and security and not just any risk thereto.[20] As has been stated by NMA on several occasions, uranium recovery facilities (including conventional uranium mills), as compared with nuclear power reactors (for which the LWA program was created), are the lowest risk components of the nuclear fuel cycle by orders of magnitude. Further, ISR facilities pose even lower potential risks due to the fact that they carry with them even fewer potentially significant radiological risks to public and worker health and safety. For example, as stated above, ISR facilities do not create conventional uranium mill tailings and create only small amounts of 11e.(2) byproduct material for off-site disposal. Accordingly, ISR facilities are released for unrestricted use at the conclusion of operations, groundwater restoration, and surface reclamation and *no 11e.(2) byproduct material is left on-site* above NRC regulatory limits (e.g., 10 CFR Part 40, Appendix A, Criterion 6). But rather than acknowledge these differences in potential risk levels and long-term resource commitments between conventional uranium mills and ISR facilities, NRC Staff instead chooses to rely on its unsubstantiated conclusion that ISR operations are "milling" operations and, thus, are subject to the same stringent pre-licensing site construction requirements as those prescribed for conventional uranium mills in 1980. To make matters worse, NRC Staff's fundamental basis for this position is to consistently cite to language from the Part 40.32(e) administrative rulemaking record regarding milling facilities generating significant quantities of mill tailings and the *irrevocable commitments and irretrievable impacts*

[20] *See e.g., Industrial Union Department, AFL-CIO v. American Petroleum Institute*, 448 U.S. 607 (1980); *see also Natural Resources Defense Council, Inc. v. U.S. EPA*, 824 F.2d 1146 (July 28, 1987).

of utilizing disposal facilities (impoundments or piles) for the resulting tailings and other 11e.(2) byproduct material that essentially constitute low level waste disposal facilities. *See* 75 Fed. Reg. at 43867. This position, on the facts, is incorrect and arbitrary.

3. The Proposed Rule perpetuates the conclusion that a NEPA review is necessary prior to any construction of facilities as if NEPA has some jurisdictional significance in addition to the AEA's jurisdictional grant. Indeed, the Proposed Rule states:

> "Currently, 10 CFR § 40.32(e) *prohibits* an applicant for a license...to possess and use source material, or for any other activity requiring NRC authorization from commencing construction of *the plant or facility* in which the activity will be conducted before NRC's decision to issue the proposed license...Similar *prohibitions* on construction exist with respect to 10 CFR Parts 30, 36 and 70."

75 Fed. Reg. at 43,865-43,866 (emphasis added).

Such a statement contradicts legal precedent. As stated in *NRDC v. EPA*,

> "NEPA, as a procedural device, does not work broadening of the agency's substantive powers. Whatever action the agency chooses to take must, of course, be within its province in the first instance."

822 F.2d 104 (D.C. Cir. 1987).

Similarly, in *NFS,* interpreting 10 CFR §§ 51.101(a) and 70.23, the Commission decided that since no statute or regulation required any NRC permit to begin construction activities, the authority to *halt or prohibit* such activities would be questionable.[21] The Commission reasoned that the above-noted regulatory provisions only "*contemplate* that construction...should not begin until NRC has completed its environmental review."[22] The Commission read Part 70.23 as *discouraging* rather than *prohibiting* construction prior to the completion of NRC's NEPA review of proposed activities involving highly radioactive special nuclear materials. Thus, NFS was permitted to construct three new facilities on its site to produce low-enriched uranium (LEU) oxide, receive and store LEU nitrate, down-blend HEU to LEU, and convert LEU nitrate to LEU oxide as the agency had no AEA authority to license construction in the first place. In other words, while the AEA and NRC regulations require a license to conduct operations involving AEA materials, neither statute nor regulations prevents the applicant from beginning construction of project buildings and facilities at its own risk prior to issuance of a license. It is difficult to understand how the RIS and the Proposed Rule could be published in light of the aforementioned *NFS* decision. It appears that the mechanism to do so could be the so-called "reasonable nexus" to health and safety and common defense and security cited in both documents. NMA is aware that NRC Staff have ruled that complete wellfield packages (i.e., wellfields and monitor well networks), deep disposal wells, and the central processing plant (CPP) have such a "reasonable nexus to health and safety and common defense and security.

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[21] *See Nuclear Fuel Services, Inc.* (Erwin, Tennessee), CLI-03-03, 57 NRC 239, 246 *citing* AEA § 185, 42 U.S.C. § 2235 (construction permits for production and utilization facilities).

[22] *Id.* (footnotes omitted).

However, it seems obvious in light of the *NFS* decision that if there can be no "reasonable nexus" until licensed activities begin, then it is patently obvious that there can be no such "reasonable nexus" with pre-licensing site construction of installation wellfields, monitor well networks, and deep disposal wells, etc until a license is granted (i.e., lixiviant is injected, source material is recovered from wellfields, and 11e.(2) byproduct material is generated).

4. Based on the comments in Item II(3) above, NMA argues that NRC Staff's current interpretation of Part 40.32(e), as well as the revised language in the Proposed Rule, omits a substantial amount of ISR site construction activities from the list of activities permitted prior to receiving a license. The following list discusses all potential ISR site construction activities that have *no* "reasonable nexus" to radiological health and safety much less the common defense and security:

a. **Wellfields**

NMA believes that the installation of injection, production/extraction, and monitor well networks does not have a reasonable nexus to radiological health and safety or the common defense and security. The installation of ISR wells typically are directed by the State Engineer's Office and specific requirements for construction and maintenance are required. Prior to the commencement of licensed ISR operations, each of these wells could just as easily serve as private drinking (although it is unlikely an injection or production/extraction well could serve as a drinking water well due the elevated radionuclide levels), industrial, irrigation or stock watering well. It is the subsequent injection of lixiviant that makes the use of these wells have a reasonable nexus to radiological health and safety. Thus, the installation of these wells alone cannot be deemed to have a reasonable nexus to public health and safety.

Further, there are no irrevocable commitments or irretrievable impacts associated with installation of a complete wellfield, including monitor well network, because all a license applicant would be required to do in the event of failing to get a license would be to plug and abandon each installed well in accordance with State Engineer's office requirements. Even though NRC likely cannot enforce this requirement pre-license issuance, the State regulatory agencies certainly can. Indeed, as stated above, these wells are fully bonded with State agencies, BLM, USFS, and the like; so, there is no threat of wells going unplugged in the event an NRC license is not obtained.

Moreover, deep disposal wells permitted under the Safe Drinking Water Act (SDWA) by EPA or "primacy" States follow the same analysis above. Deep disposal wells carry no reasonable nexus to public health and safety until production bleed or restoration fluid (both 11e.(2) byproduct material) are put into the well for final disposition. Thus, these wells are no different from injection, production/extraction or monitor wells and even after operations during an ISR project's lifecycle do not result in irrevocable impacts and irretrievable commitment of resources.

b. **Administrative and Other Buildings and Site Roads and Infrastructure**

NMA also believes that the construction of the administrative and other buildings and site roads and associated infrastructure do not have a reasonable nexus to public health and safety and, thus, should not be prohibited under the current Part 40.32(e), thus negating the need for a rulemaking. Construction of office buildings, warehouses, and other administrative buildings will require a concrete slab or foundation; but, the size and scope of the construction of such facilities as compared to power reactor construction activities is negligible. Installation of power lines and site roads also does not require significant scope of construction. Given that none of these buildings will handle AEA materials *until the ISR process is licensed,* such activities have no "reasonable nexus" to public health and safety much less the common defense and security. If a license were denied, such structures would not require any D&D of AEA materials, because no licensed operations would have taken place. Thus, NRC should allow pre-licensing construction of such facilities because their potential environmental impacts will be limited in scope and can easily be redressed in the event an NRC license is not issued.

c. **Central Processing Plant**

NMA also believes that the construction of the foundation and outer shell of the CPP building does not have a reasonable nexus to public health and safety and, thus, should not be prohibited by the current Part 40.32(e). Similar to the buildings discussed in Item II(3)(c), the foundation and outer shell of the CPP will only require the laying of a foundation and the erection of a simple outer structure. Indeed, storing the equipment in the CPP pending installation also has no "reasonable nexus" to health and safety much less the common defense and security. Thus, NRC should allow pre-licensing construction of such facilities because their potential environmental impacts will be limited in scope and can easily be redressed in the event an NRC license is not issued.

5. CONCLUSION

In conclusion, the *NFS* decision makes clear that NRC has no AEA jurisdiction under 10 CFR Part 40.32(e) to *prohibit* pre-licensing site construction of ISR facilities and buildings as stated in the Proposed Rule. Such activities have no "reasonable nexus" to health and safety or the common defense and security until after the license is issued. If an ISR license applicant undertakes pre-license site construction of the types of facilities discussed above, NRC still has the flexibility to deny a license that is lacking appropriate health and safety or environmental safeguards or to impose site-specific license conditions regarding any such facilities, therefore, the license applicant/licensee constructs such facilities at their own risk. In any event, construction of such facilities and buildings pose no significant potential adverse environmental risks for the reasons noted above even if NRC had jurisdiction to prohibit their construction pre-license issuance. Finally, NMA finds that NRC Staff's failure to mention (much less discuss or attempt to distinguish) the Commission's decision in *NFS* in either its RIS or the Proposed Rule is a critical omission in this rulemaking.

NMA appreciates the opportunity to provide these comments on the proposed rule. If you have any questions regarding this submission, please contact me at (202)463-2627 or ksweeney@nma.org.

Sincerely,

Katie Sweeney

Rulemaking Comments

From: Sweeney,Katie [KSweeney@nma.org]
Sent: Monday, November 29, 2010 8:12 PM
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Subject: Docket ID NRC-2010-0075
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Attached are the comments of the National Mining Association regarding the Nuclear Regulatory Commission's **Proposed Rule for Licenses, Certifications, and Approvals for Material Licensees.** If you have any questions regarding this submission, please contact me.

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