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Consideration of Rulemaking to Address Prompt Remediation of Residual Radioactivity During Operations

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General Comment

Wyoming Mining Association (WMA) Comments on the Request for Comment-Consideration of Rulemaking to Address Prompt Remediation of Residual Radioactivity during Operations - (Federal Register/Volume 76, Number 137/Monday, July 18, 2011/ Proposed Rules

Attachments

wma comments to Address prompt Remedeation of Residual Radioactivity during operations

SUNSI Review Complete
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Subject: Wyoming Mining Association (WMA) Comments on the Request for Comment - Consideration of Rulemaking to Address Prompt Remediation of Residual Radioactivity during Operations – (Federal Register / Volume 76, Number 137 / Monday, July 18, 2011 / Proposed Rules)

Gentlemen:

The Wyoming Mining Association (WMA) is an industry association representing mining companies, contractors, vendors, suppliers and consultants in the State of Wyoming. Among its mining industry members are uranium recovery licensees, including two (2) operating in-situ uranium recovery licensees, one conventional uranium recovery operator in standby, several companies planning new uranium recovery operations that are currently in the permitting process and several companies conducting final reclamation/restoration operations.

The following are the Association's comments on this ***Consideration of Rulemaking***:

Existing Surety Requirements

Uranium recovery licensees are regulated under 10 CFR part 40 Appendix A, specifically the surety requirements incorporated in Criterion 9. Criterion 9 was revised in the Final Rule - Decommissioning Planning. Criterion 9 imposes very stringent standards regarding surety on uranium recovery licensees including:

- required annual surety updates;
- adequate contingency amounts;
- detailed cost estimates that assure that "*...sufficient funds would be available for completion of the reclamation plan if the work had to be performed by an independent contractor.*" and;
- denial of self insurance by stating, "*Self insurance, or any arrangement which essentially constitutes self insurance (e.g., a contract with a State or Federal agency), will not satisfy the surety requirement because this provides no additional assurance other than that which already exists through license requirements.*"

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Existing Documentation Requirements

Uranium recovery licensees are required to fully document any known contamination under 10 CFR 40.36 (f) which states:

(f) Each person licensed under this part shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. Before licensed activities are transferred or assigned in accordance with § 40.41(b) licensees shall transfer all records described in this paragraph to the new licensee. In this case, the new licensee will be responsible for maintaining these records until the license is terminated. If records important to the decommissioning of a facility are kept for other purposes, reference to these records and their locations may be used. Information the Commission considers important to decommissioning consists of--

(1) Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records may be limited to instances when contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations.

(2) As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored, and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations.

(3) Except for areas containing depleted uranium used only for shielding or as penetrators in unused munitions, a list contained in a single document and updated every 2 years, of the following:

(i) All areas designated and formerly designated as restricted areas as defined under 10 CFR 20.1003;

(ii) All areas outside of restricted areas that require documentation under § 40.36(f)(1);

(iii) All areas outside of restricted areas where current and previous wastes have been buried as documented under 10 CFR 20.2108; and

(iv) All areas outside of restricted areas that contain material such that, if the license expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in 10 CFR part 20, subpart E, or apply for approval for disposal under 10 CFR 20.2002.

(4) Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.

These recordkeeping requirements assure that all known contamination at a uranium recovery site is documented. In the preamble to the ***Final Rule - Decommissioning Planning*** the Commission states:

"...the final rule does not establish any new remediation criteria for UR facilities. Standards for decommissioning UR facilities, and the various related requirements for conducting soil and ground-water monitoring at UR facilities, are found in 10 CFR part 40, Appendix A. The final rulemaking does not change any of these requirements. A UR licensee's program that complies with the 10 CFR part 40, Appendix A site remediation criteria would thus not be impacted by § 20.1501(a)'s revised survey requirements, and such programs would not become more complex or "expensive as a result of this rulemaking.

Based upon the above, the Commission seems satisfied that 10 CFR Part 40 Appendix A is sufficiently protective. Had the Commission not believed that 10 CFR part 40 Appendix A was sufficiently protective new criteria would have been established for uranium recovery facilities.

Naturally Occurring, Long Half Life Low Specific Activity/Low Risk Materials

The uranium recovery industry deals with long half life naturally occurring radionuclides such as Uranium-238 (4.51E+09 years), Thorium-230 (8.0E+04 years) and Radium-226 (1.6E+03 years) which due to their long half lives (when compared to Cesium-137 (3.017E+01 years) or Cobalt-60 (5.27 years) for example) pose considerably lower risks. In addition, the primary risk associated with natural uranium is not radiological but chemical as per 10 CFR Part 20.1201(e) which states:

(e) In addition to the annual dose limits, the licensee shall limit the soluble uranium intake by an individual to 10 milligrams in a week in consideration of chemical toxicity (see footnote 3 of appendix B to part 20).

In addition, most uranium recovery operations are conducted in remote areas with engineered and administrative access controls and as such radiation exposures to members of the general public are minimal.

The contaminants involved in uranium recovery are naturally occurring radionuclides and concentrations of these radionuclides are often difficult to distinguish for background concentrations. One Association member encountered this problem in a remedial action and only realized after removal of a substantial volume of material that the radionuclides observed in the material removed were in fact naturally occurring material and not anthropogenic. Due to these two (2) above mentioned reasons, it is better to wait until after all operations have ceased to perform such remedial actions, since more time would be available to study any suspected contamination and fully determine its precise nature.

Also, uranium recovery operators assess each spill to ensure compliance with As Low As Reasonably Achievable (ALARA) as well as 10 CFR Part 20.1301, 20.1302, and 20.1502.

Cost Effectiveness of Remediation Conducted Concurrently with Operations

Remediation actions conducted during operations would be less cost effective than the same operations conducted after operations have ceased. During operations, in addition to the costs of the remediation itself, additional costs in the form of interruptions to production would be created making remediation concurrent with operations more costly and less efficient. In addition, in some circumstances, remediation of contamination may only be possible after operations have ceased, such as in the case of soil contamination beneath building slabs.

Responsible Behavior of Uranium Recovery Licensees

The uranium recovery industry has been responsible in its management of contaminated materials. In Wyoming, one Association member conducted an extensive remediation effort to address subsurface contamination created by a former site owner and did so without being required to do so by the Commission. The licensee discovered the subsurface contamination, notified Commission staff promptly, conducted a detailed investigation, submitted a license amendment request to excavate the subsurface contamination and upon receipt of the license amendment proceeded to do so promptly. The remedial action resulted in an area that following dose modeling by Resrad showed zero dose. The licensee was able to perform the work promptly because the facility was not operating at the time and the remediation work did not interfere with any ongoing operations.

The ***DRAFT Proposed Technical Basis For Prompt Remediation, Rev. 4*** states, "*In addition, when licensees delay remediation until decommissioning, safety practices may be relaxed as operating hazards decrease, key personnel relocate and management focus changes. In addition, bankruptcy, corporate takeover, or other unforeseen changes in the company's financial status may complicate and perhaps further delay remediation.*" The large sureties imposed by 10 CFR Part 40 Appendix A assure that adequate funds will always be available to complete remediation in the event of bankruptcy or other financial problems that render the licensee unable to pay for remediation. The large sureties also mean that management focus remains on the site, since the large sureties tie up the company's bonding capacity (if conventional sureties are used) or the firm's capacity to borrow money if irrevocable letters of credit are used as the surety mechanism.

The recordkeeping requirements in 10 CFR Part 40.36 assure that records of any contamination will be maintained and that the licensee will not have to rely upon the memories of any "*key personnel*". It is interesting to note that the above quoted language is almost identical to the language used by the Commission to justify the need for the Timelines in Decommissioning rule that became effective in 1996.

Conclusions

The Association does not believe that requirements for prompt remediation for uranium recovery facilities are needed for the following reasons:

- Uranium recovery facilities are covered under comprehensive surety requirements in 10 CFR Part 40 Appendix A Criterion 9 that provide ample funding for site remediation at closure should the licensee fail to be able to remediate the site.
- The regulations (10 CFR Part 40.36) contain documentation requirements for any known contamination. If contamination is known it must be documented and it must be addressed in the surety.
- The uranium recovery industry deals with long half life naturally occurring radionuclides which due to their long half lives (when compared to Cesium-137 (3.017E+01 years) or Cobalt-60 (5.27 years) pose considerably lower risks. In addition, most uranium recovery operations are conducted in remote areas with engineered and administrative access controls and as such radiation exposures to members of the general public are minimal.
- The contaminants involved in uranium recovery are naturally occurring radionuclides and concentrations of these radionuclides are often difficult if not impossible to distinguish for background concentrations.
- Remediation actions conducted during operations would be less cost effective than the same remedial actions conducted after operations have ceased. During operations, in addition to the costs of the remediation itself, additional costs in the form of interruptions to production would be created making remediation concurrent with operations more costly and less efficient.
- In some circumstances remediation of contamination may only be possible after operations have ceased such as in the case of soil contamination beneath building slabs.
- The uranium recovery industry has been responsible in its management of contaminated materials and in many cases proactive as well.

The Association appreciates the opportunity to comments on this ***Consideration of Rulemaking***. If you have any questions please do not hesitate to contact me

Sincerely yours,
WYOMING MINING ASSOCIATION

Marion Loomis

Marion Loomis
Executive Director

Cc: Katie Sweeney – National Mining Association (NMA)