

Bill Ritter, Jr., Governor  
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.  
Denver, Colorado 80246-1530  
Phone (303) 692-2000  
TDD Line (303) 691-7700  
Located in Glendale, Colorado

Laboratory Services Division  
8100 Lowry Blvd.  
Denver, Colorado 80230-6928  
(303) 692-3090

<http://www.cdphe.state.co.us>



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Colorado Department  
of Public Health  
and Environment

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May 8, 2008

May 8, 2008 (2:20pm)

Ms. Annette Vietti-Cook  
Secretary  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

ATTN: Rulemakings and Adjudications Staff.

RE: Colorado comments on RIN 3150-AH45

I would like to take this opportunity to submit comments on behalf of the Colorado Radiation Control Program on the proposed decommissioning rule. In general, we concur with the proposals but have some comments for your consideration. We do not regulate reactors and therefore are not commenting on the scope of the rule for those sites, but for materials sites including sites under Part 20 as well as Part 40.

When any subsurface contamination above background is identified, the staff recommends that it be noted in decommissioning records, even if it is not otherwise reportable. This is because such information can be very useful for conducting site characterization for purposes of license termination and to support decisions on the extent of site remediation necessary to meet unrestricted use criteria. It is also useful when planning modifications to a facility. This stems from the logic that if subsurface contamination exists, it came from some plant system that handles that material, so any physical activity on or near those systems should include provisions for dealing with the source of contamination. It should be noted that these records would be valuable in conducting the Historical Site Assessment part of the MARSSIM process.

We concur with the proposed changes to revise 10 CFR 20.1406 to make it applicable to licensees with operating facilities as well as to license applicants, and revise 10 CFR 20.1501(a) by replacing its undefined term "radioactive material" with "residual radioactivity,"

NRC specifically asked about certain topics. Colorado offers the following:

- (a) Use of "fee incentives" to encourage investigation of subsurface residual radioactivity while the facility is operating. This does not appear to be discussed in the preamble. NRC should be clearer on what it means by "fee incentives." Any incentive should not reduce surety amounts.

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SECY-02

- (b) Should NRC investigate the use of a secure Web site for use by licensees to submit and update decommissioning reporting requirements, information in the financial tests for parent guarantees and self-guarantees, and other information that licensees believe will improve the efficiency of the decommissioning planning. This too was not discussed in the proposed rule or in the supporting documentation. We do have a concern about timely access to the information. Will the secure web site be accessible to the Agreement States? Should there be notification when something is uploaded to the site?
- (c) No comment
- (d) Are the input assumptions, methodology and results in the draft Regulatory Analysis correct, including the Backfit Analysis? Revisions at §40.36(f) requiring licensees to keep records of spills are recent and there has not been enough time to determine the adequacy of the current rule. This rulemaking should be extended to Part 40 licensees to reinforce the requirements at §40.36(f). It may be argued that while NRC staff has no basis that other licensees would need to perform additional surveys, Colorado suggests that Part 40 licensees should be included. The cost of doing business in a revived uranium industry is going up. In fact, staff lists a Colorado facility as one that has experienced significant subsurface contamination:

“There have been instances of previously unidentified soil and ground-water contamination at uranium recovery and rare earth sites undergoing decommissioning in several states, notably Colorado and Pennsylvania. Two contributing factors to the accumulation of unidentified subsurface contamination is reluctance among some licensees to spend funds during operations to perform surveys and document spills and leaks that may affect site characterization, and to implement procedures for waste minimization.”

Since existing sites would face significant costs retrofitting or upgrading their facilities (e.g., sumps, pipe chases), consideration should be given to a time frame on the order of 5 years for implementation.

- (e) The NRC and Agreement States are aware of the existence of facilities and sites which have the potential to become contaminated with significant amounts of radium-226 from past practices or operations, or from the accumulation of radium-226 sources. Do members of the public have information about these sites to include them in the Regulatory Analysis as licensees affected by this proposed rule?

It is not clear if NRC is asking about discrete sources of radium that are now considered 11e.(3) byproduct material, or if they are talking about diffuse sources of radium, which were not captured by the Energy Policy Act amendments. Colorado has some instances of legacy radium contamination that we are addressing in a case-by-case basis. One is radium contamination in the foundation of a structure built around 1919 in Montrose, and another is a building in downtown Denver from the same time frame. Neither has posed an off-site contamination issue, but considerable decontamination of the Montrose structure was required

for it to meet public dose limits for occupational use (the Denver building is still being characterized). The building in Montrose is under an Environmental Covenant since some contamination could not be accessed. We doubt if the general public outside Colorado reviewing the proposed rulemaking would be aware of this.

We also offer the following comments on specific sections of the proposed regulations:

- Section 20.1403 Criteria for License Termination Under Restricted Conditions. We concur in part with these proposals. Since the events of 9/11, it is becoming increasingly more difficult for materials licensees to get any form of surety. NRC needs to be sensitive to this. While certain financial assurance methods may not be effective in bankruptcy situations, given that funds held in them may be accessible to creditors, other instruments hopefully can be utilized. Colorado is also sensitive to the previous actions, as one of the parent companies discussed in the FR notice is also the parent company of one of our licensees that faces significant decommissioning costs (and is a Superfund site).

No NRC licensees are using a line of credit as a financial mechanism; both the escrow account and the line of credit are proposed for elimination as acceptable financial assurance instruments. This is not the case in Agreement State space. Consider rather that materials licensees may obtain insurance to cover the costs of surety while a sinking fund is populated. Colorado does have one such surety instrument in place for post-RCRA closure of the Clean Harbors Deer Trail Facility that is licensed for certain concentrations of TENORM disposal.

- Section 20.1404 Alternate Criteria for License Termination. We concur.
- Section 20.1406 Minimization of Contamination. New licensees are required to minimize facility contamination and waste generation. Revising this requirement so that it applies to existing licensees could reduce the risk of subsurface contamination at existing sites.
- Section 20.1501 General. We concur that "...slow and long lasting leaks of radioactive material into the onsite subsurface may eventually produce radiological hazards and pose a risk for creation of a legacy site if contaminant characteristics are not identified when the facility is operating" and "[F]acilities that process large quantities of licensed material, especially in liquid form, have the potential for causing significant environmental contamination. Leaks from these facilities can lead to large amounts of radioactive contamination entering the subsurface environment over an extended period of time. The estimated doses from this contamination are below the limits in 10 CFR Part 20 that would initiate immediate regulatory action." We would like to point out that licensees that need to comply with Part 190 dose limits have requirements that are especially challenging and all relevant source terms need to be identified.

The need for increased monitoring is clear to Colorado due to its recent experience with its operational uranium mill. There were literally no monitoring wells in the area of the milling circuit; rather numerous wells were in place for monitoring the legacy mill tailings areas that were unlined (and the current impoundments). The legacy areas are a Superfund Site, but the milling facility was not treated as an operable unit. Colorado requested monitoring wells be put in around the milling area, but the licensee was reluctant because it assumed that soils under the

mill would be remediated at closure. Until two monitoring wells were put in around 2005, there was no indication of a source term. A mound of contaminated groundwater exists under the tanks, and is likely to be the subject of additional monitoring around the milling complex and corrective action. This will also impact financial assurance estimates. The new requirements will go a long way to prevent this at other sites. We have generated maps showing the potentiometric surface at the site, including the groundwater mound under the old wooden process tanks. The licensee has proposed to remediate the area in the immediate future in order to replace the process tanks with newer technology.

The NRC staff recommends that any identified recurring leaks or spills within the facilities or those greater than 100 gallons be entered in the decommissioning records. For those events that are recorded elsewhere, e.g., operational logs, the decommissioning record can be a simple reference to the other records. Colorado has a similar requirement as a license condition on its operational uranium mill. The record keeping is not onerous; the licensee has been able to comply without any significant financial burden. It should be noted here that GIS systems make documentation of tracking of spills a relatively easy task, and do not pose a paperwork burden. Tracking of these data are critical for an effective Historical Site Assessment under MARSSIM. The proposed additional reporting requirements are designed to foster a better understanding of the impact the spill or contaminating event has on the decommissioning cost estimate.

- Section 30.34 Terms and Conditions of Licenses. We concur.
- Section 30.35 Financial Assurance and Recordkeeping for Decommissioning. We concur with the NRC proposal to amend 10 CFR 30.35, 40.36, 70.25 and 72.30 to require licensees to obtain NRC approval of their DFP based on a decommissioning cost estimate for unrestricted release, unless the ability to meet the restricted release criteria can be adequately shown.

Early consideration and funding arrangements to cover increased costs will improve decommissioning planning and increase the likelihood that funds will be available when needed for site decommissioning. However, as mentioned previously, we are concerned that there are fewer options (instruments) available for surety, and this is a challenge that NRC needs to be sensitive to.

- Part 30 Appendices A, C, D, and E. In light of the current economic challenges brought on by the mortgage crisis from bundling of certain assets that were overvalued, NRC should seriously reconsider if the final rule should allow the use of intangible assets, used in conjunction with an investment grade bond rating, to meet specified criteria in the financial tests for parent company and self-guarantees.
- Section 40.36 Financial Assurance and Recordkeeping for Decommissioning. We concur. The new rules should apply to milling circuits at Part 40 licensees to reinforce the requirements in §40.36(f). The current § 20.1101(b) requires each licensee to use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are ALARA. These operating procedures and controls need to include methods to evaluate potential radiological

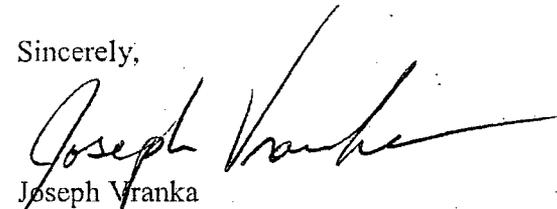
hazards and to minimize and control waste generation during facility operations, to achieve doses that are ALARA. This was interpreted to reduce dose to a receptor. ALARA was not necessarily a driver for environmental monitoring or remediation, particularly if the presumed exposed individual was presumed to be not drinking water from the site. Historically, sites were not characterized until shortly before closure, and routine spills were not considered significant. Uranium mills must meet 40 CFR 190 limits, which are very conservative. If source terms are not identified during operations, under estimation of public dose is a real possibility.

- Section 40.46 Inalienability of Licenses. We concur.
- Part 40 Appendix A. See our comments for 30.35.

We have no issues with the compatibility designations.

We appreciate the opportunity to comment on the proposed rule.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph Vranka". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Joseph Vranka  
Radiation Control Program Manager  
Hazardous Materials and Waste Management Division

**Secy**

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**From:** JOE Vranka [jsvranka@smtpgate.dphe.state.co.us]  
**Sent:** Thursday, May 08, 2008 1:53 PM  
**To:** Secy  
**Cc:** EDGAR Ethington; Kenneth Weaver; Philip Egidi; Steve Tarlton  
**Subject:** RIN 3150-AH45 -- Colorado Comments  
**Attachments:** NRC\_DecommissioningRuleProposedChanges20080508\_Colorado.pdf

Please see the attached comments from the Colorado Radiation Control Program on RIN 3150-AH45.

Thank you,

Joe Vranka

Joseph S. Vranka, P.E.  
Manager  
Radiation Control Program  
Colorado Department of Public Health and Environment  
HMWMD-RAD-B2  
4300 Cherry Creek Dr. S.  
Denver, Colorado 80246-1530  
303.692.3402  
303.759.5355 FAX  
[joe.vranka@state.co.us](mailto:joe.vranka@state.co.us)

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From: JOE Vranka <jsvranka@smtpgate.dphe.state.co.us>

To: <SECY@nrc.gov>

CC: "EDGAR Ethington" <efething@smtpgate.dphe.state.co.us>,  
"Kenneth Weaver" <klweaver@smtpgate.dphe.state.co.us>,  
"Philip Egidi" <pvegidi@smtpgate.dphe.state.co.us>,  
"Steve Tarlton" <starlton@smtpgate.dphe.state.co.us>

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Return-Path: jsvranka@smtpgate.dphe.state.co.us