

November 17, 2003

COMMISSION VOTING RECORD

DECISION ITEM:      SECY-03-0069

TITLE:                      RESULTS OF THE LICENSE TERMINATION  
                                    RULE ANALYSIS

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of November 17, 2003.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

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Annette L. Vietti-Cook  
Secretary of the Commission

Attachments:

1. Voting Summary
2. Commissioner Vote Sheets

cc:      Chairman Diaz  
            Commissioner McGaffigan  
            Commissioner Merrifield  
            OGC  
            EDO  
            PDR

VOTING SUMMARY - SECY-03-0069

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. DIAZ	X				X	10/15/03
COMR. McGAFFIGAN	X				X	10/31/03
COMR. MERRIFIELD	X				X	9/11/03

COMMENT RESOLUTION

In their vote sheets, all Commissioners approved the staff's recommendation and provided some additional comments. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on November 17, 2003.

## Commissioner Comments on SECY-03-0069

### Chairman Diaz

I commend the staff for its comprehensive examination of decommissioning issues in SECY-03-0069. In that regard, I approve the options and issue-specific implementation actions identified in SECY-03-0069 subject to the comments noted in bold type.

Restricted Release/alternate Criteria and Institutional Control. In addition to changes to decommissioning guidance, the staff recommends among other measures that new options for restricted release be added. One option would have NRC responsible for monitoring and enforcement of institutional controls after license termination using regulation or legal agreement. The other option would allow for restricted use by an NRC possession-only specific license.

**I approve the staff's recommendations subject to the following comment. The staff's recommendations have merit in that they provide potential alternatives for managing institutional control at complex decommissioning sites. However, as the staff notes (Attachment 1 to Secy-03-0069), there are many unknowns about implementation. Several of the proposed alternatives propose new roles for the NRC and particular alternatives may be of benefit to only a few licensees. Because of the uncertainty in the effectiveness of the proposal, the staff should gather comment on the recommended actions from the public, Agreement States, and our licensees before proceeding to issue a RIS.**

Relationship between LTR Release Limits and Other Release Limits. The staff proposes to clarify that it is not acceptable to use 10 C.F.R. 40.13(a) as a decommissioning criterion. This clarification would extend the Commission's denial of the AAR Manufacturing Inc. request to use §40.13 (a) to all sites.

**I approve the staff's recommendation because it ensures consistency and predictability in how NRC approaches decommissioning.**

Appropriateness of Developing a Separate Unrestricted Release Standard for Uranium and Thorium. The staff recommends against developing a separate unrestricted release standard for source material licensees because it believes that sufficient flexibility exists with the LTR criteria such that source material licensees have risk-based flexibility.

**I approve the staff's recommendation because I agree that the development of a separate standard is likely to be a lengthy and resource-intensive process. Further, other alternatives such as the planned evaluations on the appropriateness of allowing intentional mixing of contaminated soil may provide less costly solutions to decommissioning source material sites.**

On-Site Disposal under 10 CFR 20.2002. Staff proposes to explain in a RIS that the current practice of allowing on-site disposals under §20.2002 with a dose criterion of a "few millirem" will continue. Staff will also permit burial requests with a dose criterion of 1 mSv/yr (100 mrem/yr) so long as such requests provide for additional financial

assurance to cover the cost of decommissioning the burial site at license termination. In Attachment 4 to SECY-03-0069, staff notes that the LTR requires re-examination of prior burials for license termination.

**I approve the staff's proposal to clarify the position for on-site disposal under §20.2002 as it seems warranted.**

Controlling the Disposition of Solid Materials. Staff recommends that the relationship between the LTR's restricted release dose constraint and the existing case-by-case approach for controlling the disposition of solid materials be explained in a RIS.

**I approve the staff recommendation. It appears that Attachment 5 of SECY-03-0069 contains most of the information that would be incorporated into a RIS, but it is not clear how widespread the demand is for this clarification. Thus, staff should ensure that the resources applied to this activity are constrained.**

Realistic Exposure Scenarios. The staff recommends that more realistic exposure scenarios be incorporated into guidance for use with the LTR.

**I approve the staff's recommendation subject to the following comment. I strongly support the use of reasonably conservative, as opposed to unnecessarily conservative, scenarios. However, achieving consensus among stakeholders on site-specific measures such as the range of exposure scenarios appropriate for a specific site, the most likely reasonably foreseeable scenario, and the underlying assumptions for those scenarios could be costly and resource-intensive. In addition, staff notes that this effort could result in a lack of finality in the decision process if the actual land use is different than the predicted land use. This potential outcome is of concern because it could result in the need to revisit sites with terminated licenses not unlike the staff's current evaluation of formerly licensed sites associated with the Terminated License Review Project. As a result, I believe that the viability of the approach should be discussed with stakeholders and the results provided to the Commission before the guidance is finalized.**

Measures to Prevent Future Legacy Sites. To avoid future legacy sites, staff recommends rulemaking to incorporate, among others, measures to re-evaluate decommissioning cost estimates, require ground-water monitoring for some licensees, allow NRC to hold parent companies and subsidiaries liable for decommission costs, and require certain licensees to obtain onsite property damage insurance.

**I approve the staff's recommendation to pursue rulemaking, because these measures seem appropriate so as to avoid creating legacy sites. However, unrestrained implementation of the new requirements could result in an unnecessary regulatory burden. Thus, I withhold final judgment on their utility until the provisions have been commented on by the public and licensees.**

Changes in Licensee Operations. Staff recommends that 10 CFR 20.1406 be revised to require both current and new applicants to design and operate facilities to minimize contamination. In addition, changes will be made to staff guidance and management

directives to increase emphasis on enforcement for non-compliances with surveying and monitoring requirements and incorporating risk-informed approaches to monitoring and reporting programs.

**I approve these measures because they appear to be prudent. However, in addition to incorporating risk-informed approaches, the staff should ensure that they are performance-based.**

### Commissioner McGaffigan

I approve the staff's recommended options and implementation actions listed in Attachment 10 to this paper. I believe that by implementing this path forward, we can make the license termination rule (LTR) a much more flexible and implementable tool, particularly for sites pursuing restricted release. I would note for the record that the impetus for this paper came from the Commission as it struggled with some particular decommissioning cases. I believe that the staff has delivered the sort of comprehensive approach to the LTR analysis for which the Commission was looking.

Of all the staff recommendations the one which I am accepting most reluctantly is that we not pursue a separate unrestricted release standard for uranium and thorium. Former Chairman Meserve, commenting on the proposed LTR as a private citizen years prior to joining the Commission, warned that the unrestricted release standard being proposed would be expensive compared with the health and safety benefits and likely unimplementable for uranium and thorium contaminated sites. Partly in response to such comments, the Commission designed the restricted release provisions of the final LTR. However, up to this point, those provisions have been essentially unimplementable.

Almost all of our complex decommissioning sites involve uranium and/or thorium contamination. As the staff analysis points out, we are regulating the decontamination of these sites far more aggressively than similar sites lucky enough not to come under our regulatory control. The EPA 5 picocurie/gram Ra-226 ARAR would equate to approximately 75 mrem/year in the conservative scenario our staff has previously used. Similarly, in Europe, a different standard is applied to uranium and thorium contaminated sites from those sites contaminated with byproduct material. That all said, I recognize that rulemaking would consume resources and take a long time and that if we vigorously pursue those options outlined by the staff for implementation of the LTR's restricted release provisions, we can make restricted release work for many of these sites. Even with the new approaches, we will continue to be requiring far more of our licensees with uranium and thorium contamination on their sites than any other regulator of whom I am aware.

I agree with Chairman Diaz and Commissioner Merrifield concerning seeking stakeholder input for the actions listed under Restricted Release/Alternate Criteria and Institutional Control. The staff should move forward with the recommended actions, gather stakeholder input on the actions and share the results with the Commission before issuing the final revised guidance or RIS.

My only other comment is under Changes in Licensee Operations specifically the subheading of Reporting Deficiencies. Although I believe it is important that the staff be aware of on-site contamination that could change the decommissioning assumption, I also think this will be a very

difficult area for the staff to develop new regulations and guidance. Both must be, as Chairman Diaz stated “performance based” but they must also be specific enough to provide the staff with adequate guidance. The staff states that the licensees might be required to submit “an annual report of the concentrations of contaminants of concern”. Without clear guidance to the staff on just how much information is sufficient in this area, I can envision a worst case scenario where a licensee is required to perform a full scale MARSSIM survey of its operating site every year to satisfy its annual reporting requirement. The staff will have to be very careful when crafting the guidance documents so that it is clear to the licensees and to the staff how much characterization information is enough.

### Commissioner Merrifield

I approve with comments and modifications as described in the following paragraphs the staff recommendations provided in attachment 10 of SECY-03-0069, Results of the License Termination Rule Analysis. First I want to acknowledge the credible job the staff did in communicating the various opinions and concerns on the multiple issues, some related and some independent, associated with the license termination rule. It is important when dealing with a complex issue to view the issue and corrective recommendations as a complete package.

The staff has made some very good recommendations; but taken as a whole there may be considerable cost for both NRC and its licensees to implement all of the recommendations. Staff needs to implement the various recommendations in a cost effective manner. In addition, we have diverse licensees so a graded approach (i.e., a solution which places fewer restrictions on simple, low risk uses of radioactive materials with increasing restrictions as the situation becomes more complex or with higher risk) is appropriate. Because of the complexity of the recommendations, I will provide comments in each of the major areas as presented by the staff.

As a general overall comment, in the first eight attachments to the paper, the staff discusses issuing Regulatory Issue Statements to provide guidance. It is not clear if the staff intends to provide one large Regulatory Issue Statement or multiple statements. There are advantages and disadvantages to both approaches. Issuing one large Regulatory Issue Statement would present an integrated approach, while issuing several Regulatory Issue Statements would allow more detail to be presented on each topic. My comments in each area are written as if multiple Regulatory Issue Statements will be issued, but I would expect the staff to at least combine some of the issues into one document. I will also note that although the staff has done a commendable job of interacting with multiple groups to understand how each group addresses a particular aspect of decommissioning, there has been no vetting of the staff recommendations to appropriate stakeholders. The staff has provided good recommendations, and I agree that some of the recommendations can be implemented without stakeholder input. However, our stakeholders need to have the chance to provide input on appropriate parameters before a final document is issued. I have indicated in each area where I believe stakeholder comments on the staff recommendations should be solicited before final guidance documents are issued.

#### 1. Restricted Release/Alternate Criteria and Institutional Control

I approve the staff recommendations in this area. The staff has proposed several good options for implementing institutional control requirements to achieve the restricted release/alternative criteria of the rule. I fully concur that the staff should develop a series of alternatives that can be

implemented in a risk-informed graded approach so that simple, uncomplicated, low risk sites may have less restrictive institutional controls and the most controversial sites may result in a permanent, possession only license. Such actions may include zoning the site for industrial uses only or restricting the site from other uses (such as farming). I recognize that for the more complex sites a permanent NRC license may not be the desired solution, because the license may certainly be an impediment to selling the site; but it may be the only practical solution until some other clean up action can be taken or until another long term custodian can be found.

I also agree with the staff proposal to implement these recommendations through revised guidance and a Regulatory Issue Summary. This should be done through a public process that allows comments on all the relevant issues under this topic.

## 2. Relationship between LTR Release Limits and Other Release Limits

### 2.1 Unimportant Quantities under 10 CFR 40.13(a)

I agree with the staff recommendation that they should clarify in a Regulatory Issue Summary that the unimportant quantities criteria found in 10 CFR 40.13(a) is not a decommissioning criteria.

### 2.2 Appropriateness of Developing a Separate Unrestricted Release Standard for Uranium and Thorium

I agree with the staff recommendations not to develop separate standards for the unrestricted release of uranium and thorium given the existing low number of sites potentially affected by the development of such a standard as compared to the cost of the rulemaking effort. Implementing other recommendations outlined in this paper should provide flexibility to the existing sites to adequately address their decommissioning issues.

### 2.3 On-Site Disposal under 10 CFR 20.2002

I agree with the two staff recommendations of (a) limiting approval of on-site disposals to a dose criterion of a few millirem with the recognition that the issue will need to be reassessed at license termination or (b) permit burial requests with a dose criterion up to 100 mrem/year providing adequate financial assurance is provided to address the issue at license termination. I believe both of these options are relevant to preventing future legacy sites.

However, I would add a third option to the staff recommendations for this area. This third option was discussed to some degree in the paper but was not included in the final staff recommendations. Specifically, if the material to be disposed on site is mainly short lived activity which will significantly decay in a few years, then the staff could approve on-site disposal with a maximum dose rate of 25 mrem/year without requiring additional financial assurance for license termination. This option assumes that license termination is not imminent.

This guidance should be published in a Regulatory Issue Summary in such a manner that allows for public input and comment.

### 2.4 Controlling the Disposition of Solid Materials

I agree with the staff recommendation to publish a Regulatory Issue Summary which describes

the relationship between the license termination rule's unrestricted-release dose constraint and the existing case-by-case approach for controlling the disposition of solid materials. The staff does not need to solicit public comment on this document. I would caution the staff on one aspect of their analysis in this section of the paper. One main point brought up by the staff is that the conservative aspect in the license termination rule technical basis and current dose modeling assumptions adequately addresses the uncontrolled release of site material once the site license is terminated. However, in the next part of the paper ("Realistic Exposure Scenarios"), the staff discusses reducing conservatism in the license termination analysis by allowing realistic exposure scenarios and not necessarily requiring the most conservative land use scenario of farming. I recognize that the staff did not tie these two issues together in the paper, but they are related at least to the casual observer. When developing the Regulatory Issue Summary to address this recommendation, the staff will need to provide some additional detail, not contained in the paper, which describes the conservatism in the license termination analysis related to off-site release of the material after license termination and how it may be possible to reduce some of the conservatism and still retain adequate assurance of protection of public health and safety with the unrestricted release of the material.

### 3. Realistic Exposure Scenarios

I agree with the staff recommendations on using realistic exposure scenarios by assuming reasonable foreseeable land uses for the 1,000 year analysis time period. I believe we have been ultra conservative in this area and this approach will put us more in-line with other Federal regulatory agencies. It is also a good approach to negotiate reasonable foreseeable land use with appropriate stakeholders.

### 4. Measures to Prevent Future Legacy Sites

Appropriate measures to prevent future legacy sites is an issue which is very important to me. One of our responsibilities as a Federal regulator is to ensure that our regulatory decisions do not create an unfunded mandate for future generations to resolve and correct. At the same time, overly oppressive regulatory measures designed to achieve some ideal solution can create unwarranted restriction on land use and unnecessary burden on the industry. This is an area where we must be very careful to ensure our actions are appropriately focused.

#### 4.1 Changes to Financial Assurance

I believe that it is appropriate to change the manner NRC approaches financial assurance for decommissioning activities. Too often in the past the discussion of financial assurance has focused on the instrument providing the financial assurance and not on the factors contributing to the bottom line number until decommissioning occurs. The staff was following the approved review procedures but the review procedures themselves focused more on the financial instrument than on the actual calculation. In this paper, the staff presented multiple technical issues that licensees should be considering during operation which could/will affect funds needed for decommissioning. In addition, changes in financial assurance requirements must be carefully coordinated among NRR, NMSS, and OGC to ensure there are consistent standards being applied across the Agency.

##### 4.1.1 Initial Underestimation of Decommissioning Costs

I agree with the staff recommendation to revise the regulations to require NRC approval of the

decommissioning funding plan and to base the financial assurance on unrestricted release. Options should be provided for existing licensees to develop a decommissioning funding plan based on restricted release only if they can reasonable demonstrate that restricted release is viable for the site. I would also add that for new licensees, the preferred decommissioning plan should be for unrestricted release but the final regulations should allow for the potential of restricted release in the event of unusual circumstances (i.e., a major incident resulting in a significant environmental impact) or a determination that the facility is needed in the national interest.

#### 4.1.2 Operational Indicators of Increasing Costs

I also agree with the staff recommendations to revise the regulations to require re-evaluation of decommissioning costs due to significant operational indicators of increased costs for decommissioning. This should encourage licenses to monitor operational practices to ensure they do not have an adverse impact on decommissioning.

I also agree with the staff recommendation that for sites with large radioactive material throughput or liquid processes the regulations should require the establishment of a subsurface and groundwater monitoring plan during operation.

#### 4.1.3 Unavailability of Funds in Bankruptcy Where Financial Assurance is Provided by parent Company or Self-guarantee

On the surface, the staff concerns about self-guarantee of funds by major corporations appears reasonable. However, our experience, to date, with the existing 34 companies holding NRC licenses and which self-guarantee their decommissioning funding is that none have gone bankrupt or failed to proceed with decommissioning projects. I understand the staff concern that in the last several years several major companies have suddenly and unexpectedly gone bankrupt. I will not object to raising the issue for public comment in a rulemaking to address financial assurance regulations. I readily understand that the NRC needs better tools or processes to determine if a self-guarantee is adequate. However, staff will need to document more than just a general concern to justify significant regulatory changes in this area.

#### 4.1.4 Inadequate Financial Disclosure

I have no objections to initiating rulemaking to require licensees with a parent or self-guarantee to provide additional certification that its financial statements do not omit off-balance sheet liabilities that would prevent it from meeting the financial test.

#### 4.1.5 Reaching Assets after Corporate Reorganization If Financial Assurance Proves Inadequate

I strongly support revising our regulations to require licensees to provide NRC with agreements that allow NRC to hold parent companies and subsidiaries liable for appropriate decommissioning costs in order to approve a reorganization of the company. Staff from NRR and NMSS will need to work closely with OGC on this specific issue. I am not as concerned if a reorganization results in a new company holding the license and the new company has sufficient assets or appropriate financial instruments to support operation and decommissioning of the facility. But too often in the past, we have seen a reorganization where the new company has the license and insufficient assets to properly operate or decommission the site. Then at a later

date when there is inadequate funding to support decommissioning, the parent company is insulated from liability. This is a loop hole that we need to legally close at the time of the reorganization and not attempt to deal with years later at the time of decommissioning or bankruptcy of the company holding the license.

#### 4.1.6 Investment Losses Reduce Trust Account Balance

Due to existing economic conditions, I support the staff recommendation for regulatory changes to require a re-evaluation of decommissioning funding where decommissioning funds are held in investments that suffer market losses. However, this regulatory change must be carefully worded so that it focuses on long-term market changes and not short-term changes or seasonal adjustments. Public comments in this area will be important to properly focus the regulation so that it does not cause unnecessary recalculations of funds needed for decommissioning but will trigger action when appropriate.

#### 4.2 Accidental Release Increases Decommissioning Cost

This is a recommendation for which I have some concern about implementing. I recognize that for appropriate licensees (an undefined term at present but it becomes critical to the final determination) it may be appropriate to require onsite property damage insurance to cover the cost of cleaning up accidental releases because such cleanup activities are not typically covered in the decommissioning funding. Unlike commercial power reactors, most materials licensees do not have the Price-Anderson Act to provide some accident insurance and limited liability protection. There is considerable uncertainty in determining the amount of liability protection to provide or even the cost of such insurance if it could be provided. However, this is a reasonable question to ask. Therefore I will not object to the staff developing a proposed rule and publishing it for public comment. But I will reserve final judgement on this issue until after I have reviewed the public comments.

#### 4.3 Changes in Licensee Operations

##### 4.3.1 Chronic Releases

I will support the two staff recommendations concerning chronic releases. Both current licensees and new licensees should design and operate their facilities in such a manner as to minimize contamination of the environment. To increase awareness in this area, the NRC should take appropriate enforcement action concerning environmental monitoring requirements.

##### 4.3.2 Reporting Deficiencies

I support the staff recommendations under reporting deficiencies.