

**RULEMAKING ISSUE
(Affirmation)**

October 1, 2008

SECY-08-0144

FOR: The Commissioners
FROM: R. W. Borchardt
Executive Director for Operations

SUBJECT: FINAL RULE: DECOMMISSIONING PLANNING
(10 CFR PARTS 20, 30, 40, 50, 70, AND 72; RIN: 3150-AH45)

PURPOSE:

The purpose of this paper is to request Commission approval to publish a final rule in the *Federal Register* that would amend Parts 20, 30, 40, 50, 70, and 72 of Title 10 of the *Code of Federal Regulations* (10 CFR) to improve licensees' decommissioning planning activities during active facility operations, thereby reducing the likelihood that any currently operating facility will become a legacy site.

SUMMARY:

This final rule adds a new 10 CFR 20.1406(c) requiring licensees to conduct their operations to minimize the introduction of residual radioactivity into the site, including subsurface soil and ground water. This rule amends 10 CFR 20.1501 to require licensees to survey residual radioactivity that may be a radiological hazard at the site, including in subsurface areas, and to keep records of surveys of subsurface residual radioactivity identified at the site with records important for decommissioning. The amended financial assurance regulations in Parts 30, 40, 50, 70, and 72 require materials licensees to report additional details in their decommissioning cost estimates, and require decommissioning power reactor licensees to annually report additional information on the costs of decommissioning and spent fuel management. This rule

CONTACT: Kevin O'Sullivan, FSME/DILR
(301) 415-8112

eliminates the line of credit as an approved financial assurance mechanism for all licensees, and eliminates the escrow account as an approved financial assurance mechanism for materials licensees. Power reactor licensees may continue to use the escrow account because the technical basis for the rule did not include elimination of the escrow account as an approved financial assurance mechanism in 10 CFR 50.75. This rule adds requirements to the parent guarantee and self-guarantee provisions in Part 30 appendices to provide added assurance that funds will be available at the time of decommissioning, even if the guarantor enters bankruptcy.

BACKGROUND:

In a Staff Requirements Memorandum dated December 10, 2007, the Commission approved with comments, publication of the decommissioning planning proposed rule (SECY-07-0177).

The proposed rule was published on January 22, 2008 (73 FR 3812), for a 75-day public comment period. The Nuclear Energy Institute (NEI) and several other stakeholders requested an extension of 90 days to review issues raised in the proposed rule. The Commission extended the comment period for an additional 30 days on March 20, 2008 (73 FR 14946). The NRC received 35 comment letters on the proposed rule from States, licensees, industry organizations, environmental advocacy organizations, and one individual.

DISCUSSION:

This rule will reduce the likelihood that any currently operating facility will become a legacy site. A legacy site is a facility that is decommissioning with an owner who cannot complete the decommissioning work for technical or financial reasons. All of the legacy sites to date have been materials facilities. At the end of 2007, there were 6 legacy sites among the complex materials sites undergoing decommissioning. A primary cause of legacy sites has been licensees' lack of knowledge of subsurface contamination at the site, due to chronic releases in the soil and ground water that occur while the facility is operating. Licensees who are not fully aware of the extent of subsurface contamination at their site have been unprepared to complete decommissioning and, in some cases, have had insufficient funds to complete decommissioning.

The final rule includes: (1) amendments to 10 CFR Part 20 to minimize the introduction of contamination and to survey site areas containing contamination, with a focus on identifying significant amounts of residual radioactivity that would later prevent release of the site for unrestricted use; (2) changes to financial assurance requirements in Parts 30, 40, 70, and 72; and (3) new Part 50 reporting requirements for licensees with a decommissioning power reactor.

As indicated above, the new § 20.1406(c) and amended § 20.1501, address the problem of chronic releases. Both § 20.1406(c) and § 20.1501 contain the term "residual radioactivity." This term, defined in existing 10 CFR 20.1003, includes radioactivity in soils and ground water from licensed and unlicensed sources. The final rule's preamble, and draft Regulatory Guide DG-4014 that will be released for public comment to support the final rule, specify that the intent of the rule is to address onsite residual radioactivity that would later require remediation during decommissioning to meet the unrestricted use criteria of 10 CFR 20.1402. The final rule changes to Part 20 are consistent with: (1) Commission policy in the License Termination Rule (62 FR 39082; July 21, 1997) stating that existing licensees are required by 10 CFR Part 20 to have programs aimed at reducing exposure and minimizing waste, and (2) Commission policy in

the final rule for Decommissioning Recordkeeping and License Termination: Documentation Additions (58 FR 39630; July 26, 1993) stating that the NRC regards remaining contamination (after cleanup activities or when contamination may have spread to inaccessible areas) as anything above the NRC's most current residual radioactivity criteria for allowing release of the site for unrestricted use. The final rule changes to Part 20 are risk-informed by stakeholder input, staff assessments, risk assessments and regulatory guides as documented in the technical basis for the rule. The technical basis for the rule was discussed with the Advisory Committee on Nuclear Waste and Materials on numerous occasions. Section 2 of the Regulatory Analysis (Enclosure 2) documents the technical basis for the final rule.

The changes to financial assurance requirements in 10 CFR Parts 30, 40, 70, and 72 provide additional assurance that: (1) licensees have accurate information during operations on which to base their future decommissioning work scope, and have provided the NRC a decommissioning cost estimate consistent with the work scope at regular intervals and (2) the licensee's decommissioning financial assurance will be available when needed, even if the licensee or its guarantor enter bankruptcy. The amendments require more detailed reporting by materials licensees in their decommissioning funding plan, with a requirement to update the plan at license renewal or at an interval not to exceed 3 years. The surveys required in § 20.1501 of significant subsurface contamination at the site are to be used in preparing the cost basis of the decommissioning cost estimate. To better ensure that funds are available when needed, the rulemaking eliminates use of the line of credit for all NRC licensees and the escrow account by materials licensees. Both of these financial instruments are more appropriate for short-term transactions, not the longer time frames that may be required for decommissioning financial assurance. Amendments in 10 CFR Part 30 Appendices A, C, D, and E, for the parent guarantee and self-guarantee financial assurance mechanisms assure that funds will be available from the guarantor at time of decommissioning.

The changes to 10 CFR Part 50 reporting requirements are directed at licensees who have a power reactor in a decommissioning status. Under new § 50.82(a)(8)(v), the licensee must file an annual report detailing the amount of funds spent on decommissioning, the amount required to complete decommissioning, and the remaining balance of decommissioning funds. This report is due annually until the licensee has completed its final radiation survey at the site. Power reactor licensees are allowed to use a 2 percent real rate of return on invested funds in their determination of adequate decommissioning funding. If the balance of funds, plus earnings, in conjunction with the other financial assurance methods do not cover the amount needed, then the licensee must provide in a status report, under new § 50.82(a)(8)(vi), additional financial assurance to cover the estimated cost to complete decommissioning. Under new § 50.82(a)(8)(vii), the licensee must file an annual report detailing its projected costs and funding for spent fuel management until title to the fuel and possession of the fuel is transferred to the Secretary of Energy. The content of financial status reports required under new § 50.82(a)(8)(v) and § 50.82(a)(8)(vii) differs from the content of other decommissioning financial assurance reports required of power reactor licensees.

The staff has recommended the effective date of the final rule to be 1 year following publication of the final rule in the *Federal Register*. The proposed rule stated that NRC was considering an effective date of 60 days following publication of the rule in the *Federal Register*. Several commenters on the proposed rule argued that more time was needed, and one suggested 1 year. The staff agrees that a 1 year period is appropriate to allow licensees to become familiar with the new requirements, the guidance documents, and to make changes in their financial assurance instruments, if necessary (e.g., switch out of an escrow account).

The staff has committed to release two guidance documents to support the rule. Comments were received on both guidance documents during the proposed rule public comment period. The revised guidance for changes to financial assurance regulations is complete, in Revision 1 to Volume 3 of NUREG-1757, "Consolidated NMSS Decommissioning Guidance," and will be released with the publication of the final rule in the *Federal Register*. The guidance for changes to operations under amendments to 10 CFR Part 20 is in draft form, in Regulatory Guide DG-4014, "Radiological Surveys and Monitoring During Operations." The staff's plan is to release DG-4014 for public comment in March 2009 and to hold a related workshop with stakeholders. DG-4014 is planned to be in final form in November 2009. If the Commission approves publication of the final rule and a 1 year implementation period, licensees will have about 2 months to use the Regulatory Guide to prepare for compliance with the changes to Part 20 implemented in this final rule.

Backfit Considerations

The NEI, supported by several power reactor licensees, submitted comments on the proposed rule stating in part that the changes to § 20.1406(c) and § 20.1501(a) should have been subject to a full backfit analysis pursuant to § 50.109. Their position is that the proposed rule and draft guidance for surveys and monitoring will have substantial impacts on licensees' facilities and procedures. NEI further stated that the new § 20.1406(c) and § 20.1501(a) are not a clarification of existing requirements, but rather an effort to impose an expansive regulatory scheme of "ongoing decommissioning" where activities that would normally take place during decommissioning would have to occur during active facility operations. The backfit comments and NRC responses are in Section III.F of the proposed *Federal Register* notice for the final rule (Enclosure 1). Section XII of Enclosure 1 provides a summary of the NRC's position on the backfit issues, which are more fully addressed in Section 7 of the Regulatory Analysis (Enclosure 2). Section 6 of Enclosure 2 assesses the cost to power reactor licensees of their voluntary activities conducted under the NEI Groundwater Protection Initiative.

On June 20, 2008, the NEI submitted a request to present to the Committee to Review Generic Requirements (CRGR) industry comments on the decommissioning planning rulemaking. According to its charter, CRGR is an internal organization advising the NRC program offices and the Executive Director for Operations. As such, the CRGR may not arbitrate between the industry and staff on rulemakings. The CRGR provided the aforementioned information to NEI, and provided industry comments to the staff that are addressed in the enclosed final rulemaking package.

Furthermore, the Commission stated in SRM-SECY-07-0134, "Staff Requirements – SECY-07-0134 – Evaluation of the Overall Effectiveness of the Rulemaking Process Improvement Implementation Plan," October 2007, that the CRGR is removed from routine reviews of the rulemaking process and only receives a draft final rule for information purposes. On July 24, 2008, the staff provided an information copy of the draft final rule package to the CRGR.

The staff has also worked closely with the Advisory Committee on Nuclear Waste and Materials (ACNW) on the development of this rulemaking. The staff has provided both the ACNW and the Advisory Committee on Reactor Safeguards (ACRS) information copy of the July 11, 2007, draft proposed rule package, and the July 24, 2008, draft final rule package. In a February 28, 2008, letter to Chairman Klein, the ACNW stated that they had closely examined specific

decommissioning topics including the draft proposed rule on prevention of legacy sites (later renamed as decommissioning planning rulemaking).

The Office of the General Counsel (OGC) finds that the backfitting rules in 10 CFR 50.109, 70.76, and 72.62 do not require the preparation of a backfit analysis for this rulemaking. The NRC staff disagrees with comments submitted on the proposed rule that the new 20.1406(c) and amended 20.1501(a) will have substantial impacts on facilities and procedures. Actions undertaken by licensees during facility operations to comply with these new and amended requirements are expected to establish a technical basis for licensees and the NRC to understand the effects of significant residual radioactivity on decommissioning costs, and will help to determine whether existing financial assurance provided for site specific decommissioning is adequate.

Whether significant residual radioactivity exists at a given site is a complex, site-specific issue, and the NRC received no information during the proposed rule public comment period that any currently operating facility has significant levels of residual radioactivity onsite. As indicated above, for operating facilities, the NRC staff considers significant residual radioactivity to be a quantity of radioactive material that would later require remediation during decommissioning to meet the unrestricted use criteria of 10 CFR 20.1402. NRC will expect licensees to apply radiological screening values, or other methods recommended in draft Regulatory Guide DG-4014, to determine if residual radioactivity at the site has accumulated or is in ground water at levels that are considered significant.

Contrary to comments submitted on the proposed rule, this rulemaking imposes no new requirement for licensees to perform "ongoing decommissioning." Licensees are not being required to perform any new type of extensive characterization or remediation during facility operations. Instead, in DG-4014, the NRC has specified for licensees (1) an acceptable method to determine if any changes are needed to existing site monitoring practices and (2) acceptable approaches to determine the cost-effectiveness of prompt compared to deferred cleanup of contamination based on sample analysis. Remediation of residual radioactivity at the site may occur during decommissioning, or it may occur during facility operations if the licensee deems it beneficial to perform sooner rather than later.

Applicability of the Rule to Uranium Recovery (UR) Facilities

Several UR licensees commented on the proposed rule, arguing in part that they should be exempt from the new 10 CFR 20.1406(c) and amended 20.1501(a) requirements. The staff agrees that UR licensees are exempt from new 10 CFR 20.1406(c) because existing 10 CFR 20.1401 provides UR licensees with an exemption from Part 20 Subpart E requirements. The staff disagrees that UR licensees should be exempt from 10 CFR 20.1501(a) requirements because these Subpart F requirements have been applicable to UR licensees from the time that these requirements were established in 1991, and no persuasive reasons were identified to extend the scope of the existing 10 CFR 20.1401 exclusion. These issues are discussed in further detail in Section III of Enclosure 1.

Rule Applicability to Other Classes of Licensees

Commenters argued that certain NRC licensees, other than those with UR facilities, should be exempt from the 10 CFR 20.1406(c) and 20.1501 rule changes because dispersal of radioactive

material is not possible from these facilities in quantities that would require remediation to comply with 10 CFR 20.1402 release criteria at time of decommissioning. This position was expressed on behalf of radionuclide and radiopharmaceutical manufacturing licensees, research and test reactor licensees, and licensed sewage water treatment facilities. The NRC staff agrees that if a facility has no credible release scenario that could contribute to significant subsurface residual radioactivity at the site, then it is likely that the facility will not be affected by the final rule changes to 10 CFR Part 20. However, without effective regulation, the technical and financial conditions that contributed to the creation of legacy sites in the past could occur at sites that are licensed under 10 CFR Parts 30, 40, 50, 70, or 72, especially those with radioactive material possession limits high enough to require decommissioning financial assurance. As documented in Enclosure 2, no exemptions were included in the rule language because of the relatively high cost of remediating a legacy site compared to the cost to implement the final rule. Draft Regulatory Guide DG-4014 describes an acceptable method for licensees with no credible release scenario to evaluate residual radioactivity at their facility.

Changes to the Parent Guarantee and the Self-Guarantee

Current 10 CFR Part 30 Appendix A allows the use of a parent company guarantee, and Appendices C, D, and E allow the use of a company self-guarantee, as financial assurance for decommissioning. About 45 NRC licensees use a guarantee for decommissioning financial assurance, with a total guaranteed amount of about \$600 million. About 150 Agreement State licensees use a guarantee for decommissioning financial assurance, for a total of about \$200 million. This rule has added new language in 10 CFR Part 30 Appendix A, Section III.E, requiring parent guarantors to be jointly and severally liable for the full cost of decommissioning. Several comments were received opposing this in the proposed rule, and these comments are addressed in Section III of Enclosure 1 (response to Comment H.10). In the proposed rule and the final rule language, the NRC staff has defined the potential responsibility of a parent corporation or limited liability company for the decommissioning obligations of its subsidiary, irrespective of the limited corporate liability or limited liability of the parent company. This obligation is for the full cost of decommissioning. This new rule text provides added assurance that adequate funds will be available at time of decommissioning and it applies equally to the guarantors of facilities licensed under 10 CFR Parts 30, 40, 50, 70, and 72.

A parent company is typically not an NRC licensee subject to the NRC's authority. This final rule added language in 10 CFR Part 30 Appendix A, Section III.F, requiring the parent company to agree that it would be subject to a Commission order to make payment under the guarantee agreement, in the event that the parent company was in financial distress. One commenter (Section III in Enclosure 1, Comment H.9) noted that this would essentially require a consent order to be entered into by a parent company. The NRC staff agrees with this comment, adding that the parent company agreeing to be subject to Commission orders would also, in effect, be acknowledging that it is engaged in NRC subject matter jurisdiction with no waiver of hearing rights. These amendments to the parent guarantee provide added assurance that funds will be available at time of decommissioning even if the guarantor goes into bankruptcy.

Rule Language in 10 CFR Part 50.75(f)(1) and § 50.75(f)(2)

The proposed rule included a change in § 50.75(e)(1)(iii)(A) to eliminate the line of credit as an approved financial assurance mechanism. After the close of the proposed rule public comment period, the Office of Nuclear Reactor Regulation (NRR) requested three minor changes to the

final rule text in § 50.75(f)(1) and § 50.75(f)(2), which are identical regulatory text except that one sentence in § 50.75(f)(1) allows holders of a combined operating license to delay their reports. OGC determined that the changes requested by NRR impose no additional requirements, and are not substantive modifications. These have been added to the final rule text. Further details are provided in Section IV of Enclosure 1.

Rule Language in 10 CFR Part 72

In response to comments on the proposed rule, several changes were made to 10 CFR Part 72 in this final rule. Regarding 10 CFR 72.13(c), which lists the Part 72 sections that are applicable to Part 72 general licensees, the January 22, 2008, proposed rule's discussion of 10 CFR 72.13(c) did not reflect all of the proposed revisions to 10 CFR § 72.30. However, such revisions were fully reflected in the January 22, 2008 *Federal Register* notice's discussion of 10 CFR 72.30, and Part 72 general licensees are already subject to decommissioning funding plan (DFP) requirements pursuant to existing § 72.30(d)(4). OGC has determined that Part 72 general licensees were thus fairly on notice that they were subject to revisions in decommissioning funding plan (DFP) requirements. Further details regarding this issue, and the changes being made to 10 CFR Part 72 in this final rule, are discussed in Enclosure 1, Section III, comments H.25 and H.27, and Section IV.

OUTCOME OF THIS FINAL RULE: ADVANCING NRC'S STRATEGIC GOALS:

The final rule is consistent with NRC's strategic goals and objectives. The rule will reduce the likelihood of additional legacy sites and thereby continue the safety goal efforts to ensure protection of the public health and safety. The rule also will enhance environmental protection by improving licensees' decommissioning planning activities during active facility operations, when revenue to pay for decommissioning costs will more likely be available, if needed. NRC environmental protection oversight will be improved by increased recordkeeping of site contamination which serves as the basis for licensees' decommissioning cost estimates. The rule will help to ensure that NRC actions are effective, efficient, realistic, and timely. The rule will improve regulatory efficiency by codifying provisions that have been in regulatory guidance.

AGREEMENT STATE ISSUES:

The draft final rule was provided to the Agreement States on July 30, 2008 (RCPD-08-015). The State of South Carolina concurred with the draft final rule. The State of Colorado initially objected to portions of the draft final rule, but later withdrew its objection. The State of Colorado also agreed with comments submitted by the State of New York on the proposed rule that would require that licensees' records important for decommissioning, maintained by licensees and available for inspection by NRC, but which are not made public, should instead be reported to the NRC and made available to the public. The NRC disagrees with this position and has addressed this in Enclosure 1, Section III, in the response to comments G.23 and G.27.

Agreement States will need to issue legally binding requirements for their licensees, which can be accomplished through promulgating a rule, issuing orders, or adding or revising individual license conditions. The Agreement States will be responsible for inspection and enforcement of their licensees' compliance with the requirements.

The staff analyzed the final rule in accordance with the procedures established within Part III of the Handbook to Management Directive 5.9, "Categorization Process for NRC Program Elements." Staff has determined that sections of the final rule are classified in Compatibility Categories "NRC", "H&S", "C", and "D." Section VI of the final rule addresses the topic of Agreement State Compatibility and has a compatibility table for each new or revised section of regulatory text.

COMMITMENT:

The staff commits to develop regulatory guidance to: (1) implement subsurface survey requirements through draft Regulatory Guide DG-4014, for public comment, followed by a final Regulatory Guide to implement the monitoring requirements and (2) implement financial assurance requirements through Revision 1 to NUREG-1757, Volume 3. Both documents are planned to be finalized several months before the effective date of the final rule.

RECOMMENDATIONS:

That the Commission:

1. Approve for publication, in the *Federal Register*, the attached notice of final rulemaking (Enclosure 1).
2. To satisfy the requirement of the Regulatory Flexibility Act, 5 U.S.C. 605 (b), certify that this rule, if promulgated, will not have significant impact on a substantial number of small entities. This certification is included in the attached *Federal Register* notice.
3. Note:
 - a. That the Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification and the reasons for it, as required by the Regulatory Flexibility Act, 5 U.S.C. 605(b);
 - b. A final Regulatory Analysis has been prepared for this rulemaking (Enclosure 2);
 - c. A final Environmental Assessment has been prepared for this rulemaking (Enclosure 3);
 - d. The staff has determined that this action is not a "major rule," as defined in the Congressional Review Act of 1996 [5 U.S.C 804(2)] and has confirmed this determination with the OMB . The appropriate Congressional and Government Accountability Office contacts will be informed;
 - e. The appropriate Congressional committees will be informed;
 - f. A press release will be issued by the Office of Public Affairs when the final rulemaking is filed with the Office of the Federal Register; and

- g. The final rule contains amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501, et seq.) that must be submitted to the OMB for its review and approval before publication of the final rule in the *Federal Register*.

RESOURCES:

To complete the rulemaking, less than 0.1 full-time equivalent position will be required. These resources are included in the current budget for FY09. To complete draft Regulatory Guide DG-4014, a total of 0.1 FTE has been budgeted in FY09 by FSME/DWMEP.

COORDINATION:

The Office of the General Counsel has no legal objection to the final rulemaking. The Office of the Chief Financial Officer has reviewed this Commission Paper for resource implications and has no objections.

/RA Martin Virgilio for/

R. W. Borchardt
Executive Director
for Operations

Enclosures:

1. Final Rule: *Federal Register* notice
2. Regulatory Analysis
3. Environmental Assessment

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OFFIC	FSME	FSME	FSME	FSME	FSME
NAME	KO'Sullivan	MDelligatti KO for	MThaggard	JLuehman	LCamper
DATE	09/09/08	09/09/08	09/17/08	09/17/08	09/04/08
OFFIC	CFO	OIS e-mail TD	OGC –	OE	ADM
NAME	JDyer	RNichols	GMizuno	CCarpenter	MLesar
DATE	08/11/08	09/15/08	09/17/08	08/11/08	08/18/08
OFFIC	NMSS	RES	NRR	NRO	Tech Editor
NAME	MWeber	BSheron	ELeeds	MJohnson	PTressler
DATE	08/15/08	08/13/08	08/12/08	08/20/08	09/17/08
OFFIC	FSME	EDO			
NAME	CMiller (GPangburn for)	RBorchardt (MVirgilio for)			
DATE	09/17/08	10/01/08			

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