POLICY ISSUE
(Notation Vote)

June 30, 1998 SECY-98-155

FOR: The Commissioners

FROM: L. Joseph Callan
Executive Director for Operations

SUBJECT: TRANSITION FROM SITE DECOMMISSIONING MANAGEMENT PLAN TO COMPREHENSIVE DECOMMISSIONING PROGRAM

PURPOSE:

To request Commission approval of staff plans to implement the transition from the Site Decommissioning Management Plan (SDMP) to a comprehensive decommissioning program, and to provide additional information specifically requested by the Commission.

BACKGROUND:

The staff briefed the Commission on the status of the SDMP on October 29, 1997. In response, the Commission issued a Staff Requirements Memorandum dated December 11, 1997. The Commission did not approve the staff's proposal to phase out the SDMP terminology, and requested a detailed plan for transitioning from the SDMP to a comprehensive decommissioning program encompassing all sites if the staff proposed to proceed in this manner. Specifically, the Commission requested information on: 1) the impact of the Final Rule on Radiological Criteria for License Termination [License Termination Rule (LTR)] on the Branch Technical Position (BTP) for screening former onsite burials, and how former burials for which the screening process has already begun will be handled under the LTR; 2) the status of existing guidance when the transition to the LTR is complete; 3) how sites previously released from the SDMP measure up to the criteria in the LTR; and 4) whether the concerns raised by the 1989 General Accounting Office (GAO) report and Congressional hearing on site decommissioning have been satisfactorily resolved.

CONTACT: David N. Fauver, NMSS/DWM
301-415-6625

To be made publicly available when the final SRM is made available.

DS14

IDIR-3 Decommission

X-Ofm-6 Comms

Discussion:

The staff's proposed transition plan from the SDMP to a comprehensive decommissioning program includes four major components: 1) maintain the SDMP site list to track progress at complex decommissioning sites, 2) shift decommissioning issue resolution from the SDMP to the Agency Operating Plan, 3) develop a standard review plan (SRP) and a regulatory guide to implement the LTR, and 4) phase out or revise existing SDMP guidance documents to be consistent with the LTR.

1. Future Role of SDMP

The original SDMP had two major objectives: 1) to identify and manage specific problem sites through the decommissioning process, and 2) to resolve decommissioning policy issues. The staff will continue to maintain the current SDMP site list to identify and manage complex decommissioning cases, with some modification to the listing criteria for new cases, as described below. However, the staff plans to manage emerging decommissioning policy issues through the Agency Operating Plan, as opposed to the SDMP. The staff is withdrawing its proposal to phase out the SDMP terminology and will issue a status report on SDMP site decommissioning progress by January 1999.

There were five criteria for listing a site in the original SDMP: 1) the responsible organization may not be financially viable; 2) there are volumes of contaminated soil, sludge, or slag, or onsite burials, present; 3) there is the long-term presence of contaminated, unused, buildings; 4) the license was previously terminated, but contamination levels exceed current unrestricted use levels; and 5) the ground water at a site is contaminated, or potentially contaminated, from onsite wastes. For new cases, the staff plans to modify the listing criteria to more closely track with the requirements of the LTR. Existing SDMP sites will remain on the list. In the future, licensees proposing to terminate their licenses under the restricted use provision of the LTR will be listed in the SDMP. The restricted use sites are expected to be the most technically challenging, to potentially involve policy issues, and to be resource intensive. (Such listing will not imply that restricted release is permitted under the SDMP Action Plan criteria, as opposed to the dose-based criteria of the LTR). The staff will also evaluate the more complex unrestricted use sites and list on the SDMP those that are projected to be non-routine, and to require a significant level of technical and policy input from Headquarters. Note that, in the context of a comprehensive decommissioning program, the SDMP primarily becomes a management tool to track site-specific progress at significant sites. Adding a new site to the SDMP will not necessarily indicate that the site is a "problem" site. The future SDMP listing criteria would be as follows:

- All Restricted Use Sites

- Complex Unrestricted Use Sites

  - sites requiring detailed site-specific dose modeling
  - sites subjected to heightened public, State, or Congressional interest
  - sites with questionable financial viability

As discussed below, the policy issues originally associated with the SDMP have been addressed. Therefore, the staff proposes to discontinue using the SDMP as the primary vehicle for managing generic decommissioning policy issues. Generic issues will continue to be identified through the staff experience with decommissioning SDMP sites, but the issue resolution will now be managed through the Agency Operating Plan. Using the Agency Operating Plan will facilitate the integration of overlapping issues encountered at non-SDMP sites, and power reactors, with those identified at SDMP sites, and will improve the effectiveness of issue resolution. To assist in the integration of the decommissioning programs in the various U. S. Nuclear Regulatory Commission (NRC) Offices and Regions, a Decommissioning Management Board has been established. The Board is chaired by the Director of the Division of Waste Management, and is comprised of managers from the Division of Waste Management, the Office of Nuclear Reactor Regulation, the Office of Nuclear Regulatory Research (RES), and the Regions. Attachment 1 contains the Charter for the Decommissioning Management Board.

2. Status of Decommissioning Guidance Documents after the Transition to the License Termination Rule.

Regulatory Guide DG-4006, "Demonstrating Compliance with the Radiological Criteria for License Termination" (DG-4006), and the supporting series of NUREG documents, provide guidance to licensees on methods for implementing the LTR. The regulatory guide and supporting NUREGs were provided to the Commission for review on March 16, 1998, in SECY-98-051.

In addition, the Office of Nuclear Material Safety and Safeguards (NMSS) staff, with the support of RES, is developing a decommissioning SRP. Attachment 2 contains a brief description of the planned scope and content of the SRP. The SRP and DG-4006 will be closely coordinated and will incorporate or supersede most of the existing guidance documents. Other guidance documents will be revised to be consistent with the LTR, or their use will be phased out. Attachment 3 lists the projected status of 18 existing guidance documents that require consideration during the transition to the LTR. Staff resources will be applied to the development of the SRP first, followed by the revision of the documents that will be reissued. The SRP is expected to be completed within 2 years. Depending on the availability of resources, conforming revisions to some low-priority documents may be delayed beyond fiscal year 2000.

The status of the surface contamination criteria in the NMSS document "Guidelines for the Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material" is worthy of special discussion. The use of the listed surface contamination criteria as decommissioning criteria to support license termination will be phased out, and superseded by the guidance in DG-4006 and the SRP. Note that the surface contamination criteria will continue to be used for the release of equipment and material during routine operations before license termination because the LTR only addresses criteria for license termination. In SECY-98-028, "Regulatory Options for Setting Standards on Clearance of Materials and Equipment Having Residual Radioactivity," the staff provided the Commission with a paper outlining several options related to this issue.

3. Draft BTP on "Screening Methodology for Assessing Prior Land Burials of Radioactive Wastes Authorized Under Former 10 CFR 20.304 and 20.302"

The Commission specifically requested the staff to address the impact of the LTR on the above mentioned Draft BTP and how sites for which the screening process had already begun will be handled under the LTR. The Draft BTP was developed to provide a simple, conservative, screening tool that could be used to discriminate between former burials that pose minimal risk and those that pose a more significant risk. This tool was needed since the SDMP Action Plan criteria are concentration-based, not dose-based. Essentially, all former burials were expected to exceed the concentration-based criteria, even though the risk from some of the burials was expected to be low. The staff believed that a requirement to perform detailed site-specific characterizations and dose assessments would be overly burdensome for these low-risk sites.

The staff has reevaluated the Draft BTP in light of the LTR and determined that the LTR provides sufficient flexibility to be applied in a risk-informed manner at the former burial sites. Therefore, the staff will discontinue use of the Draft BTP. The SRP will provide guidance on dose assessments applicable to former burials that will incorporate the risk-informed aspects of the BTP, such as treatment of source term and averaging protocols. All burials for which the screening process has already begun will be evaluated in a manner consistent with the LTR.

4. Resolution of Concerns Raised by Congress and the General Accounting Office

On May 26, 1989, the General Accounting Office issued a report entitled, "NRC's Decommissioning Procedures and Criteria Need to be Strengthened." A Congressional hearing on the GAO's findings was held on August 3, 1989, at which former Chairman Carr provided testimony and made several commitments. A list of NRC's action items resulting from the hearing was provided in an August 14, 1989, memorandum from former Chairman Carr (Attachment 4). The commitments were satisfied through staff actions completed from 1989 to 1997. These actions are listed in Attachment 5.

5. Generic Evaluation of Doses at SDMP Sites Released under the Action Plan Criteria

The Commission requested the staff to evaluate how sites already released from the SDMP list will measure up to the LTR criteria. Attachment 6 contains a reproduction of a table provided to the Commission in SECY-91-342A, "Issues Associated with Ensuring Timely Remediation of Sites Listed in the Site Decommissioning Management Plan," December 31, 1991. The table contains the staff's generic estimation of the range of doses that could result if a site was released using the SDMP Action Plan criteria, or other criteria used prior to the LTR. The values do not represent dose estimates for actual sites released, but are intended to provide a general indication of the range of possible doses from grandfathered sites. The dose estimates for two of the radionuclides listed in Attachment 6, natural uranium (U-Nat) and americium-241 (Am-241) exceed 100 mrem/yr. For U-Nat, the dose estimate exceeded 100 mrem/yr because of the projected dose from radon-222 and its daughter products, which are not regulated under the LTR. The Am-241 dose estimate is not applicable to SDMP sites released to date since none of the sites released have contained significant levels of Am-241. In addition, note that the levels of residual contamination that actually remain at the sites that have been released are less than the maximum levels specified in the criteria, in some cases significantly less.

The guidance contained in SECY-98-051, that is currently under Commission review, contains general information on the staff's proposed methods for performing dose assessments for compliance with the LTR. However, as listed in Attachment 2, there are many technical issues related to dose modeling that remain to be resolved. It is important to recognize that the results of dose estimates performed in accordance with the final LTR guidance may be substantially different from the doses listed in Attachment 6, depending on the extent of site-specific information included in the dose assessment.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objections.

RECOMMENDATION:

The staff recommends that the Commission approve the transition plan, which would retain the SDMP list for management of complex sites, replace the SDMP Action Plan criteria with the new guidance developed to implement the LTR, and use the Agency Operating Plan as the vehicle to manage emerging decommissioning policy issues.

L. Joseph Callan
Executive Director
for Operations

Attachments:
1. Charter for Decommissioning Management Board
2. Outline of Standard Review Plan
3. Status of Existing Decommissioning Guidance
4. Congressional and GAO Commitments
5. Resolution of Congressional and GAO Commitments
6. Projected Doses at Sites Released from the SDMP

Commissioners' completed vote sheets/comments should be provided directly to the Office of the Secretary by c.o.b. Friday, July 17, 1998.

Commission staff office comments, if any, should be submitted to the Commissioners NLT July 10, 1998, with an information copy to SECY. If the paper is of such a nature that it requires additional review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

DISTRIBUTION:
Commissioners
OGC
OCAA
OIG
OPA
OCA
ACNW
CIO
CFO
EDO
REGIONS
SECY

CHARTER

for

DECOMMISSIONING MANAGEMENT BOARD

Establishment of Decommissioning Management Board

In May 1998, The Decommissioning Program Manager established the Decommissioning Management Board (Board) to support the decommissioning program by providing coordinated management oversight for the development and implementation of generic and site-specific policies and guidance for the facilities and materials decommissioning program (program).

Oversight Role of Board

In its management oversight role, the Board: 1) coordinates the development of and recommends new policy and changes to existing policy and procedures for the decommissioning program; 2) evaluates specific implementation plans; 3) evaluates staff guidance for consistent implementation of policies; 4) periodically evaluates program implementation and products; 5) promptly resolves internal problems raised by Board members; and 6) promptly raises program concerns, which require management attention, to appropriate NRC managers and non-NRC parties.

Major Focus

The major initial focus of the Board will be on research, regulations development, and case-specific implementation strategies applicable to decommissioning of sites.

Membership

The Board's Chair is the Director of DWM. Board members include DWM, NRR, RES, and Regional staff involved in facilities and materials decommissioning. The reason for including representatives on the Board from each of these organizations is to improve the overall integration of the decommissioning program.

In addition to the Board members, other NRC management and staff may be invited by the Board to attend some Board meetings in order to provide information to support specific agenda topics.

Meeting Schedule

The Board shall meet periodically at the direction of the Chair.

STANDARD REVIEW PLAN FOR COMPLIANCE WITH THE FINAL RULE "RADIOLOGICAL CRITERIA FOR LICENSE TERMINATION"

The Office of Nuclear Material Safety and Safeguards staff, with the support of the Office of Nuclear Regulatory Research, is developing a decommissioning standard review plan (SRP) for submittals related to the final rule on "Radiological Criteria for License Termination" [License Termination Rule (LTR)]. The goal of the SRP will be to enable Nuclear Regulatory Commission (NRC) staff to evaluate information submitted by licensees in a timely, efficient and consistent manner, to determine if the decommissioning will be conducted such that the public health and safety is protected and the facility can be released in accordance with NRC's requirements. The SRP will provide NRC staff with a description of the contents of specific decommissioning plan modules, as well as evaluation and acceptance criteria for use in reviewing decommissioning plans and other information submitted by licensees to demonstrate that their facility is suitable for release in accordance with the LTR.

The revised budget for FY 1999 includes 3.0 FTE and $284K in program support for the development of the SRP. The FY 2000 budget for this activity is 2.5 FTE and $200K. The SRP will be completed in FY 2000.

The SRP covers the following areas:

- Dose Modeling
- Final Status Surveys
- Health and Safety Plans
- Financial Assurance
- Restricted Use
- Institutional Controls
- Alternate Criteria
- As low as is reasonably achievable (ALARA)

The majority of the effort devoted to the SRP will be related to dose modeling. There are a number of significant technical issues that require resolution and guidance development. A list of the issues to be addressed in the modeling section of the SRP is provided below.

1. **Assess and Develop the Linkage of the Dose Modeling SRP Guidance with NUREG/1549**

   (a) Assess and develop the linkage of the SRP on dose modeling with the latest version of NUREG/1549, and

   (b) Assess and determine applicability of the decommissioning framework.

2. **Evaluate D&D Screening Approach and Resolve Generic Screening Issues**

   (a) Assess and develop a generic approach for refined screening,

   (b) Evaluate and determine how probabilistic approach will be used to select default parameters,

   (c) Evaluate and select default parameters, and

   (d) Assess and evaluate limitations of D&D for screening.

3. **Determine When Alternate Codes Could Be Used for Screening**

   (a) Use of alternate codes for situations arising from D&D limitations,

   (b) Use of alternate codes for all situations.

4. **Develop Criteria for Modifying Parameters in D&D and Other Codes**

   (a) Develop Criteria for Scenario (behavior) Parameters (e.g., occupancy, breathing rate, food ingestion, etc), and

   (b) Develop criteria for modification of physical parameters.

5. **Develop and Establish Default Tables**

6. **Develop Generic Criteria for Elimination of Pathways to Move Away from Residential Scenario**

   (a) Develop generic criteria for elimination of pathways under unrestricted release conditions (due to site location and physical characteristics of the site),

   (b) Develop generic criteria for elimination of pathways under restricted release conditions, and

   (c) Develop criteria for elimination of pathways due to engineering barriers or structures.

7. **Develop Criteria for Acceptance of Site Specific Analysis Using Codes Other Than D&D**

   (a) Assess and develop criteria for compatibility of code/model assumptions with site conditions,

   (b) Acceptability of code/model scenario (critical group),

   (c) Acceptability of behavior and metabolic parameters,

   (d) Acceptability of physical parameters,

(e) Evaluate and determine criteria for code/model uncertainty analysis, and

(f) Assess and determine criteria for code/model QA/QC, testing, benchmarking, and verification.

8. Assess and Evaluate Complex Modeling Approaches

(a) Assess approaches of complex modeling due to off-site releases,

(b) Assess and evaluate complex modeling associated with engineering barriers,

(c) Assess and evaluate complex modeling due to restricted releases, and

(d) Assess and evaluate complex modeling associated with ALARA analysis (e.g., off-site collective public dose impact analysis).

9. Evaluate a Limited Number of Common Codes Approved by Federal Agencies:

(a) Evaluate areas of codes applications, merits of uses, and limitations,

(b) Provide a generic comparison of code performance, and applicability, and

(c) Provide a generic review of published work on codes benchmarking.

10. Evaluate Test Cases

(a) Decommissioning sites, and

(b) Former burials.

LIST OF EXISTING GUIDANCE DOCUMENTS APPLICABLE TO DECOMMISSIONING THAT WILL REQUIRE REVISION OR DISCONTINUATION TO COMPLY WITH THE LICENSE TERMINATION RULE (LTR). THE DOCUMENT AND THE PLANNED STAFF ACTION IS PROVIDED.

DECOMMISSIONING GUIDANCE DOCUMENT	STATUS AFTER TRANSITION TO LTR
Action Plan to Ensure Timely Cleanup of Site Decommissioning Management Plan Sites (SDMP Action Plan)(57 FR 13389)	Phase out use of cleanup criteria. Superseded by LTR, DG-4006 and Standard Review (SRP). The SDMP list of significant sites will continue to be maintained.
NMSS "Guidelines for the Decontamination of Facilities and Equipment Prior to Release for Unrestricted use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material"	Phase out use as surface contamination criteria for license termination. Superseded by DG-4006 and SRP. NOTE: This document will continue to be used as criteria for free release of material from licensed facilities during operational activities prior to license termination.
Draft Branch Technical Position on "Screening Methodology for Assessing Prior Land Burials of Radioactive Wastes Authorized Under Former 10 CFR 20.304 and 20.302"	Discontinue use. Announce the staff's decision to discontinue use of the draft BTP in the Information Notice that supersedes IN 96-47 (as discussed below).
Manual Chapter 2602, "Decommissioning Inspection Program for Fuel Cycle Facilities and Materials Licensees"	Revise and reissue
Inspection Procedure 87104, "Decommissioning Inspection Procedure for Materials Licensees"	Revise and reissue

DECOMMISSIONING GUIDANCE DOCUMENT	STATUS AFTER TRANSITION TO LTR
Inspection Procedure 87103, "Decommissioning Inspection Procedure for Fuel Cycle Licensees"	Revise and reissue
Information Notice 96-47, "Recordkeeping and Decommissioning Notifications for Disposal of Radioactive Waste by Land Burial Authorized Under Former 10 CFR 20.304, 20.302, and 20.2002"	Revise and issue new Information Notice superseding 96-47. The superseding information notice will remove references to BTP on screening former burials and ensure consistency with LTR version as a new Information Notice that supersedes 96-47.
"Preliminary Hazards Analysis for Contaminated Buildings at Formerly Licensed Sites"	Phase out. Superseded by DG-4006 and SRP.
NUREG/CR-0241, "NMSS Handbook for Decommissioning Fuel Cycle and Materials Licensees"	Revise and reissue.
Regulatory Guide 1.86, "Termination of Operating Licenses for Nuclear Reactors"	Phase out use as surface contamination criteria for license termination. Superseded by DG-4006 and SRP.
Draft NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination"	Superseded by DG-4006 and SRP.
Policy and Guidance Directive PG-8-08 "Scenarios for Assessing Potential Doses Associated with Residual Radioactivity"	Phase out. Superseded by DG-4006 and SRP.
NMSS Branch Technical Position, "When To Remediate Inadvertent Contamination of the Terrestrial Environment"	Revise and reissue.

DECOMMISSIONING GUIDANCE DOCUMENT	STATUS AFTER TRANSITION TO LTR
NMSS Policy and Procedures Letter 1-46, "Procedures for Preparing Federal Register Notices for Site Decommissioning Management Plan Licensing Actions"	Discontinue use. Superseded by SRP.
Regulatory Guide 3.65, "Standard Format and Content Guide for Decommissioning Plans"	Revise and re-issue.
Policy and Guidance Directive 83-23, "Termination of Byproduct, Source, and Special Nuclear Material Licenses"	Discontinue use. Superseded by DG-4006 and SRP.
NUREG-1500, "Working Draft Regulatory Guide on Release Criteria for Decommissioning : NRC's Staff Draft for Comment"	Discontinue use. Superseded by DG-4006 and SRP.
Policy and Guidance Directive FC 91-2, "Standard Review Plan: Evaluating Decommissioning Plans For Licensees Under 10 CFR Parts 30, 40, and 70"	Discontinue use. Superseded by SRP.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

CHAIRMAN

August 14, 1989

MEMORANDUM FOR: James M. Taylor
Acting Executive Director for Operations

FROM: Kenneth M. Carr

SUBJECT: ACTION ITEMS RESULTING FROM THE SYNAR HEARING ON DECOMMISSIONING

Attached is a list of staff action items resulting from the recent Synar hearing. About one-third of these commitments were included in our testimony, and the rest were discussed at the hearing or during my meetings with the staff.

Please ensure that these commitments are factored into our response to the GAO report RCED-89-119, "Nuclear Regulation: NRC's Decommissioning Procedures and Criteria Need to be Strengthened".

Kenneth M. Carr

cc: Commissioner Roberts
Commissioner Rogers
Commissioner Curtiss
SECY
OGC
GPA

ED0---004665

8-15-89

ATTACHMENT 4

ACTION ITEMS FROM SYNAR HEARING ON DECOMMISSIONING

1. Develop Commission policy on BRC by December 1989 (Preparation and Hearing: COM and RES).

2. Interim guidance on residual radioactivity standards for decommissioning actions by December 1989 (Testimony: RES); develop final standards within 2 - 2½ years (Preparation: RES).

3. Require licensees to list in one document all land, buildings, and equipment involved in licensed operations (Testimony: NMSS and NRR).

4. Revise existing guidance to clarify the scope and rigor of verification surveys conducted to ensure that licensees decontaminate facilities in accordance with NRC's guidelines (Testimony: NMSS and RES).

5. Reconsider Health Physics Society's standards for residual radioactivity if revised to respond to NRC's concerns (Testimony: RES).

6. Require licensee monitoring of buried waste sites, as appropriate, and determine what remedial measures, including removal of such waste offsite, are appropriate at time of license termination (Testimony: NMSS).

7. Submit program to Commission for decommissioning records retention (Testimony: NMSS and ARM).

8. Ensure that sites are decontaminated in accordance with NRC's guidance prior to terminating the license and releasing all or part of a site (Testimony: NMSS and NRR).

9. Review sites terminated since 1965, including review of NRC records to identify sites, contacting licensees to supplement inadequate NRC records, and visiting sites to build a record when the existing record is inadequate (Testimony: NMSS).

10. Review and comment on GAO's report and provide responses to GAO and the Subcommittee (Testimony: NMSS).

11. Complete review of renewal application and preparation of environmental assessment for B&W Apollo by September 1989 (Preparation: NMSS).

12. Complete review of renewal application and preparation of environmental assessment for B&W Parks Township in early 1990 (Preparation: NMSS).

13. Require groundwater monitoring at B&W Apollo and Parks Township facilities (Preparation: NMSS).

14. Look into requiring licensees to inform NRC of follow-up surveys and decommissioning after license termination (Hearing: NMSS).

15. Know extent of groundwater contamination at Kerr-McGee Cimmaron before terminating license and releasing the site (Hearing: NMSS).

16. Consider requiring licensees to meet more stringent standards developed by EPA after a license has been terminated based upon NRC's interim standard (Hearing: NMSS and OGC).

17. Provide number of onsite burials since 1981 to the Subcommittee (Hearing: NMSS and NRR).

18. Conduct contractor surveys at GUNC, Pawling, New York and Kerr-McGee, Cushing, Oklahoma to determine extent and significance of contamination (Hearing: NMSS).

19. Compel cleanup action at West Lake Landfill (Hearing and Preparation: NMSS and OGC).

20. Consider adding a "reopener" clause to license termination decisions to require additional decontamination if subsequent information indicates additional contamination (Hearing: NMSS and OGC).

21. Explain why 3 out of the 19 facilities reviewed by GAO did not need to submit decommissioning plans (Preparation: NMSS).

22. Find out whether NRC sponsored the ORNL study cited on Page 15 of the GAO report (Preparation: NMSS).

Commitments made in preparation for and during the Synar hearing on August 3, 1989, as well as in NRC's testimony submitted for the record.

RESOLUTION OF ACTION ITEMS RESULTING FROM 1989 CONGRESSIONAL HEARING AND GAO REPORT

CONGRESSIONAL AND GAO COMMITMENTS	NRC ACTION	DATE COMPLETED
Develop Commission Policy on BRC. (1)*	BRC policy issued July 3, 1990 (55 FR 27522). BRC policy revoked in the Energy Policy Act of 1992.	
Develop residual radioactivity standards. (2)	Final Rule, "Radiological Criteria for License Termination	July 21, 1997
Require licensees to list in one document all land, buildings, and equipment involved in licensed operations. (3)	Final Rule, "Decommissioning Recordkeeping and License Termination: Documentation Additions"	October 7, 1991
Revise existing guidance to clarify scope and rigor of verification surveys to ensure that facilities are remediated in accordance with NRC's guidance prior to license termination. (4, 8)	Draft NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination" Multi-Agency Radiation Survey and Site Investigation Manual" (MARSSIM)	June 1992 December 1997
Reconsider Health Physics Society Standards for residual radioactivity if revised. (5)	Letter from Chairman Carr to Congressman Mike Synar, Chairman of Subcommittee on Environment, Energy, and Natural Resources committed to consider the use of Health Physics Society Standards as they are completed.	May 23, 1991

* The numbers in parenthesis are the Action Items from Attachment 3 that were resolved through the listed staff action.

ATTACHMENT 5

CONGRESSIONAL AND GAO COMMITMENTS	NRC ACTION	DATE COMPLETED
Require licensee monitoring of buried waste, as appropriate, and determine what remedial measures, including removal of such waste offsite, are appropriate. (6)	Information Notice 96-47, "Record-keeping and Decommissioning Notifications for Disposal of Radioactive Waste by Land Burial Authorized under Former 10 CFR 20.304, 20.302, and 20.2002"	August 19, 1996
Submit program to Commission for decommissioning records retention. (7)	SECY-90-316, "Decommissioning Records Plan"	September 10, 1996
Review sites terminated since 1965 to ensure adequate decommissioning. (9)	Contract with Oak Ridge National Laboratory to review docket files for all licenses terminated since 1965.	1998
Review and comment on GAO's report and provide responses to GAO. (10)	Letter from Chairman Carr to Senator John Glenn, Chairman of Committee on Governmental Affairs.	September 26, 1989
Perform various decommissioning activities related to six specific contaminated sites. (11,12, 13, 15, 18, 19)	The six specific sites were added to the SDMP list to ensure appropriate management oversight of decommissioning activities at these sites.	Added to the SDMP list in 1990
Look into requiring licensees to inform NRC of follow-up surveys, and decommissioning after license termination. (14) Consider adding a "re-opener" clause to license termination decisions. (20)	Staff did not add this requirement to either the Recordkeeping rule or the License Termination Rule. However, the License Termination Rule requires additional cleanup if residual contamination is discovered at a terminated site that could result in a significant threat to public health and safety.	July 21, 1997

CONGRESSIONAL AND GAO COMMITMENTS	NRC ACTION	DATE COMPLETED
Consider requiring licensees to meet more stringent standards developed by EPA after a license has been terminated. (16)	Staff did not add this as a requirement in the License Termination Rule. Consistent with a risk-informed approach, the License Termination Rule requires additional cleanup if residual contamination is discovered at a terminated site that could result in a significant threat to public health and safety.	July 21, 1997
Provide the number of onsite burials since 1981 to the Subcommittee. (17)	Letter from Chairman Carr to Mike Synar, Chairman, Subcommittee on Environment, Energy, and Natural Resources, provided a list of burials after 1981.	September 21, 1989
Explain why 3 of 19 facilities reviewed by GAO did not need to submit decommissioning plans (21). Find out whether NRC sponsored the ORNL study referenced in the GAO report. (22)	These issues were not listed as findings in the GAO report and were not listed as policy issues in the SDMP. The staff will check files to confirm how question was answered.	NA

Table 1. Acceptable Contamination Criteria and Associated Dose Bases in NMSS Policy and Guidance Directive FC 83-23

Contamination	Criterion	Stated Dose Basis+	Estimated Dose Basis (EDE)+
Average, fixed U-nat, ^{235}U, ^{238}U, and decay products	5000 dpm/100 cm^2	None	~13 mrem/yr*
Average, fixed ^{226}Ra, ^{228}Ra, transuranics, etc.	100 dpm/100 cm^2	None	~0.2 mrem/yr*
Average, fixed Th-nat, ^{232}Th, ^{90}Sr, etc.	1000 dpm/100 cm^2	None	~28 mrem/yr*
Avg. and max. external beta-gamma dose	0.2-1 mrad/hr at 1 cm	None	~20 mrem/yr°
U-nat with decay products in soil	10 pCi/gm	1 mrad/yr (lung) 3 mrad/yr (bone)	~2.4 to 260 mrem/yr§ ~1.8 to 49 mrem/yr§
Depleted Uranium in soil	35 pCi/gm	1 mrad/yr (lung) 3 mrad/yr (bone)	~2.4 to 8 mrem/yr§ ~1.8 to 18 mrem/yr§
Th-nat with decay products in soil	10 pCi/gm	35 mrem/yr	~35 to 82 mrem/yr§
Enriched Uranium in soil	30 pCi/gm	1 mrad/yr (lung) 3 mrad/yr (bone)	~2.4 to 5 mrem/yr§ ~1.8 to 16 mrem/yr§

Table 1. Acceptable Contamination Criteria and Associated Dose Bases in NMSS Policy and Guidance Directive FC 83-23 (Continued)

Contamination	Criterion	Stated Dose Basis+	Estimated Dose Basis (EDE)+
^{239}Pu in soil	25 pCi/gm	None	~15mrem/yr@
^{241}Am in soil	30 pCi/gm	None	~19 to 325 mrem/yr&
External radiation	10 uR/hr at 1 meter above background	None	~24mrem/yr^

+. Dose bases generally expressed in terms of potential dose to the maximum reasonably exposed individual.

#. Calculated using draft NUREG/CR-5512. FC 83-23 criteria are based more on technological capabilities (i.e., levels of detectability) than on an explicit dose basis.

*. Estimate based on dose at 1 meter for 2000 hour occupancy.

@. Lower estimate represents conversion or repetition of stated dose basis, while upper estimate based on RESRAD calculation (default values used for input parameters).

&. Based on RESRAD calculations without and with water pathways considered, respectively.

^. Estimate based on effective, unshielded occupancy of about 2360 hours for outside exposure.