

# *NRC Decommissioning Lessons Learned*

**Search Criteria:** *Year:* 2002

*Stage:* All Functional Areas

**Facility Type:** All Facility Types

**Benefit:** All Benefits

**Lesson ID:** 2002-01 **Facility Type:** Reactors, Material Facilities **Stage:** Decommissioning Planning

**Benefits:** Facilitates Decommissioning Licensing

**Subject:** Licensees are encouraged to use the data quality objectives (DQO) process in planning and designing the final status survey plan.

**Discussion:** In developing the final survey design, the licensee needs to identify all appropriate data quality objectives (DQOs) in planning and designing the final status survey plan. The process of identifying the applicable DQOs ensures that the survey plan requirements, survey results, and data evaluation are of sufficient quality, quantity, and robustness to support the decision on whether cleanup criteria have been met using statistical tests.

**References:** Regulatory Issue Summary 2002-02: Lessons Learned Related to Recently Submitted Decommissioning Plans  
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2002/ri02002.html>

**Lesson ID:** 2002-02 **Facility Type:** Reactors, Material Facilities **Stage:** Decommissioning Work

**Benefits:** Facilitates Decommissioning Work

**Subject:** In-process inspections are more than one-time confirmatory surveys

**Discussion:** In-process inspections are more efficient than one-time confirmatory surveys. In one case, the confirmatory survey was conducted after the licensee had completed most of the final survey and many of the staff supporting the final survey were no longer available to address questions and issues that were discovered while conducting the confirmatory survey. Simply put, the confirmatory survey was conducted too late in the process. The in-process approach has allowed the licensee and NRC to take side-by-side measurements, compare instrument readings and sensitivity, and address survey issues early in the process rather than at the end of the process. The in-process approach has resulted in significant savings in cost, assured a more accurate survey, and helped the licensee in maintaining its release schedule.

**References:** Regulatory Issue Summary 2002-02: Lessons Learned Related to Recently Submitted Decommissioning Plans  
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2002/ri02002.html>

**Search Criteria:** *Year:* 2002

*Stage:* All Functional Areas

*Facility Type:* All Facility Types

*Benefit:* All Benefits

**Lesson ID:** 2002-03 **Facility Type:** Reactors, Material Facilities **Stage:** Decommissioning Planning

**Benefits:** Facilitates Decommissioning Licensing, Facilitates Decommissioning Work

**Subject:** Continued communications between NRC staff and the licensee during the staff's review is encouraged to help the licensee take full advantage of the inherent flexibility in NUREG-1575 and NUREG-1757

**Discussion:** Continued communications between NRC staff and the licensee during the staff's review is to help ensure that the licensee is able to take full advantage of the inherent flexibility in NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual" (MARSSIM) and NUREG-1757, "Consolidated Decommissioning Guidance." In reviewing license termination plans and decommissioning plans, the staff has observed that licensees are often boxing their approaches into rigid structures and formats, thereby locking out any operational flexibility in implementing MARSSIM and negating cost savings. This approach may reflect, in part, the interpretation of NRC guidance as regulatory requirements. However, it is possible to meet NRC requirements, while instilling operational flexibility into the overall decommissioning process.

**References:** Regulatory Issue Summary 2002-02: Lessons Learned Related to Recently Submitted Decommissioning Plans  
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2002/ri02002.html>

**Lesson ID:** 2002-04 **Facility Type:** Reactors, Material Facilities **Stage:** Decommissioning Planning

**Benefits:** Facilitates Decommissioning Licensing

**Subject:** Licensees are encouraged to submit assumptions and justification for parameters used in developing site-specific derived concentration guideline levels (DCGLs) and application of those DCGLs

**Discussion:** The derivation of DCGLs should include the assumptions and justification for parameters used, and justification for how these DCGLs will be applied to various survey units on site. DCGLs will be captured by license condition as part of the license termination plan approval process, and will require NRC approval for changes to the approved DCGLs. During derivation of DCGLs, licensees should consider: a) area factors, volumetric contamination, model results, etc.

**References:** Regulatory Issue Summary 2002-02: Lessons Learned Related to Recently Submitted Decommissioning Plans  
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2002/ri02002.html>

## ***Search Criteria:***

***Year:*** 2002

***Stage:*** All Functional Areas

***Facility Type:*** All Facility Types

***Benefit:*** All Benefits

***Lesson ID:*** 2002-05 ***Facility Type:*** Reactors

***Stage:*** Decommissioning Planning

***Benefits:*** Facilitates Decommissioning Licensing

***Subject:*** Licensees should establish a clear relationship between the planned decommissioning activities and the associated updated cost estimate.

***Discussion:*** There needs to be a clear relationship between the planned decommissioning activities and the associated cost estimate. At the license termination stage, the Commission must make decisions on the proposed actions described in the license termination plan. The Commission typically considers: 1) the licensee's plan for assuring sufficient funds will be available for final site release; 2) radiation release criteria for license termination; and 3) the adequacy of the final survey required to verify that the site release criteria have been met. 10 CFR 50.82(a)(9)(ii)(F) requires the licensee to provide, in part, an updated site-specific decommissioning cost estimate. If little decommissioning has been completed, and inflation and disposal costs have not changed, the cost estimate required by 10 CFR 50.82(a)(8)(iii) may be acceptable.

***References:*** Regulatory Issue Summary 2002-02: Lessons Learned Related to Recently Submitted Decommissioning Plans  
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2002/ri02002.html>

***Lesson ID:*** 2002-06 ***Facility Type:*** Reactors, Material Facilities ***Stage:*** Operations

***Benefits:*** Facilitates Decommissioning Work

***Subject:*** Old records may be inadequate or inaccurate for the purpose of developing either the historical site assessment (HSA) or site characterization.

***Discussion:*** Old records may be inadequate or inaccurate for the purpose of developing either the HSA or site characterization. The NRC staff suggests that these records not be relied on as the sole source of information for the HSA or site characterization. Interviews with current and former staff and contractors play an essential role in formulating the HSA. Experience has shown that old records and results of operational surveys and post-shutdown scoping surveys have been submitted as substitutes for characterization surveys. To achieve the purpose of the HSA, a complete history of the residual contamination is needed.

***References:*** Regulatory Issue Summary 2002-02: Lessons Learned Related to Recently Submitted Decommissioning Plans  
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2002/ri02002.html>

**Search Criteria:** *Year:* 2002

*Stage:* All Functional Areas

**Facility Type:** All Facility Types

**Benefit:** All Benefits

**Lesson ID:** 2002-07 **Facility Type:** Reactors, Material Facilities **Stage:** Decommissioning Planning

**Benefits:** Facilitates Decommissioning Licensing

**Subject:** Licensees should address the non-radiological impacts of the proposed action in the environmental report when submitting an application to the NRC requesting approval of a decommissioning plan or license termination plan

**Discussion:** Environmental reports need to address non-radiological impacts of the proposed action. In accordance with the provisions of the National Environmental Policy Act (Public Law 91-190), all agencies of the Federal Government are required to assess the environmental impact of any major Federal action that may significantly affect the quality of the human environment. As part of NRC's approval of either a decommissioning plan (DP) or a license termination plan (LTP), NRC is required to determine if that approval is a Federal action. Therefore, the impacts on the human environment associated with NRC approving either a DP or an LTP must be assessed. Further, this assessment must include both radiological and non-radiological impacts. Although most licensees normally provide sufficient information for the staff to assess the radiological impacts on the human environment, some licensees have not provided sufficient information related to current site-specific non-radiological impacts.

**References:** Regulatory Issue Summary 2002-02: Lessons Learned Related to Recently Submitted Decommissioning Plans  
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2002/ri02002.html>

**Lesson ID:** 2002-08 **Facility Type:** Reactors, Material Facilities **Stage:** Decommissioning Planning

**Benefits:** Facilitates Decommissioning Licensing

**Subject:** Licensees should submit the decommissioning plan (DP) or license termination plan (LTP) only after sufficient site characterization has occurred.

**Discussion:** The NRC staff recommends that submittal of the DP or LTP occur only after sufficient site characterization has occurred. The staff suggests that the LTP or DP provide sufficient information demonstrating the characterization of the radiological conditions of site structures, facilities, surface and subsurface soils, and groundwater. The staff has observed that some LTPs and DPs have been submitted with incomplete or inadequate characterizations of radiological conditions. A review of such LTPs or DPs has shown that the lack of information makes it difficult to agree with the rationale justifying the proposed classification of survey units.

**References:** Regulatory Issue Summary 2002-02: Lessons Learned Related to Recently Submitted Decommissioning Plans  
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2002/ri02002.html>