ATTACHMENT 2

Regulatory Analysis

REGULATORY ANALYSIS

PROPOSED RULE – 10 CFR 50.83

Release of Part of a Facility or Site for Unrestricted Use

I. STATEMENT OF THE PROBLEM

The decommissioning and license termination rules of 10 CFR Parts 20 and 50 contain requirements to ensure that reactor facility decommissioning will be accomplished without undue impact on the public health and safety and the environment. The impact would arise from radioactivity remaining in structures, materials, soils, groundwater, and other media at a reactor site after the reactor license is terminated. Subpart E of 10 CFR Part 20 contains the radiological criteria for release of the reactor site following decommissioning. Under current regulations, a reactor licensee may sell part of its site before it has applied the radiological criteria for license termination to the property (i.e., before it submits its license termination plan, or LTP). This type of transfer of property from an NRC licensee is termed a "partial site release." Current regulations do not require NRC approval if the release does not involve the transfer of licensed material. Existing regulations force the NRC to consider changes to the site boundary of a reactor site on a case-by-case basis to ensure adequate protection of the public and the environment.

Several reactor licensees have expressed interest in selling parts of their sites before they receive approval of their LTPs. The NRC believes the issues should be resolved generically. The proposed rulemaking is intended to provide a regulatory framework to address the situations and to help ensure that they are considered consistently and efficiently.

Background

In its review of the proposed sale of property that is part of the Oyster Creek plant site, the staff concluded that there was a gap in the regulations with respect to the partial release of power reactor sites or facilities. The staff is encountering similar issues in recent discussions with the Haddam Neck and Maine Yankee licensees, two power reactors undergoing decommissioning.

The license termination criteria of 10 CFR 50.82 and 10 CFR Part 20, Subpart E, do not require a reactor licensee to demonstrate compliance with the radiological criteria for unrestricted use when proposing a partial site release. Nor do the rules require a licensee to submit information necessary for the staff to evaluate the adequacy of a licensee's partial site release. Concerns have been raised that without the proposed rule, a licensee could adopt a piecemeal approach to reduce the size of its site and avoid applying the criteria in the license termination rule when the licensee eventually requests termination of its 10 CFR Part 50 license.

To address the regulatory gap in 10 CFR Parts 20 and 50, the staff believes that rulemaking is needed to accomplish the following:

(1) Standardize the process for allowing a licensee to release part of its reactor facility or site for unrestricted use before receiving approval of its LTP,

(2) Ensure that residual radioactivity remaining from licensed activity in areas released for unrestricted use will meet the radiological criteria for license termination,

(3) Maintain public confidence, and

(4) Make efficient use of NRC and licensee resources.

The proposed rule would add a new section to 10 CFR Part 50, separate from the current decommissioning and license termination rules, that identifies the criteria and regulatory framework that a licensee would use to request NRC approval of a partial site release. It is narrowly focused on operating and decommissioning power reactors. Furthermore, the proposed rule does not provide for partial site release under restricted conditions.

In order for the staff to evaluate the adequacy of the licensee's plans for partial site release, the proposed rule will require licensees to submit information necessary to demonstrate the following:

- The released property satisfies the radiological criteria for unrestricted use in 10 CFR Part 20, Subpart E, Section 1402 (0.25 mSv/yr [25 mrem/yr] to the average member of the critical group and as low as reasonably achievable).

- The licensee will continue to comply with all other applicable regulatory requirements that may be impacted by the release of property and changes to the site boundary. This would include, for example, regulations in 10 CFR Parts 20, 50, 72, and 100.

- Records of property line changes and the radiological conditions of partial site releases are being maintained to ensure that the dose from residual material associated with these releases can be accounted for at the time of any subsequent partial releases and at the time of license termination.

The approval process by which the property would be released depends on the radiological classification of the area to be released, as defined using the MARSSIM (Multi-agency Radiation Survey and Site Investigation Manual) protocol (Reference 1). For proposed release areas classified as *non-impacted* and, therefore, having no reasonable potential for contamination and whose release would not adversely affect reactor safety, the staff would approve the release by letter. For areas classified as impacted and, therefore, having some potential for contamination, the proposed rule specifies that a license amendment request be submitted for NRC review. The amendment request would include the licensee's plan to demonstrate compliance with the radiological criteria for unrestricted use specified in 10 CFR Part 20, Subpart E. Regulatory guidance for performing this demonstration is contained in NUREG-1727 (Reference 2).

Existing Regulatory Framework

The decommissioning and license termination rules of 10 CFR Parts 20 and 50 contain requirements to ensure that reactor facility decommissioning will be conducted without undue impact on public health and safety and the environment. Section 50.82, "Termination of license," provides the requirements for decommissioning and license termination of power

reactor facilities and references Subpart E of 10 CFR Part 20. Section 20.1402 contains the criteria for unrestricted release.

The staff determines that the licensee has met the license termination criteria using information submitted by the licensee in its LTP and final radiation survey. The LTP is not required until 2 years before the anticipated date of license termination. The final radiation survey is not required until after the licensee completes its decontamination activities. These requirements were based on the NRC's anticipation that reactor licensees would permanently cease operations and then perform the decommissioning and license termination of the site as one large project.

Under the current case-by-case approach applied to partial site release proposals, the regulations do not clearly state what radiological criteria apply. The staff's recent response to the proposed sale of parts of Oyster Creek's site stipulated that a number of actions be taken to ensure that the property sold would meet the radiological release criteria of 10 CFR Part 20. The proposed rule would help to standardize the process for allowing a licensee to release part of its reactor facility or site for unrestricted use on the basis of the criteria used for license termination.

A number of other regulations pertain to the definition of reactor sites and to their expected use during the life of the licensed facility. Definitions and requirements for power reactor sites are contained in Part 100. Section 100.10, "Factors to be considered when evaluating sites," lists considerations used in determining the acceptability of sites, including the expected uses of the site environs and the exclusion area. Section 100.3 defines exclusion area as that area surrounding the reactor in which the reactor licensee has the authority to determine all activities, including exclusion or removal of personnel and property from the area. Section 20.1003 defines the site boundary as that line beyond which the land or property is not owned, leased, or otherwise controlled by the licensee. Paragraph (b)(1) of Section 50.34, "Contents of applications; technical information," requires the final safety analysis report to include all current information on site evaluation factors identified in Part 100, such as those in Section 100.10.

NRC Regulatory Issue Summary (RIS) 2000-19 (October 24, 2000) provides licensees with the NRC's plans for handling partial site release approval requests during the rulemaking. The RIS guidance informs licensees that are considering partial site release of the information needed by the NRC in order to facilitate NRC evaluation of the proposed action.

II. OBJECTIVE OF THE PROPOSED RULE

The objective of this rulemaking is to standardize the process for allowing a licensee to release part of its reactor facility or site for unrestricted use before receiving approval of its LTP. The proposed rule would ensure that parts of a reactor site released for unrestricted use meet the radiological criteria for license termination, even if parts of the site are released before a licensee submits its LTP. The rule is intended to make clear that the radiological criteria of 10 CFR Part 20, Subpart E (0.25 mSv/yr [25 mrem/yr] to the average member of the critical group and as low as reasonably achievable), applies to a partial site release.

The proposed rule will require licensees to submit information necessary to demonstrate that the proposed release is in compliance with the radiological criteria for unrestricted use. This issue was extensively considered in the rulemaking establishing the radiological criteria for license termination (Reference 3). The Commission is proposing this rule to ensure that the level of protection to individuals from radiological exposure for a partial site release is the same as for termination of a power reactor facility license.

The proposed rule is applicable only to Part 50 licensees of operating and decommissioning nuclear power reactors. It addresses two situations, depending on the amount of residual radioactivity present in the area proposed for release. First, for areas classified as impacted, and, therefore, having some potential for contamination, the licensee would submit a license amendment request with the licensee's plan to demonstrate compliance with the radiological criteria for unrestricted use specified in 10 CFR Part 20, Subpart E, Section 1402. Second, for proposed release areas classified as *non-impacted* and, therefore, having no reasonable potential for contamination, there is no public dose attributable to the property and NRC can approve the action by letter upon determining that the licensee has met the criteria of the proposed rule.

In contrast to the license termination process, the proposed rule would not require a license amendment in all cases to release property for unrestricted use. The staff believes this difference is justified for two reasons. First, the license termination process was created to treat the facility or site as a whole, which inevitably involves considering residual radioactivity above background levels, such as that found in plant systems. The proposed rule preserves the license amendment approach for cases in which the area to be released is radiologically impacted and requires that the dose meet the radiological criteria for unrestricted use. Second, for cases in which the change does not adversely affect reactor safety and the area is demonstrated to not be radiologically impacted, the level of NRC review for a license amendment is not required. The review of the proposed release would essentially be an inspection/enforcement review to determine if it would meet release criteria.

In some cases, license conditions or technical specifications in a reactor license may define the site boundary in detail, or include a site map. In these cases, a reactor licensee would submit a license amendment application for a partial site release, regardless of the amount of residual radioactivity in the area to be released, because the site boundary would change. However, under current regulations, a licensee could amend its license to remove the definition of the site boundary without mentioning a partial site release and then proceed to partially release the site without obtaining NRC approval. The proposed rule would require NRC approval for a partial site release regardless of the amount of detail in the site description in the operating license.

If license conditions or technical specifications for a Part 50 or 72 license require the site boundary to follow a particular line or to have certain dimensions, the technical issues must be resolved before the license can be amended. The proposed rule does not relieve a licensee from this requirement.

The proposed rule provides for public participation. The NRC will notice receipt of a licensee's proposal for a partial release, regardless of the amount of residual radioactivity involved, and make the proposal available for public comment. The NRC will also hold a public meeting in the vicinity of the site to discuss the licensee's letter of intent or license amendment request, as

applicable. The proposed rule will amend 10 CFR Part 2 to provide the opportunity for an informal hearing if a license amendment involving a partial site release is challenged. The proposed rule would apply only when a reactor licensee intends to partially release a site before receiving approval of its LTP. As part of its LTP, a licensee may propose releasing its site in stages. The staff will evaluate the licensee's plan and if it is adequate, approve it by approving the license amendment for the LTP. Once the LTP is approved, a separate regulatory mechanism is no longer needed for partial site releases.

The proposed rule would not allow a partial site release under restricted conditions. Restricted conditions are conditions in which the criteria for unrestricted release are not met. Current regulations require a licensee to submit its LTP before it can use the radiological criteria for license termination under restricted conditions. The staff does not propose to change that requirement, nor has any reactor licensee expressed interest in releasing property for restricted use.

III. ALTERNATIVES

The staff considered three alternatives for this proposed rule.

OPTION 1: No rulemaking – Address proposals to release a part of a power reactor facility or site on a case-by-case basis.

Advantage: No resources spent on rulemaking.

Disadvantages:

- The lack of regulations specifically applying the radiological criteria for unrestricted use to a partial site release could result in a dose to the public in excess of the limits specified in 10 CFR Part 20, Subpart E.

- The lack of regulations providing a standardized process for requesting approval of a partial site release could result in the application of inconsistent or unnecessary standards to licensees and unnecessary expenditure of industry and NRC resources in determining appropriate standards and processes for each case.

- The lack of regulations providing a standardized process for requesting approval for a partial site release might allow a licensee to take actions that adversely affect the ultimate decommissioning of the site or to adopt a piecemeal approach to reducing the size of its site in order to avoid applying the license termination criteria.

OPTION 2: Proceed with a narrowly focused rulemaking to revise 10 CFR Parts 2, 20, and 50 to address partial releases of power reactor sites.

Advantages:

- Provides clear regulation of partial releases for operating and permanently shutdown power reactor plants.

- Ensures that the ultimate decommissioning of the site will not be adversely affected and that the radiological consequences of a partial site release do not present an undue risk to public health and safety.

- Allows greater licensee and NRC efficiency in processing a partial site release.

- Allows guidance developed for decommissioning and license termination to be used for partial site releases.

- Provides for public participation in the regulatory process for partial site releases.

Disadvantages:

- Resources spent on rulemaking.

- Additional reporting and record keeping required of licensees.

OPTION 3: Conduct a broadscope rulemaking to revise 10 CFR Parts 2, 20, 30, 40, 50, 70, and 72 to address partial site releases at a variety of facility types.

Advantages:

- Same as Option 2 for power reactor licensees.

- For all classes of licensees, provides greater consistency for partial releases.

- May improve overall efficiency by addressing partial releases of all types of facilities in a single, large effort.

Disadvantages:

- Short-term resource expenditures to expand the scope of rulemaking would be significant because of the larger number and diversity of stakeholders.

- The different schedules and operating environments for decommissioning materials and research reactor facilities would result in some differences in the requirements for partial site releases in any case.

- The approval of power reactor licensee partial release proposals could be delayed because of the time needed to address the greater complexity of including research reactor and Parts 30, 40, 70, and 72 licensees in the rulemaking.

Option 1, the no-action alternative, is not a preferred option because it would not address the concern that continued regulation of partial site release on a case-by-case basis would be inconsistent and inefficient. The lack of a standardized process for partial site release could jeopardize the effectiveness of the ultimate decommissioning of a facility if the radiological

standards of 10 CFR Part 20 were not properly applied. The current situation could also allow licensees to pursue partial site releases that circumvent the intent of the license termination rule by using a piecemeal approach to clearing property for unrestricted use. These safety considerations were an important factor in the NRC's determination that this option was not acceptable.

Option 3, a broad rulemaking addressing partial site releases at a variety of facility types, is not a preferred option because it is not expected to provide the timely rulemaking necessary to address several near-term proposed partial releases of power reactor sites. Partial site releases for materials licensees are addressed to a limited extent in other regulations (i.e., Parts 30, 40, 70, and 72). The proposed rule will change the requirements for power reactor sites but will not affect licensees of materials or research reactor sites. In the future, the staff may consider changes to the regulations for materials licensees to make the requirements consistent with the proposed rule for reactor licensees.

The following evaluation considers the values and impacts of Option 2 relative to the current situation, or Option 1.

IV. EVALUATION OF VALUES AND IMPACTS

This section evaluates values (benefits) and impacts (costs) associated with rulemaking Option 2 in comparison with the no-action alternative. The staff analysis quantifies a number of factors, but some were considered mostly on qualitative grounds.

The costs and benefits associated with decommissioning were analyzed in detail in the Generic Environmental Impact Statement (GEIS) (Reference 3) and the regulatory analysis accompanying the 1997 final rule on radiological criteria for license termination (Reference 4). The proposed rule for partial site release uses the existing radiological criteria for license termination, and partial site releases are expected to involve many of the same licensee activities that would be conducted during decommissioning and license termination. Therefore, the staff used information from past analyses in References 3 and 4 for this analysis. The costs of surveys and remediation for a specific partial site release are expected to typically be less than for these activities during decommissioning and license termination of a reactor facility. Accordingly, the staff used its judgment in applying site-wide costs to represent a typical partial site release. The site-specific nature of factors involved in partial site releases makes it difficult to arrive at a generically applicable analysis of the costs involved. Although the staff intended to represent a typical case, an analysis for a particular site may differ from the staff's estimates.

In conducting this evaluation, the staff followed NRC guidelines for conducting regulatory analyses (References 5 and 6), using the prescribed 7-percent annual rate to adjust 1988 dollar values to 2001 dollar values. The staff also performed a sensitivity analysis using a 3-percent annual rate to determine if the results would be significantly affected. Uncertainty in the estimates arises from the NRC's relative inexperience in reviewing partial site release requests and from the large number of factors that could increase or reduce the costs at a particular site relative to the typical case. Therefore, the estimates given here should be regarded as scoping values rather than precise limits in the range of actual partial site release costs for a site.

The proposed rule includes new requirements, such as a public meeting and submittal of a request for NRC review and approval. The staff estimated the costs of the new requirements to the NRC and the industry. The benefits to licensees could vary significantly, depending on the value of the real estate involved, local taxes, the costs of maintaining the property, and so on. The staff did not attempt to estimate licensee benefits. Benefits to the public, in the form of adverse health affects averted under the proposed rule, were difficult to estimate based on previous analyses in the GEIS (Reference 4), as described later.

The staff analysis quantifies costs of (1) licensee preparation and NRC review of the request for partial site release, (2) holding the public meeting, (3) surveys and remediation activity to support release under the license termination rule criteria, and (4) record keeping by the licensee. Benefits considered in the analysis are limited to estimated health consequences associated with executing partial release using license termination criteria. However, the wide variation in the estimate of health benefits from the analysis in Reference 4 precluded a direct comparison of costs to benefits.

Preparation and Review of a Licensee's Request

The proposed rule would require that a licensee pursuing partial site release submit either a letter requesting approval to release a portion of its site or a license amendment requesting approval of the action, depending on whether the site is radiologically impacted. In either case, the licensee would provide certain information that the NRC would use in evaluating the proposed release. This information includes the following:

a. the results of a safety evaluation of the release of the part of the existing licensed facility,
b. the basis for determining that the radiological criteria for release are satisfied,
c. a description of the area or facility under consideration, and
d. a supplement to the environmental report describing any significant new environmental effects associated with the proposed property release.

The NRC will use this information to determine whether the proposed release meets regulatory requirements.

In these respects, the proposed rule differs little from a case-by-case consideration of proposed releases because it is expected that the licensee and NRC would engage in nearly the same activities to ensure that 10 CFR Part 20 release criteria are satisfied for unrestricted release. This was the case with the Oyster Creek licensee's recent proposal (discussed earlier). However, because the submittal is a regulatory requirement under the proposed rule, the staff sought to estimate its impact.

Under the proposed rule, NRC review of a partial site release is necessary whether or not the licensee submitted a letter or a license amendment. It is reasonable to expect that it will take less effort for a licensee to prepare and the NRC to review a letter proposing the release of an area that is not radiologically impacted than a license amendment to release an area that is radiologically impacted. Therefore, the staff estimated costs of both cases.

The staff used approximate values for licensee and NRC costs from NUREG/CR-4627 (Reference 7), which estimates costs for "typical" and "complicated" technical specification changes. The staff assumed that the release of contaminated or potentially contaminated

areas would require documented surveys. Such releases would incur costs equivalent to a "complicated" amendment. A release of property not requiring the same level of effort and not involving a license amendment was assessed as the "typical" license amendment case in Reference 7. Using these assumptions, and adjusting the 1988 NUREG/CR-4627 estimates upward to reflect 7-percent annual inflation, the staff estimated that the licensee's cost of preparing a partial release request would range from $43,000 to $84,000, depending upon whether it deals with an impacted area (or $37,000 to $72,000, assuming a 3-percent annual inflation rate).

NRC licensing action costs are based on dollar values, rather than on staff full-time-equivalent positions, using values given in Reference 7. Again, adjusted to 2001 dollars, the NRC review cost would range from $27,000 to $51,000, depending upon whether it deals with an impacted area (or $24,000 to $44,000, assuming a 3-percent annual inflation rate).

The staff compared this estimated range to the NRC resources actually used to review the proposed partial site release at Oyster Creek. The staff review totaled 447 hours, or about $33,000 at a rate of $75 per staff hour. The inspection effort was estimated to be approximately 0.5 full-time staff equivalent, or about $55,000 (at $75 per staff-hour). The total NRC effort to review the Oyster creek proposal was greater than the estimate based on the Reference 7 analysis. This result is not unexpected because the Oyster Creek action was unique, and the costs would be expected to decrease as the NRC staff gained experience in similar reviews. Therefore, the staff considers the estimate reasonable for the typical case after the first few reviews are completed.

Public Meeting

The proposed rule requires that a public meeting be held before the release is approved to serve as a forum for public comments on the proposed release. The staff estimated the NRC and licensee costs associated with the meeting on the basis of recent experience involving public meetings for license termination and decommissioning. The meetings envisioned under the proposed rule are expected to involve the same preparation and costs as the past meetings.

The staff estimated that the combined preparation, travel, and followup activities would consume approximately $15,000 of NRC resources and would cost a licensee about $22,000 (the difference exists because a higher labor rate is used for licensee staff effort than for NRC staff).

Licensee Partial Site Release Activities

A licensee proposing release of a portion of its site must conduct certain activities to demonstrate that the area under consideration meets the radiological release criteria for unrestricted release. The activities include radiological characterization surveys, remediation of site media (such as soil), and final surveys. The costs of these activities were estimated in detail for the analyses in Reference 4. The staff judged that the results of the analyses assuming site decommissioning for license termination were applicable to partial site release because the basic activities would be the same.

In Reference 4, the staff estimated the costs of soil remediation and site surveys for an entire site to be in the range of $200,000 in 1997 dollars. Mobilizing a survey and remediation effort for a potentially contaminated portion of a reactor site would involve almost the same level of effort, and the expenses probably would be in the same range as that estimate. Assuming a 7-percent annual rate of inflation adjusts this value to about $260,000 in 2001 dollars (the 3-percent value is $225,000). The staff assumed that remediation would be involved in the typical partial site release case. However, the staff expects that partial site releases of non-impacted areas will involve fewer, if any, surveys and little remediation, and the expense for licensees would be less than this estimate.

Record keeping

The proposed rule would require licensees to maintain records of their sites as originally licensed. Licensees would also track changes to site boundaries and preserve information about the radiological conditions of any partial site releases. Upon decommissioning for license termination, these records would provide information to help ensure licensee compliance with the release criteria of the license termination rule.

The requirements that licensees maintain records of property line changes and of the radiological conditions of partially released sites ensure that these conditions can be adequately considered at the time of any subsequent partial releases and at the time of license termination. The entire site, as defined in the original license and subsequent modifications to the site boundary, is to be included in the LTP to ensure that the entire area meets the radiological release requirements 10 CFR Part 20, Subpart E, at the time the license is terminated. These proposed requirements are intended to ensure that the level of protection from radiological exposure for a partial site release is the same as for license termination of a power reactor facility.

The record keeping requirement of the proposed rule is not new. Under Section 50.75, “Reporting and record keeping for decommissioning planning,” licensees are required to “keep records of information important to the safe and effective decommissioning of the facility ... until the license is terminated by the Commission.” The regulation states that records of occurrences involving the spread of contamination in and around the site should be retained. This information is necessary to classify the site in preparation for decommissioning activities. The Statement of Considerations for the proposed rule on decommissioning criteria for nuclear facilities (Reference 8) further emphasized the need for information on the facility site so that decommissioning can be effectively accomplished. The NRC has determined that to ensure effective decommissioning under Section 50.75, the proposed rule on partial site release should require that licensees retain records of parts of their site that are released for unrestricted use before the NRC approves the LTP. This information will provide the basis for ensuring that the entire originally licensed site and subsequent additions to and subtractions from the site have been properly cleared for the appropriate level of release upon termination of the license by the NRC.

The proposed record keeping requirements are expected to increase existing record keeping requirements only slightly. The retention of records is considered a good practice, and because the records will be generated in any case before the license is terminated, their retention is not considered an undue burden.

Health, Safety, and Environmental Effects

A primary objective of the rule is to ensure that any property released before approval of the LTP meets the unrestricted release criteria in 10 CFR Part 20, Subpart E. The rulemaking for the final rule on radiological criteria for license termination (Reference 3) included the Part 20 requirements and considered the risk to the public health and safety in detail. The Generic Environmental Impact Statement (GEIS, Reference 4) for the 1997 final rule provided the assumptions used and results of the value-impact analysis. The GEIS showed that the cost-benefit for soil cleanup at a power reactor could vary over a wide range, depending upon factors that are largely plant-specific. The results for remediation to the 0.25 mSv/yr [25 mrem/yr] criterion range from a very high cost per death averted to a negative health effect. Because of these results, the staff did not rely on quantification of health effects for the license termination rule and used other reasoning to justify the choice of the 0.25 mSv/yr [25 mrem/yr] criterion.

The reasoning that the staff used was documented in References 3 and 4. The justification hinged on the consensus from independent studies that the limit for public dose should be 1.0 mSv/yr [100 mrem/yr] from all manmade sources. With this in mind, any single source should then be some fraction of 1.0 mSv/yr [100 mrem/yr]. The staff concluded that the 0.25 mSv/yr [25 mrem/yr] criterion for site release for license termination would preclude an individual's dose from exceeding 1.0 mSv/yr [100 mrem/yr] from a number of separate sources.

In light of the staff's difficulties encountered in quantifying the health benefits associated with the license termination clearance criteria, the staff has not attempted to further refine that analysis for this proposed rule. The staff accepts the safety conclusions set forth in the license termination rule. By using the same radiological criterion, the staff does not anticipate that the proposed rule will have any unforeseen adverse effect on public health and safety.

Comparison of Alternatives

In this analysis, the staff has compared only Option 2, the proposed rule, to the current situation. The following table summarizes the NRC and licensee costs considered in the preceding analysis.

Proposed Rule Estimated Costs[1] (Thousands in 2001 Dollars)

	7 Percent Inflation[2]			3 Percent Inflation[2]		
	NRC	Licensee	Total	NRC	Licensee	Total
Submittal Preparation/Review	27-51	43-84	70-135	24-44	37-72	61-116
Public Meeting	15	22	37	15	22	37
Surveys/Remediation	—	260	260	—	225	225
Record keeping	—	nil	nil	—	nil	nil
Totals	42-66	325-366	367-432	39-59	284-319	323-378

1 - Costs are per partial site release action.
2 - Inflation adjustment used only for cost data that were not already in 2001 dollars.

The first observation the staff made was that the sensitivity analysis using a 3-percent inflation rate did not appreciably change the results. Considering other uncertainties, such as plant-specific variables, the results from using the two values can be assumed to be roughly equivalent. The second observation is that licensees will incur significant costs only for those partial site release requests involving radiologically impacted areas that will require surveys and remediation. Licensees will need to determine if the one-time costs, such as those shown here, compare favorably to the potential benefit that could be gained, such as from sale of property that is released. However, the costs estimated in this analysis appear to be nominal compared to probable real estate values in the proximity of some facilities. The staff judged that the costs considered here would probably not be significant factors preventing licensees from pursuing partial site releases.

The staff estimated that the total licensee cost would range from $325,000 to $366,000 and that NRC costs could be as high as $66,000. The staff expects that, on average, two licensees will request partial site releases each year. Therefore, the total annual costs for licensees and the NRC could be as high as $732,000 and $132,000, respectively.

These relatively modest costs are one-time expenditures associated with the release of a portion of a site. The staff does not consider the costs an undue burden on licensees nor an unacceptable regulatory burden to NRC. Therefore, the analysis supports Option 2 for the proposed rule. Option 3 was not considered a viable alternative because the rulemaking would take much longer, thereby delaying implementation of the proposed rule to address a regulatory gap that could seriously undermine the effectiveness and safety of eventual decommissioning at a site. The health and safety benefit was quantified for the final rule on radiological criteria for license termination but varied over such a wide range that it is not useful in this analysis, except to demonstrate that a favorable cost-benefit ratio could be achieved under the license termination release criteria. The proposed rule would provide a level of safety commensurate with that expected for releases of sites for unrestricted use under the license termination rule. The staff judged that because of the relatively modest impact on NRC and licensee resources, and the need to address the regulatory gap, the proposed rule should be implemented following Option 2.

Backfit Considerations

The NRC has determined that the backfit rule does not apply to this proposed rule; therefore, a backfit analysis is not required because it does not involve any provisions that would impose backfits as defined in 10 CFR 50.109(a)(1). The proposed rule would clarify the application of the license termination rule (LTR) for partial site release and the relationship between partial site release and decommissioning of a site under 10 CFR 50.82. A backfit analysis was not required for the LTR because it did not involve reactor operations and it was not required for 10 CFR 50.82 because that rule was imposed to ensure adequate protection of the public health and safety. Since backfit analyses were not required for either the LTR or for 10 CFR 50.82, it would not appear to be needed for this rulemaking action.

Additionally, the purpose of the LTR and 10 CFR 50.82 is to ensure that the residual radioactivity from the licensed activity is within the criteria of the LTR. The LTR requires that any previously approved onsite disposals be reconsidered in determining releases under the LTR. As to previously approved offsite releases, Section F.2.3 of the Statement of Considerations for the final LTR describes a limited grandfathering for previously approved

partial site releases. The NRC stated that guidance would be issued on how licensees should address previously released portions of licensed sites. Consequently, while a previously approved partial site release meeting the LTR criteria would not need to be reconsidered, absent new information in accordance with 10 CFR 20.1401(c), it was not the intent of the rule that interaction from the previously released residual radiation would not need to be considered in the release decision for the remaining portions of the site. To not read the LTR as requiring the radiation interactions from the previously released site to be considered in making release determinations on the remaining site would permit a licensee to release a site that would otherwise not meet the LTR criteria by releasing the site by segments, each one below the criteria of the LTR. Such an approach would defeat the intent of the LTR to consider all the residual radioactivity from the licensed activity in meeting the LTR criteria. This rulemaking would clarify the intent of the LTR and not establish new policies or standards.

Impacts on Other Programs and Other Agencies

The Environmental Protection Agency (EPA) and State governments will be the government entities most directly affected by the proposed rule. The interest of EPA and the States in partial site releases, like their current interest in decommissioning and license termination activities, will primarily concern the criteria used for declaring property cleared for unrestricted use. EPA and the States will probably participate in public meetings and coordinate with NRC in evaluating proposed partial site releases.

The NRC will seek clearance from the Office of Management and Budget for the record keeping requirements of the proposed rule.

The proposed rule may affect similar actions taken by non-reactor NRC licensees because the process established by this proposed rule may be instituted for other facilities seeking partial site releases.

V. DECISION RATIONALE

The regulatory analysis documented herein led the NRC to conclude that the proposed rule will impose moderate costs on the NRC and on licensees proposing to pursue partial site releases. The staff did not estimate the material benefits to licensees that obtain approval for partial site releases. The objective of the proposed rule is to help ensure the effectiveness of decommissioning and license termination efforts that would eventually follow partial site releases. Therefore, the staff judged that the proposed rule offers health and safety benefits commensurate with the benefits of existing license termination requirements for power reactors, while imposing only modest impacts on NRC and the industry. On this basis, the staff recommends rulemaking alternative Option 2.

VI. IMPLEMENTATION

The final rule will become effective 30 days after publication in the *Federal Register*. Implementation should not be difficult because the NRC, through RIS 2000-19, is now prepared to consider partial site releases in the manner set forth in the proposed rule.

VII. REFERENCES

1. “Multi-agency Radiation Survey and Site Investigation Manual (MARSSIM),“ NUREG-1575, Revision 1, August 2000.

2. “NMSS Decommissioning Standard Review Plan,” NUREG-1727, September 2000.

3. “Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities,” NUREG-1496, Volume 1, July 1997.

4. “Radiological Criteria for License Termination,” 62 FR 39058, July 21, 1997.

5. “Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission,” NUREG/BR-0058, Revision 3, July 2000.

6. “Regulatory Analysis Technical Evaluation Handbook,” NUREG/BR-0184, January 1997.

7. “Generic Cost Estimates,” NUREG/CR-4627, Revision 2, February 1992.

8. “Decommissioning Criteria for Nuclear Facilities,” 50 FR 5600, February 11, 1985.