

material on the partially released site is not required to be considered in determining compliance with the standards of 40 CFR part 190. It is true that, once a portion of the site is released, it is no longer an active part of a uranium fuel cycle operation. However, as noted above, it is residual material resulting from previous operation of the facility, introduced into the general environment as a result of the licensee's action to release the property for unrestricted use, that contributes to the public exposures within the scope of EPA's regulations at 40 CFR part 190. With respect to the definition of "uranium fuel cycle," the Commission notes that neither the LTR, nor this rulemaking, redefine or limit the definition of uranium fuel cycle. Residual radioactivity does not lose its original pedigree by the NRC's action to terminate a license. The dose from this residual material must be considered in combination with other uranium fuel cycle exposures under 40 CFR part 190. The commenters' position would be true only if the EPA regulation had a temporal component, *i.e.*, they were intended to cover only current and/or future operations at the site. The regulations contain no temporal limitation and simply state that the dose equivalent must consider exposures "from uranium fuel cycle operations." Moreover, the definition of "uranium fuel cycle" in 40 CFR 190.02 covers activities which are sequential in time (*i.e.*, for any given site they may not occur simultaneously). Nonetheless, under 40 CFR 190.10(a) the total contribution must be considered in determining compliance with the 40 CFR part 190 dose standards when releasing radiologically impacted property for unrestricted use. Assuming that the criterion is intended to integrate the instantaneous dose attributable to radioactive materials whose genesis is directly attributable to uranium fuel cycle operations, it is irrelevant that the radioactive materials happen to be located on a site that is no longer used for uranium fuel cycle operations. For these reasons, the NRC continues to believe that its discussion of the applicability of 40 CFR part 190 in the section-by-section analysis is correct.

Comment: Section 50.83(a)(1)(i) requires that licensees seeking NRC approval of a partial site release evaluate the effect of releasing the property to ensure that the dose to individual members of the public from the portion of the facility or site remaining under the license does not exceed the limits of 10 CFR part 20, subpart D. One reactor licensee and the

NEI commented that the term "portion of the facility or site remaining under the license" be changed to "portion of the facility or site that has not been released for unrestricted use."

Response: As described above, when evaluating compliance with the public dose limits and standards, the dose from a proposed partial site release must be combined with the dose from other fuel cycle sources, which would include the portion of a site or facility remaining under the license as well as residual material from previously released impacted property. However, the proposed rule inappropriately limited the dose to be considered to that associated with the portion of the site remaining under the license. Section 50.83(a)(1)(i) has been changed in the final rule to require licensees to evaluate the effect of releasing the property to ensure all applicable doses are considered with regard to the limits and standards of 10 CFR part 20, subpart D. The evaluation would include consideration of all applicable exposure sources, including relevant fuel cycle sources pursuant to compliance with the EPA's environmental radiation standards incorporated at 10 CFR 20.1301(d). Consequently, rather than adopting the commenter's suggested language, the Commission has adopted broader, more accurate language in the final rule.

5. Use of Distinguishability From Background as a Release Criterion for Impacted Areas

Comment: The partial site release rule, as originally envisioned, proposed that radiologically impacted but remediated areas could be released using the same approval process as a non-impacted area if it could be demonstrated that the radioactivity is not distinguishable from the background radioactivity. Prior to publishing the proposed rule, however, the NRC staff concluded that a technical basis for such a criterion has not been established, and the criterion was not incorporated.

One reactor licensee stated that the rule should preserve, as an alternative, the ability to release an impacted area if it can be demonstrated that there is no residual radioactivity distinguishable from the background present. The release process should then follow the same process as that for a non-impacted area, approval by letter as opposed to a license amendment. Additionally, the commenter stated that the burden in this alternative is to develop and present strong reference background radiation data to support and defend the validity of its use, that the appropriate

criterion for indistinguishability from background does exist, and that a potential criterion corresponding to the current free release criterion could be used by licensees.

Additionally, a State commenter suggested that the rule incorporate the MARSSIM approach to include a comparison of statistical distributions (survey vs. background) used to determine if radiation levels in the area surveyed are indistinguishable from background.

Response: A distinguishability-from-background release criterion cannot be incorporated into the regulations even as an alternative. In order to demonstrate that a given level of radiation is distinguishable from background, the statistical process for determining the radiation dose or concentration would require the specification of exactly "how hard to look" in order to "see" a difference from the background dose or concentration. Specifying how hard to look would, in effect, be the same as specifying an allowable difference from background that is not statistically important to detect. This would amount to specifying an allowable increment above background. As stated in the proposed rule, because no such increment has been endorsed, the criterion cannot be incorporated into the Commission's regulations.

Comment: A State commenter disagreed with the NRC's reasoning for deletion of distinguishability-from-background as a release criterion because for an unrestricted release, the ALARA requirements of 10 CFR 20.1402 may dictate clean up to levels indistinguishable from natural background.

The commenter also stated that, although it is recognized that proper definition of background is problematic because it is not a single value but rather a statistical distribution of values that varies widely with geographic location and other factors, it is a statistical entity (mean \pm (sd \times n)) that can be empirically determined on a case-by-case basis. As a result, the "minimum value above mean background against which to compare survey results," which the NRC has stated is a value which is not endorsed, can be established by setting a reasonable value for "n" in the foregoing expression.

Response: The Commission disagrees with this comment. There is no connection between ALARA requirements associated with the cleanup of an impacted area and the Commission's decision to delete distinguishability-from-background as a