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March 10, 1994

The Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Docketing and Service Branch

Re: Staff Draft Proposed Rulemaking
Radiological Criteria for Decommissioning of NRC-Licensed Facilities

Dear Sir or Madame:

Enclosed are Westinghouse Electric Corporation's comments on the Commission's Staff Draft Proposed Rulemaking on establishing the Radiological Criteria for Decommissioning of NRC-Licensed Facilities.

Westinghouse appreciates the opportunity to comment on this important notice. If you have any questions, please call L. L. LeGoullon at 412-642-4027 or me at 412-642-2455.

Sincerely,

Stephen A. Green, Manager
GOCO ES&H Programs
Environmental Affairs

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Westinghouse Electric Corporation

Comments on the U. S. Nuclear Regulatory Agency's

Staff Draft Proposed Rulemaking
"Radiological Criteria for Decommissioning of NRC-Licensed Facilities"
59 FR 4868, February 2, 1994

Westinghouse Electric Corporation (Westinghouse) offers the following General and Specific Comments on the U. S. Nuclear Regulatory Commission's (NRC's or Commission's) staff draft proposed rulemaking: "Radiological Criteria for Decommissioning of NRC-Licensed Facilities" as published in the February 2, 1994 Federal Register on page 59 FR 4868.

General Comments

1. Westinghouse is in agreement with the Commission's goal to establish a clear and consistent regulatory basis for criteria used to determine compliance for license terminations.
2. While not specifically addressed in the staff draft proposal, the rule should be expanded to allow licensees to decommission inactive facilities and grounds without requesting a termination of active license. This will enhance and expedite decommissioning of licensed sites prior to implementing a formal license termination proceeding.
3. Westinghouse is supportive of the NRC's basic concept of establishing a dose limit, which would be combined with a lower goal or As Low As Reasonable Achievable (ALARA) and cost/benefit analyses. We believe this is a reasonable approach for setting standards for radionuclides and that it is consistent with recommendations of national and international radiation advisory groups.

However, as noted in the Specific Comments, we believe that the goals presented in the staff draft proposal are too restrictive and, in certain circumstances, impractical. This is especially evident in the proposed dose limit for release of the site of 15 millirem per year (mrem/y) total effective dose equivalent per year (TEDE) for residual radioactivity distinguishable from background and the 3 mrem/y as the goal for distinguishing between background and residual radioactivity. Westinghouse advocates use of 100 mrem/y TEDE as the basis for this new criteria. In addition to the reasons provided below, attached is a copy of Westinghouse's comments submitted to the Environmental Protection Agency (EPA) on December 20, 1993 in response to the Agency's "Advance Notice of Proposed Rulemaking for Radiation Site Cleanup Regulations." In our response to EPA, use of the 100 mrem/y limit and its justification are detailed on Pages 4 and 5.

Specific Comments

Page 17; Last Paragraph*

"... the Commission believes that the goal for decommissioning should be the return of the facility to levels approximating background.

Westinghouse supports the NRC goal for decommissioning, but encourages the NRC to recognize that the goal may not be always appropriate or feasible. In many cases, technology does not exist to remove all radioactivity added as a result of facility operation. Further, it may not be economically feasible or appropriate, from a cost-benefit standpoint, to reduce the contamination to background levels.

Page 17; Last Partial Sentence

"However ... demonstrating that radioisotope levels at a site are indistinguishable from background will be a complex task ..." NRC's recommendation to distinguish between background level and other radioisotope levels present is *"sophisticated sampling, measuring and statistical analysis techniques."*

Westinghouse suggests that in lieu of advocating sophisticated sampling and measuring techniques that the NRC recommend uncomplicated, reliable, readily available and acceptable techniques. Further, if the NRC proposes and promulgates cleanup goals for radionuclides that are "distinguishable from background" in lieu of a 100 mrem/y limit, the NRC must establish definitive criteria for radionuclides that are "indistinguishable from background." (Also refer to our General Comment 3).

Page 18; First Partial Paragraph

The NRC proposed 3 millirem per year (mrem/y) as the goal for distinguishing between background and residual radioactivity, and presents one reason for justifying this goal. Westinghouse believes that 3 mrem/y is too low, and again advocates the 100 mrem/y limit, which eliminates the need to distinguish between background and residual radioactivity. If the NRC does not adopt the 100 mrem/y limit, at a minimum Westinghouse suggests that NRC adopt the Health Physics Society's Scientific and Public Issues Committee's position. The Committee's statement, "Radiation Standards for Site Cleanup and Restoration" in the Health Physics Newsletter of June 1993 provided a recommended "assessment screening level of 5 mrem in any year (as) approximately the same magnitude as the temporal variability of the dose from natural background at a single location."

* Page numbers referenced throughout this document correspond to the Staff Draft rulemaking dated January 26, 1994.

Page 20: First Full Paragraph

"The proposed rule would also establish a dose limit for release of the site of 15 millirem per year (mrem/y) TEDE for residual radioactivity distinguishable from background ..."

Westinghouse believes that the 15 mrem/y limit is low and inconsistent with existing NRC rules (e.g., 10 CFR 61.41, which uses 25 mrem/y as a limit; and 10 CFR 20, which uses 100 mrem/y for unrestricted areas). Although the NRC states that the 15 mrem/y is consistent with 10 CFR 61.41 in terms of risk, adequate rationale or justification is not provided.

Westinghouse supports the 100 mrem/y limit and recommends that ALARA principles be included in the criteria established for residual activity at sites where the less than 100 mrem/y TEDE applies.

If the NRC does not adopt the 100 mrem/y limit and continues to advocate distinguishable/un-distinguishable levels, Westinghouse recommends that the distinguishable 15 mrem/y dose "limit" be changed to at least 25 mrem/y to be consistent with existing NRC rulemaking and The Health Physics Society (HPS) guidance. The HPS provided recommended guidance for a dose "compliance screening level of 25 mrem in any one year." The HPS' rationale is that 25 mrem/y is "approximately the same magnitude as the geographic variability of doses from natural background; it is comparable to the difference in annual dose likely to be experienced by a person who moves from one location to another."

Page 21: First Partial Paragraph

During the public workshops, some "commenters recommended that State and local governments be at liberty to adopt more stringent requirements."

Westinghouse could not find the NRC's response to this important concept. However, we feel that public radiological protection should be consistent throughout all fifty states.

Allowing State and local entities to adopt more stringent standards after the NRC decommissioning criteria are final, would be contrary to the responsibilities that Congress has given the NRC.

Page 29: First Full Paragraph

... the proposed rule would require ... when determining ALARA for a specific decommissioning, consider all significant radiological and non-radiological risks resulting from residual radioactivity and from the decommissioning process itself (including transportation and disposal of radioactive wastes generated in the process).

Westinghouse supports the consideration of significant risks in ALARA cost/benefit balancing, including worker and public risks from operations and transportation and those risks which are off-site and immediate.

Page 36; Section Entitled Radon

Westinghouse concurs with the NRC that it is not possible to measure or distinguish concentrations of radon which will produce radiation doses of a few mrem TEDE/y above background for the reasons stated by the NRC. In addition, uranium and thorium should be excluded from soil levels, although it may be reasonable to include them for released structures. The current U.S. EPA mill tailing limits of 5 pCi/g in the top 15 cm. and 15 pCi/g below that (40 CFR 192.32) offer an appropriate degree of public protection even though such levels could correspond to doses above 15 mrem/y. It would be cost prohibitive and cause unnecessary exposure to workers to require remediation and re-remediation of uranium and thorium sites to provide a very small increment of public protection.

Page 37; Fourth Full Paragraph

Westinghouse agrees with the Commission's conclusion that the radiological criteria in the draft proposed rule should also provide adequate environmental protection.

Page 38; Section Entitled "Recycle"

Since unconditional release places no restraints on the use of property, it includes recycling (deliberate or inadvertent) of materials from the property. Therefore, the potential for recycling should be included in the release scenarios for future property use, but considered separately where the recycling precedes release of the property.

Page 40; Item (1) and Page 71; Item (1)

The phrase "*net public or environmental harm*" should be defined in terms of risk, damage, costs, benefits, and other more objective terms.

Page 40; Item (4)

The assumption that restrictions might "*no longer be effective in limiting the possible scenarios or pathways of exposure*" requires a specific time limit to be consistent with other NRC and EPA rules. Westinghouse suggests that either a specific time, e.g., the 100 years of current NRC and EPA rules, or criteria for determining a specific period of time be given.

Page 41; Definition of "Critical Group"

Westinghouse supports the NRC's application of limits to average members of the "critical group." It is a useful improvement over the current, ill-defined "maximum individual."

Page 58; Section Entitled "Time Frame"

Westinghouse supports the NRC's time period of 1,000 years for the applicability of dose limits, as opposed to EPA's 10,000 years. We believe that the TEDE dose calculation should be restricted to the first 500 years. The use of actual measurements to validate those calculations is not technically practical. We agree with the basis that large uncertainties and small consequences near background mean that longer estimates would serve no useful purpose.

Page 59; Section Entitled "Risk Considerations in ALARA Calculations"

Westinghouse agrees with the inclusion of all significant risks, including occupational and non-radiological, in ALARA considerations.

Page 70, Section 20.1402

Please refer to our comments on Page 18; First Partial Paragraph and Page 20; First Full Paragraph. Westinghouse advocates the 100 mrem/y limit and deleting the 3 mrem/y "distinguishable from background" level.

Westinghouse agrees with the Commission's rule to continue the site license for sites exceeding the 100 mrem/y TEDE.

Page 72, Section 20.1403 (a)

Please refer to our comment pertaining to Page 58; Section Entitled "Time Frame."

Page 72, Section 20.1403(c)

Westinghouse requests that the NRC quantify "readily removable activity" to limit removal of activity below a reasonable level, as presently stated in current licenses.

Page 72, Section 20.1404 (a)(2)

We recommend that the 3 mrem/year TEDE goal be deleted, per our previous comments found in General Comment 3, Page 18; First Partial Paragraph and elsewhere throughout this document.

Page 73, Section 20.1404 (b)

Westinghouse recommends increasing the 15 mrem/year TEDE limit to 100 mrem/year TEDE, per our comments found in General Comment 3, Page 20; First Full Paragraph and elsewhere throughout this document.

Page 73, Section 20.1405 (a)

Westinghouse suggests that the phrase "*are not technically achievable*" be replaced with the phrase "*can not be justified by cost-benefit analysis.*"

Also refer to our comment pertaining to Page 40; Item (1) and Page 71; Item (1) regarding the phrase "*net public or environmental harm.*"

Page 73, Section 20.1405(b)

Westinghouse recommends that this statement clarify that site radiation workers be exempt from the 15 mrem/year TEDE.

Page 75, Section 20.1407 (a)(1)

Westinghouse suggests that the phrase "*are not technically achievable*" be replaced with the phrase "*can not be justified by cost-benefit analysis.*"

Also refer to our comment pertaining to Page 40; Item (1) and Page 71; Item (1) regarding the phrase "*net public or environmental harm.*"

Page 75, Section 20.1407 (a)(2)(c)

Westinghouse requests that the term "*undue*" be replaced with the phrase "*unnecessary or excessive health and safety requirements.*"

Page 76, Section 20.1407(c)(2)

Westinghouse requests that the phrase be deleted and restated as follows: "*Be selected from organizations which represent these interest, and*"

Page 77, Section 20.1408; Section Entitled Minimization of Contamination

Westinghouse recommends that this requirement be part of the license application and not be made a part of 10 CFR 20.

We suggest that this section be placed in the appropriate section for each category of license rather than in Part 20. The words "minimize the generation of radioactive

waste" as written, cover both the operational and decommissioning phase of facility life. Therefore, these proposed regulations go beyond those associated with decommissioning. If it is intended to cover only the decommissioning phase; then a qualifier phrase should be added.

This section as written would cover every licensee eventually, no matter how small the quantity or the form of the licensed material. For example, licenses involving only sealed sources or short half life radionuclides would be required to respond to these requirements. It would be more appropriate to limit the submission of such information to those licensees subject to the provisions for submittal of decommissioning funding plan (i.e., subject to the requirements of 10 CFR 30.35).