UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

Febbuary 8, 2000

Mr. Raymond C. Vaughan
Coalition on West Valley Nuclear Wastes
10734 Sharp Street
East Concord, NY 14055

SUBJECT: COMMENTS ON 10 CFR PART 20 -- ALTERNATE CRITERIA FOR LICENSE TERMINATION

Dear Mr. Vaughan:

I am writing in response to your letter, dated December 17, 1999, to Chairman Dicus, of the U.S. Nuclear Regulatory Commission (NRC), expressing concerns about the use of the alternate criteria provisions of 10 CFR Part 20, Subpart E. Specifically, you are concerned that the staff has concluded that the alternate criteria provisions at 10 CFR 20.1404 allow the release of sites without complying with either the unrestricted use provisions at 10 CFR 20.1402 or the restricted use provisions at 10 CFR 20.1403. Please be assured that the NRC staff has not made such a conclusion, and that all sites requesting license termination using the alternate criteria provisions at 10 CFR 20.1404 will be required to comply with either the unrestricted use provisions of 10 CFR 20.1402 or the restricted use provisions at 10 CFR 20.1403.

In addition, you stated that:

1. The alternate criteria provisions do not provide a separate and distinct approach to license termination which lies outside of the restricted and unrestricted approaches;

2. Alternate criteria are nothing more or less than a different value for the 25 millirem per year (mrem/yr) dose criterion; and,

3. Requirements for license termination under restricted conditions, including the cap of 100 or 500 mrem/yr, remain applicable even if alternate criteria are used in place of the 25 mrem/yr dose criterion.

You also provided specific comments on Section 16 of the draft "Standard Review Plan for the Review of Decommissioning Plans and Other Information Submitted to Support Decommissioning" that the NRC staff is currently developing.

As discussed in the preamble to the License Termination Rule (62 Federal Register 39058), for the very large majority of NRC-licensed sites, the Commission believes that the 25 mrem/y unrestricted and restricted use dose criterion in the rule is an appropriate and achievable criterion for decommissioning. However, the Commission was concerned about the possible presence of a small number of sites that would not be able to meet the criterion for either unrestricted use, or for restricted use, if restrictions were in place. Because these sites would not be able to comply with this criteria, they would need to seek an exemption from the rule. To

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address these few sites, the Commission included provisions for these facilities in the rule rather than requiring that these licensees seek an exemption.

However, including provisions for these sites in the rule does not establish a separate class of sites outside of those that would be released under the restricted use requirements of the rule. Rather, the alternate use criteria would only be applicable to those sites that would not be able to meet the restricted use criteria of 25 mrem/yr with restrictions in place. These sites would be required to maintain doses below 100 mrem/yr, or 500 mrem/yr if certain conditions are met, and as low as reasonably achievable, and include the site restrictions described in 10 CFR 20.1403.

In general, the points raised in your letter are consistent with this rule and our guidance. However, it appears that the description of the requirements for complying with alternate criteria provisions at 10 CFR 20.1404 in our existing documents and guidance may not be as clear as it could be. Therefore, some revisions to the guidance needs to be considered.

To that end, I have forwarded your comments to my staff who are developing the Standard Review Plan (SRP) and involved in the West Valley Demonstration Project to ensure that the final decommissioning policy statement and SRP clearly describe all the requirements for releasing sites using the alternate use provisions of 10 CFR Part 20 Subpart E.

Thank you for your comments on the draft policy statement and SRP. If you have any additional questions pertaining to the SRP, please contact Nick Orlando at (301) 415-6749. If you have any questions about the draft decommissioning policy statement for the West Valley Demonstration Project, please contact Jack Parrott at (301) 415-6700.

Sincerely,

John T. Greeves, Director
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

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Sincerely,

Original signed by:

John T. Greeves, Director
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

This document should be made available to the PUBLIC LWC **1/28/00**
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TICKET: G20000015 AN-ML003681448
(CRC No: 00-0018)

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NAME	NOrlando/eb prf read		STreby (NLO)		LCamper		JGreeves			
DATE	1/27/00		1/27/00		1/28/00		2/8/00			

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DATE	1/27/00		1/27/00		1/28/00		/ /00			

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as low as reasonably achievable, and include the site restrictions described in 10 CFR 20.1403. ~~Therefore, the conclusions drawn in your letter, and reproduced above, are correct.~~

I have forwarded your comments to ~~the NRC~~ my staff who are developing the Standard Review Plan (SRP) and ~~staff~~ involved in the West Valley Demonstration Project to ensure that the final decommissioning policy statement and SRP clearly describe all the requirements for releasing sites using the alternate use provisions of 10 CFR Part 20 Subpart E.

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DOCUMENT NAME: **S:\DWM\DCB\DAO\EDO2000015.WPD**

OFC	DCB		OGC		DCB		DWM		
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DATE	1/26/00		1/27/00		1/ /00		/ /00		

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From: Betty Lynn
To: Chandra Muschette, Dominick Orlando, Edith Barbe...
Date: Monday, January 24, 2000 3:10 PM
Subject: Fwd. EDO G20000015

Linda says that the ticket that she had discussed with Nick about the ticket being changed for the purpose of having John Greeves to sign rather than Kane. Therefore, John G. should be the concurree, not Kane.

Extension to 2/1 is noted. to nmss /2/4 to EDO SIG

Hope eveything is in order now.

Thanks, Carrie

From: Edith Barbely
To: Linda Luther
Date: Monday, January 24, 2000 1:16 PM
Subject: EDO G20000015

We received an extension on subject ticket from Poland (Orlando lead) to 2/1 NMSS He is stating the reply now is coming from Greeves and not Kane. Pls confirm. Thx edie

CC: Betty Lynn, Catherine Poland, Chandra Muschette,...

From: Chandra Muschette
To: Betty Lynn
Date: Wednesday, January 19, 2000 8.56 AM
Subject: Re: Fwd: G20000015 - will Greeves be signing response instead of Kane? Let me know and I will change the due

Nick has a question attached. Please cc me with your answer.

Thanks

CC: Dominick Orlando, Edith Barbely

Ticket Log
EXT.

From: Catherine Poland
To: Betty Lynn, Joseph Holonich
Date: Fri, Jan 21, 2000 1:33 PM
Subject: Re: Fwd: Extension request - EDO2000015

new due dates are: 2/1/00 - NMSS
2/4/00 - EDO

Thanks, Cathy

>>> Patricia Tressler 1:28:32 PM 1/21/00 >>>
Mr. Blaha has approved your extension request. The new due date for G20000015 is 2/4/00. If you have any questions, please let me know. Thanks,

Patty :-)

>>> Joseph Holonich 01/20 10:20 AM >>>
Jim,

Please see the attached request for an extension. It is not a long extension, but will give us time to get OGC concurrence.

Let me know if you need.

Joe
7297

From: Joseph Holonich
To: tickets
Date: Thu, Jan 20, 2000 10:20 AM
Subject: Fwd: Extension request - EDO2000015

Jim,

Please see the attached request for an extension It is not a long extension, but will give us time to get OGC concurrence.

Let me know if you need.

Joe
7297

CC: Dominick Orlando, Larry Bell, Larry Camper

From: Dominick Orlando
To: Joseph Holonich
Date: Wed, Jan 19, 2000 9.54 AM
Subject: Extension request - EDO2000015

Joe

The following message was sent to Camper on 1/14/00. It's not clear if if was forwarded to the EDO for review. Could you please re-send if you agree.

Thanks

NickO

Larry

The subject EDO ticket is due to DWM on 1/19/00 and to Mr Kane (for sig) on 1/21/00. This ticket involves an interpretation of the NRC's regulations at 10 CFR Part 20.1404 involving the scope of the use of alternate criteria for decommissioning In essence the letter indicates that NRC staff does not understand that the alternate criteria provision is limited to site that would request license termination under restricted conditions It states that the staff is diverging from this concept in the Standard Review Plan for decommissioning plans and for the West Valley project

Because our response back to the writer will require concurrence by OGC, (because its an interpretation of the regs), and the short week next week, I am requesting that the due date be extended until 2/4/00 to allow adequate OGC review and concurrence as well review by the West Valley PM, and input from the developers of the original License Termination Rule (now in IMNS).

Thanks
NickO

CC: Tim Harris

ACTION

EXTENDED

EDO Principal Correspondence Control

FROM: Raymond C. Vaughan
Coalition on West Valley Nuclear Wastes

DUE: 01/21/00 2/4/00

EDO CONTROL: G20000015
DOC DT: 12/17/99
FINAL REPLY:

TO:

Chairman

FOR SIGNATURE OF : STG ** GRN **

Kane, NMSS

CRC NO: 00-0018

DESC:

COMMENTS REGARDING 10 CFR PART 20 -- ALTERNATE CRITERIA FOR LICENSE TERMINATION

ROUTING:

Travers
Paperiello
Miraglia
Norry
Blaha
Burns
Miller, RI
Cyr, OGC

DATE: 01/10/00 2/1/00

ASSIGNED TO: NMSS

CONTACT: Kane

SPECIAL INSTRUCTIONS OR REMARKS:

OFFICE OF THE SECRETARY
CORRESPONDENCE CONTROL TICKET

PAPER NUMBER: CRC-00-0018 LOGGING DATE: Jan 7 00

ACTION OFFICE: EDO

AUTHOR: RAYMOND VAUGHAN
AFFILIATION: NEW YORK

ADDRESSEE: COMR. DICUS

LETTER DATE: Dec 17 99 FILE CODE: ID&R 14 PT. 20

SUBJECT: COMMENTS RE 10 CFR PART 20

ACTION: Direct Reply

DISTRIBUTION: CHAIRMAN, COMRS, SECY/RAS, OGC

SPECIAL HANDLING: SECY TO ACK

CONSTITUENT:

NOTES: OCM #5527

DATE DUE: Jan 21 00

SIGNATURE: DATE SIGNED:
AFFILIATION:

5527

COALITION ON WEST VALLEY NUCLEAR WASTES
Sharp Street · East Concord, NY 14055 · (716) 941-3168

1999 DEC 27 PM 2:50

December 17, 1999

Greta J. Dicus, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Dicus:

Please see our enclosed comments to NRC staff which we believe should be brought to the Commissioners' attention. The comments relate to a significant misinterpretation of one section of the NRC License Termination Rule, 10 CFR §20.1404, Alternate criteria for license termination.

Given our impression that we see the same misinterpretation in the NRC Draft Policy Statement on decommissioning criteria for West Valley, and given the involvement of the NRC Office of General Counsel in the draft SRP to which the enclosed comments are directed, we are concerned that there is a pervasive and high-level misunderstanding of 10 CFR §20.1404 within NRC.

We will raise this issue again in our comments on the Draft Policy Statement on decommissioning criteria for West Valley, but in the meantime we ask the Commissioners to consider possible ways of clarifying the meaning of §20.1404, Alternate criteria for license termination. This section of the License Termination Rule (LTR) may be applied to various sites nationwide, and we think its meaning should be clear and unambiguous.

At issue is whether §20.1404 contains a complete and sufficient list of requirements for license termination. If so, the protection against loss of institutional control in §20.1403, including the mandated "cap" of 100 or 500 mrem/yr, may not be applicable under §20.1404 but may be replaced by the less specific and less enforceable provision of §20.1404(a)(2) under which licensees would be required to employ "to the extent practical restrictions on site use according to the provisions of Sec. 20.1403 in minimizing exposures at the site."

We think that NRC, in adopting the License Termination Rule in 1997, never intended §20.1404 to be a complete and sufficient set of requirements for license termination under restricted conditions. See our enclosed comments for various ways of looking at the documentary record to see what NRC intended in 1997 when it adopted the LTR, including §20.1404. Each of these ways leads to the same set of conclusions, i.e., that:

- Alternate criteria do not provide a separate and distinct approach to license termination which lies outside the *restricted* and *unrestricted* approaches;

- Alternate criteria are nothing more or less than a different value for the 25 mrem/yr dose criterion; and

- Requirements for license termination under restricted conditions, including the "cap" of 100 or 500 mrem/yr, remain applicable even if alternate criteria are used in place of the 25 mrem/yr dose criterion.

The contrary view, for which we find no support in the documentary record, holds that §20.1404 offers a broad and open-ended approach to decommissioning. The documentary record in general shows a demonstrable lack of recognition by NRC that it was adopting anything like this broad interpretation of §20.1404.

One of the clearest expressions of NRC's intent can be found in the enclosed public announcement on the LTR, 97-083, which was issued by NRC's Office of Public Affairs on May 21, 1997. This is not a legally binding document, but, in combination with the rest of the documentary record, helps to establish how the LTR was interpreted at the time of approval.

First, note the binary distinction made in the second paragraph of 97-083: "Release of the property may be either: *Unrestricted*, in which case it could be used for any purpose, or *Restricted*, so that it could not be used for certain purposes, such as residential housing." (emphasis added) There is no indication of any other approach which lies outside the unrestricted and restricted categories.

Second, the section on Restricted Release in 97-083 describes the LTR's approach to institutional controls as follows, with no indication that anything else could supersede this approach:

> "The Commission expects that institutional controls will be very effective in keeping doses to levels below 25 millirems per year. Nevertheless the Commission has included an additional level of protection in the rule to protect against the situation where the 25-millirems-per-year level could be exceeded by requiring that licensees provide reasonable assurance that, if the institutional controls were no longer in effect, the maximum yearly radiation dose from contamination remaining on site would not exceed 100 millirems per year, and be as low as reasonably achievable.
>
> Licensees in rare circumstances could also propose that, in the event institutional controls were no longer in effect, the residual radioactivity could be as high as 500 millirems per year...."

No exceptions or qualifications to these provisions on institutional control are noted in 97-083.

Third, note the way in which the term "alternate criteria" is introduced and explained in the section on Alternate Criteria for License Termination, 97-083. The grammatical construction (an appositive) is very helpful in understanding the narrow meaning given to "alternate criteria" when the LTR was adopted in 1997:

> "...the rule contains provisions under which the Commission may terminate a license using alternate criteria, greater than 25 millirems per year, if the licensee provides assurance that public health and safety would continue to be protected..."

No broader interpretation of "alternate criteria" can be drawn from 97-083.

Your attention to this question of the meaning and application of alternate criteria would be appreciated.

Sincerely,

Raymond C. Vaughan

COMMENTS ON SRP 16.0 DRAFT MODULE, NMSS DECOMMISSIONING PROGRAM

Raymond C. Vaughan
Coalition on West Valley Nuclear Wastes

135 East Main Street
Hamburg, N.Y. 14075

December 14, 1999

1. The draft module for NMSS Decommissioning Program, Standard Review Plan (SRP) 16.0, "Restricted Use/Alternate Criteria," needs substantial revision. First and foremost, its approach to Alternate Criteria is based on a misunderstanding of 10 CFR 20.1404. This misunderstanding must be corrected, and the SRP draft module changed accordingly, as outlined below in comments 2-14. In addition, the SRP draft module needs to clarify or revise the suggested length and level of detail of the information needed for Acceptance Criteria (i.e., needed from licensees) to show compliance with §20.1403 and/or §20.1404, especially for complex sites (comment 15 below). In addition, the SRP draft module needs to revise or clarify how NRC will judge whether critical groups have been properly identified and included; whether affected environments have been properly identified and included; and whether costs and detriments of maintaining institutional controls have been properly identified and included (comments 16-17).

2. The draft module's §16.2, Alternate Criteria, improperly omits 1) review of the estimated doses if institutional controls are no longer in place, 2) comparison of such doses to the License Termination Rule "cap" of either 100 or 500 mrem/yr, and 3) various other review steps mandated by 10 CFR 20.1403. These omissions are based on a misunderstanding of §20.1404 and must be corrected.

3. The draft module for SRP 16 improperly treats Restricted Use (§20.1403) and Alternate Criteria (§20.1404) as two mutually exclusive approaches that may be available to licensees. This is not correct. Restricted Use and Alternate Criteria are not mutually exclusive. The draft module for SRP 16 must be corrected to reflect this.

4. If certain conditions are met, 10 CFR 20.1404 allows a numerical substitution for the 25 mrem/yr dose criterion. However, 10 CFR 20.1404 does not circumvent the protections built into the License Termination Rule (LTR) to protect the public from possible loss of institutional control. The SRP 16 draft module must provide review procedures that are in accordance with this.

5. Various supporting documents for the LTR (e.g., SECY-97-046A; the Federal Register notice, 62 FR 39057-92; and the Generic EIS, NUREG-1496) tend to use consistent terminology in distinguishing between the *dose criterion* of 25 mrem/yr that applies both to unrestricted site release and to restricted site release with institutional controls in place, and the *cap* of 100 mrem/yr that applies to loss of institutional control under restricted site release. The LTR itself does not use the term "cap," yet it employs the concept in §20.1403(e). Similarly, the LTR tends

not to use the term "dose criterion" in referring to the dose limit of 25 mrem/yr in §§20.1402, 20.1403(b), and 20.1403(d)(1)(i)(A), yet the term remains in use in §20.1404. This change in terminology between the supporting documents and the LTR itself has led to some confusion, but a careful reading of the LTR and supporting documents will show clearly what is meant.

6. For clarity, the following comments will employ the terminology of the LTR supporting documents. "Dose criterion" refers to the TEDE or dose limit applicable to unrestricted site release (as in §20.1402) or to restricted site release with institutional controls in place (as in §§20.1403(b) and 20.1403(d)(1)(i)(A)). "Cap" refers to the TEDE or dose limit that must be met if institutional controls fail (as in §20.1403(e)).

7. If certain conditions are met, §20.1404 allows a dose criterion greater than 25 mrem/yr but not greater than 100 mrem/yr. No other requirement of the LTR is changed or relaxed by §20.1404. In particular, §20.1404 does not change, eliminate, or bypass the cap requirement of §20.1403(e) for restricted site release.

8. The SRP 16 draft module erroneously assumes that §20.1404 sets necessary and sufficient conditions for license termination. This is not true. The purpose of §20.1404 is to set conditions for using a dose criterion greater than 25 mrem/yr. For license termination under restricted conditions, all requirements of §20.1403 remain applicable, except for the dose criterion of 25 mrem/yr in §§20.1403(b) and 20.1403(d)(1)(i)(A) which may be raised in accordance with §20.1404.

9. Any idea that §20.1404 provides a complete list of conditions for license termination under restricted conditions is wrong and entirely implausible. Any idea that NRC intended to discard the detailed requirements of §20.1403 regarding institutional controls is contradicted by the documentary record, wherein NRC discusses institutional controls and associated safeguards at considerable length but exhibits absolutely no awareness that it might be creating a way for licensees to avoid these safeguards via §20.1404.

10. The wording of §20.1404(a) is admittedly confusing: "The Commission may terminate a license using alternate criteria..." The intended meaning of §20.1404(a) is: "The Commission may use alternate criteria in terminating a license..." However, since the resulting sentence would have been awkward ("The Commission may use alternate criteria greater than the dose criterion of Secs. 20.1402, 20.1403(b), and 20.1403(d)(1)(i)(A) in terminating a license, if the licensee--"), we presume that the inadvertently confusing wording of §20.1404(a) was used instead.

11. The intended meaning of §20.1404(a) is clear from the discussion of alternate criteria in the Federal Register (62 FR 39072), §IV.C.1.3, especially the following sentence: "*Based on these considerations*, the Commission has included in the final rule a provision under which the Commission may terminate a license using alternate criteria in its final rule." (emphasis added) The considerations to which the Commission refers are considerations of the 25 mrem/yr dose criterion for either unrestricted or restricted use. No other considerations are mentioned. The words "alternate criteria" in the above-quoted sentence refer to dose criteria higher than 25

mrem/yr. Such is the basis on which alternate criteria were included in the final rule. Exemptions from institutional control safeguards such as the "cap" were not mentioned or contemplated by NRC. Here, as elsewhere, NRC exhibits absolutely no awareness that it might be creating such an exemption.

12. According to another sentence in the same paragraph (62 FR 39072): "Therefore, for the reasons previously listed in Section A.2.3.4, the Commission has limited the conditions *under which a licensee would apply to the NRC for, or be granted use of, alternate criteria* to unusual site-specific circumstances subject to the following provisions..." (emphasis added) The listed provisions are those required under §20.1404. Thus, the above-quoted sentence from 62 FR 39072 provides a direct parallel to the confusingly worded first sentence of §20.1404. The sentence from 62 FR 39072 indicates that licensees may "be granted use of alternate criteria" [i.e., alternate dose criteria higher than 25 mrem/yr] if they meet certain provisions. It does not indicate that licensees are eligible for license termination if they meet those provisions.

13. In general, the documentary record shows no awareness by NRC that licensees might apply for alternate criteria under §20.1404 and thereby be exempt from the "cap" requirements of §20.1403. We infer that NRC did not intend any such exemption for license termination under restricted conditions. See, for example:

a) The discussion of §20.1404 in SECY-97-046A, pp. 5-6, and the absence of any suggestion that the cap might be eliminated or bypassed as a consequence of §20.1404.

b) The discussion of the cap in SECY-97-046A, p. 5, and the absence of any mention of cases in which a cap would not be required.

c) The discussion in SECY-97-046A, pp. 5-6, which suggests that regulatory flexibility for the cap is provided by §20.1403, and that regulatory flexibility for the dose criterion is provided by §20.1404, allowing both to be treated under the rule rather than as exceptions. Neither of these regulatory flexibilities is open-ended, and neither is said to supersede the other.

d) Discussion of alternate criteria in the Federal Register at 62 FR 39066, where it is noted that "the Commission has limited the conditions under which a licensee could apply for alternate criteria and expects that its use would be rare" and where the only anticipated scenario is "a licensee proposing to terminate a license at a site-specific level above 0.25 mSv/y (25 mrem/y)." Thus, alternate criteria are no more (and no less) than alternatives to the 25 mrem/yr dose criterion. No other proposals by licensees are discussed or contemplated here, and there is certainly no discussion of relaxing or eliminating the cap. The requirements that must be met for alternate criteria (62 FR 39066-67) are expressed as *requirements*, not as exemptions from otherwise applicable requirements.

e) Discussion of the durability of institutional controls in the Federal Register at 62 FR 39069-70, including the rationale for the cap requirement: "Although the Commission believes that failure of active and passive institutional controls with the appropriate provisions in place will be rare, it recognizes that it is not possible to preclude the failure of controls. Therefore, in the

proposed rule, the Commission included a requirement that remediation be conducted so that there would be a maximum value ('cap') on the TEDE from residual radioactivity if the institutional controls were no longer effective in limiting the possible scenarios or pathways of exposure." No exception to the cap requirement is identified or discussed in the context of either the draft or the final rule.

f) Discussion of the cap requirement in the Federal Register at 62 FR 39070-71, including the unequivocal statement: "Licensees seeking restricted use will be required to demonstrate, to NRC's satisfaction, that the institutional controls they propose are comparable to those discussed above, are legally enforceable, and are backed by financial assurance. *Licensees will also be required to demonstrate that the cap will be met.*" (emphasis added) No exception to the cap requirement is discussed or contemplated.

g) Discussion of alternate criteria in the Federal Register at 62 FR 39072-73, dealing with the dose criterion but not the cap. There is no discussion of eliminating or relaxing the cap.

h) Discussion of alternate criteria in the NRC Final Regulatory Analysis, p. 6, §2.7, which is particularly interesting because it may be slightly narrower in application than the Final Rule. (It applies strictly or primarily to an alternate dose criterion for *unrestricted* site release [referred to as "No. 5, above"] and thus helps explain the requirement for "...restrictions on site use..." which is somewhat confusing if alternate criteria are being applied where site restrictions already apply, i.e., in a case of restricted site release.) Given the broader application of the LTR as adopted, the requirement of "...restrictions on site use..." is a distinct and useful requirement where §20.1404 invokes alternate criteria greater than the dose criterion of §20.1402 (unrestricted site release) but a redundant requirement where §20.1404 invokes alternate criteria greater than the dose criterion of §§20.1403(b) and 20.1403(d)(1)(i)(A).

i) Discussion in the NRC Final Regulatory Analysis, pp. 18-20, §4.5.3, where the cap requirement and alternate criteria are presented as two separate tiered approaches (not mutually exclusive) to eliminate or minimize site-specific exceptions. The discussion of the cap requirement contains no suggestion that the cap would be superseded by alternate criteria. The discussion of alternate criteria does not mention any circumstances in which the cap would be eliminated or relaxed. Incidentally, on page 20, note the phrase "as considered for restricted use" in the explanation of "...restrictions on site use..."

j) Discussion of restricted use, institutional controls, and the cap requirement, in the Generic EIS, NUREG-1496, Appendix H, §H.3.3, which includes the statement that licensees will be "required to demonstrate that the cap will be met" (page H-13). No exceptions are mentioned or discussed.

k) Absence of any analysis or review in the Generic EIS (NUREG-1496) that would support an NRC decision to allow an open-ended or non-capped dose in the event that institutional controls were lost. Given NRC's statement that "it is not possible to preclude the failure of controls" and given NRC's endorsement of the cap requirement, NRC currently has no NEPA basis for granting license terminations under restricted conditions without a cap requirement.

14. In summary, there is no reasonable interpretation of §20.1404 that eliminates the cap requirement. The scope of §20.1404 is narrow: It allows NRC to use a tiered approach to the dose criterion (greater than 25 mrem/yr but no greater than 100 mrem/yr) if certain conditions are met by the licensee. These conditions must be met for an alternate dose criterion, but they are not necessary and sufficient conditions for license termination under restricted conditions. Other applicable requirements of the LTR, particularly §20.1403, must also be met.

15. In §16.1.1 (Acceptance Criteria for Restricted Use), Suggested Format, the suggested length ("not to exceed 2 pages") may be too short for complex sites. This should be revised to indicate a *length which is commensurate with the complexity of the site* and a *length which is sufficient for NRC staff to make an informed judgment.*

16. In general, SRP 16 should indicate that NRC will judge whether critical groups have been properly identified and included in the licensees' analyses, whether affected environments have been properly identified and included in the licensees' analyses, and what type and format of information is needed from licensees to make this judgment. (As an example, waterborne contaminants from a Great Lakes site at which institutional control has been lost may move downstream through the lakes, having various residence times in the various bodies of water, sediments, and biota. Unless the licensee can show otherwise, these are all affected environments which may have critical groups associated with them via drinking water, fishing, etc.)

17. In general, SRP 16 should specifically require the identification and inclusion of detriments (e.g., injuries and fatalities) associated with the maintenance of institutional controls. Such detriments may be negligible for passive controls (e.g., signs and deed restrictions) but may be very large for active controls (e.g., continual rebuilding of erosion-control structures on steep slopes over thousands of years). In §16.1.1, the information requirements for Acceptance Requirements should specifically require that any injuries and fatalities associated with institutional control be included.

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NRC APPROVES MAXIMUM PERMISSIBLE RADIATION LEVELS

FOR LICENSE TERMINATION

The Nuclear Regulatory Commission has approved an amendment to its regulations to establish maximum permissible radiation levels when a nuclear facility permanently shuts down, is released for other uses, and the license is terminated.

The new rules will require licensees of permanently shutdown facilities to reduce remaining radioactivity to sufficiently low levels to permit the license to be terminated safely. Release of the property may be either:

Unrestricted, in which case it could be used for any purpose, or

Restricted, so that it could not be used for certain purposes, such as residential housing.

The Commission believes that the new standards are consistent with specific recommendations of both national and international bodies tasked with the development of guidance for radiation protection; are appropriately based on risk, cost-benefit, and socio-economic standards; provide the needed flexibility to accommodate site-specific conditions; and are sufficiently conservative to ensure protection of public health and safety and the environment.

Unrestricted Release

Under the new regulations, a site may be released for unrestricted use if the radiation dose from contamination remaining on the property will be as far below 25 millirems per year as is reasonably achievable. (Twenty-five millirems may be compared to a dose of about 5 millirems of background radiation from one round-trip cross-country airline flight; 50 millirems average per year from medical examinations; and 300 millirems per year average in the United States from natural background radiation.)

Restricted Release

The new regulations permit release of a site for restricted use provided that the dose from contamination remaining on site is as low as is reasonably achievable and that legally enforceable institutional controls (such as deed restrictions) will ensure that the dose does not exceed 25 millirems per year.

In addition, if a site is released for restricted use, the licensee must provide financial arrangements to allow an independent third party to assume and carry out responsibilities for any necessary control and maintenance of the site.

Further, a licensee that intends to decommission by restricting use of the site must seek advice--from individuals and institutions in the community who may be affected by the decommissioning--on whether

the provisions for institutional controls proposed by the licensee (1) will provide reasonable assurance that the radiation dose from contamination remaining on site will not exceed 25 millirems per year, (2) will be enforceable, and (3) will not impose undue burdens on the local community or other affected parties.

In obtaining this advice, the licensee must provide for participation by a broad cross-section of community interests, provide an opportunity for a comprehensive discussion on the issues by participants, and make public a summary of the results of such discussions.

The Commission expects that institutional controls will be very effective in keeping doses to levels below 25 millirems per year. Nevertheless the Commission has included an additional level of protection in the rule to protect against the situation where the 25-millirems-per-year level could be exceeded by requiring that licensees provide reasonable assurance that, if the institutional controls were no longer in effect, the maximum yearly radiation dose from contamination remaining on site would not exceed 100 millirems per year, and be as low as is reasonably achievable.

Licensees in rare circumstances could also propose that, in the event institutional controls were no longer in effect, the residual radioactivity could be as high as 500 millirems per year. However, licensees who propose to use the 500-millirem criterion must (1) demonstrate that further reductions in remaining radioactivity are not technically achievable, would be prohibitively expensive, or would result in net public or environmental harm; (2) make provision for durable institutional controls, such as engineered barriers or government control or ownership; and (3) provide sufficient financial resources to enable an independent third party to carry out periodic rechecks of the site at least every 5 years to make sure that the institutional controls remain in place, and to assume and carry out responsibilities for any necessary controls and maintenance of those controls.

Alternate Criteria for License Termination

The Commission expects the vast preponderance of licensees to reduce residual radioactivity to levels that meet the new criteria for unrestricted or restricted release. However, the Commission is concerned about the possible presence of certain difficult sites that could present unique decommissioning problems.

Because it is preferable to have provisions in the rule to deal with these sites rather than have licensees seek an exemption process outside the rule, the rule contains provisions under which the Commission may terminate a license using alternate criteria, greater than 25 millirems per year, if the licensee provides assurance that public health and safety would continue to be protected, and that it was unlikely that the radiation dose from all potential man-made sources combined would be more than 100 millirems per year. The licensee must also place restrictions on site use to the extent practical and reduce the radiation dose to levels that are as low as reasonably achievable.

The Commission expects the use of alternate criteria to be confined to rare situations. To ensure that this is the case, the Commission is requiring that licensees who propose to use alternate criteria must seek advice or comment from affected parties and, as in the case where restricted release is sought, provide for participation by representatives of a broad cross-section of community interests who may be affected by the decommissioning, an opportunity for a comprehensive, collective discussion on the issues, and a publicly available summary of the results of all such discussions.

In addition, the use of alternate criteria to terminate a license will require the approval of the Commission, after consideration of NRC staff recommendations that address any comments provided by the Environmental Protection Agency and by the public.

Public Input

To provide ample opportunities for public comment, when the Commission receives a license termination or decommissioning plan, or a proposal for restricted release of a site or release using alternate criteria, the agency will publish a notice in the Federal Register. In addition, it will provide local notification via a notice in local newspapers, letters to state or local organizations, or other

appropriate means. It will also notify the Environmental Protection Agency, appropriate local and state governments and Indian Nations and solicit their comments.

Specific additional requirements for public input are described above for the restricted use and alternate criteria cases.

Proposed and Final Rule

A proposed rule on this subject was published for public comment on August 22, 1994. The full text of the final rule and a description of specific changes made as a result of the comments received on the proposed rule, and additional NRC analysis, will be contained in a Federal Register notice to be published soon.

The Commission did not adopt a separate groundwater protection standard, as recommended by the Environmental Protection Agency. NRC agrees with the need to control exposures from drinking groundwater that is potentially contaminated and agrees that the environmental integrity of the nation's groundwater needs to be protected. However, NRC has concluded that protection of public health and safety in the use of this valuable resource is achieved by limiting exposure to persons from all potential pathways of exposure (i.e., radiation from the ground, eating food from soil or fish from surface water, inhalation of dust, etc.), including the groundwater pathway, to as far below 25 millirems per year as is reasonably achievable and that imposition of a separate standard for groundwater would not provide any significant enhancement of public health and safety and is therefore unnecessary.

Yesterday Shirley Ann Jackson, Chairman of the NRC, met with Fred Hansen, Deputy Administrator of the Environmental Protection Agency (EPA), to discuss the proposed final rule. At that meeting, she discussed the features of the rule, and NRC's position on the adequacy of the 25-millirems-per-year all pathways standard, the concept of "as low as is reasonably achievable" (ALARA) included in the NRC's rule, and the NRC's position that, in light of the all pathways standard and ALARA, there is no need for a separate groundwater standard. Hansen expressed EPA's interest in continuing discussions with NRC regarding timely notice to EPA of proposed NRC license termination in some specific categories of cases. The Commission has agreed to continue a dialogue with EPA following finalization of the rule.

The new cleanup criteria for decommissioning will not apply to sites already covered by a license termination or decommissioning plan approved previously by the Commission or approved within 24 months of the effective date of the rule (which will be announced in the Federal Register).

The final rules that the Commission has promulgated will generally apply to most NRC licensees and to most licensees regulated by Agreement States (which are states that have assumed, by mutual agreement, part of the NRC's regulatory authority). An Agreement State may implement more stringent standards if it finds a need to impose such standards for local conditions.

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