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

DEC 17 1986

MEMORANDUM FOR: L. C. Shao, Deputy Director
Division of Engineering Safety
Office of Nuclear Regulatory Research

FROM: Richard E. Cunningham, Director
Division of Fuel Cycle and Material Safety, NMSS

SUBJECT: DIVISION REVIEW REQUEST: FINAL RULE AMENDMENTS TO 10 CFR PARTS 30, 40, 50, 51, 70, AND 72 ON GENERAL REQUIREMENTS FOR DECOMMISSIONING NUCLEAR FACILITIES

My staff has reviewed the proposed Final Rule on Decommissioning and comments were provided to Mr. Frank Cardile of your staff at a meeting on December 15, 1986.

Richard E. Cunningham, Director
Division of Fuel Cycle and
Material Safety, NMSS

NOTE TO: Sterling Bell

FROM: Bruce Carrico

SUBJECT: COMMENTS ON PROPOSED FINAL RULE CONCERNING GENERAL REQUIREMENTS FOR DECOMMISSIONING OF NUCLEAR FACILITIES

1. Page 2, second paragraph: In order to better clarify reuse of non-decommissioned nuclear facilities, we suggest RES change the last sentence to read, '...is not considered decommissioning because the facility remains under license.' And add, 'The responsibility for any residual contamination which remains at the facility would be transferred to the licensed facility operator.'

2. Page 10, first paragraph: Use of the term 'non-radioactive' in the last sentence of this paragraph seems to imply that the rule only affects a licensee if the facility is contaminated, which is not correct. For example, a licensee must maintain certain facility construction records from the outset and must base decommissioning funds on an uncontaminated facility. We suggest RES change the last sentence to read, 'The decommissioning rule will not apply to those portions of the facility or site which are unrestricted or personnel access controlled restricted areas where radioactive materials are not stored or used.'

3. Page 108, paragraph 30.32(g): This section (and several others in the rule) requires that certain applicants must only provide a 'certification' of financial assurance for decommissioning. In general, a certification by itself is adequate if the applicant falls into one of the categories identified in 30.35(c). However, we note that if the applicant must submit a funding plan pursuant to 30.34(f)(2) where he provides a real cost decommissioning estimate, then simple 'certification' is not acceptable (at least for license renewal). We also note that 30.33(b) specifies that the applicant must provide 'sufficient information to demonstrate' fund availability. Both of these items seem contradictory to the concept of certification. The rule also does not require a licensee to maintain records of funding plans nor have them available for commission inspection. Based upon the types of acceptable funding methods identified in the rule, it is doubtful that a licensee would have such records readily available in an unannounced inspection.

We are concerned that use of the term 'certification' in the rule implies that the applicant need only make a promise and that no further information to confirm the availibility of funds needs be submitted to NRC with the license application. We don't believe a 'trust me' approach is appropriate for this rulemaking and that the rule should clearly require the applicant to submit verification of funding availability. Therefore, we suggest that the term 'certification' be replaced with 'evidence' wherever it appears in this part or parts 40 and 70. We also suggest that RES should consider adding a paragraph to this part and parts 40 and 70 requiring the licensee to have records of the funding plans available for NRC inspection.

4. Page 110, paragraph 30.34(i)(1): This paragraph requires licensees to maintain records of spills only when 'significant' contamination remains after cleanup. We are concerned that without defining 'significant' in the rule, this will mean different things to different individuals. (i.e., does this mean 2X or 10X Regulatory Guide 1.86 levels?) We do not believe that it would be inappropriate or a burden for licensees to maintain records of all spills where contamination remains after cleanup. Such records will better enable both NRC and the licensee to verify facility acceptability for release for unrestricted use prior to license termination. Therefore, we suggest 'significant' be deleted from this paragraph. This comment would also apply to 40.41(g)(1) and 70.32(1)(1).

5. Page 110, paragraph 30.34(i)(2): The requirement that a licensee must maintain construction and equipment records for high radiation areas does not seem appropriate for material licensees. It is more common for the material licensee to possess significant quantities of low intensity materials which do not result in high radiation levels. Therefore, We suggest 'high radiation areas' be changed to 'restricted areas where radioactive materials are used and/or stored.' This

comment also applies 40.41(g)(2) and 70.32(1)(2).

6. Page 110, paragraph 30.35(a): The last two sentences of this paragraph should be deleted because these statements already appear in another section of the rule [30.34(h)]. This comment also applies to 40.36(a) and 70.25(a).

7. Page 111, paragraph 30.35(b)(2): Change 'certification' to 'evidence.' Change the last sentence to read, 'An applicant for a new license may state ....' And add, 'Evidence that financial assurance for decommissioning has been provided must be submitted within 30 days after receipt of licensed material.' This comment also applies to 40.36(b)(2) and 70.25(b)(2).

8. Page 111, paragraph 30.35(c):

   a. As presently written, this paragraph does not clearly indicate whether or not licensees who are authorized to possess more than one isotope must apply an 'unity rule' to determine if they are required to submit decommissioning funding information. Based upon the response to a comment on page 67 concerning mutiples of Appendix C, we assume an 'unity rule' is meant to apply. When looking at Appendix C, however, we find that the only reference to applying an 'unity rule' is in a note at the end of the Appendix which states, 'For purposes of 20.303 ....' Therefore, one can

   argue that the 'unity rule' only applies to 20.303 and not this rulemaking. In order to make it clear that the total quantity must be considered, we suggest adding, 'When a combination of isotopes is involved, then the sum of the ratios for each isotope shall not exceed '1' (i.e., 'unity') where the quantity in Appendix C is mutiplied by 1E3' after the first sentence.

   b. The table exempts sealed source licensees if their total authorization is less than 1E10 Appendix C quantities. We note

from the discussion on page 16 of enclosure B concerning type 2 licenses, that plated foils are also intended to be exempted. In general, however, plated foils are not considered sealed sources. Sealed sources are also defined in 30.5(r), in part, as 'encased in a capsule.' Because plated foils are not generally considered sealed sources or appear to meet the 30.5(r) definition, we suggest this section be changed to read, '...in sealed sources or plated foils' to provide further clarification.

c. RES may wish to note the changes to Appendix C in proposed Part 20 for certain 'heavy' isotopes.

9. Page 112, paragraph 30.35(d): This paragraph requires the licensee, in part, to provide a 'description of the method of assuring funds for decommissioning' which seems to imply that a funding alternative not identified in 30.35(e) may be considered. We don't believe that is the intention of this section, but that its purpose is to require the licensee to develop an actual cost estimate for decommissioning. We note that licensees who fall under the 30.35(b) category are clearly referred to paragraph (e) for acceptable funding methods. We suggest this paragraph be changed to read, '...for decommissioning and identify the method described in paragraph (e) of this section of assuring funds ....' This comment also applies to 40.36(c) and 70.25(d).

10. Page 112, paragraph 30.35(e)(1): This paragraph will allow a licensee to show sufficient available funding by taking into account accumulated earnings from a deposit over the projected operating life of a facility. In general, material licensees do not conduct the type of operations where an expected facility life can be readily projected (as compared to a power reactor). We suggest this provision be deleted from the rule, and the licensee be required to deposit all funds initially needed for decommissioning.

This paragraph also specifies that the deposit should be in an account 'segregated from licensee assets and outside the licensee's administrative control.' We note that (e)(2)(ii) of this section identifies acceptable insurance beneficiaries. Can something be added to (e)(1) to also identify acceptable procedures? These comments would also apply to 40.36(d) and 70.25(e).

11. Page 113, paragraph 30.35(e)(3): The provision which allows accumulated earnings from a deposit to be taken into account when determining sufficient available funds should be deleted. Also, either the surety or insurance conditions specified in paragraph (e)(2) of this section should be included or a clear reference indicating that they must be included should be added. Could a condition also be added to require that the amount of surety or insurance cannot be reduced without proof of deposit? These comments would also apply to 40.36(d) and 70.25(e).

12. Page 113, paragraph 30.35(e)(5): Change 'a certification or statement of intent' to 'evidence.' This paragraph requires that a cost estimate be made; how does this apply to the 30.35(b) licensee who may only need to identify a specified amount?

13. Page 115, paragraph 30.36(c)(2): We note the wording of this paragraph is quite a bit different from that of current 30.36(d)(1)(v). As written, the proposed paragraph will allow licensees a great deal more flexibility in determining when they must submit decommissioning plans to NRC. We are not aware that the current requirements have imposed an undue burden upon NRC or its licensees. In considering these changes, it is important to keep in mind several instances where a material licensee had problems after attempting to decontaminate facilities due to an incident, such as Shellwell, Automation Industries, and International Nutronics. In all of these cases, had NRC been involved earlier the problems may not have escalated as much as they did.

However, we also recognize that such procedures are often not overly involved and that certain of our licensees are well qualified to conduct decommissioning. But we believe that a term like 'significantly' could lead to individual interpretations of the regulations which may pose additional problems for both NRC and licensees. We suggest that 'are extensive' and 'significantly' in the first sentence and 'significantly' in (A), (B), and (C) be deleted. We also suggest that (D) be changed to read, '...not applied routinely during cleanup or maintenance operations.' This comment would also apply to 40.42(c)(2) and 70.38(c)(2).

14. Page 116, paragraph 30.36(c)(2)(iii)(E): We note the discussion concerning quality assurance during decommissioning on page 29 focuses on reactors. While we believe that such procedures should also be important for material licensees, in general QA/QC provisions are not addressed as part of the licensing process as it is in reactor licensing. Because of this, we suggest RES either consider deleting this requirement or prepare guidance for both NRC staff and material licensees for implementing the requirement. This comment also applies to 40.42(c)(2)(iii)(E) and 70.38(c)(2)(iii)(E).

15. Page 116, paragraph 30.36(c)(2)(iii)(F): This paragraph should be deleted because physical security plans and material control and accounting plans are not required for Part 30 licenses. This comment also applies to 40.42(c)(2)(iii)(F).

16. Page 117, paragraph 30.36(f): In order to make it clear that NRC does not intend to send out termination notices for expired licenses, this paragraph should be changed to read, 'Unexpired specific licenses ....' This comment also applies to 40.42(f) and 70.38(f).

17. Page 120, paragraph 40.36(b): Because source material licenses are normally issued in terms of total weight quantities, we suggest the corresponding weights for natural uranium and thorium be placed in parentheses following the activity limits. We are also concerned that 'readily dispersible' is too vague and may not be applied correctly in certain cases. For example, DU munitions testing may result in extensive site contamination but would the DU rounds be considered readily dispersible? Could 'readily dispersible' be further defined in the rule? Or, perhaps it would help to change this paragraph to read, '...a specific license authorizing quantities of source material greater than 10 mCi (Kg natural uranium; Kg natural thorium) but less

than or equal to 100 mCi (Kg natural uranium; Kg natural thorium) for possession and/or use in a ~~readily~~ dispersible form ....'

18. Page 149, paragraph 70.25(a): We note that this paragraph will require funding plans for licensees authorized to possess as little as 10 microcuries of unsealed plutonium 239. We have issued a number of licenses authorizing possession of plutonium-239 oxide or plutonium-239/beryllium sealed sources containing much greater than 1E10 quantities in each source. In view of this, we suggest RES should consider adding a provision to the rule covering SNM sealed sources.

19. Enclosure B, page 18, third paragraph: Change the third sentence to state, 'For the large number of non-fuel-cycle licensees, plans may not be required because the decommissioning work may involve no more than routine cleanup operations already authorized under the license.'