



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

AB89-1

CF

SEP 30 1987

MEMORANDUM FOR: Victor Stello, Jr.
Executive Director for Operations

FROM: Eric S. Beckjord, Director
Office of Nuclear Regulatory Research

SUBJECT: CONTROL OF NRC RULEMAKING: ANNUAL RES REVIEW OF ONGOING
RES-SPONSORED RULEMAKING, "REVISION OF THE DEFINITION OF HIGH
LEVEL RADIOACTIVE WASTE"

Based on our annual review of the subject rulemaking, RES recommends that NRC should continue this rulemaking. This recommendation in draft form has been coordinated with the Division of High Level Waste Management, NMSS.

The basis for our recommendation is as follows:

- 0 DOE has identified clarification of the definition of high level waste as a crucial need in its planning for geological repository development and also in planning for management of above Class C low level waste.
- 0 Public comments on the ANPR issued February 27, 1987 generally favor a clarification of the definition of high level waste.

The complete RES independent review package has been sent to OEDO (Attention:DEDROGR) and to the Director, NMSS.

A handwritten signature in cursive script, reading "Eric S. Beckjord".

Eric S. Beckjord, Director
Office of Nuclear Regulatory Research

DRAFT RECOMMENDATION

DEFINITION OF HLW IN 10 CFR 60

The staff recommends that this rulemaking be continued. The need to revise the definition of HLW in Part 60 continues to exist. A revision of the definition of HLW seems to have wide general support, as indicated in the comments the staff has received in response to the ANPR published February 27, 1987. The staff should proceed to analyze public comments and develop a draft proposed rule.

TITLE:

+ Definition of High-Level Radioactive Waste (HLW) in 10 CFR Part 60

CFR CITATION:

10 CFR 60

ABSTRACT:

This advance notice of proposed rulemaking (ANPRM) seeks to revise the definition of HLW in Part 60 to reflect certain changes in the legal definition of HLW contained in the Nuclear Waste Policy Act of 1982. Because of the complex issues involved in revising the definition of HLW, which affects virtually the entire radioactive waste management system, the staff is proposing an ANPRM rather than a proposed rule. A revision of the definition of HLW would affect DOE's plans for a geologic repository, costs of waste disposal for certain waste generators, and the development of new technologies and facilities to dispose of certain types of wastes. A definition of HLW which clearly identifies these highly radioactive wastes needing permanent isolation would benefit the radioactive waste management system. NRC staff time for processing this rule is estimated to be 4 staff years. Alternatives to rulemaking would be to take no action or request Congress to amend the NWPAA. The rulemaking would eliminate uncertainty and reduce costs for the public, industry, and NRC.

TIMETABLE:

ANPRM Action Published 02/27/87 52 FR 5992

ANPRM Comment Period End 04/29/87 ~~Comment Period~~ Extended To 06/29/87

Proposed Action to EDO 08/15/87 03/15/88

52 FR 164

Proposed Action to Commission 08/30/87 03/30/88

Proposed Action Published 09/30/87 04/30/88

Final Action Published 10/00/88 12/30/88

LEGAL AUTHORITY:

42 USC 10101

EFFECTS ON SMALL BUSINESS AND OTHER ENTITIES: No

AGENCY CONTACT:

Frank Costanzi/Clark Prichard
Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Washington, DC 20555
301 443-7910/7668

TASK LEADER EVALUATION
HIGH LEVEL WASTE DEFINITION

Issue:

10 CFR Part 60 is the basis for NRC regulation of high level radioactive waste in geologic repositories. Part 60 contains a definition of what constitutes high level waste for the purposes of the rule. The Nuclear Waste Policy Act of 1982(NWPA) also contains a definition of high level waste, one that differs from the Part 60 definition. The NWPA definition is as follows;

- a. The highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations; and
- b. Other highly radioactive material that the Commission, consistent with existing law, determines by rule requires permanent isolation.

The issue at hand is whether or not to revise the definition in Part 60 to conform with that in the NWPA. Adoption of the NWPA definition would involve Commission action to decide if and how "sufficient concentrations" in clause a. of the NWPA definition should be interpreted; and in regard to clause b., how to determine what "other highly radioactive material" requires "permanent isolation".

Necessity and Urgency For Addressing the Issue:

In approving the final amendments to Part 60, technical criteria(SECY-83-59/83-59B), the Commission requested the staff to review the need to revise the definition of HLW in Part 60 to conform with the new statutory definition in the NWPA as part of the ongoing review of the procedural portion of Part 60.

The staff analysis and recommendation to the Commission was transmitted in SECY-85-309, September 17, 1985. The staff recommendation was that a revision was called for. At the time of Commission consideration of the SECY paper, Congress was in the process of amending the Low Level Waste Policy Act of 1980. The legislation being considered included a statement of what wastes States were responsible for, one of the key factors in the issue of HLW definition rulemaking at that time. Due to this impending legislation, the Commission instructed the staff to postpone publication of the ANPR to await the expected Congressional action. The Low Level Waste Policy Amendments Act of 1985 was subsequently enacted into law containing a reference to State responsibility for waste. States were made responsible for all commercial Class A, B, and C low level waste. The Federal government was given responsibility for all other commercial wastes.

As this resolved one of the main issues in the previous consideration of HLW definition revision, the staff, with Commission approval, rewrote the rulemaking package, and submitted a considerably changed paper to the Commission in late 1986 (SECY-86-328, November 7, 1986). The Commission approved publication of this as an ANPR, and the ANPR was published on February 27, 1987 (52 FR 5992). The comment period closed on 6/29/87 and to date the staff has received over 94 comment letters. Analysis of public comments is now underway.

Public comments on the 8 specific questions posed in the ANPR, and on other issues, were very extensive, involving complex technical and legal issues. Many commentators expressed concern that a revision would allow some wastes which are now classified as HLW to be classified as LLW under a revised definition. Another issue receiving heavy comment was the proposed criterion for classifying material as HLW under Clause (b) of the NHPA. The Commission proposed to define waste as high level if it was both highly radioactive and required permanent isolation. Specific concentration limits for radionuclides were proposed to define highly radioactive material, and a set of risk based analyses was proposed to determine which highly radioactive waste required permanent isolation.

Commentors offered a wide range of alternative criteria for defining HLW, some of which were more conservative than that proposed in the ANPR, and some less conservative. Many comments argued that waste which was either highly radioactive or long lived should be HLW. On the other hand, some comments supported the view that the proposed concentration limits were too conservative, and would result in material not really needing permanent isolation going to the geologic repository.

At present the compelling reasons to proceed with the rulemaking are;

(1) DOE needs clarification of what wastes are to be disposed of in geologic repositories. If all above class C wastes are to go to repositories, this needs to be factored into DOE planning for repository management. If, on the other hand, some wastes which are a DOE responsibility can be safely disposed of in some type of facility other than a deep geologic repository, DOE needs to know this and begin planning to develop such a facility. DOE has identified the resolution of the HLW definition question as a top priority need for it to go forward in planning for waste management in its recent report to Congress on management of above Class C low level waste.

(2) The Commission has told the staff that it definitely intends to revise the definition of HLW in the staff requirements memorandum to Victor Stello, Jr., dated January 21, 1987.

(3) The public comment letters generally support the idea of revision, although there is wide disagreement over exactly how to make the revision.

How The Issue will be Addressed Through Rulemaking:

10 CFR Part 60 would be amended to include the NWPA definition. The Commission would define HLW according to criteria on concentration limits, at least with respect to Clause b. of the NWPA definition. The ANPR offers two options for dealing with Clause a., only one of which would make use of a concentration based criterion. Another option being considered would be to classify all greater than Class C waste as HLW. This option is appealing as it would not involve the development of entirely new disposal facilities, but would mean that this waste would be added to that already committed for repository disposal.

Alternatives To Rulemaking;

Alternative 1)

Drop the Rulemaking. The present system of classification could be retained. The Commission could deal with questions of waste classification on a case by case basis. The actual volume of above Class C waste is quite small at present, larger volumes are expected in the future as decommissioning takes place.

Alternative 2)

Ask for Congressional action to resolve the HLW definition issue. Should NWPA be amended, this might be an issue which Congress itself would like to resolve.

How The Public, Industry, and NRC will be Affected;

A. Industry-

Uncertainty as to the possible classification of wastes is a serious detriment to producers of radioactive wastes. Industry cannot plan for efficient and cost-effective waste management as long as there exists doubt about what regulations govern the waste, how it must be handled and transported, what acceptance criteria will be, and what will be the costs of disposal.

B. Public-

The public will benefit from more cost effective waste management as the ultimate consumers of the goods and services provided by the producers of radioactive waste. In addition, risk should be reduced as waste is classified according to hazard.

C. NRC-

NRC will benefit from a reduction in uncertainty as to waste classification. NRC resources could be more effectively committed to regulatory needs if a more definitive system of waste classification were established.

RESOURCES AND SCHEDULE FOR RULEMAKING

A. RESOURCES

(1) Estimated person months of staff time :

For Proposed Rule: 8 mos. RES
8 mos. NMSS
8 mos. OGC
1 mo. ARM

For Final Rule: 8 mos. RES
8 mos. NMSS
8 mos. OGC
1 mo. ARM

(2) Technical Assistance :

Some TA contract support may be required.

SCHEDULE: *

Proposed rule to EDO: 3/15/88
Proposed rule to Commission: 3/30/88
Proposed rule published: 4/30/88
Final rule published: 10/30/88

* See previous note on possibility of schedule changes in response to Commission staff requirements memorandum.

NOTE:

In response to the enclosed staff requirements memorandum, RES and NMSS have agreed to propose an expedited date for delivery of the proposed rule to the Commission (1/30/87). Should the Commission approve this date, a new schedule for the rulemaking will be inserted in the regulatory agenda.



OFFICE OF THE
SECRETARY

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

IN RESPONSE REFER
TO M870804A

ACTION - Thompson, NMSS/
Beckjord, RES

August 12, 1987

Cys: Stello
Taylor
Rehm
MKnapp, NMSS
CPrichard, RES
Jordan, AEOD

MEMORANDUM FOR: Victor Stello, Jr., Executive Director
for Operations

FROM: Samuel J. Chilk, Secretary

SUBJECT: STAFF REQUIREMENTS -- BRIEFING ON THE
MANAGEMENT OF "GREATER THAN CLASS C
LOW LEVEL WASTES" AND THE LLW PROGRAM,
10:00 A.M., TUESDAY, AUGUST 4, 1987,
COMMISSIONERS' CONFERENCE ROOM, DC
OFFICE (OPEN TO PUBLIC ATTENDANCE)

The Commission was briefed by the staff on the status of ongoing activities to regulate the disposition of Greater-Than-Class-C radioactive wastes and the status of NRC's low-level radioactive waste program.

Chairman Zech requested the staff to investigate and inform the Commission how DOE arrived at its projected volume of "Greater Than Class-C" radioactive waste inventory through the year 2020.

(~~SECRET~~) (SECY SUSPENSE: 9/30/87)
(NMSS)

Commissioner Carr requested the staff to advise the Commission of an expedited date for transmitting the proposed rulemaking package on the definition of high level waste. (RES)

(SECY SUSPENSE: 9/30/87) 830544

Copies:
Chairman Zech
Commissioner Roberts
Commissioner Bernthal
Commissioner Carr
OGC
GPA
PDR - Advance
DCS - 016 Phillips

Rec'd Off. EDO

Date

8-13-87

Time

8:30.4

8708140183

LP

Receipt acknowledged. No comment

Receipt acknowledged. Comments as follows:

Robert E. Browning, Director Division of High Level Waste Management, NMSS

I agree with the draft recommendation except for the schedule for completion of the proposed rule. D. Fehringer of my staff has prepared the attached accelerated schedule which I would like to try to meet.

RE Browning
8/21/87

cc

H. Thompson (NMSS)
W. Brown (NMSS)

SCHEDULE FOR PROPOSED RULE

- 1 -

SCHEDULE FOR PROPOSED RULE -- DEFINITION OF HIGH-LEVEL WASTE

(NOTE: RES has lead for responses to comments and overall rulemaking package. NMSS has lead for text of proposed rule and supplementary information. OGC assists both RES and NMSS.)

<u>Action</u>	<u>Lead (Assist)</u>	<u>Date</u>
Complete categorization of comments received on the ANPR	RES	8/28/87
Complete selection of comments requiring responses in the proposed rule	OGC, RES, NMSS	9/4/87
Complete first draft of alternative sets of wording for amendments to Part 60 (change in the definition of Part 60 or appendix stating Commission policy, like Appendix F of Part 50)	NMSS (OGC)	9/4/87
Select wording for amendments to Part 60 and begin drafting of proposed rule	NMSS (OGC)	9/11/87
Complete first draft of responses to major comments	RES (OGC, NMSS)	9/25/87
Complete first draft of proposed rule	NMSS (OGC)	9/30/87
Complete proposed rule package for Division level concurrence	RES, NMSS	10/16/87
Resolve comments and complete proposed rule package for Office level concurrence	RES (NMSS, OGC)	10/30/87
Submit proposed rule package to EDO	RES	11/13/87
Submit proposed rule package to Commission	RES	11/27/87

QUALITY CONTROL ASSESMENT
RULEMAKING REVIEW PACKAGE HLW DEFINITION

10 CFR PART 60

The staff conducting this review has carried out a quality control assessment in accordance with the procedure specified in the May 10, 1984 memorandum from Robert B. Minogue to RES division directors. The package contained here meets all guidelines for conducting a rulemaking review.

This rulemaking was the subject of a briefing before the CRGR; the CRGR voted not to review it as it was not a generic requirement to be imposed by the NRC on one or more classes of power reactors. Provisions of 10 CFR Part 50.109 on backfitting do not apply to this rulemaking as this rule would not be applicable to production and utilization facilities licensed under 10 CFR Part 50.

This rulemaking was initiated at Commission request and has been in accordance with Commission policy and planning guidance. The Commission has authorized the staff to implement the necessary licensing and regulatory activities called for by the Nuclear Waste Policy Act of 1982. In the staff requirements memorandum from the Commission to Victor Stello, Jr., dated January 21, 1987, the staff was directed to publish the ANPR on HLW definition.