



DCS

PR 61
(43 FR 4981)

8005140567

Department of Energy
Clinch River Breeder Reactor
Plant Project Office
P.O. Box U
Oak Ridge, Tennessee 37830

ATTN: G.W. Roles

April 24, 1980

Director, Division of Waste Management
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir:

DRAFT 10CFR61

We have reviewed the preliminary draft of 10CFR61, "Disposal of Low-Level Radioactive Waste and Low-Activity Bulk Solid Waste," along with the "Draft Technical Basis for Supporting Additional Technical Criteria and Regulatory Guides To Implement This Part for Land Burial of Low-Level Wastes." Our comments are enclosed. If you have any questions concerning these comments, please contact Wendall W. Ogg (FTS 626-6363) of my staff.

Sincerely,

Raymond L. Copeland
Acting Assistant Director
for Public Safety

PS:80:128

Enclosures

COMMENTS ON PRELIMINARY DRAFT OF 10 CFR PART 61
"DISPOSAL OF LOW-LEVEL RADIOACTIVE WASTE AND LOW-ACTIVITY
BULK SOLID WASTE" AND DRAFT TECHNICAL BASIS

Statement of Concern

Although we have commented on the draft as written and our comments are found below in Section A, we are convinced that a more forceful step by the Federal Government is necessary. Section B, below, details what we believe is the type of action needed in order to resolve the critical stalemate which exists in the USA regarding low-level waste disposal. The NRC is to be highly commended for its work on this draft. But the socio-political backlash against nuclear progress, especially the lassitude which appears to exist as far as states are concerned, may doom this good legislation to failure.

A. COMMENTS ON DRAFT 10 CFR 61

General Comments

de Minimus Level

The idea of the de minimus level is reasonable. It seems that the regulation ought to allow, in fact require, that the waste generators, including hospitals and research institutes, by representative sampling surveys, determine that part of their waste which is insignificantly radioactive and dispose of it as ordinary trash. The volume of waste handled will then be reduced, which is a very reasonable and necessary step toward reduced environmental impact.

Categorization at the Origin

Notwithstanding the pertinent statements of Section 61.100, the regulations ought to require categorization (segregation) at the origin. This will be a positive step in overall waste management and will prove to be economically sound.

Specific Comments

Section 61.14, Definitions, page 6

1. Uranium mill tailings appear not to be defined in Part 40.
2. In the definition of low-level waste, what about by-product activity which contains low-level radium and/or accelerator-produced radionuclides? (It seems that these regulations ought to include them, even if Congress has to pass new legislation. This effort will remove a major inconvenience in waste disposal for the nuclear industry. See also the related comment for the Table of Radionuclide Concentration Guidelines for Disposal by Shallow Land Burial in the draft technical basis of this draft regulation.)

Section 61.26

Part (b) is difficult to understand.

Section 61.28, Financial

Both the requirements and financial amounts appear to be reasonable.

Section 61.58(b)(4), page 39

After "physical and chemical," add "radioisotopic," as:

". . . amount of waste permitted per unit volume of emplacement space considering the physical, chemical and radioisotopic characteristics. . . etc."

Section 61.78(f)

This section is very well written and will be useful for overall waste management.

Section 61.80

Paragraph (g) is commendable in that records will be deposited locally with county and city officials.

Section 61.86

The limit for liquid remaining in solid waste appears to be reasonable. Also, the conditional inclusion of liquids only, as stated in part (f) is agreed to as being reasonable.

SUBPART J (see below, Part B)

Following the conviction as detailed below in Part B, "Alternatives to the Draft Regulation," all disposal sites should also be waste processing sites. The chief means for volume reduction shall be the incineration of combustibles with subsequent burial of the immobilized ash.

DRAFT TECHNICAL BASES, Etc. (See also Part B, below)

Comment 1

Waste processing ought to be a function at each site and all proven methods, in addition to waste segregation and compaction, ought to be included.

Comment 2 (on the Table, Radionuclide Concentration Guidelines, etc.)

Judgement regarding the burial of transuranic waste should be made by rational consideration of the potential for risk to the public. Assuming that NRC's studies have included such criteria as uptake by food chain at that future calculated or postulated time when the waste can be available in agricultural soil, and have found by these studies that the risk for human harm is exceedingly low, and taking into consideration the perspective of normal risks which society takes, then it may be appropriate to raise the allowable concentration limits to 10, 100, or even 1000 times the 10 nCi/gram.

If mutual agreements between NRC and other agencies such as FDA can be made, and if it is feasible, LLW containing radium and accelerator produced isotopes should be included.

B. ALTERNATIVE TO THE DRAFT REGULATION

Discussion

There is no singular fact more prominent in the problems of LLW disposal than that of the states facing up to their responsibilities. A Federal mandate for each state to make available a waste repository is not reasonable because of economics and because a few states do not have the necessary geology to have a disposal site.

It is reasonable to suggest regional LLW Centers. It is necessary that they be available for use in the shortest possible time. The need for them for nuclear medicine alone merits considerable effort. The bill which is now in the House of Representatives, which is designed to permit states to form interstate compacts for radioactive waste management, could lead to the development of regional LLW Centers.

Moreover, these near-term LLW Centers must not be merely waste disposal centers but also waste processing and disposal centers. The reasons are listed below.

1. The present trend in good nuclear housekeeping is that the volume of low-level waste placed in the earth has to be reduced. Earth unit area is now the most valuable entity. Extrapolation only a little into the future shows us that volume reduction MUST BEGIN NOW IF WE ARE TO BE ALLOWED TO USE NUCLEAR TECHNOLOGY IN THE NEXT DECADE. The truth of this statement can be known by feeling the pulse of the truly environmentally concerned public.

2. The resolution of both the high-level and low-level waste problems may be finally attainable. Just as immobility of high-level waste in glass may be the best answer for high-level waste, we are convinced that regional processing of low-level waste is the best solution to its problem. The fact is that the sophistication for low-level waste processing exists and includes:

(a) Segregation such as suggested by IAEA, as

- o Corrosive - non-corrosive
- o Physically dangerous (sharp, explosive, fragile, etc.) - not dangerous
- o Recoverable - not recoverable
- o Disposable on-site - not disposable on-site
- o Solid - liquid - gas
- o High activity - low activity - possibly active
- o Acid - alkaline - neutral
- o Bulky (compressible) - bulky (not compressible) - not bulky
- o Long half-life - short half-life
- o Combustible - non-combustible

(b) Incineration - Efficient commercial units being essentially release-free are available.

(c) Compaction - It is well-known that nuclear power plant low-level waste consists mostly of combustible, compressible material. Such compacted material can be later incinerated. (PVC-type materials are segregated.) Machines similar to those which shear and compact junk automobiles are usable in nuclear waste processing.

(d) Concentration of liquids and evaporator bottom or ion resin solidification.

Proposal: Regional Waste Processing Centers (A Five-Year Plan)

1. Siting and Ownership

The Department of Energy, using its expertise shall choose the regional sites. The land shall be purchased by the Federal Government. The facility buildings shall also be federally built and owned.

2. Operation

The operation shall be the government-owned, contractor-operated system, licensed by NRC.

3. State Participation

To the fullest extent possible according to NRC's cooperative programs.

4. Capabilities at each center

The following list is not intended to be all inclusive:

- Segregation (categorization) of LLW effected by the most modern hot cell type rooms. Glove boxed conveyor lines and walk-in hoods equipped with the most sophisticated personnel respiratory protection for technician personnel use in categorization surveys.
- Compaction, both of combustible and non-combustible
- Liquid concentration
- Incineration

DCS

PR 61
(43 FR 49811)

ROUTING AND TRANSMITTAL SLIP		ACTION	
1 TO (Name, office symbol or location) JBMartin, WM REBrowning, WM PDSmith, WMLL	INITIALS	CIRCULATE	
	DATE	COORDINATION	
2 FHLohaus, WMLL GRoles, WMLL (2) Charles Nichols, SD Robert Fonner, ELD	INITIALS	FILE	
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3 RMacDougall, WMPI File (Taube) PDR - PR 61 (FR 49811) → DCS, 016	INITIALS	NOTE AND RETURN	
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REMARKS

Attached, for your information, are comments (5) on the preliminary draft of 10 CFR Part 61.

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

FROM (Name, office symbol or location) Taube P. Heddings, Licensing Assistant Low-Level Waste Licensing Branch Division of Waste Management	DATE 4/29/80
	PHONE 74433