

WM Record File

WM Project
Docket No.

PDR

LPDR

Distribution:

TOKAR

J. JOHNSON
Return to WM, 623-SS)

August 1, 1985



File: 680-15

Ref: RR4385

Mr. Michael Tokar
Engineering Branch
Division of Waste Management
United States Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Tokar:

Enclosed is a copy of the letter sent to the State of Washington concerning the waste stream that the 3M Corporation wishes to dispose of. This waste stream falls entirely within the waste streams evaluated in the FL50/EA50 topical report. All this waste can be considered as either compressible or non-compressible waste as referenced in the topical report.

This waste is no different than that which could come from a power plant. In fact, much of this waste originated at a light water reactor before being used as a by product prior to its disposal.

As indicated by the TER, the NRC has the impression that Nuclear Packaging only desired the waste from power plants to be considered. This desire was never specifically stated. I understand how the impression could be obtained since the "worst case" waste conditions described in the application all deal with power plant waste. However, chemicals that are not normally found at a power plant such as chloroform, trichloroethane, trifluoroacetic, etc., are analyzed in recognition that the container maybe used for non-direct power plant waste. This is also emphasized by the fact that organics in general do not affect a non-organic such as ferralium alloy 255.

It has always been NuPac's position that the containers could be used for any waste meeting the waste stream requirements regardless of the origin of the waste. That is why such a broad number of chemicals were evaluated and a general waste stream criteria was developed. If a given waste stream does not meet the criteria it is either rejected or a more specific evaluation would be done that would be submitted for approval.

If you have any further questions please contact me.

Sincerely,

NUCLEAR PACKAGING, INC.

Charles J. Temus
Technical Director

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PDR WASTE
WM-50 PDR

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WM DOCKET CONTROL
CENTER



File: 680-15
Ref: RR4344

July 24, 1985

Ms. Nancy Kirner
State of Washington
Dept. of Social and Health Services
Radiation Control Section LD-11
Olympia, Washington 98504

Subject: 3M CORPORATION WASTE STREAM CLARIFICATION

Dear Ms. Kirner:

In your letter of June 21, 1985, interim approval for certain Enviroalloy High Integrity Containers was extended to September 30, 1985. Among the current approved users for these containers was the Minnesota Mining and Manufacturing (3M) Corporation. In subsequent discussions, questions have been raised concerning the waste stream for the three EA-190 Series C containers 3M will utilize for Hanford burial.

The waste stream that 3M will be disposing in the Enviroalloy containers is shown on the attached sheet. Note that all of the waste can be classified as dry activated waste (DAW) and can be certified to meet the requirements for Enviroalloy container burial at the Hanford site. All of the residual chemicals and waste form indicated on the attached sheet have been addressed in the EA-50/FL-50 Topical Report, which the NRC has completed and issued a draft Topical Report Evaluation dated June 28, 1985. Specifically, the only chemical listed of concern is the HCl, which not only is in the anhydrous state but also meets the requirement of being less than 2% by weight.

Based on the above information, Nuclear Packaging, Inc. requests that the State of Washington continue its approval for 3M Corporation to use three Enviroalloy High Integrity Containers for disposal at the Hanford, WA burial site. Specifically, Nuclear Packaging requests approval for 3M Corporation to use the Enviroalloy EA-190 Series C High Integrity Containers. We would like approval for this container, for which backup information was sent to you on July 11, 1985, as soon as possible.



July 24, 1985

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Ms. Nancy Kirner
State of Washington

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Should you have any questions, please contact me at (206) 874-2235.

Very truly yours,

NUCLEAR PACKAGING, INC.

Charles J. Temus
Technical Director

Attachment

etc
CJT:GLC:glc

Characterization of 3M Class B/C Waste

Materials

Contaminated lab ware - vials, beakers, funnels etc.

50% of total waste by volume - -

Composition:

polyethylene: low density, high density and linear
polypropylene, polymethylpentene, polystyrene,
polycarbonate, "Teflon FEP"

Micellaneous scrap

40% of total waste by volume

Composition:

glass, cellulose, stainless steel, brass,
carbon steel

Exhaust system filters

5% of total waste by volume

Composition:

glass fiber, cellulose, wood, carbon steel

Reject sources

5% of total waste by volume

Composition:

stainless steel, ceramic microspheres

Chemicals present (in total less than 1% by weight or volume)

CsCl, Na₃PO₄, HCl, HNO₃
all in anhydrous form 3 -

Containers

30 gallon, 17H steel drums,

May be lined with: 3 inches of concrete (800 lbs)
2 inches of lead (1600 lbs)
3 inches of lead (2000 lbs)

55 gallon, 17H steel drums,

May contain smaller lead containers (pigs)

Radioactive Content

Isotopes: Cs-137, Sr-90

Quantities: Cs-137, up to class C limits based on volume
of overpack (~ 900 Ci)

Sr-90, maximum of 500 Ci

Chemical form: CsCl, SrCl₂, SrO, or incorporated in ceramic
microspheres.