

JAN 03 1991

MEMORANDUM FOR: Edward L. Jordan, Chairman  
Committee for Generic Requirements

FROM: Robert M. Bernero, Director  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: GENERIC LETTER, "REPORTING MISHAPS INVOLVING  
LOW-LEVEL RADIOACTIVE WASTE FORMS PREPARED FOR  
DISPOSAL"

This is to confirm an agreement reached on September 12, 1990, in a meeting between James Conran of your staff and John Surmeier and Everett Wick of the Office of Nuclear Material Safety and Safeguards, Division of Low-Level Waste Management and Decommissioning, Technical Branch.

Mr. Conran agreed with my staff that since the subject Generic Letter encourages only voluntary reporting of waste form mishaps and because the licensee effort for reporting the information is small, formal review by the Committee for Generic Requirements (CRGR) is not necessary under the provisions of the CRGR Charter. This Generic Letter was prepared under the direction of a Staff Requirements Memorandum dated May 15, 1990.

Enclosed is a copy of the proposed Generic Letter and the Supplementary Information provided to the Office of Management and Budget (OMB) pursuant to the Paper Work Reduction Act. Pursuant to a subsequent conversation between John Surmeier and James Conran, the document sent to OMB has been changed from an Information Notice to a Generic Letter.

Original signed by G. A. Arlotto

Robert M. Bernero, Director  
Office of Nuclear Material Safety  
and Safeguards

Enclosures: As stated

cc: J. Conran  
Distribution: Central File # 202.2 NMSS r/f  
RBangart JGreeves JAustin JSurmeier  
MTokar EWick RO'Connell LLTB r/f  
LLWM t/f NMSS Dir Ofc r/f PLOhaus

PDR YES  
PDR NO  Category: Proprietary  or CF Only   
ACNW YES  NO

SUBJECT ABSTRACT: GENERIC LETTER REPORTING MISHAPS INVOLVING  
LL RAD WASTE FORMS PREPARED FOR DISPOSAL

NOTE: Memo rec'd to J. Conrad for accuracy 10/31/90 and again  
on 12/17/90 after CRGR meeting on BTP on WF

9101090007 910103  
PDR WASTE  
WM-3 PDR

\*SEE PREVIOUS CONCURRENCE

*C23  
12/2/90*

OFC :LLTB\* :LLWM\* :LLWM :NMSS :NMSS :  
NAME:JSurmeier:JGreeves :RBangart :GArlotto :RBernero :  
DATE:10/31/90 :10/31/90 :12/17/90 :12/17/90 :12/17/90 :  
*12/28 1/3/91 1/3/91*

CRGR (w/enc "Generic Letter 90-XX") OFFICIAL RECORD COPY

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202.2  
WM-3  
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Category: Proprietary

or CF Only  JB

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NOTE: Memo read to J. Conrad for accuracy ~~10/2/90~~ & again on 12/17/90

10/31/90 after CRGR meeting

OFC :LLTB *JB* :LLWM *JB* :LLWM :NMSS :NMSS : : : *on BTP on WF*  
NAME:JSurmeier:JGreeves :RBangart :GARlotto :RBernero : : :  
DATE:10/24/90 :10/31/90 :10 /90 :10/ /90 :10/ /90 : : :

CRGR

OFFICIAL RECORD COPY



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

TO: ALL OPERATORS OF LOW-LEVEL RADIOACTIVE WASTE (LLW) DISPOSAL SITES,  
WASTE PROCESSORS, AND ALL HOLDERS OF LICENSES FOR  
NUCLEAR FUELS, NUCLEAR MATERIALS AND NUCLEAR POWER REACTORS

SUBJECT: REPORTING MISHAPS INVOLVING LLW FORMS PREPARED FOR DISPOSAL  
(GENERIC LETTER 90-XX)

Purpose:

The Nuclear Regulatory Commission (NRC) has decided to rely on voluntary submittal of reports by both waste form generators and processors of information on mishaps to LLW forms prepared for disposal. This Generic Letter is intended to encourage this action on such mishaps. Licensees are also reminded of their obligation to report defects and deviations, in accordance with NRC requirements in 10 CFR Part 21. The reasons for encouraging voluntary reporting of mishaps involving LLW forms prepared for disposal are presented below.

Discussion:

Background -

NRC has incomplete information on reported mishaps to LLW forms prepared for disposal. Four incidents have been reported in which pressurization resulted from chemical reactions in LLW shipping containers storing dewatered synthetic organic materials, such as resins (NRC Information Notices 83-14, "Dewatered Spent Ion Exchange Resin Susceptibility to Exothermic Chemical Reaction," March 21, 1983; 84-72, "Clarification of Conditions for Waste Shipments Subject to Hydrogen Gas Generation," September 10, 1984; 90-50, "Minimization of Methane Gas in Plant Systems and Radwaste Shipping Containers," August 8, 1990). Another incident was reported in which, during solidification of the waste, a violent reaction occurred between a chemical detergent and a vendor's waste solidification agent (NRC Information Notice 88-08, "Chemical Reactions with Radioactive Waste Solidification Agents," March 14, 1988). This reaction resulted in boiling of the mixture so that it overflowed the liner, then hardened, and had to be chipped away. Other problems have been encountered in the use of cement to solidify and stabilize bead resin wastes. Thus, there have been multiple incidents in which cement-solidified bead resin wastes have either not solidified properly or have disintegrated over a period of time after solidification. Although mishaps such as these generally have been made known to regulatory authorities, mainly through indirect and informal means, there is presently no established method to encourage the reporting of such events and the providing of adequate information on them.

#### Current Practice -

All three currently-sited Agreement States (Nevada, South Carolina, and Washington) have established requirements in the State licenses for the reporting of waste form and container deficiencies identified by the site operators in wastes shipped to the sites for disposal. In addition, all three facilities have on-site State inspectors who inspect the condition of shipments received by the disposal-facility operators. This information is provided to NRC as part of the NRC/Agreement State exchange of information program. The staff further notes, however, that neither the Agreement States nor NRC have specific regulatory requirements that apply to all licensees for reporting of waste form or container deficiencies. Therefore, the States do report what they find, but they may not find some of these problems, because they have no requirement to look for all such events at their disposal facilities, and they do not presently have the means to be informed routinely of mishaps that occur at NRC-licensed facilities.

Existing reporting requirements contained in 10 CFR 20.403, Part 21, 50.72, 50.73 and 61.80 do not require reporting of waste form mishap information. Since this request is for voluntary reporting of information, it is not appropriate to revise regulations.

#### Classes of Needed Information -

The staff has identified three classes of useful information that interest NRC and could be reported. These three include:

1. The failure of high-integrity containers used to ensure a stable waste form. Container failure can be evidenced by changed container dimensions, cracking, or damage resulting from mishandling (e.g., dropping or impacting against another object).
2. The misuse of high-integrity containers, evidenced by a quantity of free liquid greater than 1 percent of container volume, or by an excessive void space within the container. Such misuse is contrary to 10 CFR 61.56.
3. The production of a solidified Class B or C waste form that has any of the following characteristics:
  - Contains free liquid in quantities exceeding 0.5 percent of the volume of the waste.
  - Contains waste with radionuclides in concentrations exceeding those considered during waste form qualification testing accepted by the regulatory agency, which could lead to errors in assessment of waste class.
  - Contains a significantly different waste loading than that used in qualification testing accepted by the regulatory agency.

- Contains chemical ingredients not present in qualification testing accepted by the regulatory agency, and those quantities are sufficient to unacceptably degrade the waste product.
- Shows instability evidenced by crumbling, cracking, spalling, voids, softening, disintegration, nonhomogeneity, or dimensional changes.
- Evidence of processing phenomena that exceed the limiting processing conditions identified in applicable topical reports on process control plans, e.g., foaming, temperature extremes, premature or slow hardening, and production of volatile material.

Bases for Needed Information -

The voluntary reporting of the three classes of information outlined above would allow the staff access to information on field experiences with LLW forms. This is needed to determine when modifications to test criteria are necessary. 10 CFR Part 61 establishes certain "minimum" (61.56(a)) and "stability" (61.56(b)) requirements for LLW, whereas Part 20 (Section 20.311) requires waste generators and processors to certify that the waste satisfied the requirements of Part 61. Nuclear Material Safety and Safeguards (NMSS) staff reviews topical reports and other documents provided by vendors and licensees to ensure that the waste-form requirements of Part 61 will be met and to provide a vehicle with which the certification requirements of Part 20 can be satisfied (by reference). In a parallel effort, Office of Nuclear Reactor Regulation (NRR) staff reviews information on waste-processing equipment and procedures to ensure that 10 CFR Part 50, App. A, "General Design Criteria for Nuclear Power Plants," is satisfied. The NRC staff findings of acceptability and adequacy of process-control provisions affecting the characteristics of the waste-form produced may require modification, if subsequent experience in the field reveals that the bases for the approvals are being exceeded or are no longer relevant. Therefore, to make informed decisions on regulatory action, to inform licensees of events that may have generic implications, and to make inspectors aware of the reported information, the staff needs to have quantitative information on the nature and frequency of occurrence of mishaps regarding waste form and packaging for disposal.

It is requested that waste-form mishaps be reported within 30 days of knowledge of the incident to NRC's Director of the Division of Low-Level Waste Management and Decommissioning and to the designated State disposal-site regulatory authority.

This request is covered by Office of Management and Budget Clearance Number: 3150-0156, which expires November 30, 1993. The estimated average burden is approximately 8 person-hours per licensee response, including visual observation of the waste form mishap, drafting a description of the observation, and preparing a final mishap report for submittal to NRC. Comments on the accuracy of this estimate and suggestions to reduce the burden may be directed to the Office of the Management and Budget, Room 3208, New Executive Office Building, Washington, D.C. 20503, and the U.S. Nuclear Regulatory Commission, Information and Records Management Branch, Office of Information Resources Management, Washington, D.C. 20555.

If you have any questions about this letter, please direct them to the technical contact listed below or to the appropriate regional office.

Sincerely,

Richard L. Bangart, Director  
Division of Low-Level Waste Management  
and Decommissioning, NMSS

Technical Contact: Michael Tokar, NMSS  
(301) 492-0590

Enclosure:  
List of Recently Issued Generic Letters

# Request for OMB Review

**Important**

Read instructions before completing form. Do not use the same SF 83 to request both an Executive Order 12291 review and approval under the Paperwork Reduction Act.

Answer all questions in Part I. If this request is for review under E.O. 12291, complete Part II and sign the regulatory certification. If this request is for approval under the Paperwork Reduction Act and 5 CFR 1320, skip Part II, complete Part III and sign the paperwork certification.

Send three copies of this form, the material to be reviewed, and for paperwork—three copies of the supporting statement, to:

Office of Information and Regulatory Affairs  
Office of Management and Budget  
Attention: Docket Library, Room 3201  
Washington, DC 20503

**PART I.—Complete This Part for All Requests.**

1. Department, agency, and bureau, office or other office requesting: 2. Agency code

U.S. Nuclear Regulatory Commission

3 1 5 0

3. Name of person who can best answer questions regarding this request: Telephone number

Everett Wick

301 492-0546

4. Title of information collection or rulemaking

Information Notice, Reporting of Mishaps Involving Low-Level Radioactive Waste Forms Prepared for Disposal

5. Legal authority for information collection or rulemaking (United States Code, Federal Law, or Executive Order)

USC

6. Affected public (check all that apply):

- 1  Individuals or households
- 2  State or local governments

- 3  Farms
- 4  Businesses or other for-profit

- 5  Federal agencies or employees
- 6  Non-profit institutions
- 7  Small businesses or organizations

**PART II.—Complete This Part Only if the Request is for OMB Review Under Executive Order 12291**

7. Regulation Identifier Number (RIN): \_\_\_\_\_ or None assigned

8. Type of submission (check one in each category):

- Classification**
- 1  Major
  - 2  Nonmajor

- Stage of development**
- 1  Proposed or draft
  - 2  Final or interim final, with prior proposal
  - 3  Final or interim final, without prior proposal

- Type of review requested**
- 1  Standard
  - 2  Pending
  - 3  Emergency
  - 4  Statutory or judicial deadline

9. CFR section affected: \_\_\_\_\_ CFR

10. Does this regulation contain reporting or recordkeeping requirements that require OMB approval under the Paperwork Reduction Act and 5 CFR 1320?  Yes  No

11. If a major rule, is there a regulatory impact analysis attached?  Yes  No  
If "No," did OMB waive the analysis?  Yes  No

**Certification for Regulatory Submissions**

In submitting this request for OMB review, the authorized regulatory contact and the program official certify that the requirements of E.O. 12291 and any applicable policy directives have been complied with:

Signature of program official	Date
Signature of authorized regulatory contact	Date

12. (OMB use only)

**PART III. — Complete This Part Only if the Request is for Approval of a Collection of Information Under the Paperwork Reduction Act and 5 CFR 1320.**

2. Abstract—Describe needs, uses and affected public in 50 words or less. "Radioactive Waste Disposal, Nuclear Waste Management" This Information Notice requests voluntary submittal of information concerning mishaps to low level radioactive waste forms prepared for disposal. Waste form generators and processors are asked to notify the NRC within thirty days of a mishap.

4. Type of information collection (check only one)  
*information collections not contained in rules*

Regular submission  Emergency submission (certification attached)

*information collections contained in rules*

3  Existing regulation (no change proposed) 6 Final or interim final without prior NPRM 7 Enter date of expected or actual Federal Register publication at this stage of rulemaking (month, day, year) \_\_\_\_\_  
 4  Notice of proposed rulemaking (NPRM) A  Regular submission  
 5  Final, NPRM was previously published B  Emergency submission (certification attached)

3. Type of review requested (check only one)

1  New collection 4  Reinstatement of a previously approved collection for which approval has expired  
 2  Revision of a currently approved collection 5  Existing collection in use without an OMB control number  
 3  Extension of the expiration date of a currently approved collection without any change in the substance or in the method of collection

3. Agency report form number(s) (include standard/optional form number(s))

22. Purpose of information collection (check as many as apply)

N/A

1  Application for benefits  
 2  Program evaluation  
 3  General purpose statistics  
 4  Regulatory or compliance  
 5  Program planning or management  
 6  Research  
 7  Audit

7. Annual reporting or disclosure burden

1 Number of respondents	40
2 Number of responses per respondent	1
3 Total annual responses (line 1 times line 2)	40
4 Hours per response	8
5 Total hours (line 3 times line 4)	320

23. Frequency of recordkeeping or reporting (check all that apply)

1  Recordkeeping  
**Reporting**  
 2  On occasion  
 3  Weekly  
 4  Monthly  
 5  Quarterly  
 6  Semi-annually  
 7  Annually  
 8  Biennially  
 9  Other (describe) \_\_\_\_\_

8. Annual recordkeeping burden

1 Number of recordkeepers	_____
2 Annual hours per recordkeeper	_____
3 Total recordkeeping hours (line 1 times line 2)	_____
4 Recordkeeping retention period	_____ years

9. Total annual burden

1 Requested (line 7-5 plus line 18-3)	320
2 In current OMB inventory	0
3 Difference (line 1 less line 2)	320
<b>Explanation of difference</b>	
4 Program change	+320
5 Adjustment	_____

24. Respondents' obligation to comply (check the strongest obligation that applies)

1  Voluntary  
 2  Required to obtain or retain a benefit  
 3  Mandatory

10. Current (most recent) OMB control number or comment number

11. Requested expiration date

3 years from approval

12. Are the respondents primarily educational agencies or institutions or is the primary purpose of the collection related to Federal education programs?  Yes  No

13. Does the agency use sampling to select respondents or does the agency recommend or prescribe the use of sampling or statistical analysis by respondents?  Yes  No

14. Regulatory authority for the information collection

10 CFR Part 61 or FR or Other (specify) \_\_\_\_\_

**Paperwork Certification**

I, submitting this request for OMB approval, the agency head, the senior official or an authorized representative, certifies that the requirements of 5 CFR 1320, the Privacy Act, statistical standards or directives, and any other applicable information policy directives have been complied with.

Signature of program official

Date

Signature of agency head, the senior official or an authorized representative

Date

*Patricia G. Norry*  
 Patricia G. Norry, DSO for Information Resources Management

9-19-90



NUCLEAR REGULATORY COMMISSION

Documents Containing Reporting or Recordkeeping  
Requirements: Office of Management and Budget Review

AGENCY: Nuclear Regulatory Commission

ACTION: Notice of the Office of Management and Budget review of information collection.

SUMMARY: The Nuclear Regulatory Commission (NRC) has recently submitted to the Office of Management and Budget (OMB) for review the following proposal for the collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35).

1. Type of submission, new, revision, or extension: New.
2. The title of the information collection:  
Information Notice, "Notification of Mishaps Involving Low-Level Radioactive Waste Forms Prepared for Disposal"
3. The form number if applicable: Not applicable.
4. How often the collection is required: Reports are made only when the licensee or waste processor experiences a mishap that is reportable under the guidelines described in the Information Notice.
5. Who will be required or asked to report: Nuclear power reactor licensees, waste processors, and Part 61 licensees.
6. An estimate of the number of responses: Approximately 40 responses are expected annually.
7. An estimate of the total number of hours needed to complete the requirement or request: 320 (8 hours per response).
8. An indication of whether Section 3504(h), Pub. L. 96-511 applies:  
Not applicable.

9. Abstract: The Information Notice encourages voluntary reporting of waste form mishaps. This Information Notice is part of NRC's program to assure that Class B and C low-level radioactive waste forms meet 10 CFR Section 61.56 requirements. This Information Notice encourages licensees and waste processors to notify NRC within 30 days after knowledge of the mishap.

Copies of the submittal may be inspected or obtained for a fee from the NRC Public Document Room, 2120 L Street, N.W. (Lower Level), Washington, DC.

Comments and questions may be directed by mail to the OMB reviewer:

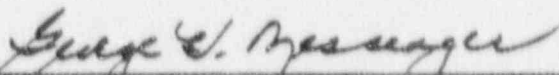
Ronald Minisk  
Paperwork Reduction Project  
(3150- )  
Office of Information and Regulatory Affairs, NEOB-3019  
Office of Management and Budget  
Washington, DC 20503

Comments may also be communicated by telephone at (202) 395-3084.

The NRC Clearance Officer is Brenda Jo. Shelton, (301) 492-8132.

Dated at Bethesda, Maryland, this *19* day of *September* 1990.

For the Nuclear Regulatory Commission

  
George H. Messenger, Acting  
Designated Senior Official  
for Information Resources Management

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Paperwork Reduction Project  
(3150- )  
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Office of Management and Budget  
Washington, DC 20503

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George H. Messenger, Acting  
Designated Senior Official  
for Information Resources Management

DISTRIBUTION:

NMSS r/f	IMNS Central File
IMOB r/f	IRMB r/f
IRMB Off File	PNorry, IRM
RSmith, OGC	RLO'Connell, NMSS
JSurmeier, NMSS	MTokar, NMSS
EWick, NMSS	

CRGR review is not required

\*SEE PREVIOUS CONCURRENCE

OFC: NMSS	: NMSS-LLWM	: NMSS-LLWM	: NMSS-LLWM	: OGC	: IRM
NAME: RLO'Connell	: EWick	: MTokar	: JSurmeier	: RSmith	: GHMessenger
DATE: 9/14/90*	: 9/14/90*	: 9/14/90*	: 9/14/90*	: 9/14/90*	: 9/19/90

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Paperwork Reduction Project  
(3150- )  
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Office of Management and Budget  
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Patricia G. Norry  
Designated Senior Official  
for Information Resources Management

DISTRIBUTION:

NMSS r/f                    IMNS Central File  
IMOB r/f                    IRMB r/f  
IRMB Off File              PNorry, IRM  
RSmith, OGC                RLO'Connell, NMSS  
JSurmeier, NMSS            MToken, NMSS  
EWick, NMSS

CRGR review is not required

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OFC: NMSS *210* : NMSS-LLWM : NMSS-LLWM : NMSS-LLWM : OGC *egw* : IRM :  
-----  
NAME: RLO'Connell : EWick *egw* : MToken *egw* : JSurmeier : RSmith *egw* : PNorry *egw* :  
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DATE: 9/14/90 : 9/14/90 : 9/14/90 : 9/14/90 : 9/14/90 : / / 90 :  
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*egw*  
*for conversation*

SUPPORTING STATEMENT  
FOR  
INFORMATION NOTICE  
"REPORTING OF MISHAPS INVOLVING LOW-LEVEL  
RADIOACTIVE WASTE FORMS PREPARED FOR DISPOSAL"

Description of the Information Collection

The Nuclear Regulatory Commission (NRC) is proposing to issue an information notice to encourage voluntary submittal (by both waste form generators and processors) of information concerning mishaps to low-level radioactive waste forms prepared for disposal. This information notice would also remind licensees of their obligation to report defects and deviations in accordance with NRC requirements in 10 CFR Part 21.

A. JUSTIFICATION

Need for the Collection of Information

NRC has some information concerning reported mishaps to low-level radioactive waste (LLW) forms prepared for ultimate disposal in a licensed LLW disposal facility, but this information is incomplete. For example, four incidents have been reported in which chemical reactions occurred in low-level waste shipping containers storing dewatered synthetic organic materials, such as resins (NRC Information Notices 83-14, "Dewatered Spent Ion Exchange Resin Susceptibility to Exothermic Chemical Reaction," March 21, 1983; 84-72, "Clarification of Conditions for Waste Shipments Subject to Hydrogen Gas Generation," September 10, 1984; 90-50, "Minimization of Methane Gas in Plant Systems and Radwaste Shipping Containers," August 8, 1990). Another incident was reported in which, during solidification of the waste, a violent reaction occurred

between a chemical detergent and a vendor's waste solidification agent (NRC Information Notice 88-08, "Chemical Reactions with Radioactive Waste Solidification Agents," March 14, 1988). This reaction resulted in boiling of the mixture so that it overflowed the liner, then hardened and had to be chipped away. Other problems have been encountered in the use of cement to solidify and stabilize bead resin wastes. Thus, there have been multiple incidents in which cement-solidified bead resin wastes have either not solidified properly or have disintegrated over a period of time following solidification. Though mishaps such as these have been made known to regulatory authorities, mainly through indirect and informal means, there is at present no way to ensure that all such events are being reported and that adequate information is being made available.

#### Agency Use of Information

A waste form mishap experienced by one reactor licensee or processor may raise the possibility of a generic problem. In that case, an NRC Information Notice would be issued to advise all power reactor licensees, low-level waste processors and the sited-disposal States of the potential hazard(s) and to encourage them to take the appropriate precautions to ensure public health and safety.

#### Reduction of Burden through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection by the use of information technology. NRC encourages the use of such technologies. The sporadic nature of the mishaps to be reported, however, does not lend itself to the use of such new technologies.

#### Duplication of Other Collections of Information

There is no known duplication of information collection requirements within NRC relative to the reporting of the incidents described in this

Information Notice. The Information Requirement Control Automated System (IRCAS) was searched and no duplication was found.

#### Effort to Use Similar Information

There is no known information that is similar to the information identified in the proposed Information Notice. Information is provided only if a mishap occurs.

#### Effort to Reduce Small Business Burden

A majority of the reports requested are from commercial nuclear power licensees which are not small entities. Some responses may be received from waste processors that are small businesses. However, the consequences to public health and safety from waste form mishaps are the same, whether reported by large or small businesses. Therefore, the burden on small businesses cannot be reduced.

#### Consequences of Less Frequent Collection

This is a one time voluntary submittal as mishaps are reported. It is not possible to report less frequently unless this voluntary submittal to NRC is eliminated.

#### Circumstances Which Justify Variation From OMB Guidelines

Mishaps to low-level radioactive waste forms prepared for disposal should be reported to the NRC within 30 days of knowledge of the incident. This is necessary so that NRC can determine whether (1) waste form requirements of 10 CFR Part 61.56 are met prior to disposal, (2) other waste processors need to be notified of processing problems and (3) changes to the processing methods are needed.

Consultation Outside the NRC

None.

Confidentiality of Information

None, except for proprietary information.

Sensitive Questions

None.

Estimate of Cost to Federal Government

The collection of the information requires approximately 16 hours of NRC staff time per report. The staff time to review and act on each report is approximately 8 hours for the headquarters and 8 hours for the regions. The number of responses is estimated to be no more than approximately 40 per year. This workload would be assumed to be distributed so that 3/4 would fall to waste processors and 1/4 would fall to disposal site operators. For approximately 40 reports received annually, NRC would expect approximately 640 hours of work. This includes time for review, coordination, and any required follow-up. At \$92.00 per hour, the annual costs could be as high as \$58,880 (640 hours x \$92 per hour).

Estimate of Burden

The actual cost or burden on the licensee or processor is difficult to estimate because only a few of these mishaps have been reported. An average mishap report would be about two to three pages in length. The average time to prepare such a report is estimated to be 8 hours. Assuming a maximum total of 40 mishap reports, a maximum total of 320 hours per year would be expended. The burden estimate is set forth in the following table. The total cost to respondents would be \$29,440 (320 hours x \$92 per hour).



## ADDITIONAL REPORTING BURDEN (HOURS)

<u>Respondent</u>	<u>No. of Responses/Yr.</u>	<u>Burden Hours Per Response</u>	<u>Total Burden/Yr</u>
Waste processors	30	8	240
Disposal site operators	10	8	80
	<u>40</u>		<u>320</u>

Publication for Statistical Use

None.