

Vermont Department of Health Radioactive Materials Program

Procedure 3.3 Revision 0



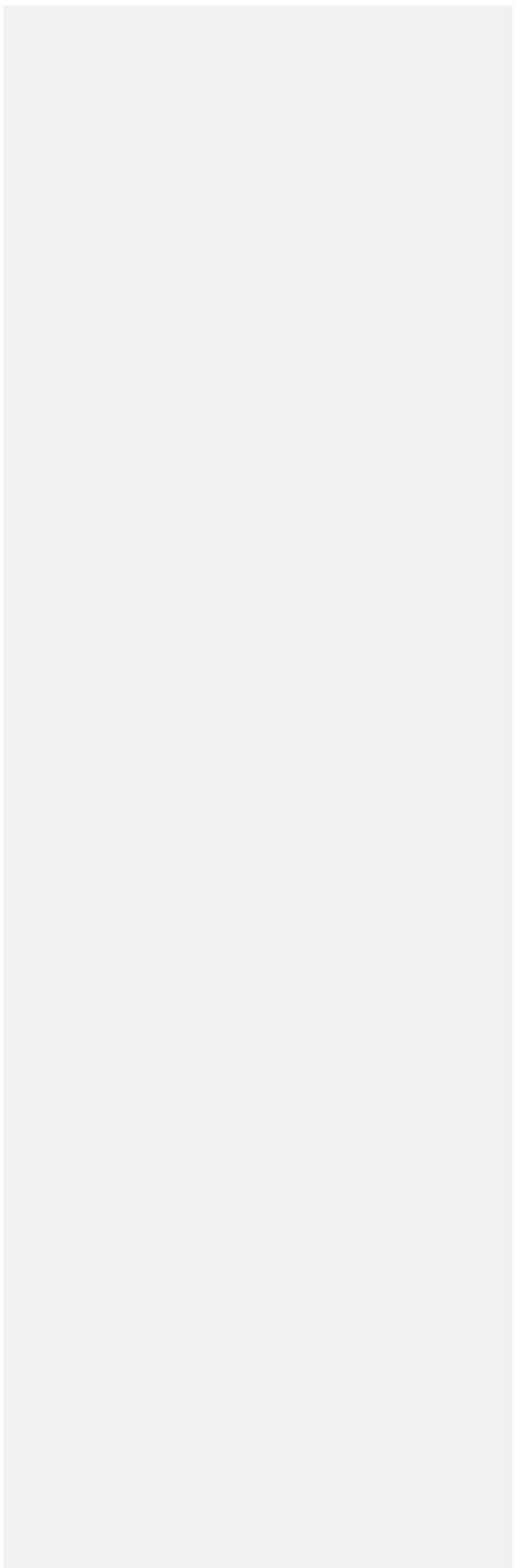
Scrap Yard Incident Response

Prepared By: _____ **Date:** _____

Reviewed By: _____ **Date:** _____

Approved By: _____ **Date:** _____

Effective Date: _____



Revision	Date	Description of Changes
0		

Radioactive Materials Program Procedure 3.3 Revision 0

Table of Contents

Scrap Yard Incident Response

1.0 PURPOSE

- 1.1 Applicability
- 1.2 References
- 1.3 Definitions

2.0 RESPONSIBILITIES

- 2.1 Radiological Health Specialists
- 2.2 Radioactive Materials Program Manager (RMPPM)
- 2.3 Radiation Control Program Director

3.0 PROCEDURE

- 3.1 Initial Notification
- 3.2 Determining Use of DOT Exemption
- 3.3 On-scene Response
- 3.4 Report
- 3.5 Follow-Up

4.0 Records

- 4.1 Incident file
- 4.2 Computer-Local NMED and VDH electronic incident file

5.0 ATTACHMENTS TO RMPP 3.3

None

Scrap Yard Incident Response

1.0 PURPOSE

1.1 Applicability

This procedure:

- 1.1.1 Applies to all Vermont Department of Health (Department), Radioactive Materials Program (RMP) staff responding to a scrap yard incident involving real or suspected radioactive materials.
- 1.1.2 Describes options for determining the appropriate type of response to a scrap yard incident by RMP staff.
- 1.1.3 Addresses preparations for a site response to a scrap yard incident.
- 1.1.4 Describes appropriate radiation detection instruments and other equipment potentially required for use during a site response to a scrap yard incident.
- 1.1.5 Describes safety precautions for RMP staff and other responders during a site response effort to a scrap yard incident.
- 1.1.6 Establishes guidelines for managing, including impounding radioactive material that is, or could be, a threat to public health and safety.

1.2 References

- 1.2.1 Code of Vermont 18 V.S.A. 1653(b)(7)(B).
- 1.2.2 Vermont Radioactive Materials Rule.
- 1.2.3 U.S. DOT Special Permit SP 10656.
- 1.2.4 SA-300 "Reporting Material Events."

1.3 Definitions

- 1.3.1 Agency: The Radioactive Materials Program (RMP) of the Vermont Department of Health (Department).
- 1.3.2 U.S. DOT Special Permit SP 10656: (Also called 'DOT Exemption' form) is a form signed by the Radiation Control Program Director that authorizes

Commented [MS1]: The purpose of NRC's comment 91.a was to ask why this citation is included in the References section for RMPP 3.3 and not in the References section of any other part of the RMPP.

In response, VT stated, "18 VSA 1653(b)(7)(B) is referenced in other procedures, as well as in statute and regulations"

But, it is still unclear why this statute to be cited here, since emergency impounding isn't specific to scrap yard incidents.

Commented [IW2]: NRC Comment 91.b.

Commented [MS3R2]: OK

the one-way transportation in commerce of (rail or motor vehicle) shipments of scrap metal and related metal recycled materials which have been found, during or at the conclusion of transportation, or during inspection of the shipment following receipt, to contain unexpected and unidentified radioactive material or contamination.

Commented [OF4]: NRC comment 91.c.

Commented [MS5R4]: OK

- 1.3.3 'Work the load': To separate the unwanted radioactive components, devices or materials in a scrap load from the desired scrap material.

2.0 RESPONSIBILITIES

2.1 Radiological Health Specialists

- 2.1.1 Notify Radioactive Materials Program Manager (RMPM) and Radiation Control Program Director (RCPD) or designee upon initial notification from a scrap facility of potential discovery of radioactive material.
- 2.1.2 If warranted due to public health and safety, provide immediate response to incidents involving radioactive materials, as directed by the RMPM or designee.
- 2.1.3 Assist the RMPM with incident response and documentation, including report preparation, as needed.

2.2 Radioactive Materials Program Manager (RMPM)

- 2.2.1 Notifies the Radiation Control Program Director, of radiological incident notifications. If necessary, notifies the NRC and inputs report into NMED.
- 2.2.2 Assigns staff for immediate response to incidents involving radioactive materials.
- 2.2.3 Coordinates immediate response effort in cooperation with the Radiation Control Program Director (RCPD).
- 2.2.4 Makes decisions to impound radioactive materials found in the public domain after consulting with the RCPD and legal counsel.
- 2.2.5 Advises the Radiation Control Program Director that legal assistance is required.
- 2.2.6 Determines if notifications should be made to the NRC within the time period specified in RMPP 3.2 *Incident Response* and Attachment 3.2-4 **Procedure for Reporting Events**.

Commented [OF6]: NRC comment 92

Commented [MS7R6]: OK

Commented [OF8]: NRC comment 93

Commented [MS9R8]: OK

Commented [IW10]: NRC Comment 92

Commented [MS11R10]: OK

2.2.7 Determines whether written documentation should be provided to the NRC and NMED within the time period specified in Appendix A of SA-300 "Reporting Materials Events."

Commented [OF12]: NRC comment 94

2.2.8 Ensures a complete report is prepared documenting the incident response, including all notes, pictures, forms, surveys, and analysis results.

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Commented [OF14]: NRC comment 95

Commented [MS15R14]: OK

2.3 Radiation Control Program Director

2.3.1 Final authority within the RMP for radiological incident response activities (conflict resolution.)

2.3.2 Requests legal assistance, if required.

2.3.3 Requests federal assistance, if required.

3.0 PROCEDURE

3.1 Initial Notification (Actions taken by Radioactive Materials Program Staff)

Note: Immediately notify the RMPM and RCPD of all calls concerning scrap yard incidents.

People should not handle contaminated or high exposure rate materials unless trained, qualified and aware of the hazards! If there is any doubt, isolate the material until Department RMP staff or other authorities can attend to the materials safely.

3.1.1 Obtain as much of the following information as possible.

- Caller's name, affiliation, and location (if notified by phone.)
- Phone number where caller may be reached.
- Location of the incident.
- Overall description of the incident, including any injuries.
- Indications that radioactive material is involved.
- Any writing or inscriptions on visible materials.
- Radiation readings on sides of vehicle and in driver compartment containing scrap, or other survey results.
- Type of survey instrumentation used.

- Other agencies or personnel involved.

3.1.2 Inform the RMPM and RCPD of the notification.

Commented [OF16]: NRC comment 96

3.1.3 Determine the level of immediate response required. Factors that should be considered include:

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- Likelihood of health and safety concerns such as significant personnel radiation exposure or personal or environmental contamination.
- Location of incident.
- Impact on facility (i.e., ability to secure material and maintain safety of workers and the public.)
- Potential for exposure or contamination.
- Security of storage area.
- Media interest.
- Involvement of other responders.
- Request for specific type of assistance.
- Training and experience of scrap yard personnel.

Commented [IW18]: NRC Comment 98

3.1.4 Advise the caller on proper measures to limit exposure and minimize the spread of contamination (e.g., isolate vehicle; do not work the load.)

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3.2 Determining Use of U.S. DOT Special Permit SP 10656

3.2.1 Ask the scrap yard if they will accept or reject the load containing potential radioactive materials.

3.2.2 Issue a U.S. DOT Special Permit SP 10656 to the shipper that allows transportation of the load back to point of origin or another pre-designated location.

3.2.2.1 Radiation readings are needed for the U.S. DOT Special Permit SP 10656 form.

3.2.2.2 The readings may be supplied by scrap yard personnel or others if RMP staff believes they are accurate.

3.2.2.3 The Special Permit is available from the Conference of Radiation Control Program Directors at:
https://cdn.ymaws.com/www.crcpd.org/resource/resmgr/docs/Transportation/10656_2016.pdf.

3.2.3 If warranted, schedule a site visit to the scrap facility, point of origin, or the designated location by RMP staff to assess the incident.

Commented [MS20]: Please clarify who schedules the site visit.

3.3 On Scene Response

3.3.1 If possible, a minimum of two people should respond to a scrap yard incident including a member of the RMP staff.

3.3.2 Prior to use, all instruments shall be battery and source checked and have a current calibration. Obtain the following equipment:

- Appropriate survey instrumentation.
- An instrument capable of field identification of unknown isotopes.
- Personally assigned dosimetry.
- Cellular phone.
- Other instruments and supplies, as necessary.

3.3.3 Upon arrival:

- Obtain current information from facility personnel.
- Turn on exposure rate instruments before approaching.
- Wear safety equipment (boots, hard hat, gloves), as necessary.
- Wear contamination clothing, as appropriate.
- Perform radiation surveys.
- Establish a 2 mR/hr exclusion zone if required and not already done.
- Determine who may enter the exclusion zone and under what conditions.

Commented [OF21]: NRC comment 97

3.3.4 Determine level of resources needed.

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3.3.4.1 If RMP resources are available/sufficient to resolve the incident, evaluate the scrap load, determine the cause of alarm, and advise the facility, as appropriate.

Commented [OF23]: NRC comment 98

3.3.4.2 If RMP resources are unavailable/insufficient:

Commented [SJ24]: Use of the word insufficient may indicate the program is understaffed. See suggested revision.

- Advise the facility to obtain the services of a health physics contractor to investigate the load, determine cause of alarm, and assist with radioactive material management.
- Provide oversight and perform confirmatory surveys.
- Inform contractor to provide results of investigation to the Department.

Commented [SJ25]: Who is performing oversight and confirmatory surveys? The contractor or RMP? Please specify.

3.3.5 Document the following:

- Date and time of all major activities related to the incident.
- Model and serial numbers of all instruments used.
- Calibration date of all instruments used.
- Names of responders.
- A physical description of the incident site.
- Location or orientation of any materials.
- Background radiation levels.
- Survey results.
- Activity of material.
- Amount of material present.
- Any markings or inscriptions associated with the material.
- Disposition of the material.
- Names, phone numbers, and addresses of all individuals involved, in case follow-up is required.

3.3.6 If radioactive material is removed from the load, determine if material needs packaging. If it does, double bag the material and incorporate any other US DOT transportation packaging requirements.

3.3.7 After the material has been safely packaged or ensured to be in safe condition, do the following:

Note: Attachment 3.2-3 specifies radioactive material impoundment guidelines.

- Determine best location for temporary storage.
- Ensure that decontamination issues are addressed.
- Initiate attempt to locate owner of material.
- Contact the RMPM (primary) or designee (secondary) for direction and authorization for management of the material. Refer to Attachment 3.2-3 **Radiological Incident Response Impoundment Guidelines**.
- If no owner can be found, notify the RMPM and inquire whether or not to impound the item. Disposal options will be investigated at this time.
- Perform any other notifications to federal (including NRC, EPA), state, and local agencies, as necessary.

3.3.8 Materials being transported for analysis or storage must be packaged to meet US DOT requirements.

3.4 Report (Radioactive Materials Program Staff)

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- 3.4.1 The report shall be prepared within 15 days of the notification, documenting all information gathered, the disposition of the material, and a list of all parties involved. The report is required for all scrap yard incident response, including phone consultation for reportable incidents.
- 3.4.2 Provide a copy of the report to the RMPM and RCPD.
- 3.4.3 The RMPM or designee shall ensure that a copy of the report, analysis results, and all notes and related paperwork are properly filed.
- 3.4.4 If required, input incident data to the Nuclear Materials Events Database (NMED) and forward event reports as specified in Appendix A of SA-300 "Reporting Materials Events."

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Commented [MS29R28]: OK

3.5 Follow-up

- 3.5.1 Replace all inventoried supplies used from the response kit.
- 3.5.2 Return all instruments.
- 3.5.3 In consultation with RMPM and RCPD, determine if any whole-body counts, bioassays, or personnel dose determinations are warranted.
- 3.5.4 In consultation with RMPM and RCPD, determine if training or information for any individuals involved in the incident is warranted.
- 3.5.5 If appropriate, obtain copy of reports issued by any health physics contractors involved in the incident.
- 3.5.6 In consultation with the RMPM and if the owner is a Department licensee, determine need for a follow up inspection and/or any enforcement actions against the licensee. The next inspection should address this item. If it is determined that enforcement actions are required, refer to RMPP 2.5 **Enforcement, Escalated Enforcement and Administrative Actions.**
- 3.5.7 In consultation with the RMPM, if the owner is found and not a Department licensee, determine need to notify the appropriate regulatory agency.
- 3.5.8 Ensure that any notifications required to be made to any federal, state, and local agencies are made within the appropriate time period, updated of any new information and notified of the final close.

4.0 RECORDS

- 4.1 **RMPP 3.2 Attachment 3.2-1 Radiological Incident Notification Form**

4.2 Local NMED Database: Provide an electronic NMED report to the MED contractor by using the local NMED Agreement State software from the NMED website or following the upload function instructions on the NMED website.

4.3 As much as possible, records to the RMP are to be electronically filed. Where possible, paper records should be scanned to be filed electronically.

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5.0 ATTACHMENTS TO RMPP 3.3

None