4.7 Event and Allegation Response Program Elements

This section of the application addresses how the Vermont Department of Health will respond to radioactive materials events and allegations. Vermont has modeled its program elements after those in the NRC procedures SA-300 *Reporting Material Events* and SA-400 *Management of Allegations*. The Vermont Department of Health Radioactive Materials Program has four written procedures to address these elements: RMPP 3.1 *Management of Allegations*, RMPP 3.2 *Incident Response*, RMPP 3.3 *Scrap Yard Incident Response*, and RMPP 3.4 *Nuclear Materials Event Database (NMED) Input*. Section 4.7.1 of this application describes the procedures for responding to events and allegations and Section 4.7.2 describes procedures for identifying significant events and submittals for entry into the NMED.

4.7.1 Procedures for Responding to Events and Allegation

The procedures for responding to events and allegations are attached below. RMPP 3.1 *Management of Allegations* describes how the Health Department Radioactive Materials Program will respond to allegations, while RMPP 3.2 *Incident Response* describes the response actions for the broad range of radioactive materials incidents and RMPP 3.3 *Scrap Yard Incident Response* describes the responses specific to scrap yard incidents.

For event response, the procedures are consistent with, but not identical to, those of the NRC. They address immediate response and actions to mitigate an event; follow-up inspections and enforcement actions; notifications to licensing staff; reports to the incident file; and notifications to other affected licensees of generic problems. The allegation procedure addresses allegation response, follow-up, and closeout. It provides for the protection of the identity of a person making an allegation and other confidential information.

State of Vermont Department of Health

Radioactive Materials Program

Procedure 3.1, Revision 0

Management of Allegations

Prepared By: _____ **Date:** _____

Reviewed By: _____ **Date:** _____

Approved By: _____ **Date:** _____

Effective Date: _____

Revision	Date	Description of Changes
0		

Radioactive Materials Program Procedure 3.1, Revision 0

Management of Allegations

Table of Contents

1.0 PURPOSE

1.1 Applicability

This procedure is to ensure that any allegation made against a licensee is properly addressed and to provide guidance to protect the identity of the alleger. Actions taken in response to an allegation include investigation, documentation, and enforcement, as appropriate. If, at any time, the need for criminal investigatory capacity is required, (for example thefts and/or terrorist activity, as described in Section 3.1.2) contact the Local Law Enforcement Agency (LLEA) and/or the Vermont State Police and/or other state and federal agencies such as the U.S. Federal Bureau of Investigation (FBI), as appropriate. The FBI should be notified if an event involves the possibility of theft or terrorist activities. The Vermont Department of Health (Department) shall promptly notify the Nuclear Regulatory Commission (NRC) Operations Center (301-819-5100) after contacting the appropriate LLEA and/or FBI in cases involving actual or attempted theft, sabotage, or diversion of radioactive materials as indicated in Appendix G of SA-300.

1.2 References

1.2.1 NRC Management Directive 8.8, "Management of Allegations."

1.2.2 NRC Inspection Manual Chapter 2800 “Materials Inspection Program.”

1.2.3 SA-300, “Reporting Material Events.”

1.2.4 Vermont Radioactive Materials Rule.

1.3 Files

1.3.1 All allegation-related documentation is to be maintained in a secured Allegation File in the Radioactive Materials Program (RMP).

1.3.2 Allegation Files are secured when not in use and access is controlled and limited to RMP staff who are actively using the particular case file. Electronic Allegation Files shall be limited to RMP staff required to address the allegation who have authorized access to the secured spaces.

1.4 Definitions

1.4.1 Agency: The Radioactive Materials Program (RMP) of the Vermont Department of Health (Department).

1.4.2 Allegation: A declaration, statement, or assertion of impropriety or inadequacy associated with RMP regulated activities, the validity of which has not been established. This term includes all concerns identified by individuals or organizations regarding activities at a licensee's or

applicant's facility. Excluded from this definition are inadequacies provided to RMP staff members by a licensee's managers acting in their official capacity. Allegations regarding suspected improper conduct by an RMP employee do not fall within the scope of this procedure and shall be promptly reported to the employee's immediate supervisor.

1.4.3 Allegation File: A secure hardcopy or electronic file that contains the documentation concerning the allegation, accessible to RMP staff and secured by the RMP.

1.4.4 Alleger: An individual or organization that makes an allegation. The alleger may be known or anonymous.

1.4.5 Confidentiality: The protection of the alleger's identity. Every effort will be made to protect information that could directly or otherwise identify an individual by name or the fact that a confidential source provided such information to the RMP (see attachment 3.1-4).

1.4.6 Confidential Source: An individual who requests and, to the extent possible, is granted confidentiality in accordance with § 3.2 of these procedures and the Vermont Freedom of Information Act, 1 V.S.A. §§ 315–320.

1.4.7 Investigation: For purposes of this procedure, an activity conducted by the program used to gather information related to the allegation by seeking confirmation to substantiate, evaluate and resolve an allegation.

1.4.8 Overriding Safety Issue: An issue that may represent an actual or potential immediate and/or significant threat to public health, safety, or security, warranting immediate action by the licensee to evaluate and address the issue.

1.4.9 Requirement: A legally binding obligation such as a statute, regulation, license condition, or order.

1.4.10 Secure Files: Allegation Files are secured when not in use and access is controlled and limited to RMP staff who are actively using the particular case file because they are required to address the allegation.

1.4.11 Willfulness: There are two types of willfulness:

Deliberate Misconduct: occurs when an individual voluntarily and intentionally (1) engages in conduct that the individual knows to be contrary to a requirement, procedure, instruction, contract, purchase order, or policy of a licensee, applicant for a license, or a contractor or subcontractor of a licensee or applicant for a license,; or (2) provides materially inaccurate or incomplete information to a licensee, applicant for

a license, or a contractor or subcontractor of a licensee or applicant for a license.

Careless Disregard: Refers to situations in which an individual acts with reckless indifference to at least one of three things: (1) the existence of a requirement, (2) the meaning of a requirement, or (3) the applicability of a requirement. Careless disregard occurs when an individual is unsure of the existence of a requirement, the meaning of a requirement, or the applicability of the requirement to the situation, but nevertheless proceeds to engage in conduct that the individual knows may cause a violation. Although unaware that the actions might cause a violation, the individual proceeds without ascertaining whether a violation would occur.

2.0 RESPONSIBILITIES

2.1 Radioactive Materials Program (RMP) Staff

2.1.1 Any RMP staff member may receive or recognize an allegation.

2.1.2 Allegations may be communicated to the Department in person, by telephone, by e-mail or in print.

2.1.3 An allegation also may be recognized by an RMP staff member in information provided in a public forum such as television, radio, newspaper, internet, or social media.

2.1.4 RMP staff will be courteous, professional, and responsive to the alleger and are responsible for recording the initial allegation, any contact information provided, and immediately referring the allegation to the Radioactive Materials Program Manager (RMPM).

2.1.5 This staff member is also responsible for maintaining confidentiality of the alleger and all other confidential information.

2.1.6 This information must be documented in attachments 3.1-1 to 3.1-5, and the attachments filed, both electronically and in an Allegation File created specifically for each allegation, with access restricted to RMP staff when evaluating the specific allegation.

2.2 Radiological Health Specialist (RHS)

2.2.1 When designated as the Lead Investigator, the RHS coordinates with the RMPM and Radiation Control Program Director (RCPD) for the processing and disposition of an allegation. Throughout the investigation, the RHS is required to respond in a timely manner commensurate with the

seriousness of the allegation and in consultation with the RMPM and RCPD. The response to the allegation will be determined using Attachments 3.1-1 and 3.1-3 to determine the impact and required response.

2.2.2 Prepares all records and reports concerning the allegation. Attachment 3.1-1 **Initial Allegation Contact Log** must be filled out in entirety, along with Attachment 3.1-3 **Allegation Screening Form**. These records and reports will be used if the allegation is required to be reported to the NRC and through the Nuclear Materials Event Database (NMED). The RHS is responsible for maintaining confidentiality of the alleger and any other information deemed confidential and must discuss and provide a copy of Attachment 3.1-4 **Acknowledgement Letter to Alleger**.

2.2.3 Not all allegations will require immediate response. The RHS must use Attachment 3.1-1 **Initial Contact Log** to determine if the reported allegation requires immediate attention. The RHS, in consultation with the RMPM and RCPD, will determine the required response to the allegation

2.3 Radioactive Materials Program Manager (RMPM)

2.3.1 Manages the response to allegations and maintains a filing system to track, resolve, and conduct periodic reviews of the allegations for their resolution/disposition (Allegation File).

2.3.2 Informs the RCPD of the status of the investigation and recommends appropriate actions in response to allegations.

2.3.3 Instructs RMP staff on requirements of confidentiality and informs RMP staff who received original information and the Lead Investigator of their responsibility to protect the confidentially of the alleger and all other confidential information within the allegation.

2.3.4 Upon being informed of an incident through an inspection or investigation of the allegation, the RMPM will respond in accordance with RMPP 3.2 *Incident Response*.

2.4 Radiation Control Program Director (RCPD)

2.4.1 Reviews and approves recommendations made by the RHS and RMPM before actions are taken in response to allegations.

2.4.2 Authorizes the release of the identities of allegers or confidential sources as provided in section 3.2. after consultation with legal counsel.

2.4.3 Requests legal assistance, if required.

3.0 PROCEDURE

3.1 Initial Contact

3.1.1 Evaluation is accomplished by technical review of the allegation, inspection, and information requested from the affected licensee, the individual informer, another Agreement State, or the NRC. As much information as possible is obtained and recorded from the alleger on the Initial Contact Log, (Attachment 3.1-1). If the notification is forwarded or received from the NRC, another state, or a local agency, use the same form and record all the information from the agency, individual, or organization contact. Note on the form the contact's information in case questions arise. For e-mail, fax, regular mail, or any form of communication that may contain the allegers identity, RMP staff must ensure that the identity is protected as indicated in section 3.2 of this procedure.

3.1.2 If the allegation involves discrimination on the basis of age, sex, race, etc., refer the alleger to the State of Vermont Human Rights Commission (802) 828-1625. If the allegation requires criminal investigatory capacity, notify and request assistance from the LLEA and/or the Vermont State Police, and/or other federal agency such as the FBI, as appropriate. Examples that may require criminal investigatory capacity would be an actual or attempted theft or threatened hijacking of a shipment or device containing radioactive materials, or an incident involving radioactive materials that are subject to 10 CFR 37.57 reporting requirements.

3.1.3 If the alleger refuses to provide his/her name or other form of identification, then obtain as much information as possible and advise the alleger that he/she may contact the RMPM in 30 working days for information regarding the response to the allegation.

3.1.4 Address the issue of confidentiality with the alleger in accordance with section 3.2.

3.1.5 Inform the RMPM of the allegation and submit completed Attachment 3.1-3. The alleger's identity, or information that could reveal that identity, should be imparted to staff on a need-to-know basis and should not be revealed to personnel outside the Department. All documentation pertaining to the allegation shall be securely stored. Electronic Allegation Files are secured in a file folder dedicated to Radioactive Materials Program allegations. Hard copies, when not in use, are limited to the RMP staff in a padlocked secure file cabinet. See attachment 3.1-4.

3.1.6 Allegations received will undergo an initial screening (see Attachment

3.1-1 & 3.1-3). Generally, action will not be taken to determine the validity of an allegation, nor will an allegation be discussed with licensees or other affected organizations, until after the allegation has been discussed with the RMPM, RCPD, and the Department of Health Legal Division. If those parties determine that an allegation proves to be unsubstantiated (unconfirmed), the alleger will be notified of the findings of the allegation disposition and the allegation management process will be terminated.

3.1.7 Allegations received by the RMP staff, are given a sequential number (e.g., VTA-19-001) and an Allegation File is created. Electronic documents are placed in files accessible only to RMP staff. Hardcopy records are scanned to electronic files where they will be secure.

3.1.8 Provide the initial notification to the alleger by phone and document with a letter (Attachment 3.1-5) to the alleger. Include in the notification that the Department will evaluate the licensee's activities and response, and that the alleger or confidential source will be informed of the final disposition of the allegation.

3.2 Disclosure of Alleger's Identity and Confidential Information

3.2.1 RMP will make all reasonable efforts to maintain as confidential any information provided by the alleger that meets the criteria below. However, RMP cannot guarantee confidentiality. Disclosure of an alleger's identity may be made in accordance with 3.2.2 and 3.2.3 below. RMP will mark all information deemed confidential as such on both hard copy and electronic files. Prior to terminating initial contact with an alleger, inform the alleger of the degree to which their identity can be protected, including the following:

3.2.1.1 Confidential information including that which would reveal that identity, will be shared with RMP staff on a need-to-know basis. Confidential information that needs to be protected includes, but is not limited to the following:

3.2.1.1.1 Birthdate
3.2.1.1.2 Name
3.2.1.1.3 Date and place of birth
3.2.1.1.4 Social security number
3.2.1.1.5 State issued drivers identification
3.2.1.1.6 Medicare card
3.2.1.1.7 Hospital medical record number
3.2.1.1.8 Passport
3.2.1.1.9 Mother's maiden name
3.2.1.1.10 Biometric records

3.2.1.1.11 Educational records
3.2.1.1.12 Financial records

3.2.1.2 All confidential information including information regarding the alleger's identity will be stored in a secure file electronically and the hard copy file will be locked at all times and under the control of the RCPD, in the same manner as Allegation Files.

3.2.1.3 Hard copy Allegation Files are padlocked when not in use and access is controlled and limited to RMP staff who are actively using the particular case file. Electronic Allegation Files are limited to RMP staff required to address the allegation and authorized access to the electronically secured space.

3.2.1.4 Inspection reports and correspondence with licensees, other agreement states, federal agencies (including NRC), other organizations, or individuals will contain no confidential information or information that could lead to the identification of the alleger or confidential source.

3.2.1.5 The alleger's identity and all confidential information regarding the alleger's identity will not be disclosed outside of RMP, except under the conditions stipulated in section 3.2.2.

3.2.2 Inform the alleger that disclosure of his or her identity or of confidential information may occur based on the criteria listed in Attachment 3.1-2.

3.2.3 Obtain approval from the RCPD with consultation with the Environmental Health Division Director and Department of Health Legal Division prior to any mandated disclosure.

3.2.4 Regardless of means by which an allegation is made, if the alleger's identity is known, then inform the alleger by letter within 30 working days, of the degree to which his or her identity can be protected as described in 3.2.1 through 3.2.3 using Attachment 3.1-5 **Acknowledgement Letter to Alleger**.

3.2.5 If requested by the alleger, inform the alleger that a non-disclosure statement (Attachment 3.1-2) is available and will be sent within 30 working days.

3.3 Controlling Allegations

3.3.1 Allegations should be addressed according to the guidelines listed below:

3.3.1.1 Overriding safety issue – shall be addressed immediately,

3.3.1.2 High safety significance - should be addressed expeditiously, usually within 30 working days,

3.3.1.3 Low safety significance - should be addressed as priorities and resources permit, usually within 6 months of receipt.

3.3.2 Action by the RMPM.

3.3.2.1 Appoint a Lead Investigator for the allegation.

3.3.2.2 Ensure an Allegation File is opened for the allegation.

3.3.2.3 With the assistance of the Lead Investigator, perform an immediate assessment of the allegation in accordance with Attachment 3.1-3 to determine if an overriding safety issue exists.

3.3.2.4 An allegation is a declaration, statement, or assertion of impropriety or inadequacy associated with RMP regulated activities, the validity of which has not been established. This term includes all concerns identified by individuals or organizations regarding activities at a licensee's or applicant's facility or in the public domain. Examples of allegations are:

3.3.2.4.1 Potential wrongdoing by a licensee, staff, or contractor;

3.3.2.4.2 A concern about a safety-conscious work environment problem at a facility;

3.3.2.4.3 Deliberately falsifying records;

3.3.2.4.4 Bypassing safety interlocks.

If multiple allegations are made, as described above, the RCPD and RMPM must determine the priority of the allegations.

3.3.2.5 Any allegation determined to be an overriding safety issue will cause an immediate evaluation by the RMP. This evaluation may include the RCPD, a legal representative, and other members of the RMP staff. All discussion with a legal representative concerning suspected wrongdoing shall be documented, stamped confidential,

and filed within the Allegation File, if appropriate, the licensee's folder.

3.3.2.6 As necessary, brief the RCPD on the evaluation findings and recommendations.

Upon finding of an incident, immediately implement RMPP 3.2 *Incident Response*.

3.3.3 Evaluation by Lead Investigator

3.3.3.1 In consultation with the RMPM, perform an immediate assessment of the allegation in accordance with Attachment 3.1-3 to determine if an overriding safety issue exists.

3.3.3.2 Determine, in conjunction with the RMPM, the actions necessary for resolution of the allegation including an investigation, enforcement actions (per RMPP 2.5), etc.

3.3.3.3 Identify additional resources required for resolution of the allegation.

3.3.3.4 Develop a schedule for the resolution of each allegation consistent with the inspection schedule; unless the priority of the allegation causes immediate action.

3.3.3.5 With the approval of the RMPM, implement actions necessary for resolution of the allegation.

3.3.3.6 If an inspection is performed, focus should be placed not only on the particular allegation, but also on the overall area of concern, including safety culture. If the Lead Investigator receives notification of the finding of an incident, implement RMPP 3.2 *Incident Response* and advise inspection staff of immediate actions taken to mitigate the incident and notify the RMPM.

3.4 Referral of Allegations to Licensees

The decision whether or not to refer an allegation to the licensee will be made upon the recommendation of the Lead Investigator with the approval of the RMPM and based on the considerations delineated in 3.4.1 and 3.4.2. If an allegation raises an overriding safety issue, the substance of the allegation will be released to the licensee, to confirm the issue in writing of the reported allegation and to request pertinent information regardless of the need to protect the identity of the alleger or the confidential information, if release of the information is

necessary to protect public health, safety, or security. In this instance, the 30-day waiting period (see subsection 3.4.3 following) will be waived.

3.4.1 Prohibitions on Referrals

Do not refer the allegation to the licensee if any of the following apply:

3.4.1.1 The identity of the alleger or confidential source who has requested protection of anonymity, and confidential information, would be compromised by the information being released to the licensee.

3.4.1.2 The evaluation of the allegation would be compromised because of knowledge gained by the licensee.

3.4.1.3 The allegation is made against the licensee's management or those parties who would normally receive and address the allegation.

3.4.1.4 The allegation is based on information received from a federal agency that does not approve of the information being released to the licensee.

3.4.1.5 The alleger has previously addressed the allegation with the licensee with unsatisfactory results and/or the alleger objects to a referral.

3.4.1.6 Allegation involving willfulness.

Note: If the above criteria conflicts with those for public release as described in Attachment 3.1-2, discuss the referral with legal counsel.

3.4.2 Referral Criteria

Consider the following when determining whether to refer an allegation(s) to a licensee:

3.4.2.1 Could the release of information bring harm to the alleger or confidential source?

3.4.2.2 Has the alleger or confidential source objected to the release of the allegation to the licensee?

3.4.2.3 What is the licensee's history of addressing allegations?

3.4.2.4 What is the likelihood that the licensee will effectively investigate, document, and resolve the allegation?

3.4.2.5 Is there any other relevant reason to withhold the information?

3.4.3 Informing the Alleger

3.4.3.1 Prior to referring an allegation to a licensee, make all reasonable efforts to inform the alleger or confidential source of the intent to refer, unless there is an overriding safety issue.

3.4.3.2 If the alleger or confidential source cannot be reached by telephone, then inform the alleger or confidential source by letter of the intent to refer the allegation to the licensee.

3.4.3.3 If the alleger or confidential source objects to the referral or does not respond to the letter within 30 calendar days, and the factors described in section 3.4.1 and 3.4.2 concerning the referral prohibitions and allowances and 3.3.2.5 concerning an overriding safety issue have been considered, then refer the allegation to the licensee.

3.4.4 Referral Letter

3.4.4.1 Referrals should be made by RMPM or designated staff.

3.4.4.2 If a referral of an allegation is to be made to the licensee, then ensure the referral letter contains the following:

3.4.4.2.1 A complete description of the elements of the allegation, excluding the identity of the alleger or confidential source, and any confidential information that could result in the licensee identifying the alleger or confidential source.

3.4.4.2.2 A statement that the referral is a result of an allegation against the licensee.

3.4.4.2.3 A request to the licensee to thoroughly review the elements of the allegation in a manner that is objective, of sufficient scope, and of sufficient depth to resolve the allegation.

3.4.4.2.4 A written report of the results of the review must be submitted to the Department within 10 working days of receipt by the licensee of the referral letter.

3.4.4.3 If the allegation was received in writing, then do not include a copy or the original written information from the alleger or confidential source in the written referral to the licensee, unless written permission from the alleger or confidential source has

been obtained.

3.4.4.4 Ensure a copy of the referral letter is entered into the Allegation File.

3.4.5 Licensee Response

3.4.5.1 The RMPM is responsible for determining whether the licensee response is adequate and for directing further actions to be taken in response to the licensee's review of an allegation.

3.4.5.2 Evaluation of the adequacy of licensee's response is completed by considering, at a minimum, all the following factors:

- Was the evaluation conducted by an entity independent of the organization in which the alleged event occurred?
- Was the evaluator competent in the specific functional area in which the alleged event occurred?
- Was the evaluation of adequate depth to establish the scope of the problem?
- Was the scope of the evaluation sufficient to establish that the alleged event or problem was not a systemic defect?
- If the allegation was substantiated, did the evaluation consider the root cause and generic implications of the allegation?
- Was the licensee's corrective action sufficient to prevent, alleviate, or correct deficiencies in both the specific and generic instances, and in the short and long term?

3.4.5.3 If the licensee's response is adequate, then notify the licensee within 30 working days that the response is adequate and that no further action is required. The response will be incorporated in the closeout letter to the alleger or confidential source.

3.4.5.4 If the licensee's response is considered to be inadequate, then determine the additional actions required to resolve the allegation, including an investigation, enforcement actions (per RMPP 2.5), etc.

3.4.5.5 Ensure a copy of both the licensee's response and the Department's response letter are entered into the Allegation File.

3.5 Investigations

If the allegation cannot be referred to the licensee (See subsection 3.4.1); is not resolved by the licensee; or, involves possible willfulness, an investigation shall

be performed, preferably by the Lead Investigator. The investigation may be included as part of a routine inspection or may involve only the allegation(s).

3.5.1 When conducting an investigation in response to an allegation, use all of the following techniques:

3.5.1.1 Inspect the issue not the alleger or confidential source.

3.5.1.2 Avoid prejudgment.

3.5.1.3 Do not communicate that the specific issue was raised by an alleger or confidential source (See subsection 3.4.4).

3.5.1.4 Take extensive notes and obtain copies of pertinent records, if possible.

3.5.1.5 Interview employees regarding relevant procedures and activities.

3.5.1.6 Verify any assertions made by the licensee.

3.5.2 If investigation of the allegation is determined to have a negative impact on public health or safety, immediately take action to mitigate the incident and immediately notify the RMPM (see RMPP 3.2 *Incident Response*).

3.5.3 Document the results of the investigation in a written report and submit to RMPM.

3.5.4 Ensure a copy of the investigation report is entered into the Allegation File.

3.5.5 Send a closeout letter to the alleger, if possible, documenting the results of the investigation.

3.6 Close Out

3.6.1 The RMPM shall determine when there is sufficient information to close out the allegation and indicate in the investigation report or licensee response letter satisfactory response.

3.6.2 The Allegation File should be updated and closed. If appropriate, a copy of all information should be placed in the licensee's file.

3.6.3 If requested and reviewed by RMPM, a letter should be forwarded to the alleger or confidential source of the findings of the allegation indicating that it has been considered closed.

3.6.4 Regardless of whether an investigation was conducted in response to the allegation or not, the Lead Investigator should place a note in the licensee's file.

3.6.5 If an incident was found through inspection or investigation, ensure all notifications required to NRC and NMED were made in accordance with RMPP 3.2 *Incident Response*. Refer to RMPP 3.2 for follow up guidelines. Refer to RMPP 2.5 *Enforcement, Escalated Enforcement, and Administrative Actions* if enforcement actions are necessary. If the cause was a possible generic problem, notify other affected licensees.

3.7 Coordinating with Other Agencies

In the case of complaints or allegations involving other local, state, or federal agency's jurisdiction, the Radiological Health Specialist should withhold the information from the licensee and elevate the concerns to the attention of the RMPM or RCPD while still onsite.

4.0 ATTACHMENTS TO RMPP 3.1

Attachment 3.1-1 Initial Contact Log

Attachment 3.1-2 Nondisclosure Statement

Attachment 3.1-3 Allegation Screening Form

Attachment 3.1-4 Confidential Information and Files

Attachment 3.1-5 Acknowledgement Letter to Alleger

ATTACHMENT 3.1-1 to RMPP 3.1, Revision 0:
Initial Contact Log

VERMONT DEPARTMENT OF HEALTH
Radioactive Materials Program

INITIAL ALLEGATION CONTACT LOG

INSTRUCTIONS:
This log is to be used to record the information gathered in an allegation against a licensee or registered user.

Inform the individual of the conditions regarding confidentiality.	☐ YES – the individual was notified, and all information deemed confidential is indicated on the below report.
☐ Individual has requested confidentiality.	☐ Individual has declined confidentiality.

ALLEGER INFORMATION:

Individual's full name:	Telephone number:
Position or relationship to the facility or activity involved:	Alleger's employer:
Home mailing address:	Facility / location:

What sort of activities or practices did this involve? What have they observed? Use back for additional information.

NATURE AND DETAILS OF THE ALLEGATION:

How long has this activity been occurring?	Description of the Concern
Is this a current or past unsafe practice?	
How did the individual find out about the concern?	

Date(s) and times of occurrence:

Are there other individuals who should be contacted for additional information?
(list names, addresses, phone number if available)

What records does the individual think should be reviewed?

Has the individual raised the concerns with his/her management?

☐ Yes What action has been taken?

☐ No Why not?

If the allegation involves discrimination because of age, sex, race, etc., inform the alleger that they should contact the **State of Vermont Human Rights Commission at (802) 828-1625.

**If this allegation was forwarded from another agency, indicate who the contact was that provided the notification:
Agency: Region/Office: Name: Telephone:

ACTIONS TO BE TAKEN:

Refer this to the Radiation Control Program Director

If this issue was referred to another agency, please list the name of agency:

ADDITIONAL COMMENTS OR INFORMATION:

ATTACHMENT 3.1-2 TO RMPP 3.1, REVISION 0
NONDISCLOSURE STATEMENT

I have information that I wish to provide in confidence to the Vermont Department of Health (Department), Radioactive Materials Program (RMP). I request that the RMP not reveal that I am the source of the information.

During an inquiry or investigation, the RMP will make its best effort to avoid actions that would clearly be expected to result in disclosure of my identity.

My identity may be divulged outside the RMP in any one or more of the following situations:

(1) When disclosure is necessary because of an overriding safety issue. The RMP staff will attempt to contact me prior to any disclosure.

(2) When a court orders such disclosure.

(3) When the RMP requests disclosure for enforcement proceedings.

(4) In response to a legislative request. While such a request will be handled on a case-by-case basis, the RMP will make its best effort to limit the disclosure to the extent possible.

(5) When requested by a federal or state agency in furtherance of its statutory responsibilities and the RMP finds that furtherance of the public interest requires such release.

(6) When the State of Vermont Attorney General or a local or state law enforcement agency is pursuing an investigation, my identity may be disclosed without my knowledge or consent.

(7) When I have taken actions that are inconsistent with and override the purpose of protecting my identity.

(8) Disclosure is mandated by Code of Vermont, 1 V.S.A. §§ 315–320, Vermont Freedom of Information Act.

My identity will be withheld from RMP staff, except on a need-to-know basis. Consequently, I acknowledge that if I have further contacts with RMP personnel, I cannot expect that those people will be cognizant of my desire to remain anonymous, and it will be my responsibility to bring that point to their attention if I desire similar treatment for the information provided to them.

I have read and fully understand the information above.

Signature: _____ Date: _____

Address: _____

_____

ATTACHMENT 3.1-3 TO RMPP 3.1, REVISION 0
ALLEGATION SCREENING FORM

a) Is there an immediate safety concern that must be quickly addressed?

b) Is the allegation a specific safety or quality issue or a generalized concern?

c) Has the staff previously addressed this issue or a similar issue?

d) Have there been a substantial number of allegations on similar concerns?

e) What is the time sensitivity of the allegation and what immediate actions are necessary?

f) What is the potential for wrongdoing and will investigative assistance be needed?

g) Does the allegation package contain sufficient information for a thorough evaluation? If not, identify the additional information needed.

h) Can the issues be adequately addressed by a routine technical inspection? If not, determine the best way to address the issues.

i) Is the identity of the alleger necessary for a thorough evaluation?

j) Identify any peripheral issues that could develop.

k) Are any licensing actions or enforcement actions pending that could be affected by the allegation? When an allegation involves a case with pending licensing action, the Radiological Health Specialist working on the case should be promptly notified.

l) Can inspection resources be effectively utilized pursuing the issue or is the allegation too vague or frivolous?

m) Is further consideration of the allegation required? If not, inform the alleger in a courteous and diplomatic manner of the rationale for not considering it further. Consult the Radiation Control Program Director, Radioactive Materials Program Manager, and the Department of Health Legal Division for a final decision before doing so.

n) Can licensee resources reasonably be used in resolving the allegation to conserve staff resources?

o) Does the allegation have the potential to require escalated enforcement action?

ATTACHMENT 3.1-4 TO RMPP 3.1, REVISION 0
CONFIDENTIAL INFORMATION AND FILES

Upon receipt of an allegation and during the investigation of an allegation, the alleger may request and reasonably expect that his/her identity will be protected as confidential information, except for the situations outlined Attachment 3.1-2. Basic rules to protect the identity of the alleger and other confidential information are outlined below.

1) Restrict staff discussions to those individuals who truly need-to-know.

   The alleger's identity and other information that would reveal their identity should be withheld from other Radioactive Materials Program staff not involved with the investigation.

2) Restrict access to the hardcopy and computer files by storing in a secure file.

   All information regarding the alleger's identity and other confidential information will be stored in the specific Allegations File. The Allegation File will be maintained in a padlocked filing cabinet and an electronic folder accessible only to the RCPD and RMPM. When an electronic or paper copy is in use by the RCPD or RMPM, he or she is responsible for controlling access to it at all times when the file is not locked up or closed electronically.

3) Protect access to information during work.

   Files are not left lying open if the work area is not occupied. Computer screens are not left open if the work area is not occupied. At the end of the day, the hardcopy Allegation File is placed in the padlocked secure file. Computer files are saved on the secured computer space. Drafts are not developed outside this computer space. Field notes, received forms, etc. are kept secured or are disposed of.

4) Be wary of faxes and e-mails if you must use them.

   Faxes are sent being very careful to enter the correct telephone number. Calls should be made prior to sending a fax to alert the recipient and a confirmation call should be made to confirm the fax was received. Generally, it is not prudent to use e-mail to transmit confidential information. If you must use e-mail or fax, use in accordance with 1 V.S.A. § 317.

5) Ensure that reports and correspondence to other entities do not contain information that could lead to the identification of the alleger or confidential source or other confidential information.

   Other entities could include: the licensee, applicant, the Nuclear Regulatory Commission or other federal agency, another state or local agency, or another agreement state. If the RMP has chosen to refer the allegation to the licensee, the original information submitted by the alleger should be omitted. The information should be re-worded to reflect the basic facts and

any language should be removed that could be used to identify the alleger.

ATTACHMENT 3.1-5 TO RMPP 3.1, REVISION 0
ACKNOWLEDGEMENT LETTER TO ALLEGER

<Utilize Department of Health letterhead>

Date

Mr. John Doe
1234 Abc Street
Anytown, VT 05###

Dear Mr. Doe:

This letter refers to your contact with <specify individual> of the Vermont Department of Health (Department), Radioactive Materials Program (RMP) on <specify date>, in which you expressed concern related to <specify licensee/company/etc.>. <Specify concern e.g., you were concerned that you used a Troxler portable gauge without receiving proper training and transported the device in your personal vehicle.>

In addition, according to your contact with RMP staff, we understand that you did/did not object to having your allegation referred to <specify licensee/company/etc.>.

<Specify actions taken in response and include detailed information such as: on October 18th RMP staff performed a routine health and safety inspection of Company X and focused on an investigation of your allegation. During this investigation, RMP staff determined that you logged out the Troxler portable gauge at the Sample Jobsite in July prior to your August 2nd training certificate. Specify any other relevant information found related to the allegation such as: We were also able to determine that authorized users including yourself were allowed to perform work with the portable gauge without being issued dosimetry, which is a violation of the license.>

<Specify agency actions such as: subsequently, the Department has issued violations based upon the inspection and investigation.>

If you have any questions or further concerns, please contact me at <specify contact number> or <specify email address>.

Sincerely,

Name
Title

Vermont Department of Health Radioactive Materials Program

Procedure 3.2, Revision 0

Incident Response

Prepared By: _____ **Date:** _____

Reviewed By: _____ **Date:** _____

Approved By: _____ **Date:** _____

Effective Date: _____

Revision	Date	Description of Changes
0		

Radioactive Materials Program Procedure 3.2, Revision 0

Incident Response

Table of Contents

PURPOSE

1.1 Applicability

1.1.1 This applies to all Vermont Department of Health (Department), Radioactive Materials Program (RMP) staff responding to an incident involving real or suspected radioactive materials. This procedure does not apply to a known or suspected terrorist incident. If terrorism is known or possible, contact the Local Law Enforcement Agency and Vermont Emergency Management at 800-347-0488 immediately. If the need for criminal investigatory capacity is required, contact the Local Law Enforcement Agency (LLEA) and/or the Vermont State Police and/or the U.S. Federal Bureau of Investigation (FBI), as appropriate.

1.1.2 This addresses preparation for responding to a radiological incident and an abnormal occurrence (AO), which is any unscheduled incident or event which the NRC/Department determines to be significant from the standpoint of public health and safety.

1.1.3 This procedure describes radiation detection instruments and other equipment potentially required for response to a radiological incident, safety precautions for RMP staff and other responders during a response effort and options for identifying unknown radioactive material in the field and laboratory.

1.1.4 This procedure establishes guidelines for voluntary reports on lost and stolen events involving any type of radioactive material, as well as situations that cannot be specifically tied to a reporting requirement (such as “found” sources that were not reported as lost, materials contaminated with radioactive material, and landfill alarm trips).

1.1.5 This procedure establishes notification requirements to other federal (including NRC), state, and local agencies as well as event notification through the Nuclear Materials Events Database (NMED) and notification of a possible generic problem to other affected licensees, etc.

1.2 References

1.2.1 Vermont Radioactive Materials Rule.

1.2.2 NRC Procedure, SA-300, “Reporting Material Events”

1.3 Definitions

1.3.1 Abnormal Occurrence (AO): An unscheduled incident or event significant from the standpoint of public health or safety.

1.3.2 Agency: The Radioactive Materials Program (RMP) of the Vermont Department of Health (Department).

1.3.3 Apparent Violation: A potential noncompliance with a regulatory requirement that has not yet been formally cited as a violation or order.

1.3.4 Deviation: A licensee's failure to satisfy a non-legally binding commitment (e.g. failure to tie-down a commitment during licensing and the licensee has not implemented that commitment.)

1.3.5 Escalated Enforcement Action: An enforcement action for any Severity Level I, II, or III violations. Violations with willful aspects (i.e. careless disregard or deliberate misconduct) will typically be considered for escalated enforcement.

1.3.6 Immediate Notification: For this procedure, notification is required to be made to the Department by the licensee or its representative (Radiation Safety Officer) after the licensee identifies the incident. Notification is required to be within 4 hours or less of the identification that an incident has occurred.

1.3.7 Noncompliance: A violation or deviation.

1.3.8 Notice of Violation (NOV): A formal written notice that sets forth one or more apparent violations of a requirement following an inspection. An NOV formally documents violations and is typically the only enforcement action taken unless the criteria for escalated enforcement are met.

1.3.9 Observation: A fact or any detail noted during an inspection.

1.3.10 Potentially Generic Issue: An inspection finding that may have implications for other licensees, certificate holders, or vendors whose facilities or activities are of the same or similar manufacture or style.

1.3.11 Severity Level: Categorization of violations of license requirements based on the seriousness of the violation. One of four levels of severity is assigned to a violation, ranging from Severity Level I, signifying the most significant, to Severity Level IV, the least.

1.3.12 Regulatory Commitment: An explicit statement to take a specific action, agreed to or volunteered by a licensee, where the statement has been submitted in writing to the Department.

1.3.13 Requirement: A legally binding obligation such as a statute, regulation, license condition, or order.

1.3.14 Violation: The failure to comply with a legally binding regulatory requirement such as a statute, regulation, order, or license condition.

1.3.15 Willfulness: There are two types of willfulness discussed:

a. Deliberate Misconduct: occurs when an individual voluntarily and intentionally (1) engages in conduct that the individual knows to be contrary to a requirement, procedure, instruction, contract, purchase order, or policy of a licensee, applicant for a license, or a contractor or subcontractor of a licensee or applicant for a license,; or (2) provides materially inaccurate or incomplete information to a licensee, applicant for a license, or a contractor or subcontractor of a licensee or applicant for a license.

b. Careless Disregard: This refers to situations in which an individual acts with reckless indifference to at least one of three things: (1) the existence of a requirement, (2) the meaning of a requirement, or (3) the applicability of a requirement. Careless disregard occurs when an individual is unsure of the existence of a requirement, the meaning of a requirement, or the applicability of the requirement to the situation, but nevertheless proceeds to engage in conduct that the individual knows may cause a violation. Although aware that the action might cause a violation, the individual proceeds without ascertaining whether a violation would occur.

2.0 RESPONSIBILITIES

2.1 Radiological Health Specialist (RHS)

2.1.1 Informs the Radioactive Material Program Manager (RMPM) of all radioactive material incidents.

2.1.2 Assumes the lead role in immediate response as required to incidents involving radioactive materials and coordinates with the RMPM or the Radiation Control Program Director (RCPD).

2.1.3 Immediately responds to incidents involving radioactive materials, as directed by the RMPM or designee.

2.1.4 Assists the RMPM or designee with incident response and documentation, including report preparation, as needed.

2.2 Radioactive Materials Program Manager (RMPM)

2.2.1 Notifies the RCPD of radiological incidents.

2.2.2 Assigns staff to respond to incidents involving radioactive materials.

2.2.3 Coordinates immediate response effort during normal working hours.

2.2.4 In coordination with the RCPD and legal counsel, makes decisions to impound radioactive materials found in the public domain.

2.2.5 Advises the RCPD whether legal assistance is required.

2.2.6 Ensures that notifications are made of reportable events and required reports as indicated in Attachment 3.2-4, and SA-300 "Reporting Materials Events," including immediate, 24-hour, and 5 to 30-day event reporting requirements.

2.2.7 Has the responsibility to ensure that written documentation of reportable incidents is completed and for assuring the quality of the reports to the Nuclear Material Events Database (NMED) within the appropriate time period as required by the incident. Abnormal occurrences should be managed in accordance with NRC's Management Directive 8.1 "Abnormal Occurrence Reporting Procedure."

2.2.8 If necessary and in consultation with the RCPD, request federal assistance from the NRC Headquarters Operations Officer (HOO) at (301) 816-5100.

2.3 Radiation Control Program Director (RCPD)

2.3.1 Final authority, if needed, for radiological incident response activities (conflict resolution).

2.3.2 Requests legal assistance, if required.

2.3.3 Coordinates immediate response effort outside normal working hours.

3.0 PROCEDURE

3.1 Incident Type and Classification

3.1.1 Transportation Incident: An incident which occurs in association with any activity involving the movement of radioactive materials by a motorized conveyance on roadways, to include trucks, planes, automobiles, etc. This does not include movement of materials at a facility by forklift, hand-truck, or other transfer method. Such an incident would be considered as a fixed facility incident.

3.1.2 Fixed Facility Incident: An incident which occurs in association with any activity involving radioactive materials at a fixed location. This would include temporary work sites (soil testing and non-destructive testing of welds), manufacturing sites (thickness gauges etc.), or any other location which does not involve the movement of radioactive materials by a motorized conveyance on roadways as indicated above.

3.1.3 Terrorism Incident: An incident which occurs in association with any deliberate act of sabotage or destruction which includes the use of radioactive materials. This type of incident may include transportation or fixed facility, but due to the initiating event, will require coordination of response actions to ensure crime scene issues are considered.

3.1.4 Incident Classification: Level I - an incident in which no release of radioactive material has occurred. This is determined by visual assessment of the incident scene. If there is not a high confidence level by the response personnel in declaring a Level I incident, it should default to a Level II incident.

3.1.5 Incident Classification: Level II - an incident in which there may be a release of radioactive materials. This is determined by visual assessment of the incident scene. Level II would be declared when there is reasonable doubt of the integrity of the containment of the radioactive materials (package shows significant damage, but there is no visible sign of material release).

3.1.6 Incident Classification: Level III - an incident in which there is a release of radioactive materials. This is determined by visual assessment of the incident scene. There must be a high level of confidence by the response personnel before declaring a Level III incident.

3.2 Initial Notification

When the Department is notified that an incident has occurred, Radioactive Materials Program staff shall obtain as much information as possible in order to determine the level of response required. If upon notification of the radioactive materials incident the Department determines that the incident is a major emergency, the Department will contact the applicable agencies listed in Attachment 3.2-4 for assistance. Not all incidents will require an immediate response—rather, some incidents may require 24-hour, next day, 5-day, or 30-day reporting. The appropriate Department response can be ascertained by obtaining as much information as possible, and based on the guidance in Appendix A of SA-300 “Reporting Materials Events,”. In the event that multiple simultaneous incidents are being reported, the RCPD or designee will coordinate the response activities to ensure the incidents are properly categorized and prioritized.

Incidents may be received in a number of ways, including in-person, phone, email, fax, letter, news media, and/or internet social media. Incidents are screened by RMP staff, initially to determine the level of response required. RMP personnel should use this section as guidance when responding to byproduct, source, or special nuclear material incidents. Radiological material incidents should be recorded on Attachment 3.2-1 **Radiological Incident Notification Form** and the incident reported to the Department and NRC in accordance with Attachment 3.2-4 **Procedure for Reporting Events**. For major radiological emergencies, the Department should coordinate with other state agencies, the NRC 24-hour Headquarters Operations Center Officer at (301) 816-5100), the Radiation Emergency Assistance Center/Training Site (REAC/TS) at (865) 576-1005, and EPA Region 1 at (800) 424-8802.

The below procedures should be performed for events classified as Significant Events, meaning events identified as having generic concerns or issues with a significant potential to impact public health and safety and/or the environment, requiring immediate (within 4 hours) or 24-hour reporting as specified in SA-300 Appendix A. For example:

- Multiple occurrences of an event tracked as a performance measure (medical events, overexposures, lost or stolen sources of concern);

- A single occurrence of an event tracked as a strategic goal (deaths, loss of organ function, significant releases to the environment);

- Events involving possible generic concerns or issues (equipment malfunctions, equipment failure, inadequate user procedures, software problems); or

- Consequences or casual factors not previously seen in the event assessment.

3.2.1 Obtain as much of the following information as possible:

- Caller's name, if by phone, affiliation, and location.
- Phone number where the informer may be reached.
- On-scene contact person and phone number.
- Location of the incident.
- Overall description of the incident, including any injuries.
- Indications that radioactive material is involved.
- Description of the radioactive material, including packaging.
- Any writing or inscriptions on the materials.
- Availability of a shipping manifest (transportation incident).
- Indications of a possible spread of contamination from meter readings, broken source housing, leaking packaging, etc.

- Other agencies or personnel involved.

3.2.2 For incidents involving quantities of Category 1 and Category 2 radioactive materials, make the required notifications in accordance with the provisions of 10 CFR 37.57.

3.2.3 Inform the RMPM and RCPD of the incident at (802) 865-7743. If the RMPM or RCPD is unavailable, notify any other RMP staff. If no response is obtained at this point, contact the Health Department emergency line for assistance at (802) 863-7483, which can be reached 24 hours per day, 7 days per week.

3.2.3.1 Criteria for determining the level of response required follows the reporting requirements listed in SA-300, based on the relative risk to public health and safety and the factors in 3.2.3.2. The primary responsibility for responding to an incident remains with the licensee. However, the Department may give advisory support and may assist the licensees in diagnosing the situation and determining potential courses of action.

3.2.3.2 Factors that should be considered for determining the appropriate response include:

- Potential to escalate.
- Location of incident.
- Potential for exposure or contamination.
- Media interest.
- Type of release.
- Involvement of other responders.
- Request for specific type of assistance.

3.2.4 Upon receipt of a notification of an incident, advise the notifier on proper measures to limit exposure and minimize the spread of contamination.

3.2.5 Keep the public informed through the Health Department Communication Office. Attachment 3.2-2 **Radiological Incident Response Question and Answer Sheet** may be helpful, and is available on the Health Department's website. Relative to communications with the public, consider the following factors:

- Extent of public risk and perception of the risk.
- Extent of media interest.
- Confidence in validity of information reported to the Department.

- Reassessment of the measures that have been taken (e.g., health physics and medical services that have been made available to the public).
- Coordination of information among the NRC, federal agencies, and state and local agencies. Ensure that other federal agencies are informed of any information to be released to the media or the public.
- Assurance of correctness of information provided to the news media and public.

3.2.6 Examples of reportable events from SA-300 are included in Attachment 3.2-5.

3.2.7 The notifications to be made to NRC are contained in Attachment 3.2-6.

3.3 On Scene Response

3.3.1 When possible, a minimum of two people should provide immediate response to a radiological incident.

3.3.2 The following equipment should be obtained and transported to the incident scene for immediate response:

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

3.3.2 Site approach for immediate response team:

- Approach the incident site/material from upwind.
- Turn on exposure rate instrument before approaching the incident site.
- Obtain current information from on scene personnel.
- Coordinate response efforts prior to approaching the material.
- Ask for a shipping manifest if applicable.
- If there is the potential for contamination, wear plastic booties and gloves.
- Establish a 2 mR/hr exclusion zone around the material if not already done.

  Note that in worse incidents, like a radiological dispersal device or a nuclear detonation, a 10 mR/hr or 10 R/hr exclusion zone may be appropriate. Consult the Department of Health Radiological and Nuclear Emergency Plan for guidance.

- Determine who may enter the exclusion zone and under what conditions.

3.3.3 Document the following, as it occurs:

- 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.
- 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, for follow-up when performed.

3.3.4 Determine if material needs packaging. If the material must be bagged, double bag the material. Survey the outer surfaces of any packaging for contamination prior to transport and take appropriate precautions should external contamination be measured.

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

- Determine best location for temporary storage.
- Ensure that decontamination issues are addressed.
- Initiate attempt to locate owner of material.
- Contact the RMPM and RCPD (primary) or designee (secondary) for direction and authorization for management of the material (see Attachment 3.2-3 **Impoundment Guidelines**.)
- Notify the 24-hour Department phone line at 802-863-5483, if appropriate.
- If no owner can be found, notify the RMPM and RCPD and inquire whether or not to impound the item. Disposal options will be investigated at this time.

3.3.6 Materials being transported for analysis or storage must be packaged to meet Department of Transportation (DOT) requirements.

3.4 Report

3.4.1 The RHS assigned to the incident shall prepare a report within 15 days documenting all information gathered, the disposition of the material, and a list of all the parties involved. The report is required for all 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 shall assure the quality and completeness of the report and ensure that a copy of the report, analysis results, and all notes and related paperwork are properly filed in accordance with SA-300. This report and any subsequent follow-up reports should be utilized to forward data to NMED and to the NRC in accordance with SA-300 "Reporting of Material Events" as well as any other federal, state, or local agency, as necessary.

3.4.4 Input incident data to the local NMED and forward event reports to the NRC, as necessary. For more information on reporting events, see Attachment 3.2-4 **Procedure for Reporting Events**.

3.5 Follow-up

3.5.1 In consultation with RMPM and RCPD, determine if any whole-body counts, bioassays, or personnel dose determinations are warranted, and if medical assistance is required or referral to Oak Ridge Radiation Emergency Assistance Center (REAC/TS) for analysis is necessary. See NRC Inspection Manual Chapter 1360 "Use of Physicians and Scientific Consultants in the Medical Consultant Program" for guidance.

3.5.2 In consultation with RMPM, determine if training or information for any individuals involved in the incident is warranted.

3.5.3 In consultation with the RMPM, determine the need for a follow-up inspection and/or any enforcement actions against the licensee. This incident should be addressed during the next routine inspection. If it is determined that enforcement actions are required, refer to RMPP 2.5 *Enforcement, Escalated Enforcement, and Administrative Actions*.

3.5.4 Ensure a copy of the incident report is in the licensee file and make notifications to the appropriate RMP staff, as necessary.

3.5.5 Make notifications to appropriate federal and state agencies specified in section 5.0, including the NRC and NMED within the appropriate time period of any new information and status of event including final close of the event.

3.5.6 In consultation with RMPM, determine need to notify other licensees of problem if known or possible general fault that could affect those licensees.

4.0 RECORDS

4.1 Records include completed attachments from this procedure, other documents related to incidents and NMED-related documents.

4.2 Efforts will be made to maintain records primarily in an electronic form. Those that are paper will be scanned electronically, and may be kept as paper or recycled after determination as to what is best for the particular record and its form for regulatory purposes.

5.0 COMMUNICATING EVENTS TO THE APPROPRIATE STATE AND FEDERAL AGENCIES

5.1 Events and allegations may be reported to the Vermont Radioactive Materials Program at 108 Cherry Street, Suite 201 P.O. Box 70, Burlington. VT 05402-0070, **(802) 863-7200**

5.2 Vermont Radiation Control Program Director: William Irwin, 108 Cherry Street, Suite 201 P.O. Box 70, Burlington, VT 05402-0070 **(802) 863-7238**

5.3 Vermont Hazardous Material Response Team **(800) 641-5005.**

5.4 U.S. NRC Region 1, 2100 Renaissance Blvd., Suite 100, King of Prussia, PA 19406-2713 **(610) 337-5000.**

5.5 NRC Headquarters Operation Officer (HOO) **(301) 816-5000.**

5.6 U.S. EPA (617) 918-1111 or in the New England States **(888) 372-7341.**

5.7 Oak Ridge Institute for Science and Education, Radiation Emergency Assistance Center/Training Site **(**ORISE REAC/TS) **(865) 576-1005.**

6.0 ATTACHMENTS TO RMPP 3.2

Attachment 3.2-1 Radiological Incident Notification Form
Attachment 3.2-2 Radiological Incident Response Question & Answer Sheet
Attachment 3.2-3 Impoundment Guidelines
Attachment 3.2-4 Procedure for Reporting Events
Attachment 3.2-5 Examples of Reportable Events
Attachment 3.2-6 Event Reporting Schedule

ATTACHMENT 3.2-1 TO RMPP 3.2, REVISION 0:
RADIOLOGICAL INCIDENT NOTIFICATION FORM

Contact Information

Name: _____ Notification Date/Time: _____ ____

Incident Reported By:	On-site Contact:
Title/Organization:	Title/Organization:
Phone Number:	Phone Number:

Location of Incident (Include Directions):

Description of Incident:

Radiation Assessment:

1. Why do you believe radioactive material is involved?

   _____

2. Describe the radioactive material including packaging.

   _____

3. Did you observe any writing or inscriptions on the materials?

   _____

4. Are the shipping papers available?

   _____

5. Are there any indications of a possible spread of contamination based on meter readings, broken source housing, leaking packaging, etc.

   _____

6. Has the source or contaminated area been isolated or access to the area restricted?

   _____

7. What other agencies or personnel are involved?

   _____

ATTACHMENT 3.2-2 TO RMPP 3.2, REVISION 0:

RADIOLOGICAL INCIDENT RESPONSE QUESTION AND ANSWER SHEET

What is a radiological incident?

A radiological incident is an emergency involving radioactive materials. Examples of radiological incidents include situations where radioactive materials are lost, stolen, or involved in a transportation accident. In most cases, radiological incidents can be successfully resolved by emergency responders with state assistance.

What state assistance is available to respond to a radiological incident?

The Vermont Department of Health, Radioactive Materials Program (RMP), is available on a 24-hour basis to support and advise emergency responders during an incident involving radioactive materials. RMP emergency response resources include highly trained personnel and specialized radiation monitoring equipment. RMP staff can be quickly dispatched to provide on-site assistance at the scene of a radiological incident.

How are radioactive materials regulated to minimize public risk?

Radioactive materials are stringently regulated by state and federal government agencies by licensing or registration. Devices and products containing radioactive materials are required to incorporate safety features that minimize the exposure risk to the public from a radiological incident.

What should I do if involved in a radiological incident?

Remain calm. Follow instructions given by on-scene officials. Vermont Department of Health staff will quickly assess the situation and recommend any further actions. Most radiological incidents do <u>not</u> result in harmful levels of radiation exposure to the public.

Where can I get more information?

For more information on radiological incident response or health risk from exposure to radiation or radioactive materials, contact:

Vermont Department of Health

Radioactive Materials Program

(802) 865-7730 (normal business hours)

(802) 863-7220 (after hours)

ATTACHMENT 3.2-3 TO RMPP 3.2, REVISION 0: IMPOUNDMENT GUIDELINES

Management will consider the following questions before approving a request to impound radioactive materials.

Regulatory Control:

- Are the radioactive materials under the direct control and responsibility of a licensee?
- Are the materials in a controlled location?
- Are the materials directly and negatively impacting public health and safety?
- Is there a possible public perception problem with the current location?

Physical/Chemical Form:

- What is the isotope and physical/chemical form of the material?
- Are other hazardous or explosive materials involved?
- What is the activity of the material?

Physical Condition:

- Are the materials intact, crushed, leaking, or damaged in some way?
- Are the materials concentrated or dispersed over a large area?
- Are the materials separate or part of a larger device?

Amount:

What is the volume of the material?

Transportation:

Can the material be transported safely?

Waste Management:

Does managing the material involve simple storage or is any processing involved in disposing of the materials?

Alternatives:

- Are there any safe and reasonable alternatives to the State impounding the material?
- Is there a temporary storage location and responsible party available?

ATTACHMENT 3.2-4 TO RMPP 3.2
PROCEDURE FOR REPORTING EVENTS

This is a procedure for determining if an event is reportable to the Health Department and steps that need to be taken. Immediate notification to the Local Law Enforcement Agency (LLEA) is required after determining that an unauthorized entry resulted in an actual or attempted theft, sabotage, or diversion of a category 1 or category 2 quantity of radioactive material (see Appendix A to Part 37 —Category 1 and Category 2 Radioactive Materials).

Vermont Department of Health (Department): (800) 439-8550
Health Department Fax: (802) 865-7745
Local Law Enforcement Agency: 911

<u>IMMEDIATE</u> (WITHIN 4 HOURS OR LESS) NOTIFICATION FOR ANY OF THE FOLLOWING:

Reports of removable contamination on package > limits in 10 CFR 71.87 (See Table 9, 49 CFR 173.443). 10 CFR 20.1906(d)(1);

Radiation levels on package > limits in 10 CFR 71.47, 10 CFR 20.1906(d)(2);

Reports of lost, stolen, or missing licensed material ≥ 1000 times Appendix C to 10 CFR Part 20 value under such circumstances that it appears to the licensee that an exposure could result to persons in unrestricted areas. 10 CFR 20.2201(a)(i).

Exposure (real or threatened) ≥ TEDE of 25 rem (0.25 Sv), or lens dose equivalent ≥ 75 rem (0.75 Sv), or shallow dose equiv. (skin\extremities) ≥ 250 rads (2.5 Gy). 10 CFR 20.2202(a)(1).

Release where individual could have intake ≥ 5 times the annual limit on intake (ALI) over 24 hours. 10 CFR 20.2202(a)(2).

Events involving prevention of immediate protective actions, necessary to avoid exposures to radiation, radioactive materials, or releases of radioactive material that could exceed regulatory limits. 10 CFR 30.50(a) (byproduct material), 10 CFR 40.60(a) (source material), 10 CFR 70.50(a) (special nuclear material).

Well logging: Well logging source rupture. 10 CFR 39.77(a). Theft or loss of radioactive materials, radiation overexposures, or excessive levels and concentrations of radiation. 10 CFR 39.77(b).

Events involving failure of licensees to comply with the applicable requirements of the Department of Transportation regulations in 49 CFR. 10 CFR 71.5.

Events involving hazardous materials, including radioactive materials per 49 U.S.C. 5103(a) require the immediate reporting of incidents involving hazardous materials that result in an individual's death, injury requiring hospitalization, evacuation of the general public for at least one hour, the operational flight pattern or routine of an aircraft is altered, or the closure of one or more major transportation facility or artery for at least one hour. 49 CFR 171.15 (b)(1).

49 CFR 171.15(b)(2) requires the immediate reporting of fire, breakage, spillage, or suspected radioactive contamination that occurs involving the shipment of radioactive material.

10 CFR 37.57 requires immediate notification to the Local Law Enforcement Agency (LLEA) after determining that an unauthorized entry resulted in an actual or attempted theft, sabotage, or diversion of a category 1 or category 2 quantity of radioactive material (see Appendix A to Part 37 —Category 1 and Category 2 Radioactive Materials). As soon as possible after initiating a response, but not at the expense of causing delay or interfering with the LLEA response to the event, the licensee shall notify the Department at (800) 439-8550 and VHMRT at (800) 641-5005. In no case shall the notification to the Department be later than 4 hours after the discovery of any attempted or actual theft, sabotage, or diversion.

10 CFR 37.57 requires the licensee to assess any suspicious activity related to possible theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material and to notify the LLEA as appropriate. As soon as possible, but not later than 4 hours after notifying the LLEA, the licensee shall notify the Department at (800) 439-8550 and VHMRT at (800) 641-5005.

Notify the Department (800) 439-8550 the NRC's Operations Center at (301) 816-5100 if the results from an FBI identification and criminal history records check indicate that an individual is identified on the FBI's Terrorist Screening Database.

24 HOUR EVENT REPORTING

Release where, had an individual been present for 24 hours, individual could have intake > 1 times occupational ALI over 24 hours. 10 CFR 20.2202(b)(2).

Events involving unplanned contamination that: (i) requires access to the contaminated area, by workers or the public, to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area; (ii) involves a quantity of material greater than five times the lowest annual limit on intake specified in Appendix B of 10 CFR part 20 for the material; and (iii) has access to the area restricted for a reason other than to allow isotopes with a half-life of less than 24 hours to decay prior to decontamination. 10 CFR 30.50(b)(1) (byproduct material), 10 CFR 40.60(b)(1) (source material), 10 CFR 70.50(b)(1) (special nuclear material).

Events in which equipment is disabled or fails to function as designed when: (i) the equipment is required by regulation or license condition to prevent releases exceeding regulatory limits, to prevent exposures to radiation and radioactive materials exceeding regulatory limits, or to mitigate the consequences of an accident; (ii) the equipment is required to be available and operable when it is disabled or fails to function; and (iii) no redundant equipment is available and operable to perform the required safety function. 10 CFR 30.50(b)(2) (byproduct material), 10 CFR 40.60(b)(2) (source material), 10 CFR 70.50(b)(2) (special nuclear material).

Events requiring unplanned medical treatment at a medical facility of an individual with spreadable radioactive contamination on the individual's clothing or body. 10 CFR 30.50(b)(3) (byproduct material), 10 CFR 40.60(b)(3) (source material), 10 CFR 70.50(b)(3) (special nuclear material).

Events involving unplanned fire or explosion affecting integrity of material, device or container, or equipment containing licensed material when the quantity of material involved is greater than five times the lowest annual limit on intake specified in Appendix B of 10 CFR Part 20 for that material, and the damage affects the integrity of the licensed material or its container. 10 CFR 30.50(b)(4) (byproduct material), 10 CFR 40.60(b)(4) (source material), 10 CFR 70.50(b)(4) (special nuclear material).

The following events involving irradiators are reportable under 10 CFR 36.83 if not reported under other Department reporting requirements: source stuck in an unshielded position, any fire or explosion in a radiation room, damage to source racks, failure of the cable or drive mechanism used to move the source racks, inoperability of the access control system, detection of source by the product exit monitor, detection of radioactive contamination attributable to licensed radioactive material, etc. (See 10 CFR 36.83 (a)(1) through (10)) for specific descriptions of reportable events.

Notify the Department (800) 439-8550 the NRC’s Operations Center at (301) 816-5100 if the results from an FBI identification and criminal history records check indicate that an individual is identified on the FBI’s Terrorist Screening Database.

NEXT CALENDAR DAY REPORTING

Notifications and reports of medical events involving administration and use of byproduct materials, except for patient intervention events, that result in certain doses as stated 10 CFR 35.3045.

Events involving an unauthorized dose of 50 mSv (5 rem) to an embryo/fetus or a nursing child, or unintended permanent functional damage to an organ or a physiological system of a nursing child. 10 CFR 35.3047.

5 DAY REPORTING

Reporting of leaking sealed source or guide tube, leak test results ≥ 0.005 microcurie (185 Bq). 10 CFR 34.27(d).

Reports of leak test results that demonstrate the presence of 185 becquerel (0.005 microcurie) or more of removable contamination from a sealed source. 10 CFR 35.3067 (medical uses) and 10 CFR 39.35 (well logging) (See remaining paragraphs of 10 CFR 35.3067 and 39.35 for other conditions, including exemptions that apply).

30 DAY REPORTING

Reports of lost, stolen, or missing licensed material > 10 times Appendix C to 10 CFR Part 20 value and is still missing at this time (i.e., within 30 days it becomes known to the licensee). 10 CFR 20.2201(a)(1)(ii)

Radiation doses, releases, or concentrations of radioactive material that exceed the limits of 10 CFR 20. See 10 CFR 20.2203(a) for a list of reportable events.

Immediately suspend operation of a device if there is a failure of or damage to the shielding or an indication of a failure of or damage to the shielding, or the on-off mechanism or indicator, or upon detection of 185 becquerel (0.005 microcurie) or more of removable radioactive material and submit a written report within 30 days. 10 CFR 31.5(c)(5). (See 10 CFR 30.50(c)(5) for other conditions and restrictions that apply).

Radiography source disconnection, inability to retract source, or component failure (critical to safe operation of device.) 10 CFR 34.101(a).

After notification and classification that a well logging source is irretrievable, a report shall be made to the Department. 10 CFR 39.77(a), (c) and (d).

ATTACHMENT 3.2-5 TO RMPP 3.2

EXAMPLES OF REPORTABLE EVENTS

Immediately reportable under 10 CFR20.2201(a)(1)(i)	**Stolen Portable Moisture Density Gauge** Licensee [Name] [License Number] reported that a [Manufacturer] [Model #] [serial #] portable gauge containing 10 millicuries of cesium-137 and 50 millicuries of americium-241: beryllium was stolen from the licensee's vehicle parked at the licensee's facility [Address]. The gauge was padlocked in its original carrying case. The Vermont Department of Health (Department) is following the incident and working with local authorities to develop a press release. Local law enforcement and the FBI have been notified. Follow-up information will be provided to NRC on the recovery of the stolen gauge and entered into NMED.
Immediately reportable under 20.1906(d)(2)	**Shipment of Brachytherapy Sources Received with Radiation Levels Exceeding Regulatory Limits** A medical licensee [Name] [License Number] reported receiving a shipment of two packages containing cesium-137 brachytherapy sources. Radiation surveys of the packages found radiation levels of 250 millirem per hour on one package, which exceeds the Department and Federal limit at the external surface of a package of 200 millirem per hour. The third and final package was received two days later with radiation levels of 400 millirem per hour at the surface of the package. The shipper has retained a consultant to determine the cause of the elevated radiation levels. The Department will keep NRC informed of the results of the consultant's review of the event.
Reportable within 24 hours Under 10 CFR 20.2202 (b)(1)(i)	**Exposure to Non-radiation Worker at a Licensed Facility** A licensee [Name] [License Number] reported to the Department that a non-radiation worker had received an exposure as a result of picking up a 5 curie americium-241:beryllium neutron source used for well logging and placing it in his pocket. The worker, a temporary contractor's employee, was cleaning a well logging tool at the licensee's facility. (The licensee was under the assumption that all the source material had been removed from the equipment.) While cleaning the tool, the source fell out and the worker picked it up and placed it his pocket. The worker was not a radiation worker and had no knowledge of what the object was. Preliminary calculations performed by [identify Consultant/Contractor] indicate that the individual may have received a dose of 4-6 Rem. The licensee's Radiation Safety Officer (RSO) is investigating the incident. The Department plans to keep NRC informed of the ongoing results of the investigation.
Reportable within 24 hours under 10 CFR 30.50(b)(2)	**Radiography Camera Source Unable to Retract** A licensee [Name] [License Number] reported the inability to retract a 2.072 TBq (56 Ci) Ir-192 source ([Source Model #], [Serial #]) into the radiography exposure device ([Manufacturer], [Model#], [Serial #]) on [Date]. The radiographers had used a double gear control assembly throughout the day without a problem. Later, the radiographers cranked out the source to conduct an exposure and were unable to retract the source. The radiographers removed the cover

	plate on the control assembly and pulled the drive cables to retract the source into the exposure device. The device was locked, and the drive cable was disconnected from the source pigtail. The radiation area was repositioned and maintained throughout the incident. The source had been extended for approximately three minutes. The exposure device was physically inspected and determined to be in good working condition. The double gear control assembly was returned to the manufacturer. The manufacturer stated that they were unable to replicate the failure. However, they did note that the gears offered a large amount of resistance, had impurities, and that the drive cable was out of tolerance.
Reportable by next calendar day under 10 CFR Parts 35.3045(a)(1)(i) and within 24 hours under 10 CFR 30.50(b)(2)	**Medical Event Involving a Gamma Knife Malfunction** A licensee [Name] [License Number] reported that a patient only received 5% of the prescribed dose during a gamma knife procedure performed on [Date]. The RSO stated that while conducting a single fraction exposure to the patient, the computer screen froze. The patient was immediately removed from the gamma knife unit ([Manufacturer], [Model#], [Serial #]), which contained Co-60 sources ([Source Model #], [Serial #]) with a total activity of 102.34 TBq (2,766 Ci). The patient was prescribed to receive 2,000 cGy (rad) to one location and 1,500 cGy (rad) to a second location, both to be delivered simultaneously. The referring physician and patient were notified of the event. The service provider for the gamma knife responded and replaced the control unit. The manufacturer stated that the event occurred due to a computer programming problem. The timer that froze is used to display the total run time of the treatment and does not control any part of the treatment. They also stated that the treatment would have run normally had the technician not stopped it and the patient would have received the prescribed dose. The manufacturer is resolving the problem in their latest upgrade to the system.
Reportable by next calendar day under 10 CFR Part 35.3045 Note: May be classified as a potential AO.	**Medical Event Involving Prostate Brachytherapy** A licensee [Name] [License Number] reported a medical event involving a patient treated for prostate cancer. The treatment included implanting 65 I-125 brachytherapy seeds ([Manufacturer] [Model #]), containing a total activity of 0.814 GBq (22 mCi), in the patient's prostate for a prescribed therapeutic radiation dose of 14,500 cGy (rad). The prostate gland only received approximately 500 cGy (rad). The seeds were implanted on [Date] using real time dosimetry under ultrasonic guidance. On [Date], the patient returned to the facility for a 30-day post implant CT scan. The scan showed that the implanted seeds, although in an appropriate pattern, were placed outside the intended target. The Licensee's Radiation Oncology Group determined that an additional quality assurance review was warranted. The Department performed a reactive inspection during the week of [Date]. Initially, a malfunction of the ultrasound unit was suspected. That unit was re-evaluated and was determined to be working properly. The cause was determined to be human error. An unintended dose to the penile bulb of approximately 16,100 cGy (rad) was received, where no dose was anticipated. The Radiation Oncology Department suspended prostate brachytherapy treatments. Corrective

	actions included changes to the prostate brachytherapy protocol to incorporate an additional step to ensure the urologist and radiation oncologist clearly identifies the prostate gland and the surrounding anatomy. The treatment will be cancelled if the prostate gland and surrounding anatomy cannot be visualized adequately.
Written report within 30 days under 10 CFR Part 31.5(c)(5)	**A Leaking Source from a General Licensed Device** On [Date], a licensee [Name] [License Number] reported that a 555 MBq (15 mCi) Ni-63 source was leaking. The source was part of a Hewlett Packard electron capture detector ([Manufacturer], [Model#], [Serial #]). A routine wipe test of a gas chromatograph ([Manufacturer], [Model#], [Serial #]) containing two ECDs was performed on [Date] after receiving the gas chromatograph from another licensee. On [Date], the wipe test results indicated that the ECD had 222 Bq (0.006 uCi) of removable contamination wiped from the outlet port. The result of a second wipe of the same port was approximately 1.85 Bq (0.00005 uCi). The ECD was secured and stored pending disposal. The ECD was sent to the manufacturer for disposal on [Date].
Reportable within 24 hours under 10 CFR Parts 36.83(a)(9), 30.50(b)(2) (Note: since water level was later verified to be normal, this is no longer a 36.83 issue)	**Possible Loss of Water or Leakage from Source Water Pool at Irradiator Facility** Licensee [Name] [License Number] notified the Department that the controls at a Co-60 irradiator facility were indicating that the water level was low, circulating pump off, and fill valves were open. The pool water level gauge indicated pool water level of 93 inches, well below the normal level of 137 inches. Previous incidents indicated that a loss of compressed air pressure to the water level gauge could result in an erroneously low water level gauge reading, causing the automatic pool fill valves to open and the pool water circulating pump to turn off. The compressed air system pressure was found to be in the normal range, but the operator found water and congealed oil in the air line supplying the pool water level gauge and the air line supplying the elevator control valve. Further investigation found that the compressed air line water traps were full of water. A past similar incident resulted in a failure to raise the elevator. The operator then verified that the pool water level was in fact normal. The licensee requested the building maintenance personnel to diagnose and repair the compressed air supply immediately, to prevent the conductivity in the pool water from reaching abnormal levels as a result of the resin filter circulating pump being automatically turned off by the false low pool water level meter reading. Maintenance personnel responded and replaced a failed compressed air dryer and monitored the open air lines to clear the lines of water. A float activated automatic water drain was installed in the air line to prevent a possible recurrence by allowing any water to automatically drain from the air line.

ATTACHMENT 3.2-6 TO RMPP 3.2

EVENT REPORTING SCHEDULE FOR AGREEMENT STATES

IMMEDIATE

REPORTABLE EVENT NOTIFICATION[1]	AGREEMENT STATE REPORTING SCHEDULE TO NRC	REPORTING METHODS TO NRC[4]
Significant reportable events requiring **immediate notification (i.e., within 4 hours or less**[2]) by Agreement State licensees.	Agreement States should report to NRC immediately of notification by an Agreement State licensee.	Report initial information to the **NRC Operations Center**[5]: **(301) 816-5100** FAX #: (301) 816-5151 Email: HOO.HOC@nrc.gov

24 HOURS

Significant reportable events requiring notification within **24 hours or less, or next calendar day,** by Agreement State licensees.	Agreement States should report to NRC within 24 hours of notification by an Agreement State licensee.	Report initial information to the **NRC Operations Center**[5]: **(301) 816-5100** FAX #: (301) 816-5151 Email: HOO.HOC@nrc.gov
Events involving **theft or terrorist** activities should be reported to the **FBI.**[3]	Agreement States should consider reporting to the FBI within 24 hours of notification.	Report initial information to the **NRC Operations Center**[5] **(301) 816-5100** FAX #: (301) 816-5151 Email: HOO.HOC@nrc.gov

5 to 60 DAYS

5 to 60 day reportable events requiring **greater than 24-hour** notification by Agreement State licensee and event follow-up reports.	Agreement States should provide 5 to 60-day notification within the same timeframe licensees must report the event to the Agreement States, and any follow-up reports should be provided in a timely manner[6].	NMED Local Agreement State Software or NMED website at http://nmed.inl.gov/ or Mail: U.S. NRC, Branch Chief of RMSB/MSSA, Mail Stop T-8-E24, Washington, DC 20555

VOLUNTARY

Lost, stolen, or abandoned sources reported to the Agreement and Non-Agreement States that are non-AEA or unlicensed material and not covered by the above two categories.	Voluntary reporting by the Agreement States and Non-Agreement States.[7]	NMED website at http://nmed.inl.gov/ or Mail: U.S. NRC, Branch Chief of RMSB/MSSA, Mail Stop T-8-E24, Washington, DC 20555

[1]Privacy Act Information - Personal or confidential information should not be included in event descriptions (e.g., names, personal addresses, or-social security-numbers.)

[2]For example, events involving lost, actual or attempted theft, sabotage, or diversion of radioactive materials or devices containing "high-risk" sources in quantities greater than or equal to the *quantities of concern* (i.e., quantities greater than or equal to Category 2 sources listed in the International Atomic Energy Agency's Code of Conduct and as outlined in reporting requirements in 10 CFR Part 20.2201.)

[3]A revision to the U.S. Code assigns lead responsibility for material events involving possible theft or terrorist activities to the Federal Bureau of Investigation (FBI.)

[4]Sample fax to the NRC Operations Center is available in Appendix D of FSME procedure SA-300.

[5]The NRC Operations Center staff will promptly notify the appropriate Region Duty Officer (RDO) and Headquarters staff of Agreement State events. Therefore, no separate notification to other NRC staff by an Agreement State is necessary.

[6]An example of the minimum basic event information required for a complete record is provided in Appendix E of SA-300.

[7]Voluntary reporting is a joint national effort of the NRC and the Conference of Radiation Control Program Directors (CRCPD) to track certain non-AEA, unlicensed or non-reportable AEA lost and found radioactive material.

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

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 Vermont Radioactive Materials Rule.

1.2.2 U.S. DOT Special Permit SP 10656.

1.2.3 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 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.

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**.

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."

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

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.

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

- 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.

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.)

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, the RCPD or RMPM schedules a site visit to the scrap facility, point of origin, or the designated location by RMP staff to assess the incident.

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.

3.3.4 Determine level of resources needed.

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

3.3.4.2 If RMP resources are unavailable:

- 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.
- Inform contractor to provide results of investigation to the Department.

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)

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."

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 NMED 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.

5.0 ATTACHMENTS TO RMPP 3.3

None

4.7.2 Procedures for Identifying Significant Events and Submittals for Entry into the Nuclear Material Events Database

The State of Vermont has modeled its procedures for identifying significant events and submittals for entry into the Nuclear Materials Event Database (NMED) on the SA-300 Handbook *Nuclear Material Event Reporting in the Agreement States*. This is done in RMPP 3.4 *Nuclear Material Event Database (NMED) Input,* which is attached in this section of the Application. It describes how Vermont will generate event reports and submit them to NMED within required time frames and as required by regulation. Responsibilities are assigned for the completion of reports and for ensuring the quality of reports. Criteria are included for identifying abnormal occurrences that are reportable, and guidance is provided for notification, follow-up and closeout of reports.

Vermont Department of Health

Radioactive Materials Program

Procedure 3.4, Revision 0

Nuclear Material Events Database (NMED) Input

Prepared By: _____ **Date:** _____

Reviewed By: _____ **Date:** _____

Approved By: _____ **Date:** _____

Effective Date: _____

Revision	Date	Description of Changes
0		

Radioactive Materials Program Procedure 3.4, Revision 0

Nuclear Material Events Database (NMED) Input

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Nuclear Materials Event Database (NMED) Input

1.0 PURPOSE

To provide guidance for Department of Health (Department) Radioactive Materials Program (RMP) licensing and inspection personnel on the proper reporting requirements for incidents involving lost, stolen, misplaced, orphan or damaged sources, medical events, and other incidents involving radioactive material to the NRC via the Nuclear Material Events Database (NMED).

All Department staff members involved with the reporting of events to NMED shall use the guidance of SA-300 "Handbook on Nuclear Material Events Reporting in the Agreement States."

2.0 BACKGROUND

From SA-300 "At the request of the Conference of Radiation Control Program Directors (CRCPD), the Nuclear Material Events Database (NMED)…captures voluntary reports on lost and stolen events, for any type of nuclear material, as well as situations that cannot be specifically tied to a reporting requirement (such as 'found' sources that were not reported as lost, materials contaminated with radioactive material, and landfill alarm trips). The reported information aids in understanding why the events occurred and in identifying actions to help ensure public and occupational safety and security, and improves the overall effectiveness of the NRC and Agreement State regulatory programs."

Guidance is provided on:

(1) Reporting events requiring notification within 24 hours to the NRC Operations Center;
(2) Providing 5 to 30-day notification and follow-up event information;
(3) A schedule for event reporting;
(4) Reporting formats; and
(5) Providing event information for events meeting the abnormal occurrence (AO) criteria.

An accident or event will be considered an AO if it involves a major reduction in the degree of protection of public health or safety, security, and/or the environment. This type of incident or event would have a moderate or severe impact and could include, but need not be limited to the following: 1. moderate exposure to, or release of, radioactive material licensed by or otherwise regulated by the Department; 2. major degradation of essential safety-related equipment; or 3. major deficiencies in design,

construction, or use of management controls for facilities or radioactive material licensed by or otherwise regulated by the Department.

3.0 REPORTING EVENTS REQUIRING NOTIFICATION WITHIN 24 HOURS

The Department shall report events requiring notification within 24 hours to the NRC Operations Center Headquarters Operations Officer (HOO). Information should be initially reported to the HOO by telephone at (301) 816-5100. Follow-up information for the event may also be provided to the HOO by fax at (301) 816-5151 or by email at HOO.HOC@nrc.gov.

3.1 NMED Record for Events Reported Within 24 Hours

The NMED contractor uses the initial event notification (EN) information, which was provided to the NRC Operations Center from the Department, to establish a record in the national NMED database. The NMED contractor will reference the Department event reporting identification number in the record. The Department event report identification number will be reflected in the "Reference" field of the NMED record and will be used to ensure any subsequent updates are correctly associated with the initial event record. In addition, each event entered into NMED is assigned a unique NMED item number.

3.2 5 to 60-Day Event Reporting

The Department shall report events that require reporting within 5 to 60 days to the NRC. These reports may be provided in writing by mail or electronically. NRC staff encourages Agreement States to electronically report these events using the local NMED Agreement State software or the document "Upload" program on the NMED website.

(a) Assign Event Report Identification Number

The Department event report identification number should appear on all reports, including preliminary, initial notification reports (e.g., EN's), and any follow-up reports. The event report identification number should consist of the two-letter state agency ID (VT), two-digit year corresponding to the reporting year, and a sequentially assigned four-digit ID number. The event report identification number should be referenced by the Department for all telephone, electronic, or written notifications involving each specific event. The Radioactive Materials Program Manager will keep a log of event reports up to date.

(b) Basic Event Information

Appendix E of SA-300 provides a listing of the minimum event information that should be provided. When submitting an initial event report, provide as

much information as known at the time the report is prepared regarding the items listed in the Appendix.

(c) Electronic Reporting to NMED

The Department may provide an electronic NMED report to the NMED contractor by using the NMED Agreement State software, which may be downloaded from the NMED website, or by using the document "Upload" function on the NMED website.

(d) Access to NMED

A search of the nationally collected data is available on the NMED website with several drop-down, point-and-click menus available. To obtain access to NMED, contact the NRC NMED Project manager at NMEDNRC@nrc.gov.

(e) Written Event Reports

Written event reports should be sent to the Branch Chief, RMSB at the address listed in Appendix C of SA-300. Reports should be provided in an optical character recognition (OCR) format. Include an event report cover page for all written event information provided to the NRC.

Department personnel should refrain from providing information that is considered confidential (e.g., personal privacy, proprietary, or security related information, including sensitive unclassified non-safeguards information (SUNSI)). If such information is required to describe the event, the Department should provide a bracketed copy of the information that deletes such information.

3.3 Reporting Follow-up Event Information

Follow-up information for NMED reports (e.g., providing additional information regarding initial event reports) should provide the results of investigation as to what, where, when, and how the event or conditions occurred. The following items should be provided when reporting follow-up information:

(a) On a monthly basis, follow up reports through the closeout of the event should be provided in writing to the Radioactive Materials Safety Branch Chief at the address listed in Appendix C of SA-300 or electronically to the NMED contractor via the NMED website or the Department software. A complete event report should include all investigative information obtained through closeout of the event.

(b) When providing follow-up event information, provide document(s), or clear reference to documents on file that the Department used to generate the NMED event report (e.g., a licensee inspection report dated mm/dd/yyyy), if applicable and appropriate.

(c) Provide any follow-up event information that revises earlier information or provides additional information on a given event to ensure a complete historical record.

3.4 Radiological Emergency Response Assistance Available to the States

The Department may request radiological emergency response assistance by contacting the NRC's Operation Center. The Federal Government, upon request, has the capability to provide assistance to states in responding to radiological emergencies. Under the National Response Framework, NRC is the coordinating agency for domestic incident management for incidents involving nuclear materials or facilities licensed by the NRC or Agreement States

3.5 Voluntary Reporting of Lost, Stolen and Abandoned Sources

The Department should follow the guidance provided above in section 3.2, "5 to 60-Day Reporting" to report any lost, stolen, and abandoned non-Atomic Energy Act and unlicensed material.

3.6 Reporting Theft or Terrorist Activity

The U.S. Federal Bureau of Investigation (FBI) notification should be considered if an event involves the possibility of *theft or terrorist activities*. The Department will promptly notify the NRC Operations Center (i.e., the HOO) after contacting the appropriate Local Law Enforcement Agency (LLEA) and/or the FBI in cases involving actual or attempted theft, sabotage, or diversion of radioactive material containing quantities greater than or equal to the quantities of concern of radioactive material as indicated in Appendix G of SA-300. The Department should consider notifying the FBI or LLEA in all cases of actual theft, sabotage, diversions and possible terrorism of radioactive material, regardless of the quantity of radioactive material involved. This includes intentional use of radioactive materials that could be used in an unauthorized malevolent manner that could lead to serious consequences. The Department should coordinate with the NRC, their communications with other local, Federal and State Agencies, to ensure that shared information is accurate and consistent. Based on health and safety significance the Department should also consider the issuance of a press release. If it is not clear whether an event should be categorized as a possible theft or terrorist activity, the Department should contact the NRC Headquarters Operations Center for assistance in determining if the event should be reported.

If an event involves suspicious activity involving the possibility of theft, sabotage, or diversion, or the actual or attempted theft, sabotage, or diversion of Category 1 or Category 2 licensed material, as defined in as defined in Appendix A of 10 CFR 37, the Department shall promptly notify the NRC's Operation Center at

(301) 816-5100 within 4 hours of the event notification at (301) 816-5100, after contacting the appropriate local law enforcement authority.

4.0 CLOSING AND COMPLETING EVENTS

4.1 Events Closed in NMED

The Department should notify the NMED contractor when the event record has been officially closed (i.e., no further follow-up is planned and/or no additional information is expected). The Department should ensure that the record contains all pertinent technical information, including follow-up information before closing the record.

4.2 Record Complete in NMED

A "complete record" refers to an NMED record that contains a specified minimum set of information. This minimum set of information is defined in Appendix E of SA-300 and may also be found on the NMED website under "Help." Once the minimum information is provided, the NRC/NMED contractor marks the NMED record as "complete." A "complete" record still remains open in NMED until the Department has indicated the record should be closed.

5.0 AGREEMENT STATE SAFETY REVIEWS OF MATERIAL EVENT REPORTS

5.1 Agreement State Review of Material Events for Safety Significance and Generic Assessment

The Department should review events occurring in Vermont, or related to products registered or licensed in Vermont, to identify any events that may involve generic concerns or issues or could have significant impact on public health and safety, security, and/or the environment. Events that warrant such a review include:

(a) Multiple occurrences of an event (e.g., medical events, overexposures, lost or stolen sources of concern), or

(b) A single occurrence of a significant or serious event (e.g., deaths, loss of organ function, significant release to the environment), or

(c) Events involving possible generic concerns or issues (e.g., equipment malfunctions, equipment failures, inadequate user procedures, software problems), or

(d) Consequences or causal factors not previously seen in the event assessment process.

5.2 Actions Agreement States May Take after Review of Significant Events

Events identified as having a significant potential risk to public health and safety, security, and/or the environment may receive additional Department or NRC management review. The Department should continue to follow-up and review material events through the closure of the event, which includes checking to see that the final report information has been entered into NMED. Based on potential risks identified as a result of event review and analyses, the Department may take actions to reduce potential risks identified as a result of issuing safety-related notifications to licensees. The Department is encouraged to share with the NRC and other states any findings, assessments, or trending studies. These can be forwarded to the NMED Project Manager for posting on the NMED website, or distribution in the NMED newsletter and/or Agreement State Letter.

6.0 ABNORMAL OCCURRENCE GUIDELINES AND CRITERIA

Department staff should routinely screen events against the Abnormal Occurrence (AO) criteria as part of their routine program. Section 208 of the Energy Reorganization Act of 1974 defines an AO as an unscheduled incident or event that the NRC has determined to be significant from the standpoint of public health or safety. The Department will follow SA-300 Section 7 “Abnormal Occurrence Guidelines and Criteria” to routinely screen events against the AO criteria as part of the routine incident response. Any events identified as potential Abnormal Occurrences should be reported to the NRC in accordance with SA-300.