

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM  
QUESTIONNAIRE

**Reporting Period:**

Note: If there has been no change in the response to a specific question since the last IMPEP questionnaire, the State or Region may copy the previous answer, if appropriate.

**A. GENERAL**

1. Please prepare a summary of the status of the State's or Region's actions taken in response to each of the open recommendations from previous IMPEP reviews.

- **The Florida Bureau of Radiation Control has no open recommendations from the previous IMPEP review.**

**B. COMMON PERFORMANCE INDICATORS**

I. Technical Staffing and Training

2. Please provide the following organization charts, including names and positions:

- (a) A chart showing positions from the Governor down to the Radiation Control Program Director;

**See Appendix 1.**

- (b) A chart showing positions of the radiation control program, including management; and

**See Appendix 2.**

- (c) Equivalent charts for sealed source and device evaluation (Refer to question 30 for SSDE), low-level radioactive waste (N/A) and uranium recovery programs (N/A), if applicable.

3. Please provide a staffing plan, or complete a listing using the suggested format below, of the professional (technical) full-time equivalents (FTE) applied to the radioactive materials program by individual. Include the name, position, and, for Agreement States, the fraction of time spent in the following areas: administration, materials licensing & compliance, emergency response, low-level radioactive waste, uranium recovery, other. If these regulatory responsibilities are divided between offices, the table should be consolidated to include all personnel contributing to the radioactive materials program. If consultants were used to carry out the program's radioactive materials responsibilities, include their efforts.
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Name	Position	Area of Effort	FTE
Cynthia Becker	Bureau Chief	Administration/Tallahassee	30%
Kevin Kunder	Environmental Administrator	Licensing/Tallahassee	100%
Lee Thomas	Environmental Manager	Licensing/Tallahassee	100%
Joy Stephenson	Environmental Consultant	Licensing/Tallahassee	100%
Joe Major	Environmental Specialist	Licensing/Tallahassee	100%
Rowena Nash	Environmental Specialist	Licensing/Tallahassee	100%
Melissa Burns	Environmental Specialist	Licensing/Tallahassee	100%
Kimberly Farmer	Regulatory Specialist	Licensing/Tallahassee	50%
Jorge Laguna	Environmental Administrator	Inspections & Training/Tallahassee	25%
Mike Phillips	Environmental Consultant	Inspections & Training/Tallahassee	25%
Michael Stephens	Env. Health Program Consultant	Administration/Tallahassee	50%
Lisa Perazzelli	Manager	Field Inspections/Miami	18%
Frantz Nicoleau	Environmental Specialist	Field Inspections/Miami	18%
Eric Kurz	Environmental Specialist	Field Inspections/Miami	18%
Obinna Madubuike	Environmental Specialist	Field Inspections/Miami	18%
Jorge Estevez	Environmental Specialist	Field Inspections/Miami	18%
Mike Leiba	Environmental Specialist	Field Inspections/Lantana	18%
Nicholas Pospishil	Environmental Consultant	Field Inspections/Lantana	18%
Karmin Cordero	Environmental Specialist	Field Inspections/Central	18%
Dave Ganesh	Environmental Specialist	Field Inspections/Central	18%
Dan Borek	Manager	Field Inspections/Ft. Myers	18%
Gordon Hastings	Environmental Specialist	Field Inspections/Ft. Myers	18%
Lloyd Fontaine	Environmental Specialist	Field Inspections/Ft. Myers	18%
Janie Locke	Environmental Specialist	Field Inspections/Ft. Myers	18%
Sandra Rosevelt	Environmental Specialist	Field Inspections/Tampa	18%
Thomas Adams	Environmental Specialist	Field Inspections/Tampa	18%
John Jordan	Environmental Specialist	Field Inspections/Tampa	18%
Robert Larson	Environmental Specialist	Field Inspections/Tampa	18%
Kenneth Barnhart	Environmental Specialist	Field Inspections/Tampa	18%
Alfredo Ortega	Environmental Specialist	Field Inspections/Tampa	18%
Robert Latham	Manager	Field Inspections/Orlando	18%
Randy Clayton	Environmental Specialist	Field Inspections/Orlando	18%
Hector Serrano	Environmental Specialist	Field Inspections/Orlando	18%
Michelle Vornhagen	Environmental Specialist	Field Inspections/Orlando	18%
Leo Bakersmith	Environmental Consultant	Field Inspections/Orlando	18%
Paul Pavlick	Manager	Field Inspections/Jacksonville	18%
Mark Cornwell	Environmental Specialist	Field Inspections/Pensacola	18%
Karen Mercorella	Environmental Specialist	Field Inspections/Jacksonville	18%
Steve Furnace	Environmental Specialist	Field Inspections/Jacksonville	18%
Wendy Gann	Environmental Specialist	Field Inspections/Jacksonville	18%
Brian Crawford	Environmental Specialist	Field Inspections/Tallahassee	18%
John Williamson	Environmental Administrator	Emergency Response/Orlando	*
Reno Fabii	Manager	Emergency Response/Orlando	*

Name	Position	Area of Effort	FTE
Tim Dunn	Manager	Emergency Response/Orlando	*
Mark Seidensticker	Manager	Emergency Response/Orlando	*
Matthew Senison	Environmental Specialist	Emergency Response/Orlando	50%
Paul Norman	Environmental Specialist	Emergency Response/Orlando	*
David Pieski	Environmental Consultant	Emergency Response/Orlando	*
Clark Connelly/ Jason Nicholson	Environmental Specialist	LLRW/Orlando	100%
Raymond Marciano/ David Pascarella	Chemist	Sample Analysis/Orlando	100%

\*routinely rotate on-call for response to radiation emergencies.

4. Please provide a listing of all new professional personnel hired into your radioactive materials program since the last review, indicate the date of hire; the degree(s) they received, if applicable; additional training; and years of experience in health physics or other disciplines, as appropriate.

EMPLOYEE	DATE OF HIRE	DEGREE	ADDITIONAL EXPERIENCE	YEARS OF EXP
Melissa Burns	6/16/17	AA & AS - Radiologic Technology	<ul style="list-style-type: none"> <li>BRC Incident Response and Applied Radiation Physics (December 2017)</li> <li>NRC Nuclear Medicine (May 2018)</li> <li>NRC Intro to Health Physics (April 2018)</li> <li>FEMA-RERO (August 2018)</li> </ul>	6
Kevin Kunder	4/05/19	BS	ARRT Certified Technologist, Certified Nuclear Medicine Technologist	31

5. Please list all professional staff who have not yet met the qualification requirements for a radioactive materials license reviewer or inspector. For each, list the courses or equivalent training/experience they need and a tentative schedule for completion of these requirements.
- All license evaluators have completed the required training.**
6. Identify any changes to your qualification and training procedure that occurred during the review period.
- None.**
7. Please identify the technical staff that left your radioactive materials program during the review period and indicate the date they left.
- David Whitman 9/20/18;**
  - Charlie Hamilton 11-26-18;**
  - Gan Preamplume 1-9-2019**
8. List any vacant positions in your radioactive materials program, the length of time each position

has been vacant, and a brief summary of efforts to fill the vacancy.

- **Environmental Specialist III- vacant since 5/10/19.**

9. For Agreement States, does your program have an oversight board or committee which provides direction to the program and is composed of licensees and/or members of the public? If so, please describe the procedures used to avoid any potential conflict of interest.
- **Advisory Council on Radiation Protection: Florida uses a 16-member advisory council to provide recommendations to the program. The Advisory Council on Radiation Protection is made up of the following disciplines: board certified chiropractic radiologist, board certified podiatrist, board certified radiological physicist, board certified therapeutic radiologist or board certified radiation oncologist, two lay persons who have no radiological background, certified radiologic technologist-radiographer, certified radiologic technologist-nuclear medicine, certified radiologic technologist-therapy, basic x-ray machine operator or licensed practitioner who employs same, certified health physicist, expert in environmental matters, representative from the administration of a hospital affiliated with a radiologic technology education program, board certified radiologist, and a board certified nuclear medicine physician. Since this is an advisory council and can only make recommendations there is no conflict of interest.**

## II. Status of Materials Inspection Program

10. Please identify individual licensees or categories of licensees the State is inspecting less frequently than called for in NRC's Inspection Manual Chapter (IMC) 2800 and explain the reason for the difference. The list only needs to include the following information: license category or licensee name and license number, your inspection interval, and rationale for the difference.
- **Florida's categories of licensure are inspected the same or more frequently than NRC's.**
11. Please provide the number of routine inspections of Priority 1, 2, and 3 licensees, as defined in IMC 2800 and the number of initial inspections that were completed during each year of the review period.
- **See Appendix 3. "2019 IMPEP Initial and Routine Inspections". Note: Florida Bureau of Radiation Control's Priorities 1, 2, 3, and 4 is equivalent to NRC's Priorities 1, 2, and 3.**
12. Please submit a table, or a computer printout, that identifies inspections of Priority 1, 2, and 3 licensees and initial inspections that were conducted overdue.

At a minimum, the list should include the following information for each inspection that was conducted overdue during the review period:

- (1) Licensee Name
- (2) License Number
- (3) Priority (IMC 2800)
- (4) Last inspection date or license issuance date, if initial inspection
- (5) Date Due
- (6) Date Performed
- (7) Amount of Time Overdue
- (8) Date inspection findings issued

- **None.**

13. Please submit a table or computer printout that identifies any Priority 1, 2, and 3 licensees-and initial inspections that are currently overdue, per IMC 2800. At a minimum, the list should include the same information for each overdue inspection provided for Question 12 plus your action plan for completing the inspection. Also include your plan for completing the overdue inspections.

- **There are no overdue inspections.**

14. Please provide the number of reciprocity licensees that were candidates for inspection per year as described in IMC 1220 and indicate the number of reciprocity inspections of candidate licensees that were completed each year during the review period.

### IMPEP 2019

#### Reciprocity Reporting Period 2015-2019

NRC Priority	Number of Licensees Granted Reciprocity Permits Each Year		Number of Licensees Inspected Each Year	
Licensees performing teletherapy and irradiator source installations or changes	2015	9	2015	5
	2016	11	2016	7
	2017	9	2017	8
	2018	9	2018	7
	2019	5	2019	0
1 Industrial Radiography	2015	6	2015	3
	2016	11	2016	7
	2017	7	2017	2
	2018	7	2018	2
	2019	4	2019	1
2 Broad Scope	2015	2	2015	0
	2016	3	2016	0
	2017	0	2017	0
	2018	0	2018	0
	2019	0	2019	0
3 Well Logging Mobile Med	2015	6	2015	0
	2016	2	2016	0
	2017	2	2017	0
	2018	5	2018	0
	2019	6	2019	0
4 Portable Gauge Fixed Gauge Nuclear Service	2015	26	2015	7
	2016	27	2016	3
	2017	36	2017	12
	2018	32	2018	7
	2019	12	2019	2
All Other	2015	10	2015	6
	2016	7	2016	7
	2017	9	2017	2
	2018	9	2018	3
	2019	18	2019	3

III. Technical Quality of Inspections

15. What, if any, changes were made to your written inspection procedures during the reporting period?
- **None**
16. Prepare a table showing the number and types of supervisory accompaniments made during the review period. Include:
- | <u>Inspector</u>   | <u>Supervisor</u> | <u>License Category</u> | <u>Date</u> |
|--|-------------------|-------------------------|-------------|
| <ul style="list-style-type: none"><li>• <b>See Appendix 4.</b></li></ul> |                   |                         |             |
17. Describe or provide an update on your instrumentation, methods of calibration, and laboratory capabilities. Are all instruments properly calibrated at the present time? Were there sufficient calibrated instruments available throughout the review period?
- **See Appendix 5.**

IV. Technical Quality of Licensing Actions

18. How many specific radioactive material licenses does your program regulate at this time?
- **The Florida Bureau of Radiation Control has 1,645 specific licenses as of 11/27/18.**
19. Please identify any major, unusual, or complex licenses which were issued, received a major amendment, were terminated, decommissioned, submitted a bankruptcy notification or renewed in this period.
- **Covidien, LP, category 3F(III) large irradiator license 3007-1 was terminated in 2017 and issued a new license to eventual licensee KPR US, LLC 4588-1 within a two-month period due to two changes of ownership.**
  - **Jubilant Draximage Radiopharmacies, Inc., License 4587-7 located in Panama City terminated in 2018 due to damage from Hurricane Michael.**
20. Discuss any variances in licensing policies and procedures or exemptions from the regulations granted during the review period.
- **No variances in licensing policies and procedures or exemptions from the regulations were granted during the review period.**
21. What, if any, changes were made in your written licensing procedures (new procedures, updates, policy memoranda, etc.) during the reporting period?
- **Revision to medical and pharmacy templates to add a condition for two new types of generators, the Rb-82 Ruby-Fill and Ga-68 GalliaPharm, respectively.**
  - **Revisions 13 through 15 of Florida Administrative Code 64E-5 dated June 3, 2015, July 1, 2015, and March 31, 2016, respectively. Copies of the regulations are available at [FLHealth.gov/radiation](http://FLHealth.gov/radiation).**
22. Identify by licensee name and license number any renewal applications that have been pending for one year or more. Please indicate why these reviews have been delayed and describe your action plan to reduce the backlog.

- **Currently no renewal licenses pending for more than one year. License number 911-1 became pending for more than one year during the review period from October 2016 to November 2017 but was subsequently terminated.**

V. Technical Quality of Incident and Allegation Activities

23. For Agreement States, please provide a list of any reportable incidents not previously submitted to NRC (See Procedure SA-300, *Reporting Material Events*, for additional guidance, OMB clearance number 3150-0178). The list should be in the following format:

<u>Licensee Name</u>	<u>License #</u>	<u>Date of Incident/Report</u>	<u>Type of Incident</u>
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- **None**

24. Identify any changes to your procedures for responding to incidents and allegations that occurred during the period of this review.

- **See Attachment 6**

C. **NON-COMMON PERFORMANCE INDICATORS**

I. Compatibility Requirements

25. Please list all currently effective legislation that affects the radiation control program. Denote any legislation that was enacted or amended during the review period.

- **None**

26. Are your regulations subject to a "Sunset" or equivalent law? If so, explain and include the next expiration date for your regulations.

- **N/A**

27. Please review and verify that the information in the enclosed State Regulation Status (SRS) sheet is correct. For those regulations that have not been adopted by the State, explain why they were not adopted, and discuss actions being taken to adopt them. If legally binding requirements were used in lieu of regulations and they have not been reviewed by NRC for compatibility, please describe their use.

- The Bureau is drafting language for the proposed regulations. The States administrative rulemaking process usually takes approximately 12-18 months. Previous administration directives have greatly increased this time frame over the review period. We anticipate the time frame will go back to normal pending legislative changes to the rulemaking process proposed this session.

28. If you have not adopted all amendments within three years from the date of NRC rule promulgation, briefly describe your State's procedures for amending regulations in order to maintain compatibility with the NRC, showing the normal length of time anticipated to complete each step.

- Rule Development:

The program submits a Notice to Develop Rulemaking to the Department. The Department sends it to the Office of Program Policy Analysis and Government

Accountability (OFARR) in the Governor's Office for review and approval. Once permission is given, the Department publishes a Notice to Develop Rulemaking in the Florida Administrative Register (FAR) for a period of 21 days offering to hold a rule development workshop. If a workshop is requested it is published in the FAR a minimum of seven days prior to the workshop providing the date, time and location of the workshop. The Notice of Proposed Rulemaking must be published within one year from the Notice of Rule Development.

- Rule Proposal:

After the workshop (if held) any substantive changes or comments acceptable to the program are incorporated in the proposed regulations. The program drafts proposed regulations which receive Department level review (~1-9 months). The Department sends it to OFARR for review and approval. Once permission is given, the Department publishes a Notice of Proposed Rulemaking in FAR for a period of 21 days offering to hold a public hearing about the proposed regulations. If a hearing is requested, it is noticed in the FAR a minimum of seven days prior to the hearing providing date, time and location of the hearing.

- Adoption:

Following the 21-day notification period or the hearing (if held) and no substantive changes are requested by the public or Joint Administrative Procedures Committee (JAPC), the program prepares documents for certification of the regulations and documents incorporated by reference. The Department submits these documents to JAPC who has seven days to review/approve. Providing there are no additional comments or changes required by JAPC, regulations are filed with the Florida Department of State. The final regulations must be filed no less than 28 days and no more 90 days of the Notice of Proposed Rulemaking.

Additional timeframes are outlined in Chapter 120, Florida Statutes for scenarios requiring public hearings and legislative ratification, for example.

## II. Sealed Source and Device (SS&D) Evaluation Program

29. Prepare a table listing new and amended (including transfers to inactive status) SS&D registrations of sources and devices issued during the review period. The table heading should be:

SS&D Manufacturer, Registry <u>Number</u>	Distributor or Custom User	Product Type or Use	Date Issued	Type of Action
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New and Amended Florida SS&D Registrations since February 2015

SS&D Registry Number	Manufacturer, Distributor or Custom User	Product Use and Type	Date Issued	Type of Action	FL SS&D License and (RML License)
FL-1334-D-101-G	City Labs, Inc.	(T) Other, Power Generation; Device	11/16/2017 2/10/2017	Revision 5 Revision 4	4230-R1 (4230-1)
FL-1399 -D-101-S	Northrop Grumman Guidance & Electronics Company, Inc.  DRS Network and Imaging Systems, LLC	(O) Ion Generators, Static Eliminators; Device	5/7/2015	Revision 0	4466-R1 (4466-1)  4466-R1 (4467-1)
FL-0113-D-101-G	Elena Research, LLC	(E) Beta Gauge; Device	None 9/17/2012	Revision 0	4340-R1 (4340-1)
FL-1146-S-101-S	IsoAid, LLC.	(AA) Manual Brachytherapy; Source	1/17/2017 5/5/2016	Revision 5 Revision 4	3196-R1 (3196-1)
FL-1146-S-102-S	IsoAid, LLC	(AA) Manual Brachytherapy; Source	5/5/2016	Revision 3	3196-R2 (3196-1)

30. Please include information on the following questions in Section A, as they apply to the SS&D Program:

Technical Staffing and Training - Questions 2-9

- **See responses for Questions 2-9**

Technical Quality of Licensing Actions - Questions 18-22

- **See responses for Questions 18-22**

Technical Quality of Incident and Allegation Activities - Questions 23-24

- **See responses for Questions 23-24**
- **Mike Stephens and Joy Stephenson have attended SSDR courses and workshops in addition to receiving and using copies of the SSDR workshop training materials as reference materials. (Appendix 7 Notebook)**

III. Low-level Radioactive Waste Disposal Program

31. Please include information on the following questions in Section A, as they apply to the Low-Level Radioactive Waste Disposal Program:

Technical Staffing and Training - Questions 2-9  
Status of Materials Inspection Program - Questions 10-14  
Technical Quality of Inspections - Questions 15-17  
Technical Quality of Licensing Actions - Questions 18-22  
Technical Quality of Incident and Allegation Activities - Questions 23-24

- **N/A**

IV. Uranium Recovery Program

32. Please include information on the following questions in Section A, as they apply to the Uranium Recovery Program:

- **N/A**

Technical Staffing and Training - Questions 2-9  
Status of Materials Inspection Program - Questions 10-14  
Technical Quality of Inspections - Questions 15-17  
Technical Quality of Licensing Actions - Questions 18-22  
Technical Quality of Incident and Allegation Activities - Questions 23-24

MATERIALS REQUESTED TO BE AVAILABLE FOR  
THE ON-SITE PORTION OF AN IMPEP REVIEW

Please have the following information available for use by the IMPEP review team when they arrive at your office:

- **All materials and documents created and available at J: MATLS/COMMON/2019 IMPEP (See Appendix 8 Directory of Files).**
- List of open license cases, with date of original request, and dates of follow-up actions.
- List of licenses terminated during review period.
- Copy of current log or other document used to track licensing actions.
- List of all licensing actions completed during the review period (sorted by license reviewer, if possible).
- Copy of current log or other document used to track inspections.
- List of all inspections completed during the review period (sorted by inspector, if possible).
- List of inspection frequencies by license type.
- List of all allegations occurring during the review period. Show whether the allegation is open or closed and whether it was referred by NRC.
- List of all licenses that your agency has imposed additional security requirements upon.

ALSO, PLEASE HAVE THE FOLLOWING DOCUMENTS AVAILABLE:

1. All State regulations (Appendix 9 placeholder)
2. Statutes affecting the regulatory authority of the State program (Appendix 10)
3. Standard license conditions (Appendix 11)
4. Technical procedures for licensing, model licenses, review guides (Appendix 12)
5. SS&D review procedures, guides, and standards (See appendix 7)
6. Instrument calibration records (See Appendix 5)
7. Inspection procedures and guides (Appendix 13)
8. Inspection report forms Jorge (**Electronic Appendix 14 placeholder**)
9. Documented training plan, if applicable (Appendix 15)
10. Records of results of supervisory accompaniments of inspectors (Appendix 4)
11. a. Emergency plan and communications list (Appendix 16)  
b. Procedures for investigating allegations  
c. Procedures for investigating incidents
12. Enforcement procedures, including procedures for escalated enforcement, severity levels, civil penalties (as applicable) (Appendix 17)
13. Job descriptions (Appendix 18) [materials; inspectors (sample of each) all of John's group as applicable, Cindy, Mike S. and Mike P.]

# APPENDIX 3

- RAM LICENSE  
INSPECTION FREQUENCY
- RAM LICENSE
- INITIAL AND ROUTINE  
INSPECTION (PRIORITY  
1,2,3 AND 4)

# Radioactive Materials License Inspection Frequency

October 10, 2010

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## I. INITIAL SPECIFIC LICENSE INSPECTIONS

- A. Priority I initial license inspections must be performed within **1 month** of the license issuance date.
- B. Specific licenses issued due to a change in "person" as defined and required in Chapter 404, Florida Statutes, or due to a majority change in ownership or controlling interest shall be scheduled for inspection 6 months from the license issuance date. **These initial inspections must be performed no later than the end of the calendar quarter of the assigned inspection date.** For example, license issuance date is 7/7/07, inspection date assigned is 1/7/08, the inspection must be performed before 3/31/08.
- C. Other specific licenses **must be inspected within 6 months of the license issuance date.** These licenses shall be scheduled for the initial inspection so that they are inspected within 6 months of the license issuance date or the end of the calendar quarter, whichever comes first. For example, a license issued 1/1/06 must be inspected before 7/1/06, therefore, it will be scheduled for inspection in the 2<sup>nd</sup> calendar quarter of 2006 so it will be due no later than 6/30/06. Another example, a license issued 3/15/06 must be inspected before 9/15/06. Therefore, it is assigned an inspection date in the 2<sup>nd</sup> quarter not in the 3<sup>rd</sup> quarter because it must be inspected before 9/15 and a 3<sup>rd</sup> quarter due date would allow it to be inspected beyond this date.

II. ROUTINE RADIOACTIVE MATERIALS LICENSE INSPECTIONS: Routine radioactive materials license inspections are scheduled in accordance with the priority indicated in TABLE 1 below. These inspections must be performed no later than the end of the calendar quarter in which the inspection is due.

III. ESCALATED RADIOACTIVE MATERIALS LICENSE INSPECTIONS: Except as identified by the Radioactive Materials Section Administrator, all escalated radioactive materials license inspections must be performed no later than the end of the calendar quarter in which the inspection is due.

IV. MISCELLANEOUS INSPECTIONS SUCH AS INVESTIGATIONS, ALLEGATIONS, INCIDENTS CLOSE OUT SURVEYS, ETC., INVOLVING RADIOACTIVE MATERIALS LICENSES: These licenses will be inspected by a date determined by the Radioactive Materials Section Administrator or Inspection Coordinator and will be assigned as deemed necessary by the Program. This inspection is independent of any visit required by HSERE for determining initial health and safety issues.

# Radioactive Materials License Inspection Frequency

October 10, 2010

## V. RECIPROCITY INSPECTIONS

- A. All licensees requesting reciprocity **MUST BE INSPECTED AS INDICATED** in Item B below. Except as noted below, every effort will be made to inspect the license on the **FIRST** entry into Florida.

At the direction of the HSERM Administrator, the Reciprocity Coordinator shall identify each reciprocity entry that must be inspected. Should the Inspection Supervisor determine they are not able to perform this inspection, justification must be provided.

Although some types of reciprocity inspections will be concentrated in certain areas because that is where the work is located (e.g., industrial radiography, well logging, etc.), every effort will be made to spread these inspection throughout the state so as not to focus on any one inspection office.

### B. Reciprocity Inspection Priority

#### 1. 50 % of Priority I and II Licenses

License Category	Category Description
3A	Licenses for processing or manufacturing for commercial distribution or industrial uses
3B	Licenses for processing or manufacturing and distribution of radiopharmaceuticals. This category includes radiopharmacies
3C	Licenses for industrial radiography performed only in an approved shielded radiography installation
3D	Licenses for industrial radiography performed only at the address indicated in the license, or at temporary job sites of the licensee
3E	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials where the source is not removed from the shield and is less than 10,000 curies
3F(II)	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials when the source is greater than 100,000 curies and less than 1,000,000 curies
3F(III)	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials when the source is greater than 1,000,000 curies
3G	Licenses issued to distribute items containing radioactive materials to persons under a general license
3M(II)	Licenses of broad scope – Medical
5A(I)	Teletherapy or gamma stereotactic radiosurgery including gamma knife
5A(II)	High dose rate remote afterloading devices
5A(III)	High dose rate remote afterloading devices and gamma stereotactic radiosurgery including gamma knife devices or teletherapy devices
5F(II)	Mobile high dose rate remote afterloading therapy device when the treatment is only performed on the mobile vehicle
3J	Nuclear Laundry
4A	Commercial waste disposal or treatment facilities, including burial or incineration
4B	All other commercial facilities involving compaction, repackaging storage or transfer
4C	Commercial treatment of radioactive materials for release to unrestricted areas
NONE	Licensees with a History of Severe or Numerous Items of Noncompliance

# Radioactive Materials License Inspection Frequency

**October 10, 2010**

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Due to the potential health, safety, and environment issues, an effort shall be made to inspect these licenses on ADDITIONAL reciprocity entries.

# Radioactive Materials License Inspection Frequency

October 10, 2010

## 2. 50 % of Priority III Licenses

License Category	Category Description
2B	Licenses for use of SNM not sufficient to form a critical mass, except as in 2.a., above, and 2.c. and 5.e., below
3F(I)	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials when the source is not removed from the shield and is greater than 10,000 curies and less than 100,000 curies or where the source is less than 100,000 curies and is removed from the shield
3I(I)	Sealed sources or sub-surface tracer studies
3I(II)	Sub-surface tracer studies and sealed sources
3K	Industrial or Medical Research and Development
3L(III)	Academic
3M(I)	Licenses of broad scope -- Academic
3M(III)	Licenses of broad scope -- Industrial or Research and Development
5B	Medical institutions, including hospitals, except category 5A(I), 5A(II), 5A(III), 5F(I) and 5F(II)
5F(I)	Mobile nuclear medicine services

## 3. 30 % of Priority IV Licenses

License Category	Category Description
1C	All other specific source material licenses excluding depleted uranium used as shielding and counterweights
2A	Licenses for use of SNM in sealed sources contained in devices used in measuring systems
3H	Fixed gauging devices
3L(I)	Portable gauging devices
3L(II)	In Vitro and clinical laboratory
3L(IV)	Possession or uranium or thorium, or their decay products as a result of mining or processing
3L(V)	All other specific license except otherwise noted
3P	Nuclear service licenses, such as, leak testing, instrument calibration, etc.
5C	Private practice physicians except category, except category 5A(I), 5A(II), 5A(III), 5F(I) and 5F(II)
5D	Private practice physicians using only strontium 90 eye applicators, materials authorized by 64E-5.631, and materials authorized by 64E-5.630
5E	Nuclear powered pacemakers
6	Civil defense

## 4. 25 % of Priority V Licenses

License Category	Category Description
2C	Licensed for use of SNM to be used as calibration and reference sources
3N	Gas chromatography devices
3O	Reference or calibration sources equal to or less than one millicurie total



# Radioactive Materials License Inspection Frequency

October 10, 2010

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- 5      10 % of licenses not listed above

Every effort shall be made to inspect these companies on the FIRST reciprocity entry.

6.      100 percent of the following:

- a.      Licenses that are in the state longer than 21 consecutive calendar days; or
- b.      Service licensees who perform teletherapy, HDR, gamma stererotactic surgery, and panoramic irradiator source installations, changes, and removals.

# Routine Radioactive Materials License Inspection Frequency

## Table 1 (Sorted By inspection Priority)

Frequency (years)	Priority	License Category	Category Description
0.5	I	3J	Nuclear Laundry
0.5	I	4A	Commercial waste disposal or treatment facilities, including burial or incineration
0.5	I	4B	All other commercial facilities involving compaction, repackaging storage or transfer
0.5	I	4C	Commercial treatment of radioactive materials for release to unrestricted areas
0.5	I	NONE	Temporary Controlled Areas Established Offsite by Nuclear Utilities or Their Contractors
0.5	I	NONE	Licensees with a History of Severe or Numerous Items of Noncompliance
1	II	1A	Licenses for concentration of uranium from phosphate ores for the production of uranium as "yellow cake" or powdered solid
1	II	1B	License for concentration of uranium from phosphate ores for the production of "green cake" or equivalent, moist or solid
1	II	3A	Licenses for processing or manufacturing for commercial distribution or industrial uses
1	II	3B	Licenses for processing or manufacturing and distribution of radiopharmaceuticals. This category includes radiopharmacies.
1	II	3C	Licenses for industrial radiography performed only in an approved shielded radiography installation
1	II	3D	Licenses for industrial radiography performed only at the address indicated in the license, or at temporary job sites of the licensee
1	II	3E	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials where the source is not removed from the shield and is less than 10,000 curies;
1	II	3F(II)	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials when the source is greater than 100,000 curies and less than 1,000,000 curies
1	II	3F(III)	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials when the source is greater than 1,000,000 curies
1	II	3G	Licenses issued to distribute items containing radioactive materials to persons under a general license
1	II	3M(II)	Licenses of broad scope – Medical
1	II	5A(I)	Teletherapy or gamma stereotactic radiosurgery including gamma knife
1	II	5A(II)	High dose rate remote afterloading devices
1	II	5A(III)	High dose rate remote afterloading devices and gamma stereotactic radiosurgery including gamma knife devices or teletherapy devices
1	II	5F(II)	Mobile high dose rate remote afterloading therapy device when the treatment is only performed on the mobile vehicle
2	III	2B	Licenses for use of SNM not sufficient to form a critical mass, except as in 2.a., above, and 2.c. and 5.e.
2	III	3F(I)	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials when the source is not removed from the shield and is greater than 10,000 curies and less than 100,000 curies or where the source is less than 100,000 curies and is removed from the shield

# Routine Radioactive Materials License Inspection Frequency

## Table 1 (Sorted By inspection Priority)

Frequency (years)	Priority	License Category	Category Description
2	III	3L(I)	Sealed sources or sub-surface tracer studies
2	III	3L(II)	Sub-surface tracer studies and sealed sources
2	III	3K	Industrial or Medical Research and Development
2	III	3L(III)	Academic
2	III	3M(I)	Licenses of broad scope -- Academic
2	III	3M(III)	Licenses of broad scope -- Industrial or Research and Development
2	III	5B	Medical institutions, including hospitals, except category 5A(I), 5A(II), 5A(III), 5F(I) and 5F(II)
2	III	5F(I)	Mobile nuclear medicine services
3	IV	1C	All other specific source material licenses excluding depleted uranium used as shielding and counterweights.
3	IV	2A	Licenses for use of SNM in sealed sources contained in devices used in measuring systems;
3	IV	3H	Fixed gauging devices
3	IV	3L(I)	Portable gauging devices
3	IV	3L(II)	In Vitro and clinical laboratory
3	IV	3L(IV)	Possession or uranium or thorium, or their decay products as a result of mining or processing
3	IV	3L(V)	All other specific license except otherwise noted
3	IV	3P	Nuclear service licenses, such as, leak testing, instrument calibration, etc.;
3	IV	5C	Private practice physicians except category, except category 5A(I), 5A(II), 5A(III), 5F(I) and 5F(II)
3	IV	5D	Private practice physicians using only strontium 90 eye applicators, materials authorized by 64E-5.631, and materials authorized by 64E-5.630
3	IV	5E	Nuclear powered pacemakers
3	IV	6	Civil defense
4	V	2C	Licensed for use of SNM to be used as calibration and reference sources
4	V	3N	Gas chromatography devices
4	V	3O	Reference or calibration sources equal to or less than one millicurie total
10	VI	GENERAL LICENSES	1. Gauges general licensees 2. In Vitro general licensees
N/A*	N/A*	7	Device, product, or sealed source safety evaluation. * Inspection frequency determined by license category of the device evaluated

# Routine Radioactive Materials License Inspection Frequency

## Table 1 (Sorted By License Category)

Frequency (years)	Priority	License Category	Category Description
1	II	1A	Licenses for concentration of uranium from phosphate ores for the production of uranium as "yellow cake" or powdered solid
1	II	1B	License for concentration of uranium from phosphate ores for the production of "green cake" or equivalent, moist or solid
3	IV	1C	All other specific source material licenses excluding depleted uranium used as shielding and counterweights
3	IV	2A	Licenses for use of SNM in sealed sources contained in devices used in measuring systems
2	III	2B	Licenses for use of SNM not sufficient to form a critical mass, except as in 2.a., above, and 2.c. and 5.e.
4	V	2C	Licensed for use of SNM to be used as calibration and reference sources
1	II	3A	Licenses for processing or manufacturing for commercial distribution or industrial uses
1	II	3B	Licenses for processing or manufacturing and distribution of radiopharmaceuticals. This category includes radiopharmacies.
1	II	3C	Licenses for industrial radiography performed only in an approved shielded radiography installation
1	II	3D	Licenses for industrial radiography performed only at the address indicated in the license, or at temporary job sites of the licensee
3	IV	3E	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials where the source is not removed from the shield and is less than 10,000 curies
2	III	3F(I)	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials when the source is not removed from the shield and is greater than 10,000 curies and less than 100,000 curies or where the source is less than 100,000 curies and is removed from the shield
1	II	3F(II)	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials when the source is greater than 100,000 curies and less than 1,000,000 curies
1	II	3F(III)	Licenses for possession and use of radioactive materials in sealed sources for irradiation of materials when the source is greater than 1,000,000 curies
1	II	3G	Licenses issued to distribute items containing radioactive materials to persons under a general license
2	III	3H	Fixed gauging devices
2	III	3I(I)	Sealed sources or sub-surface tracer studies
2	III	3I(II)	Sub-surface tracer studies and sealed sources
0.5	I	3J	Nuclear Laundry
2	III	3K	Industrial or Medical Research and Development
3	IV	3L(I)	Portable gauging devices
3	IV	3L(II)	In Vitro and clinical laboratory
2	III	3L(III)	Academic

# Routine Radioactive Materials License Inspection Frequency

## Table 1 (Sorted By License Category)

Frequency (years)	Priority	License Category	Category Description
3	IV	3L(IV)	Possession or uranium or thorium, or their decay products as a result of mining or processing
3	IV	3L(V)	All other specific license except otherwise noted
2	III	3M(I)	Licenses of broad scope -- Academic
1	II	3M(II)	Licenses of broad scope -- Medical
2	III	3M(III)	Licenses of broad scope -- Industrial or Research and Development
4	V	3N	Gas chromatography devices
4	V	3O	Reference or calibration sources equal to or less than one millicurie total
3	IV	3P	Nuclear service licenses, such as, leak testing, instrument calibration, etc.
0.5	I	4A	Commercial waste disposal or treatment facilities, including burial or incineration
0.5	I	4B	All other commercial facilities involving compaction, repackaging storage or transfer
0.5	I	4C	Commercial treatment of radioactive materials for release to unrestricted areas
1	II	5A(I)	Teletherapy or gamma stereotactic radiosurgery including gamma knife
1	II	5A(II)	High dose rate remote afterloading devices
1	II	5A(III)	High dose rate remote afterloading devices and gamma stereotactic radiosurgery including gamma knife devices or teletherapy devices
2	III	5B	Medical institutions, including hospitals, except category 5A(I), 5A(II), 5A(III), 5F(I) and 5F(II)
3	IV	5C	Private practice physicians except category, except category 5A(I), 5A(II), 5A(III), 5F(I) and 5F(II)
3	IV	5D	Private practice physicians using only strontium 90 eye applicators, materials authorized by 64E-5.631, and materials authorized by 64E-5.630
3	IV	5E	Nuclear powered pacemakers
2	III	5F(I)	Mobile nuclear medicine services
1	II	5F(II)	Mobile high dose rate remote afterloading therapy device when the treatment is only performed on the mobile vehicle
3	IV	6	Civil defense
0.5	I	NONE	Temporary Controlled Areas Established Offsite by Nuclear Utilities or Their Contractors
0.5	I	NONE	Licenses with a History of Severe or Numerous Items of Noncompliance
10	VI	GENERAL LICENSES	1. Gauges general licensees 2. In Vitro general licensees

## Initial and Routine Inspection (Priority 1, 2, 3 and 4)

Inspection Year	Inspection Type	Totals
<b>2015</b>		<b>581</b>
	<i>All (except) field</i>	26
	<i>Field only</i>	1
	<i>Initial/full</i>	39
	<i>Initial/partial</i>	1
	<i>Reinspection</i>	1
	<i>Routine/full</i>	503
	<i>Routine/partial</i>	10
<b>2016</b>		<b>704</b>
	<i>All (except) field</i>	20
	<i>Field only</i>	1
	<i>Initial/full</i>	75
	<i>Initial/partial</i>	3
	<i>Reinspection</i>	0
	<i>Routine/full</i>	596
	<i>Routine/partial</i>	9
<b>2017</b>		<b>689</b>
	<i>All (except) field</i>	31
	<i>Field only</i>	2
	<i>Initial/full</i>	78
	<i>Initial/partial</i>	6
	<i>Reinspection</i>	0
	<i>Routine/full</i>	559
	<i>Routine/partial</i>	13

Inspection Year	Inspection Type	Totals
<b>2018</b>		<b>719</b>
	<i>All (except) field</i>	44
	<i>Field only</i>	1
	<i>Initial/full</i>	43
	<i>Initial/partial</i>	2
	<i>Reinspection</i>	0
	<i>Routine/full</i>	618
	<i>Routine/partial</i>	11
<b>2019</b>		<b>297</b>
	<i>All (except) field</i>	18
	<i>Field only</i>	0
	<i>Initial/full</i>	26
	<i>Initial/partial</i>	0
	<i>Reinspection</i>	1
	<i>Routine/full</i>	247
	<i>Routine/partial</i>	5

# APPENDIX 4

## SUPERVISORY ACCOMPANIMENTS



Inspector	Auditor	Category	Insp. Date	Inspector	License
Lynk, Wayne	Guadix, Jose	5C	1/7/2015		4075-1
Stokes, Jim	Guadix, Jose	3A	1/27/2015		4230-1
Vornhagen, Michelle	Latham, Robert	5C	2/9/2015		4436-1
Lejeune, R	Latham, Robert	5C	2/19/2015		2705-1
Gavathas, Lisa	Perazzelli, Lisa	5C	2/20/2015		0308-7
Serrano, Hector	Latham, Robert	5C	3/10/2015		1042-4
Bakersmith, Leo	Latham, Robert	5C	3/23/2015		3131-2
Gavathas, Lisa	Pospishil, Nicholas J.	3L(1)	3/30/2015	Leiba, Michael	2462-2
Gavathas, Lisa	Pospishil, Nicholas J.	3L(1)	3/30/2015	Leiba, Michael	3456-7
Stokes, Jim	Guadix, Jose	5C	4/1/2015		4091-1
Lynk, Wayne	Guadix, Jose	5C	4/7/2015		4454-1
Kurz, Eric	Guadix, Jose	5C	4/8/2015		3352-1
Borek, Daniel	Bai, Jerry	5C	4/9/2015		4081-1
Nicoleau, Frantz	Guadix, Jose	5C	4/14/2015		2825-3
Guadix, Jose	Bai, Jerry	5C	4/20/2015		3470-1
Mitchell, Dennis	Bai, Jerry	3L(1)	4/23/2015		3696-1
Gavathas, Lisa	Stokes, Jim	5C	4/29/2015		3329-2
Perazzelli, Lisa	Stokes, Jim	5C	5/6/2015		3412-1
Latham, Robert	Bai, Jerry	5B	5/12/2015		1565-1
Day, Diane	Latham, Robert	3L(5)	5/20/2015		4442-1
Larson, Robert D.	Mitchell, Dennis	3K	6/18/2015		3196-1
Larson, Robert D.	Mitchell, Dennis	7B	6/18/2015		3196-R1
Larson, Robert D.	Mitchell, Dennis	7B	6/18/2015		3196-R2
Kurz, Eric	Guadix, Jose	5C	7/14/2015		3540-1
Stokes, Jim	Guadix, Jose	5B	7/15/2015		0034-1
Nicoleau, Frantz	Guadix, Jose	5B	7/16/2015		2214-2
Crawford, Brian	Pavlick, Paul	5B	8/18/2015		1352-1
Gavathas, Lisa	Perazzelli, Lisa	5C	8/24/2015		0011-7
Locke, Janie	Borek, Daniel	3L(1)	9/15/2015		4129-1
Locke, Janie	Borek, Daniel	5C	9/16/2015		3792-1
Lejeune, R	Latham, Robert	3E	9/24/2015		2705-3
Kurz, Eric	Guadix, Jose	5A	10/6/2015		0614-2
Ortega, Alfredo	Mitchell, Dennis	5B	10/7/2015		3199-1
Herring, Brent	Guadix, Jose	5C	10/20/2015		3450-4
Cornwell, Mark	Pavlick, Paul	3A	10/20/2015		4263-1
Perazzelli, Lisa	Gavathas, Lisa	3B	10/29/2015		3453-7
Hastings, Gordon	Borek, Daniel	5B	11/3/2015		2695-3
Clayton, Randy S.	Latham, Robert	3D	11/16/2015		2332-1
Larson, Robert D.	McNally, Tom	3F(3)	11/17/2015		4430-1
Fontaine, Lloyd	Borek, Daniel	3E	11/18/2015		0882-1
Pospishil, Nicholas J.	Latham, Robert	5C	11/18/2015		4322-1
Day, Diane	Latham, Robert	3E	11/19/2015		0194-5
Fontaine, Lloyd	Borek, Daniel	3E	11/19/2015		3040-1
Gavathas, Lisa	Perazzelli, Lisa	5B	11/20/2015		0011-2
Bakersmith, Leo	Latham, Robert	3L(1)	12/2/2015		4325-1

Inspector	Auditor	Category	Insp. Date	Inspector	License
Serrano, Hector	Latham, Robert	3E	12/3/2015		2758-1
Vornhagen, Michelle	Latham, Robert	3F(3)	12/8/2015		3007-1
Larson, Robert D.	Mitchell, Dennis	5B	12/10/2015		3028-1
Barnhart, Kenneth	Mitchell, Dennis	3D	12/17/2015		3891-2
Leiba, Michael	Latham, Robert	5C	1/14/2016		2799-1
Rosevelt, Sandra J.	Mitchell, Dennis	5B	2/25/2016		0131-2
Gavathas, Lisa	Perazzelli, Lisa	5A	2/25/2016		2667-1
Stokes, Jim	Guadix, Jose	7A	2/25/2016		4230-R1
Perazzelli, Lisa	Gavathas, Lisa	5B	2/26/2016		0008-10
Kurz, Eric	Nicoleau, Frantz	5A(2)	2/26/2016		0476-45
Nicoleau, Frantz	Kurz, Eric	3H	2/26/2016		3288-3
Stokes, Jim	Herring, Brent	5A	4/27/2016		3895-1
Lejeune, R	Latham, Robert	5C	4/29/2016		4493-1
Barnhart, Kenneth	Mitchell, Dennis	3L(5)	5/2/2016		2863-1
Bakersmith, Leo	Latham, Robert	3D	5/4/2016		4449-1
Day, Diane	Latham, Robert	5C	5/5/2016		3237-2
Clayton, Randy S.	Latham, Robert	3D	5/11/2016		0140-2
Larson, Robert D.	Mitchell, Dennis	5C	5/16/2016		2237-1
Nicoleau, Frantz	Kurz, Eric	5C	5/19/2016		4522-1
Kurz, Eric	Nicoleau, Frantz	3L(1)	5/31/2016		4351-1
Gavathas, Lisa	Perazzelli, Lisa	3L(1)	6/1/2016		1908-1
Serrano, Hector	Latham, Robert	3F(1)	6/6/2016		3044-1
Hastings, Gordon	Borek, Daniel	5C	6/7/2016		4177-1
Pavlick, Paul	Bai, Jerry	5C	6/8/2016		2213-6
Barnhart, Kenneth	Bai, Jerry	GL14	6/13/2016		G0205-1
Fontaine, Lloyd	Borek, Daniel	3D	6/14/2016		2850-1
Borek, Daniel	Bai, Jerry	5C	6/16/2016		3178-1
Stokes, Jim	Bai, Jerry	5C	6/23/2016		2771-1
Latham, Robert	Bai, Jerry	3L(1)	7/13/2016		4530-1
Larson, Robert D.	Mitchell, Dennis	3H	7/19/2016		3288-4
Locke, Janie	Hastings, Gordon	3K	7/19/2016		4411-1
	Gavathas, Lisa	5C	7/20/2016		2806-1
Gavathas, Lisa	Perazzelli, Lisa	3L(1)	8/15/2016		0022-19
Hastings, Gordon	Borek, Daniel	5B	8/23/2016		3339-1
Nicoleau, Frantz	Kurz, Eric	3L(1)	8/23/2016		4170-1
Locke, Janie	Hastings, Gordon	3B	8/24/2016		3920-8
Stokes, Jim	Herring, Brent	5A(2)	8/25/2016		0476-40
Leiba, Michael	Latham, Robert	3L(1)	9/15/2016		4189-1
Peretz, B.	Latham, Robert	5C	9/22/2016		4509-1
Hastings, Gordon	Locke, Janie	5C	11/3/2016		3934-1
Jordan, John	Ortega, Alfredo	3E	11/8/2016		0806-5
Leiba, Michael	Latham, Robert	5B	11/10/2016		2568-1
Gavathas, Lisa	Perazzelli, Lisa	5C	11/15/2016		4197-1
Locke, Janie	Borek, Daniel	5B	11/17/2016		1072-1
Clayton, Randy S.	Latham, Robert	3F(3)	11/17/2016		3007-1

Inspector	Auditor	Category	Insp. Date	Inspector	License
Pospishil, Nicholas J.	Latham, Robert	5A(2)	11/22/2016		0476-27
	Rosevelt, Sandra J.	5C	11/28/2016		4423-2
Day, Diane	Latham, Robert	3E	11/29/2016		0194-5
Bakersmith, Leo	Latham, Robert	3L(5)	12/1/2016		0001-3
Vornhagen, Michelle	Latham, Robert	3B	12/2/2016		3453-3
Vornhagen, Michelle	Latham, Robert	3B	12/2/2016		3453-5
Serrano, Hector	Latham, Robert	3L(3)	12/6/2016		0651-3
Peretz, B.	Latham, Robert	3L(1)	12/14/2016		3298-3
Nicoleau, Frantz	Kurz, Eric	5F(1)	12/21/2016		4072-7
Crawford, Brian	Pavlick, Paul	5B	1/18/2017		1367-1
Kurz, Eric	Stokes, Jim	5C	2/20/2017		3974-1
Perazzelli, Lisa	Stokes, Jim	5C	5/24/2017		2658-1
Fontaine, Lloyd	Borek, Daniel	3D	6/14/2017		2850-1
Kurz, Eric	Stokes, Jim	3A	6/14/2017		4202-3
Herring, Brent	Perazzelli, Lisa	5C	8/2/2017		4563-1
Kurz, Eric	Nicoleau, Frantz	5C	8/28/2017		4098-2
Nicoleau, Frantz	Kurz, Eric	3E	8/28/2017		4303-3
Perazzelli, Lisa	Herring, Brent	3L(5)	9/1/2017		4553-1
Perazzelli, Lisa	Herring, Brent	3B	10/10/2017		3453-7
Herring, Brent	Perazzelli, Lisa	5B	10/12/2017		2740-3
Ganesh, Devkumar	Latham, Robert	5C	12/4/2017		3663-1
Fontaine, Lloyd	Borek, Daniel	3E	12/7/2017		0882-1
Locke, Janie	Hastings, Gordon	3L(1)	12/13/2017		2576-1
Ortega, Alfredo	Borek, Daniel	3L(1)	12/13/2017		4579-1
Cornwell, Mark	Pavlick, Paul	5B	1/23/2018		2477-1
Crawford, Brian	Pavlick, Paul	5C	2/6/2018		3666-1
Cordero, Karmin	Latham, Robert	5C	3/26/2018		3385-1
Preamplume, Gan	Gavathas, Lisa	3L(1)	4/11/2018		4598-1
Ganesh, Devkumar	Latham, Robert	5A	8/30/2018		1215-2
Cordero, Karmin	Latham, Robert	3L(1)	9/13/2018		3463-1
Serrano, Hector	Latham, Robert	5A(2)	10/1/2018		4413-2
Hastings, Gordon	Borek, Daniel	3L(1)	10/15/2018		4135-1
Bakersmith, Leo	Latham, Robert	3E	10/22/2018		2758-1
Mercorella, Karen	Pavlick, Paul	5A	10/24/2018		3850-1
Jeff Adams	Borek, Daniel	3M(1)	10/25/2018		0806-1
Jordan, John	Barnhart, Kenneth	3E	10/25/2018		0806-5
Cornwell, Mark	Pavlick, Paul	5B	10/30/2018		3111-2
Locke, Janie	Hastings, Gordon	5B	10/31/2018		0111-3
Locke, Janie	Borek, Daniel	5B	11/7/2018		1072-1
Pospishil, Nicholas J.	Latham, Robert	3B	11/9/2018		4359-1
Larson, Robert D.	Latham, Robert	3B	11/14/2018		3453-5
Ganesh, Devkumar	Latham, Robert	5B	11/15/2018		1813-1
Rosevelt, Sandra J.	Borek, Daniel	5C	11/15/2018		3827-1
Nicoleau, Frantz	Latham, Robert	5A(2)	11/26/2018		4614-1
Leiba, Michael	Latham, Robert	5A(2)	11/28/2018		0476-36

<b>Inspector</b>	<b>Auditor</b>	<b>Category</b>	<b>Insp. Date</b>	<b>Inspector</b>	<b>License</b>
Jeff Adams	Borek, Daniel	3L(1)	11/28/2018		4100-2
Barnhart, Kenneth	Borek, Daniel	3P	11/29/2018		3483-1
Perazzelli, Lisa	Latham, Robert	5A(2)	11/29/2018		3748-2
Hastings, Gordon	Locke, Janie	3L(1)	12/6/2018		2434-1
Kurz, Eric	Latham, Robert	5A(2)	12/10/2018		2516-5
Cordero, Karmin	Latham, Robert	5B	12/12/2018		2568-1
Clayton, Randy S.	Latham, Robert	5A	12/13/2018		0194-3
Vornhagen, Michelle	Latham, Robert	3E	12/13/2018		0194-5
Fontaine, Lloyd	Borek, Daniel	5C	12/13/2018		4314-1

**ERCI Staff Audited to date 2019**

Inspector	Supervisor	License Category	Date	Type	Auditor	Pass
Adams, Jeff	Dan Borek	3M(I)	10/25/2018	RAM SL	Dan Borek	x
Adams, Jeff	Dan Borek	DIO	10/18/2018	Dental	Dan Borek	x
Adams, Jeff	Dan Borek	5C	2/28/2019	RAML	Dan Borek	x
Bakersmith, Leo	Robert Latham	3F(I)	10/22/2018	RAM	Robert Latham	x
Barnhart, Ken	Dan Borek	3M1	10/25/2018	RAM SL	John Jordan	x
Barnhart, Ken	Dan Borek	5F(I)	11/21/2017	RAM	Dan Borek	x
Barnhart, Ken	Dan Borek	MD	11/22/2017	Radiographic	Dan Borek	x
Barnhart, Ken	Dan Borek	3P	11/29/2017	RAML	Dan Borek	x
Barnhart, Ken	Dan Borek	3F(III)	3/5/2019	RAML	John Jordan	x
Carlson, Amy	Paul Pavlick	3L3	7/17/2018	Routine	Paul Pavlick	x
Carlson, Amy	Paul Pavlick	HS	8/6/2018	Fluoroscopic	Paul Pavlick	x
Carlson, Amy	Paul Pavlick	HS	10/23/2018	Mobile Fluoroscopic	Paul Pavlick	x
Carlson, Amy	Paul Pavlick	HS	8/6/2018	Radiographic	Paul Pavlick	x
Clayton, Scott	Robert Latham	5A(II)	12/13/2018	RAM	Robert Latham	x
Cordero, Mandy	Robert Latham	3L(I)	9/13/2018	RAM	Robert Latham	x
Cordero, Mandy	Robert Latham	5B	12/12/2018	RAM	Robert Latham	x
Cornwell, Mark	Paul Pavlick	RAV	10/30/2018	Radiographic	Paul Pavlick	x
Cornwell, Mark	Paul Pavlick	5B	10/30/2018	RAM	Paul Pavlick	x
Crawford, Brian	Paul Pavlick	3L(I)	9/18/2018	RAM	Paul Pavlick	x
Crawford, Brian	Paul Pavlick	MD	9/18/2018	Radiographic	Paul Pavlick	x
Estevez, Jorge	Lisa Perazzelli	MD	12/12/2018	Radiographic	Lisa Perazzelli	x
Fontaine, Lloyd	Dan Borek	3D	6/14/2017	RAML	Dan Borek	x
Fontaine, Lloyd	Dan Borek	3E	12/7/2017	RAML IC	Dan Borek	x
Fontaine, Lloyd	Dan Borek	3E	12/12/2018	RAML	Dan Borek	x
Fontaine, Lloyd	Dan Borek	5C	12/13/2018	RAML	Dan Borek	x
Furnace, Steve	Paul Pavlick	5B	10/11/2018	Routine	Paul Pavlick	x
Furnace, Steve	Paul Pavlick	HS	10/11/2018	CT	Paul Pavlick	x
Ganesh, Dave	Robert Latham	5A(II)	12/13/2018	RAM	Robert Latham	x
Ganesh, Dave	Robert Latham	5B	11/15/2018	RAM	Robert Latham	x
Gann, Wendy	Paul Pavlick	HS	10/6/2018	Fluorographic	Paul Pavlick	x
Gann, Wendy	Paul Pavlick	HS	10/6/2018	Radiographic	Paul Pavlick	x
Gann, Wendy	Paul Pavlick	5C	10/9/2018	Routine	Paul Pavlick	x
Gann, Wendy	Paul Pavlick	HS	10/23/2018	CT	Paul Pavlick	x
Gann, Wendy	Paul Pavlick	HS	10/23/2018	Special	Paul Pavlick	x
Hastings, Gordon	Dan Borek	3L(1)	10/15/2018	RAML	Dan Borek	x
Hastings, Gordon	Dan Borek	3L(1)	12/6/2018	RAML	Janie Locke	x
Hastings, Gordon	Dan Borek	3B	11/20/2017	RAML	Dan Borek	x
Hastings, Gordon	Dan Borek	5B	1/22/2019	RAML	Dan Borek	x
Jordan, John	Dan Borek	5C	11/29/2017	RAM SL	Ken Barnhart	x
Jordan, John	Dan Borek	3E	10/25/2018	RAM SL	Ken Barnhart	x
Jordan, John	Dan Borek	3B	2/14/2019	RAM L	Dan Borek	x
Kurz, Eric	Robert Latham	5A(2)	12/10/2018	RAM	Robert Latham	x
Kurz, Eric	Lisa Perazzelli	5C	3/26/2019	RAM	Lisa Perazzelli	x
Larson, Robert	Robert Latham	3B	11/14/2018	RAM	Robert Latham	x
Leiba, Mike	Robert Latham	5A(II)	11/28/2018	RAM	Robert Latham	x
Locke, Janie	Dan Borek	5B	10/31/2018	RAML	Gordon Hastings	x
Locke, Janie	Dan Borek	3B	11/7/2018	RAML	Dan Borek	x
Locke, Janie	Dan Borek	3L(I)	12/13/2017	RAML	Gordon Hastings	x
Locke, Janie	Dan Borek	GL	8/4/2017	General License	Lloyd Fontaine	x
Obinna Madubuike	Lisa Perazzelli	DIO	10/18/2018	Dental	Lisa Perazzelli	x
Mercorella, Karen	Paul Pavlick	HS	8/21/2018	Fluoroscopic	Paul Pavlick	x
Mercorella, Karen	Paul Pavlick	HS	10/21/2018	Radiographic	Paul Pavlick	x
Mercorella, Karen	Paul Pavlick	5A(II)	10/24/2018	Routine HDR	Paul Pavlick	x
Mercorella, Karen	Paul Pavlick	TH	10/24/2018	Non-accelerator Therapy	Paul Pavlick	x
Nicoleau, Frantz	Robert Latham	5A(II)	11/26/2018	RAM	Robert Latham	x
Nicoleau, Frantz	Lisa Perazzelli	3L(I)	3/28/2019	RML	Lisa Perazzelli	x
Ortega, Alfredo	Dan Borek	3L(I)	12/13/2017	RAML	Dan Borek	x
Perazzelli, Lisa	Robert Latham	5A(II)	11/29/2018	RAML	Robert Latham	x
Pospishil, Nic	Robert Latham	3B	11/9/2018	RAM	Robert Latham	x

Pospishil, Nic	Robert Latham	AM	4/10/2019 Radiographic	Robert Latham	x
Rosevelt, Sandra	Dan Borek	5C	11/15/2018 RAML	Dan Borek	x
Rosevelt, Sandra	Dan Borek	5F(I)	11/15/2018 RAML	John Jordan	x
Serrano, Hector	Robert Latham	3L(I)	10/1/2018 RAM	Robert Latham	x

**APPENDIX 5**

**INSTRUMENT**

**CALIBRATION RECORDS**

BRC CALIBRATION RECORD

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	CalDue	Kit#
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10032	64035098	ERC	Phillips,Mike	2/1/2018	2/1/2019	10032
9/11/2013	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10676	64024897	ERC	Phillips,Mike	10/23/2017	10/23/2018	41
9/11/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4067494		ERC	Phillips,Mike	11/1/2017	11/1/2018	41
9/11/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228751		ERC	Phillips,Mike	10/23/2017	10/23/2018	41
9/11/2013	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10719	64024939	ERC	Phillips,Mike	11/1/2017	11/1/2018	42
9/11/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061491		ERC	Phillips,Mike	10/23/2017	10/23/2018	41
9/11/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225985		ERC	Phillips,Mike	11/1/2017	11/1/2018	42
6/30/2005	Survey Instrument	POCKET RADIATION SCINTILLATOR	LUDLUM MEASUREMENTS INC.	Model 2401-S	216545		ERCE	Senison,Matthe w	3/25/2015	3/25/2016	Cal Lab
5/25/2006	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10694	64024914	ERCE	Dunn,Tim	5/1/2014	5/1/2015	Case 4
3/13/2008	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10629		ERCE	Dunn,Tim	5/1/2014	5/1/2015	Case 4
10/13/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10038	64035104	ERCE	STORAGE,in Use	5/1/2015	5/1/2016	10038
10/13/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10040	64035106	ERCE	STORAGE,in Use	5/1/2015	5/1/2016	10040
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10039	64035105	ERCE	STORAGE,in Use	5/1/2015	5/1/2016	10039
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10037	64035103	ERCE	STORAGE,in Use	6/1/2016	6/1/2017	10037
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10041	64035107	ERCE	STORAGE,in Use	6/15/2015	6/15/2016	10041
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10034	64035100	ERCE	STORAGE,in Use	5/1/2015	5/1/2016	10034
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10035	64035101	ERCE	STORAGE,in Use	5/1/2015	5/1/2016	10035
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10036	64035102	ERCE	STORAGE,in Use	5/1/2015	5/1/2016	10036
10/22/2012	Survey Instrument	RSI Console	Radiation Solutions Inc	RS-705	7522	64035939	ERCE	STORAGE,	6/1/2016	6/1/2017	10036
10/22/2012	Survey Instrument	RSI Gamma Detector	Radiation Solutions Inc	RSX-1	5373	64035939	ERCE	STORAGE,			RSI
10/22/2012	Survey Instrument	RSI Neutron Detector	Radiation Solutions Inc	RSN-1	8124	64035940	ERCE	STORAGE,			RSI
8/21/2013	Survey Instrument	RSI Gamma Detector	Radiation Solutions Inc	RSX-1	5393	64036517	ERCE	STORAGE,			RSI
12/12/2013	Survey Instrument	RSI Gamma Detector	Radiation Solutions Inc	RSX-1	5388	64036248	ERCE	STORAGE,			RSI
3/2/2016	Survey Instrument	RSI Gamma Detector	Radiation Solutions Inc	RSX-1	5623	64039324	ERCE	STORAGE,			RSI
2/1/2017	Survey Instrument	RSI Gamma Detector	Radiation Solutions Inc	RSX-1	5679	64041925	ERCE	STORAGE,			RSI
4/10/2017	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	30301	64036001	ERCE	STORAGE,	7/18/2017	7/18/2018	048
4/13/2017	Survey Instrument	RSI Gamma Detector	Radiation Solutions Inc	RSX-1	5697x	64042432	ERCE	STORAGE,			RSI
4/13/2017	Survey Instrument	RSI Gamma Detector	Radiation Solutions Inc	RSX-1	5698	64042433	ERCE	STORAGE,			RSI
4/13/2017	Survey Instrument	RSI Gamma Detector	Radiation Solutions Inc	RSX-1	5699	64042434	ERCE	STORAGE,			RSI
4/25/2017	Survey Instrument	RSI Console	Radiation Solutions Inc	RS-705	6041	64042435	ERCE	STORAGE,			RSI
8/1/2018	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	30301	64036001	ERCE	Fabi,Reno	8/1/2018	8/1/2019	48
8/1/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061127		ERCE	Fabi,Reno	8/1/2018	8/1/2019	48
8/1/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228744		ERCE	Fabi,Reno	8/1/2018	8/1/2019	48
10/12/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	LUDLUM MEASUREMENTS INC.	Model 2401-P	251237		ERCE	Williamson,John	10/12/2018	10/12/2019	S001
10/12/2018	Survey Instrument	CDV-718. Digital GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083786		ERCE	Williamson,John	10/12/2018	10/12/2019	S001
11/3/2004	Survey Instrument	Model 1	Nuclear Research Corporation	Model 1	31020		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
11/3/2004	Survey Instrument	CDV-718. Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	31047		ERCE (Emerg. Response)	Dunn,Tim	3/7/2016	3/7/2017	MERL
11/3/2004	Survey Instrument	CDV-718. Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	31140		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
5/9/2005	Survey Instrument	Survey Meter, GM Pancake Probe (cpm)	LUDLUM MEASUREMENTS INC.	Model 177	67934		ERCE (Emerg. Response)	Dunn,Tim	8/1/2018	8/1/2019	MERL
5/9/2005	Survey Instrument	Survey Meter, GM Pancake Probe (cpm)	LUDLUM MEASUREMENTS INC.	Model 177	34567		ERCE (Emerg. Response)	Dunn,Tim	8/1/2018	8/1/2019	MERL
4/13/2006	Survey Instrument	Survey Meter (0-5K CPM)	LUDLUM MEASUREMENTS INC.	Model 2	16525		ERCE (Emerg. Response)	Dunn,Tim	3/8/2016	3/8/2017	MERL
11/29/2006	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3387		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
11/29/2006	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3388		ERCE (Emerg. Response)	Dunn,Tim	12/6/2011	12/6/2012	merl
11/29/2006	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3390		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	Merl
11/29/2006	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3392		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
11/29/2006	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3397		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
12/15/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3398		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
12/15/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3389		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	Merl
12/15/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3402		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
12/15/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3403		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
12/15/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3405		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	Merl
12/15/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3408		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
12/15/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3409		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	Merl
3/16/2011	Survey Instrument	CDV-718A. Digital GM Scaler / Ratemeter	CANBERRA Mirion	Model 718A	585		ERCE (Emerg. Response)	Dunn,Tim	5/17/2018	5/17/2019	MERL
3/16/2011	Survey Instrument	CDV-718A. Digital GM Scaler / Ratemeter	CANBERRA Mirion	Model 718A	584		ERCE (Emerg. Response)	Dunn,Tim	5/1/2018	5/1/2019	MERL
4/16/2013	Survey Instrument	Digital Rate Meter (Multiple Probes)	LUDLUM MEASUREMENTS INC.	Model 2241	193536		ERCE (Emerg. Response)	Dunn,Tim	8/1/2018	8/1/2019	MERL
4/16/2013	Survey Instrument	Digital Rate Meter (Multiple Probes)	LUDLUM MEASUREMENTS INC.	Model 2241	193578		ERCE (Emerg. Response)	Dunn,Tim	8/1/2018	8/1/2019	MERL
4/17/2013	Survey Instrument	Digital Rate Meter (Multiple Probes)	LUDLUM MEASUREMENTS INC.	Model 2241	193582		ERCE (Emerg. Response)	Dunn,Tim	8/1/2018	8/1/2019	MERL
4/17/2013	Survey Instrument	Digital Rate Meter (Multiple Probes)	LUDLUM MEASUREMENTS INC.	Model 2241	193583		ERCE (Emerg. Response)	Dunn,Tim	8/1/2018	8/1/2019	MERL
4/17/2013	Survey Instrument	Digital Rate Meter (Multiple Probes)	LUDLUM MEASUREMENTS INC.	Model 2241	193569		ERCE (Emerg. Response)	Dunn,Tim	8/1/2018	8/1/2019	MERL
4/17/2013	Survey Instrument	Digital Rate Meter (Multiple Probes)	LUDLUM MEASUREMENTS INC.	Model 2241	193571		ERCE (Emerg. Response)	Dunn,Tim	8/1/2018	8/1/2019	MERL
6/8/2015	Survey Instrument	Digital Rate Meter (Multiple Probes)	LUDLUM MEASUREMENTS INC.	Model 2241	193558		ERCE (Emerg. Response)	Dunn,Tim	8/1/2018	8/1/2019	MERL
2/18/2015	Survey Instrument	CDV-718. Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	31063		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
2/18/2015	Survey Instrument	CDV-718. Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	31183		ERCE (Emerg. Response)	Dunn,Tim	3/1/2018	3/1/2019	MERL
10/18/2018	Survey Instrument	CDV-718. Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	31161		ERCE (Emerg. Response)	Dunn,Tim	10/19/2018	10/19/2019	MERL
10/18/2018	Survey Instrument	CDV-718. Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	30532		ERCE (Emerg. Response)	Dunn,Tim	10/19/2018	10/19/2019	MERL
10/19/2018	Survey Instrument	CDV-718. Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	31005		ERCE (Emerg. Response)	Dunn,Tim	10/19/2018	10/19/2019	MERL



BRC CALIBRATION RECORD

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
10/19/2018	Survey Instrument	CDV-718A, Digital GM Scaler / Ratemeter	APTEC	Model 718A	518		ERCE (Emerg. Response)	Dunn,Tim	10/19/2018	10/19/2019	MERL
10/19/2018	Survey Instrument	CDV-718, Digital GM Scaler / Ratemeter	CANBERRA Mirion	Model 1	586		ERCE (Surveillance)	Dunn,Tim	10/19/2018	10/19/2019	MERL
1/31/2012	Survey Instrument	High Range Dual GM Stretch Scope	LUDLUM MEASUREMENTS INC.	Model 78	218771		ERCE (Surveillance)	Nicholson,Jason	3/9/2018	3/9/2019	49
1/24/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3399		ERCE (Surveillance)	Nicholson,Jason	2/2/2018	2/2/2019	49
1/24/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	204289		ERCE (Surveillance)	Nicholson,Jason	2/2/2018	2/2/2019	49
2/26/2015	Survey Instrument	High Range Dual GM Stretch Scope	LUDLUM MEASUREMENTS INC.	Model 78	232295		ERCE (Surveillance)	Pickett,Grey	1/24/2018	1/24/2019	25
2/5/2018	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10603	64024862	ERCE (Surveillance)	Pickett,Grey	2/6/2018	2/6/2019	25
2/5/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10051632		ERCE (Surveillance)	Pickett,Grey	2/6/2018	2/6/2019	25
2/5/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228731		ERCE (Surveillance)	Pickett,Grey	2/6/2018	2/6/2019	25
10/11/2018	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10707	64024927	ERCE (Surveillance)	Ward David	10/11/2018	10/11/2019	Ward
10/11/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	216076		ERCE (Surveillance)	Ward David	10/11/2018	10/11/2019	Ward
10/11/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10050411		ERCE (Surveillance)	Ward David	10/11/2018	10/11/2019	Ward
4/11/2006	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225938		ERCE (TRAINING)	Norman,Paul	5/20/2016	5/20/2017	S129
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085601		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S086
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085761		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S090
4/11/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085766		ERCE (TRAINING)	Norman,Paul	12/22/2017	12/22/2018	S099
4/11/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085767		ERCE (TRAINING)	Norman,Paul	5/20/2016	5/20/2017	S129
4/11/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	12073569		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S072
4/11/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	12073573		ERCE (TRAINING)	Norman,Paul	3/25/2016	3/25/2017	S101
5/6/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	248273		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S067
5/12/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251262		ERCE (TRAINING)	Norman,Paul	11/7/2012	11/7/2013	S100
5/12/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251271		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S130
5/12/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251326		ERCE (TRAINING)	Norman,Paul	4/1/2016	4/1/2017	S070
5/5/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251311		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S090
5/5/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251309		ERCE (TRAINING)	Norman,Paul	12/30/2013	12/30/2014	102
5/5/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085735		ERCE (TRAINING)	Norman,Paul	6/20/2011	6/20/2012	S122
5/6/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083832		ERCE (TRAINING)	Norman,Paul	10/5/2017	10/5/2018	S035
5/25/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251270		ERCE (TRAINING)	Norman,Paul	12/22/2017	12/22/2018	S099
5/25/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085675		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/22/2018	S130
5/25/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251110		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S101
5/25/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251294		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S072
5/25/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085629		ERCE (TRAINING)	Norman,Paul	1/25/2017	1/25/2018	S090
7/25/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085856		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S089
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251187		ERCE (TRAINING)	Norman,Paul	4/24/2017	4/24/2018	S076
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251192		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S077
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085858		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S134
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251266		ERCE (TRAINING)	Norman,Paul	3/25/2016	3/25/2017	S078
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085674		ERCE (TRAINING)	Norman,Paul	3/25/2016	3/25/2017	S078
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251331		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S089
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085763		ERCE (TRAINING)	Norman,Paul	12/22/2017	12/22/2018	S106
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251196		ERCE (TRAINING)	Norman,Paul	3/25/2016	3/25/2017	S133
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	12073586		ERCE (TRAINING)	Norman,Paul	3/25/2016	3/25/2017	S133
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251174		ERCE (TRAINING)	Norman,Paul	12/22/2017	12/22/2018	S133
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	12073571		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S130
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251134		ERCE (TRAINING)	Norman,Paul	4/1/2016	4/1/2017	S127
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085669		ERCE (TRAINING)	Norman,Paul	4/1/2016	4/1/2017	S127
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251254		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S126
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085649		ERCE (TRAINING)	Piest,David	9/18/2018	9/18/2019	S086
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251314		ERCE (TRAINING)	Norman,Paul	12/22/2017	12/22/2018	S123
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251108		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S106
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251121		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S105
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085637		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S105
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085771		ERCE (TRAINING)	Norman,Paul	12/22/2017	12/22/2018	S123
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085627		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S077
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251243		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S135
12/18/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085671		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S135
12/14/2015	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085764		ERCE (TRAINING)	Norman,Paul	12/15/2017	12/15/2018	S067
12/14/2015	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085654		ERCE (TRAINING)	Norman,Paul	4/1/2016	4/1/2017	S106
9/12/2016	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251164		ERCE (TRAINING)	Piest,David	9/18/2018	9/18/2019	S086
4/11/2006	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225956		ERCE (TRAINING)	Latham,Robert	10/1/2018	10/1/2019	9
4/11/2006	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225944		ERCE-C	Leiba,Mike	9/28/2017	9/28/2018	07
5/9/2006	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10051444		ERCE-C	Latham,Robert	10/1/2018	10/1/2019	9
5/25/2006	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10642	64024873	ERCE-C	Latham,Robert	10/1/2018	10/1/2019	9
4/15/2011	Survey Instrument	POCKET RADIATION GM PANCAKE	Thermo Electron	RadEye PRD	10697	64024917	ERCE-C	Leiba,Mike	9/28/2017	9/28/2018	07
7/12/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3395		ERCE-C	Leiba,Mike	9/28/2017	9/28/2018	07
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10025	64035092	ERCE-C	Latham,Robert	6/22/2018	6/22/2019	10025
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10026	64035093	ERCE-C	Latham,Robert	6/22/2018	6/22/2019	10026
1/23/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085664		ERCE-C	Cordero,Karmin	6/26/2018	6/26/2019	26

BRC CALIBRATION RECORD

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
7/29/2016	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10674	64024895	ERCIC-L	Ganesh,Dave	6/27/2018	6/27/2019	8
6/5/2017	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225935		ERCIC-L	Ganesh,Dave	6/27/2018	6/27/2019	8
6/5/2017	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083829		ERCIC-L	Ganesh,Dave	6/27/2018	6/27/2019	8
6/19/2017	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10685	64024905	ERCIC-L	Cordero Karmin	6/26/2018	6/26/2019	26
6/19/2017	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228756		ERCIC-L	Cordero Karmin	6/26/2018	6/26/2019	26
6/26/2018	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10696	64024916	ERCIC-L	Pospishilj, Nichola	6/26/2018	6/26/2019	38
6/26/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083816		ERCIC-L	Pospishilj, Nichola	6/26/2018	6/26/2019	38
6/26/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	216157		ERCIC-L	Pospishilj, Nichola	6/26/2018	6/26/2019	38
3/13/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228766		ERCIC-O	Serrano,Hector	3/6/2018	3/6/2019	006
5/5/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061123		ERCIC-O	Bakersmith,Leo	2/20/2018	2/20/2019	02
4/23/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10051711		ERCIC-O	Vornhagen,Mich	2/5/2018	2/5/2019	3
4/28/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225972		ERCIC-O	Bakersmith,Leo	2/20/2018	2/20/2019	02
3/14/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4060659		ERCIC-O	Serrano,Hector	3/6/2018	3/6/2019	006
8/4/2014	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225945		ERCIC-O	Vornhagen,Mich	2/5/2018	2/5/2019	3
2/9/2015	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	14626	64034301	ERCIC-O	Bakersmith,Leo	2/20/2018	2/20/2019	02
12/20/2016	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10687	64024907	ERCIC-O	Vornhagen,Mich	2/5/2018	2/5/2019	3
9/26/2018	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	30290	64035996	ERCIC-O	Clayton,Scott	9/26/2018	9/26/2019	04
9/26/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085604		ERCIC-O	Clayton,Scott	9/26/2018	9/26/2019	04
9/26/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225975		ERCIC-O	Clayton,Scott	9/26/2018	9/26/2019	04
4/11/2006	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225957		ERCIF	Borek,Dan	9/19/2018	9/19/2019	20
5/9/2006	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061113		ERCIF	Borek,Dan	9/19/2018	9/19/2019	20
5/25/2006	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10658	64024885	ERCIF	Borek,Dan	9/19/2018	9/19/2019	20
6/1/2009	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10662	64024887	ERCIF	Hastings,Gordon	1/17/2018	1/17/2019	18
6/1/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061116		ERCIF	Hastings,Gordon	1/17/2018	1/17/2019	18
6/1/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225973		ERCIF	Hastings,Gordon	1/17/2018	1/17/2019	18
11/23/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228749		ERCIF	Fontaine,Lloyd	12/8/2017	12/8/2018	19
6/2/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10052244		ERCIF	Fontaine,Lloyd	12/8/2017	12/8/2018	19
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10030	64035096	ERCIF	Borek,Dan	10/8/2018	10/8/2019	10030
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10031	64035097	ERCIF	Borek,Dan	10/8/2018	10/8/2019	10031
7/21/2014	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225963		ERCIF	Locke,Janie	1/18/2018	1/18/2019	21
7/21/2014	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061105		ERCIF	Locke,Janie	1/18/2018	1/18/2019	21
7/21/2014	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10637	64024870	ERCIF	Locke,Janie	1/18/2018	1/18/2019	21
4/17/2017	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	30366	64036027	ERCIF	Fontaine,Lloyd	12/8/2017	12/8/2018	19
8/6/2007	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4060676		ERCIM	Nicoleau,Franz	5/25/2018	5/25/2019	17
3/19/2008	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10657	64024884	ERCIM	Nicoleau,Franz	5/25/2018	5/25/2019	17
3/28/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061111		ERCIM	Kurz,Eric	5/9/2018	5/9/2019	15
3/28/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228745		ERCIM	Stokes,Jim	5/17/2018	5/17/2019	14
4/23/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228763		ERCIM	Kurz,Eric	5/9/2018	5/9/2019	15
4/23/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228762		ERCIM	Nicoleau,Franz	5/25/2018	5/25/2019	17
4/27/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061161		ERCIM	Perazzelli,Lisa	3/12/2018	3/12/2019	11
4/27/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225933		ERCIM	Perazzelli,Lisa	3/12/2018	3/12/2019	11
9/20/2010	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	014590		ERCIM	Kurz,Eric	5/9/2018	5/9/2019	15
11/26/2014	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	10648	64024877	ERCIM	Herring,Brent	2/16/2018	2/16/2019	39
11/26/2014	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225943		ERCIM	Herring,Brent	2/16/2018	2/16/2019	39
7/1/2016	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10664	64024888	ERCIM	Stokes,Jim	5/17/2018	5/17/2019	14
9/22/2016	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3085863		ERCIM	Stokes,Jim	5/17/2018	5/17/2019	14
12/23/2016	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228725		ERCIM	Estevez,Jorge	8/24/2018	8/24/2019	36
12/22/2016	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	04061488		ERCIM	Estevez,Jorge	8/24/2018	8/24/2019	36
6/5/2017	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10646	64024875	ERCIM	Estevez,Jorge	8/24/2018	8/24/2019	36
12/21/2017	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10660	64024886	ERCIM	Perazzelli,Lisa	3/12/2018	3/12/2019	11
11/26/2014	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085774		ERCIM	Herring,Brent	2/16/2018	2/16/2019	39
5/3/2011	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3069383		ERCIOF	Pavlick,Paul	12/22/2017	12/22/2018	34
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10033	64035099	ERCIOF	Pavlick,Paul	1/8/2018	1/8/2019	10033
12/19/2012	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10678	64024899	ERCIOF	Pavlick,Paul	12/22/2017	12/22/2018	34
12/19/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	216046		ERCIOF	Pavlick,Paul	12/22/2017	12/22/2018	34
7/21/2014	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251171		ERCIOF	Gann,Wendy	12/22/2017	12/22/2018	16
7/21/2014	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	12073583		ERCIOF	Gann,Wendy	12/22/2017	12/22/2018	16
7/21/2014	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10717	64024937	ERCIOF	Gann,Wendy	12/22/2017	12/22/2018	16
11/5/2014	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	223302		ERCIOF	Mercorella,Kare	1/11/2018	1/11/2019	35
11/5/2014	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061119		ERCIOF	Mercorella,Kare	1/11/2018	1/11/2019	35

## BRC CALIBRATION RECORD

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
12/22/2015	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10686	64024906	ERCIO-P	Mercorella, Kare n	1/11/2018	1/11/2019	35
3/10/2016	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10673	64024894	ERCIO-P	Carlson, Amy	4/14/2017	4/14/2018	24
3/10/2016	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061140		ERCIO-P	Carlson, Amy	4/14/2017	4/14/2018	24
3/10/2016	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	228752		ERCIO-P	Carlson, Amy	4/14/2017	4/14/2018	24
4/4/2016	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10677	64024898	ERCIO-P	Furnace, Steve	5/7/2018	5/7/2019	33
4/4/2016	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3060065		ERCIO-P	Furnace, Steve	5/7/2018	5/7/2019	33
4/4/2016	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	221411		ERCIO-P	Furnace, Steve	5/7/2018	5/7/2019	33
5/4/2007	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061104		ERCIO-P-Cornwell	Cornwell, Mark	12/8/2017	12/8/2018	031
1/28/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	225941		ERCIO-P-Cornwell	Cornwell, Mark	12/8/2017	12/8/2018	031
1/18/2013	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10691		ERCIO-P-Cornwell	Cornwell, Mark	12/8/2017	12/8/2018	31
4/11/2006	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	228786		ERCIO-P-Cornwell	Crawford, Brian	3/9/2018	3/9/2019	32
10/8/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3069499		ERCIO-P-Crawford	Crawford, Brian	3/9/2018	3/9/2019	32
10/8/2012	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10672	64024865	ERCIO-P-Crawford	Crawford, Brian	3/9/2018	3/9/2019	32
5/13/2008	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10625	64024896	ERCIT	Ortega, Alfredo	4/1/2015	4/1/2016	27
4/23/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	3394		ERCIT	Ortega, Alfredo	4/1/2015	4/1/2016	27
4/26/2011	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	14061		ERCIT	Jordan, John	8/6/2018	8/6/2019	29
3/20/2012	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10672	64024893	ERCIT	Larson, Robert	3/22/2018	3/22/2019	23
3/20/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	228737		ERCIT	Larson, Robert	3/22/2018	3/22/2019	23
8/31/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	228779		ERCIT	Ortega, Alfredo	4/1/2015	4/1/2016	27
11/28/2012	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	30293	64035998	ERCIT	Rosevelt, Sandra	7/24/2018	7/24/2019	30
11/28/2012	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	30297	64036000	ERCIT	Barnhart, Kennet h	4/23/2018	4/23/2019	22
10/19/2015	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR Mid-Range GM Tube	Thermo Electron	RadEye PRD GF	30941		ERCIT	Ortega, Alfredo	5/24/2018	5/24/2019	S019
12/14/2015	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085651		ERCIT	Larson, Robert	3/22/2018	3/22/2019	23
4/5/2017	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	251286		ERCIT	Ortega, Alfredo	5/24/2018	5/24/2019	S019
4/17/2017	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	228747		ERCIT	Barnhart, Kennet h	4/23/2018	4/23/2019	22
4/21/2017	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10651	64024880	ERCIT	Adams, Thomas "Jeff"	7/2/2018	7/2/2019	28
4/21/2017	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061492		ERCIT	Adams, Thomas "Jeff"	7/2/2018	7/2/2019	28
4/21/2017	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	228788		ERCIT	Jordan, John	8/6/2018	8/6/2019	29
2/27/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061110		ERCIT	Barnhart, Kennet h	4/23/2018	4/23/2019	22
4/7/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	12073353		ERCIT	Jordan, John	8/6/2018	8/6/2019	29
5/21/2018	Survey Instrument	Survey and Count Rate Meter	LUOLUM MEASUREMENTS INC.	Model 2401-P	2287881		ERCIT	Adams, Thomas "Jeff"	7/2/2018	7/2/2019	28
8/27/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01067771		ERCX	Gavathas, Lisa	12/15/2017	12/15/2018	Insp Kit 10
8/27/2009	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10670	64024891	ERCX	Gavathas, Lisa	12/15/2017	12/15/2018	Insp Kit 10
8/27/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUOLUM MEASUREMENTS INC.	Model 2401-P	225978		ERCX	Gavathas, Lisa	12/15/2017	12/15/2018	10

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due
8/7/2017	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10051632		ERIC-O	Bai, Jerry	8/7/2017	8/7/2018
4/11/2016	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228771		ERIC-O	Bai, Jerry	8/7/2017	8/7/2018
7/2/2012	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10603	64024862	ERIC-O	Bai, Jerry	8/7/2017	8/7/2018
11/23/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	35041		ERIC-O	Bai, Jerry	8/7/2017	8/7/2018
3/15/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	04061131		ERCIT	Barnhart, Kenneth	4/13/2016	4/13/2017
4/17/2017	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	04061131		ERCIT	Barnhart, Kenneth	4/17/2017	4/17/2018
4/17/2017	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10664	64024888	ERCIT	Barnhart, Kenneth	4/17/2017	4/17/2018
3/15/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228747		ERCIT	Barnhart, Kenneth	4/13/2016	4/13/2017
3/15/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	30114		ERCIT	Barnhart, Kenneth	4/13/2016	4/13/2017
12/3/2012	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	30366	64036027	ERCIT	Barnhart, Kenneth	4/13/2016	4/13/2017
12/24/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061492		ERCIT	Borek, Dan	4/1/2016	4/1/2017
8/17/2016	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	30261		ERCIT	Borek, Dan	9/1/2016	9/1/2017
10/2/2017	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	352	64028356	ERICF	Borek, Dan	10/5/2017	10/5/2018
3/4/2015	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10022	64035089	ERCIT	Borek, Dan	11/1/2017	11/1/2018
8/17/2016	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061488		ERCIT	Borek, Dan	9/1/2016	9/1/2017
12/24/2013	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	30201		ERCIT	Borek, Dan	4/5/2017	4/5/2018
12/24/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228788		ERCIT	Borek, Dan	4/5/2017	4/5/2018
12/24/2013	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10651	64024880	ERCIT	Borek, Dan	4/1/2016	4/1/2017
4/20/2016	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	372	64028368	ERCIT	Borek, Dan	4/20/2016	4/20/2017
2/12/2007	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228725		ERCIT	Borek, Dan	9/1/2016	9/1/2017
10/30/2017	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	372	64028368	ERCIT	Borek, Dan	10/31/2017	10/31/2018
5/25/2006	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10680	64024900	ERIC-O	Clayton, Scott	7/24/2017	7/24/2018
4/11/2006	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225975		ERIC-O	Clayton, Scott	3/7/2018	3/7/2019
1/13/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225937		ERIC-O	Clayton, Scott	7/24/2017	7/24/2018
12/16/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085604		ERIC-O	Clayton, Scott	7/24/2017	7/24/2018
1/13/2009	Survey Instrument	DOSIMETER, EPD	Siemens	Mark 2.3	00161497		ERIC-O	Clayton, Scott	7/24/2017	7/24/2018
6/19/2017	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	12073359		ERIC-L	Cordero, Karmin	6/19/2017	6/19/2018
9/26/2017	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	369	64028365	ERICOP-Cornwell	Cornwell, Mark	9/26/2017	9/26/2018
9/29/2016	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	364	64028360	ERICOP-Cornwell	Cornwell, Mark	9/29/2016	9/29/2017
10/8/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	30166		ERICOP-Crawford	Crawford, Brian	3/9/2018	3/9/2019
8/27/2013	Survey Instrument	Digital Handheld Frisker	LUDLUM MEASUREMENTS INC.	Model 26-1	PF004854		ERCE (Emerg. Response)	Dunn, Tim	10/27/2017	10/27/2018
8/27/2013	Survey Instrument	Digital Handheld Frisker	LUDLUM MEASUREMENTS INC.	Model 26-1	PF004851		ERCE (Emerg. Response)	Dunn, Tim	10/27/2017	10/27/2018
3/16/2011	Survey Instrument	CDV-718, Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	31161		ERCE (Emerg. Response)	Dunn, Tim	10/27/2017	10/27/2018
7/22/2013	Survey Instrument	Digital Handheld Frisker	LUDLUM MEASUREMENTS INC.	Model 26-1	PF004915		ERCE (Emerg. Response)	Dunn, Tim	10/27/2017	10/27/2018
3/16/2011	Survey Instrument	CDV-718A, Digital GM Scaler / Ratemeter	CANBERRA Mirion	Model 718A	586		ERCE (Emerg. Response)	Dunn, Tim	10/27/2017	10/27/2018
9/23/2015	Probe	Digital Handheld Frisker	LUDLUM MEASUREMENTS INC.	Model 26-1	PF005118		ERCE (Emerg. Response)	Dunn, Tim	10/27/2017	10/27/2018
3/16/2011	Survey Instrument	CDV-718A, Digital GM Scaler / Ratemeter	APTEC	Model 718A	518		ERCE (Emerg. Response)	Dunn, Tim	10/27/2017	10/27/2018
7/22/2013	Survey Instrument	CDV-718, Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	31005		ERCE (Emerg. Response)	Dunn, Tim	10/27/2017	10/27/2018
3/9/2007	Survey Instrument	CDV-718, Digital GM Scaler / Ratemeter	Nuclear Research Corporation	Model 1	30532		ERCE (Emerg. Response)	Dunn, Tim	10/27/2017	10/27/2018
4/21/2016	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	04061127		ERCE	Fabii, Reno	7/18/2017	7/18/2018
3/2/2017	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	30301	64036001	ERCE	Fabii, Reno	3/2/2017	3/2/2018
6/20/2014	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10707	64024927	ERCE	Fabii, Reno	10/10/2017	10/10/2018
12/24/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228744		ERCE	Fabii, Reno	7/18/2017	7/18/2018
12/24/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	7100903		ERCE	Fabii, Reno	7/18/2017	7/18/2018
5/25/2006	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10660	64024886	ERICF	Fontaine, Lloyd	6/27/2016	6/27/2017
2/10/2016	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR Mid-Range GM Tube	Thermo Electron	RadEye PRD GF	30832		ERC	Futch, James	2/10/2016	2/10/2017
4/26/2011	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR (Extended Range)	Thermo Electron	RadEye PRD-ER	1485		ERC	Futch, James	3/8/2018	3/8/2019
11/26/2014	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10051655		ERCE (Surveillance)	Herring, Brent	10/4/2016	10/4/2017
6/7/2017	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085774		ERCIM	Herring, Brent	6/7/2017	6/7/2018

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due
3/20/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10051613		ERCIT	Jordan, John	8/8/2017	8/8/2018
4/24/2007	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10644	64024875	ERIC-L	Leleune, Rebekah	6/10/2016	6/10/2017
7/25/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083829		ERIC-L	Leleune, Rebekah	6/10/2016	6/10/2017
4/11/2006	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225935		ERIC-L	Leleune, Rebekah	6/10/2016	6/10/2017
6/28/2007	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	161449		ERIC-L	Leleune, Rebekah	6/10/2016	6/10/2017
3/30/2016	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251161		ERCE (TRAINING)	Norman, Paul	12/15/2017	12/15/2018
5/4/2016	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	362	64028358	ERICOP	Pavlick, Paul	5/10/2016	5/10/2017
9/26/2016	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	370	64028366	ERC	Phillips, Mike	10/3/2016	10/3/2017
11/22/2016	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP173	64036696	ERC	Phillips, Mike	11/22/2016	11/22/2017
10/25/2017	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP173	64036696	ERC	Phillips, Mike	11/2/2017	11/2/2018
12/12/2012	Survey Instrument	Survey Meter, GM Pancake Probe (cpm)	LUDLUM MEASUREMENTS INC.	Model 3	27709	191459	ERC	Phillips, Mike	1/22/2016	1/22/2017
6/16/2015	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185092		ERIC-L	Pospishil, Nicholas	10/20/2017	10/20/2018
4/30/2012	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10696	64024916	ERIC-L	Pospishil, Nicholas	10/20/2017	10/20/2018
6/16/2015	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083816		ERIC-L	Pospishil, Nicholas	10/20/2017	10/20/2018
4/30/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	216157		ERIC-L	Pospishil, Nicholas	10/20/2017	10/20/2018
5/25/2006	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10649	64024878	ERCIT	Rosevelt, Sandra	6/10/2016	6/10/2017
3/2/2017	Portable Gamma Spectrometer	POCKET SPECTROSCOPIC RADIATION DETECTOR	Thermo Electron	RadEye SPRD	11200	64041869	ERCE (Surveillance)	Seidensticker, Mark	12/13/2016	12/13/2017
3/3/2016	Calibration instrument	ION CHAMBER	Standard Imaging Inc.	A-6	xq070681		ERCE	Senison, Matthew	2/24/2016	2/24/2018
5/13/2014	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	225923		ERCE	Senison, Matthew	8/8/2017	8/8/2018
2/13/2014	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4060668		ERCE	Senison, Matthew	8/8/2017	8/8/2018
9/19/2018	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	010712	64024932	ERCE	Senison, Matthew	9/19/2017	9/19/2018
7/19/2013	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00191056		ERCE	Senison, Matthew	8/8/2017	8/8/2018
1/4/2016	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	361	64028357	ERCE (CAL LAB) In Use	Senison, Matthew	1/4/2016	1/4/2017
3/14/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	30189		ERIC-O	Serrano, Hector	3/10/2016	3/10/2017
1/6/2017	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10649	64024878	ERCIM	Stokes, Jim	5/16/2017	5/16/2018
5/9/2006	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10051632		ERCIM	Stokes, Jim	4/22/2016	4/22/2017
4/18/2011	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10684	64024904	ERCIM	Stokes, Jim	4/22/2016	4/22/2017
5/2/2017	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	367	64028363	ERCIM	Stokes, Jim	5/3/2017	5/3/2018
5/2/2016	Survey Instrument	NEUTRON SURVEY METER	Far West Technology, Inc	REM 500B	367	64028363	ERCIM	Stokes, Jim	5/2/2016	5/2/2017
9/20/2010	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	014693		ERCIM	Stokes, Jim	5/16/2016	5/16/2017
12/18/2013	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00190386		ERCE	STORAGE,	4/15/2016	4/15/2017
11/30/2016	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP181	64036704	ERCE	STORAGE,	11/30/2016	11/30/2017
10/11/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10050411		ERCE (Surveillance)	Ward, David	10/11/2018	10/11/2019
9/4/2012	Survey Instrument	High Range Dual GM Stretch Scope	LUDLUM MEASUREMENTS INC.	Model 78	228086		ERCE (Surveillance)	Ward, David	10/23/2017	10/23/2018
9/20/2018	Survey Instrument	HIGH SENSITIVITY POCKET DETECTOR	Thermo Electron	RadEye PRD	10707	64024927	ERCE (Surveillance)	Ward, David	10/11/2018	10/11/2019
4/9/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10050411		ERCE (Surveillance)	Ward, David	10/11/2018	10/11/2019
9/12/2016	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	161377		ERCE (Surveillance)	Ward, David	10/11/2018	10/11/2019
4/11/2017	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	10050411		ERCE (Surveillance)	Ward, David	4/11/2017	4/11/2018
9/12/2016	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	216076		ERCE (Surveillance)	Ward, David	10/11/2018	10/11/2019
9/12/2016	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061120		ERCE (Surveillance)	Ward, David	9/12/2016	9/12/2017
1/12/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083786		ERCE	Williamson, John	7/3/2017	7/3/2018
1/12/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251237		ERCE	Williamson, John	7/3/2017	7/3/2018
3/5/2015	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00183407		ERCE	Williamson, John	7/3/2017	7/3/2018

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01084017		RDS1F Region 1	Collins,Shawn	1/29/2009	1/29/2010	S046
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01084025		RDS1F Region 1	Dell,Trisha	12/16/2015	12/16/2016	S053
5/6/2008	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251117		RDS1F Region 1	Dell,Trisha	12/16/2015	12/16/2016	S53
5/30/2008	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251297		RDS1F Region 1	STORAGE,	10/23/2015	10/23/2016	
5/30/2008	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	AW-801	1515	64029435	RDS1F Region 1	Porter,Aric			
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185205		RDS1F Region 1	Collins,Shawn	1/29/2009	1/29/2010	S046
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185225		RDS1F Region 1	Dell,Trisha	12/16/2015	12/16/2016	S53
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S023		RDS1F Region 1	Remus,Jack			S023
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S046		RDS1F Region 1	Collins,Shawn			S046
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S049		RDS1F Region 1	Pearce,David			S049
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S051		RDS1F Region 1	Kramer,Doroth			S051
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S053		RDS1F Region 1	Dell,Trisha			S053
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S054		RDS1F Region 1	Richards,Casey			S054
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S055		RDS1F Region 1	Moore,James			S055
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S194		RDS1F Region 1	Collins,Shawn			S194
10/6/2008	Survey Instrument	Digital Rate Meter (Multiple Probes)	LUDLUM MEASUREMENTS INC.	Model 2241-2	199959		RDS1F Region 1	Glimore,Eric	12/19/2014	12/19/2015	
3/9/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185229		RDS1F Region 1	Moore,James	8/25/2017	8/25/2018	S055
3/9/2010	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251131		RDS1F Region 1	Moore,James	8/25/2017	8/25/2018	S055
3/9/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01084028		RDS1F Region 1	Moore,James	8/25/2017	8/25/2018	S055
3/29/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00193631		RDS1F Region 1	Collins,Shawn	3/29/2010	3/29/2011	S194
3/29/2010	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251208		RDS1F Region 1	Collins,Shawn	3/29/2010	3/29/2011	S194
3/29/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	12073334		RDS1F Region 1	Collins,Shawn	3/29/2010	3/29/2011	S194
10/13/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10043	64035109	RDS1F Region 1	Collins,Shawn	3/29/2010	3/29/2011	S194
10/13/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10143		RDS1F Region 1	Porter,Aric	10/1/2018	10/1/2019	10043
10/13/2011	Probe	Na-I Probe	W.B. Johnson Instruments	GSP-1	10175		RDS1F Region 1	Porter,Aric			10043
10/17/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10140		RDS1F Region 1	Porter,Aric			10042
10/17/2011	Probe	Na-I Probe	W.B. Johnson Instruments	GSP-1	10186		RDS1F Region 1	Porter,Aric			10042
12/12/2012	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251135		RDS1F Region 1	Remus,Jack	10/9/2015	10/9/2016	S023
12/12/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083814		RDS1F Region 1	Remus,Jack	10/9/2015	10/9/2016	S023
12/12/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185115		RDS1F Region 1	Remus,Jack	10/9/2015	10/9/2016	S023
12/12/2012	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251323		RDS1F Region 1	Pearce,David	8/25/2017	8/25/2018	S049
12/12/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01084020		RDS1F Region 1	Pearce,David	8/25/2017	8/25/2018	S049
12/12/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185213		RDS1F Region 1	Pearce,David	8/25/2017	8/25/2018	S049
12/12/2012	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	248236		RDS1F Region 1	Kramer,Doroth	8/25/2017	8/25/2018	S051
12/12/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01084022		RDS1F Region 1	Kramer,Doroth	8/25/2017	8/25/2018	S051
12/12/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185219		RDS1F Region 1	Kramer,Doroth	8/25/2017	8/25/2018	S051
12/12/2012	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251118		RDS1F Region 1	Richards,Casey	8/25/2017	8/25/2018	S054
12/12/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01084027		RDS1F Region 1	Richards,Casey	8/25/2017	8/25/2018	S054
12/12/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185226		RDS1F Region 1	Richards,Casey	8/25/2017	8/25/2018	S054
10/8/2015	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10042	64035108	RDS1F Region 1	Porter,Aric	4/21/2017	4/21/2018	
12/17/2015	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP180	64036703	RDS1F Region 1	Porter,Aric	12/15/2015	12/15/2016	
7/13/2018	Miscellaneous	Pelican Case	PELICAN	1200	S032		RDS1F Region 1	Porter,Aric			S032
7/13/2018	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251157		RDS1F Region 1	Porter,Aric	9/3/2018	9/3/2019	S032
7/13/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083825		RDS1F Region 1	Porter,Aric	9/3/2018	9/3/2019	S032
7/13/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185136		RDS1F Region 1	Porter,Aric	9/3/2018	9/3/2019	S032
7/13/2018	Miscellaneous	Pelican Case	PELICAN	1200	S038		RDS1F Region 1	Porter,Aric			S038
7/13/2018	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251227		RDS1F Region 1	Porter,Aric	9/3/2018	9/3/2019	S038
7/13/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083831		RDS1F Region 1	Porter,Aric	9/3/2018	9/3/2019	S038
7/13/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185171		RDS1F Region 1	Porter,Aric	9/3/2018	9/3/2019	S038
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083835		RDS1F Region 2	Ursin,August	9/7/2011	9/7/2012	S042
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01084015		RDS1F Region 2	Albritton,Joya	11/5/2014	11/5/2015	S045
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01084023		RDS1F Region 2	Grigg,Joseph	11/5/2014	11/5/2015	S052
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085284		RDS1F Region 2	Roett,Patricia	11/5/2014	11/5/2015	S061
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085286		RDS1F Region 2	Walton,Jennife	2/22/2017	2/22/2018	S063
4/11/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	12073331		RDS1F Region 2	Mahon,Alex	11/5/2014	11/5/2015	S065
5/2/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085955		RDS1F Region 2	Kidder,Joseph	11/1/2017	11/1/2018	S198
5/9/2008	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251183		RDS1F Region 2	Roett,Patricia	11/5/2014	11/5/2015	S061
5/9/2008	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251188		RDS1F Region 2	Walton,Jennife	2/22/2017	2/22/2018	S063
5/9/2008	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251215		RDS1F Region 2	Mahon,Alex	11/5/2014	11/5/2015	S065
5/12/2008	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251276		RDS1F Region 2	Ursin,August	9/7/2011	9/7/2012	S042
5/12/2008	Survey Instrument	POCKET RADATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251277		RDS1F Region 2	Kidder,Joseph	11/1/2017	11/1/2018	S198

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
5/12/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251291	64029424	RDS1F Region 2	Albritton,Joya	11/5/2014	11/5/2015	S045
5/30/2008	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	AM-801	1505		RDS1F Region 2	Mahon,Alex			
6/10/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251116		RDS1F Region 2	Grigg,Joseph	11/5/2014	11/5/2015	S052
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185191		RDS1F Region 2	Ursin,August	9/7/2011	9/7/2012	S042
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185204		RDS1F Region 2	Albritton,Joya	11/5/2014	11/5/2015	S045
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185221		RDS1F Region 2	Grigg,Joseph	11/5/2014	11/5/2015	S052
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185239		RDS1F Region 2	Walton,Jennife	2/22/2017	2/22/2018	S063
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185236		RDS1F Region 2	Reett,Patricia	11/5/2014	11/5/2015	S061
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S042		RDS1F Region 2	Ursin,August			S042
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S045		RDS1F Region 2	Albritton,Joya			S045
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S052		RDS1F Region 2	Grigg,Joseph			S052
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S061		RDS1F Region 2	Reett,Patricia			S061
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S063		RDS1F Region 2	Walton,Jennife			S063
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S065		RDS1F Region 2	Mahon,Alex			S065
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S074		RDS1F Region 2	Wallace,Tim			S074
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S075		RDS1F Region 2	Laguna,Jorge			S075
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S198		RDS1F Region 2	Kidder,Joseph	11/1/2017	11/1/2018	S198
11/26/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185241		RDS1F Region 2	Mahon,Alex	11/5/2014	11/5/2015	S065
5/5/2011	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251334		RDS1F Region 2	Wallace,Tim	3/12/2018	3/12/2019	S074
5/5/2011	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085633		RDS1F Region 2	Wallace,Tim	3/12/2018	3/12/2019	S074
5/5/2011	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185279		RDS1F Region 2	Wallace,Tim	3/12/2018	3/12/2019	S074
5/5/2011	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251339		RDS1F Region 2	Laguna,Jorge	3/12/2018	3/12/2019	S075
5/5/2011	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085634		RDS1F Region 2	Laguna,Jorge	3/12/2018	3/12/2019	S075
5/5/2011	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185292		RDS1F Region 2	Laguna,Jorge	3/12/2018	3/12/2019	S075
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10044	64035110	RDS1F Region 2	Mahon,Alex	10/10/2011	10/10/2012	10044
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10045	64035111	RDS1F Region 2	Mahon,Alex	10/10/2011	10/10/2012	10045
10/17/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10146		RDS1F Region 2	Mahon,Alex			10045
10/17/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10146		RDS1F Region 2	Mahon,Alex			10045
10/17/2011	Probe	Na-1 Probe	W.B. Johnson Instruments	GSP-1	10167		RDS1F Region 2	Mahon,Alex			10045
10/17/2011	Probe	Na-1 Probe	W.B. Johnson Instruments	GSP-1	10184		RDS1F Region 2	Mahon,Alex			10045
1/3/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185253		RDS1F Region 2	Kidder,Joseph	11/1/2017	11/1/2018	S198
11/18/2015	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP177	64036700	RDS1F Region 2	Mahon,Alex	11/18/2015	11/18/2016	
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085280		RDS1F Region 3	Miller,Brian	11/12/2008	11/12/2009	S057
4/11/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085768		RDS1F Region 3	Dennis,Anthony	7/26/2017	7/26/2018	S058
5/6/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251133		RDS1F Region 3	Miller,Brian	11/12/2008	11/12/2009	S057
5/30/2008	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	AM-801	1502	64029421	RDS1F Region 3	Frank,Patricia			
5/30/2008	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	AM-801	1511	64029427	RDS1F Region 3	Dennis,Anthony			
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185231		RDS1F Region 3	Miller,Brian	11/12/2008	11/12/2009	S057
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S040		RDS1F Region 3	Dennis,Anthony			S040
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S057		RDS1F Region 3	Miller,Brian			S057
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S058		RDS1F Region 3	Dennis,Anthony			S058
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S066		RDS1F Region 3	Dennis,Anthony			S066
10/13/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10046	64035112	RDS1F Region 3	Dennis,Anthony	8/1/2018	8/1/2019	10046
10/13/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10158		RDS1F Region 3	Dennis,Anthony			10046
10/13/2011	Probe	Na-1 Probe	W.B. Johnson Instruments	GSP-1	10173		RDS1F Region 3	Dennis,Anthony			10046
10/17/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10148		RDS1F Region 3	Frank,Patricia			10051
10/17/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10153		RDS1F Region 3	Frank,Patricia			10050
10/17/2011	Probe	Na-1 Probe	W.B. Johnson Instruments	GSP-1	10177		RDS1F Region 3	Frank,Patricia			10050
10/17/2011	Probe	Na-1 Probe	W.B. Johnson Instruments	GSP-1	10179		RDS1F Region 3	Frank,Patricia			10051
10/19/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10047	64035113	RDS1F Region 3	Dennis,Anthony	8/1/2018	8/1/2019	10047
10/19/2011	Probe	Na-1 Probe	W.B. Johnson Instruments	GSP-1	10209		RDS1F Region 3	Dennis,Anthony			10047
10/19/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10139		RDS1F Region 3	Dennis,Anthony			10047
4/11/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083833		RDS1F Region 3	Dennis,Anthony	7/26/2017	7/26/2018	S040
4/11/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185178		RDS1F Region 3	Dennis,Anthony	7/26/2017	7/26/2018	S040
4/11/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251137		RDS1F Region 3	Dennis,Anthony	7/26/2017	7/26/2018	S058

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
4/11/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185233		RDS1F Region 3	Dennis,Anthon y	7/26/2017	7/26/2018	S058
4/11/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251216		RDS1F Region 3	Dennis,Anthon y	7/26/2017	7/26/2018	S066
4/11/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085602		RDS1F Region 3	Dennis,Anthon y	7/26/2017	7/26/2018	S066
4/11/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185243		RDS1F Region 3	Dennis,Anthon y	7/26/2017	7/26/2018	S066
12/18/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251320		RDS1F Region 3	Dennis,Anthon y	7/26/2017	7/26/2018	S040
6/18/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251160		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S060
6/18/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085283		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S060
6/18/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185235		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S060
6/18/2018	Miscellaneous	Pelican Case	PELICAN	1200	S060		RDS1F Region 3	Dennis,Anthon y			S060
6/18/2018	Miscellaneous	Pelican Case	PELICAN	1200	S064		RDS1F Region 3	Dennis,Anthon y			S064
6/18/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251195		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S064
6/18/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085287		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S064
6/18/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185090		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S064
6/18/2018	Miscellaneous	Pelican Case	PELICAN	1200	S068		RDS1F Region 3	Dennis,Anthon y			S068
6/18/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251265		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S068
6/18/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01067775		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S068
6/18/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185247		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S068
6/18/2018	Miscellaneous	Pelican Case	PELICAN	1200	S069		RDS1F Region 3	Dennis,Anthon y			S069
6/18/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251278		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S069
6/18/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085605		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S069
6/18/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185248		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2018	S069
6/18/2018	Miscellaneous	Pelican Case	PELICAN	1200	S073		RDS1F Region 3	Dennis,Anthon y			S073
6/18/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251322		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S073
6/18/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085630		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S073
6/18/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185278		RDS1F Region 3	Dennis,Anthon y	8/1/2018	8/1/2019	S073
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085645		RDS1F Region 4	Zager,Hunter	10/1/2018	10/1/2019	S082
5/30/2008	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	ANA-801	1517	64029430	RDS1F Region 4	Frank,Gary			
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185315		RDS1F Region 4	Zager,Hunter	10/1/2018	10/1/2019	S082
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S003		RDS1F Region 4	Crumpton,Gre gory	10/17/2017	10/17/2018	S003
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S004		RDS1F Region 4	Matteler,Kare n			S004
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S081		RDS1F Region 4	Fulton,Jason			S081
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S082		RDS1F Region 4	Zager,Hunter			S082
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S084		RDS1F Region 4	Wiese,Michael			S084
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S085		RDS1F Region 4	Hawthorne,Me lissa			S085
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S095		RDS1F Region 4	Rakestraw,Rich ard			S095
1/6/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185313		RDS1F Region 4	Fulton,Jason	2/21/2012	2/12/2013	S081
1/6/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085641		RDS1F Region 4	Fulton,Jason	2/21/2012	2/21/2013	S081
1/6/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251150		RDS1F Region 4	Fulton,Jason	2/21/2012	2/21/2013	S081
1/6/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185327		RDS1F Region 4	Wiese,Michael	2/21/2012	2/21/2013	S084
1/6/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085647		RDS1F Region 4	Wiese,Michael	2/21/2012	2/21/2013	S084
1/6/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251162		RDS1F Region 4	Wiese,Michael	2/21/2012	2/21/2013	S084



RDSTF CALIBRATION DATA

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
1/6/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185340		RDSTF Region 4	Hawthorne, Melissa	2/21/2012	2/21/2013	S085
1/6/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085661		RDSTF Region 4	Hawthorne, Melissa	2/21/2012	2/21/2013	S085
1/6/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251181		RDSTF Region 4	Hawthorne, Melissa	2/21/2012	2/21/2013	S085
1/6/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185329		RDSTF Region 4	Rakestraw, Richard	2/21/2012	2/21/2013	S095
1/6/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085648		RDSTF Region 4	Rakestraw, Richard	2/21/2012	2/21/2013	S095
1/6/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251293		RDSTF Region 4	Rakestraw, Richard	2/21/2012	2/21/2013	S095
3/4/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	01083789		RDSTF Region 4	Crumpton, Gregory	10/17/2017	10/17/2018	S003
3/4/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00183821		RDSTF Region 4	Crumpton, Gregory	10/17/2017	10/17/2018	S003
3/4/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251329		RDSTF Region 4	Crumpton, Gregory	10/17/2017	10/17/2018	S003
3/4/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	01083790		RDSTF Region 4	Motteler, Karen	10/17/2017	10/17/2018	S004
3/4/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00184378		RDSTF Region 4	Motteler, Karen	10/17/2017	10/17/2018	S004
3/4/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251141		RDSTF Region 4	Motteler, Karen	10/17/2017	10/17/2018	S004
4/23/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	228723		RDSTF Region 4	Zager, Hunter	10/1/2018	10/1/2019	S082
10/13/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10048	64035114	RDSTF Region 4	Brooking, Sandra	7/2/2018	7/2/2019	10048
10/13/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10155		RDSTF Region 4	Frank, Gary			10048
10/13/2011	Probe	Na-I Probe	W.B. Johnson Instruments	GSP-1	10172		RDSTF Region 4	Frank, Gary			10048
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10049	64035115	RDSTF Region 4	Brooking, Sandra	7/2/2018	7/2/2019	
10/17/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10149		RDSTF Region 4	Frank, Gary			10049
10/17/2011	Probe	Na-I Probe	W.B. Johnson Instruments	GSP-1	10176		RDSTF Region 4	Frank, Gary			10049
10/5/2015	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251288		RDSTF Region 4	Mooney, Mary	10/17/2017	10/17/2018	S094
10/5/2015	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00191085		RDSTF Region 4	Mooney, Mary	10/17/2017	10/17/2018	S094
10/5/2015	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085660		RDSTF Region 4	Mooney, Mary	10/17/2017	10/17/2018	S094
10/5/2015	Miscellaneous	Pelican Case	PELICAN	1200	S094		RDSTF Region 4	Mooney, Mary			S094
11/17/2015	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP186	64036709	RDSTF Region 4	Frank, Gary	11/17/2015	11/17/2016	
10/17/2017	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10051	64035117	RDSTF Region 4	Crumpton, Gregory	10/20/2017	10/20/2018	
10/18/2017	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10050	64035116	RDSTF Region 4	Crumpton, Gregory	10/20/2017	10/20/2018	
1/30/2018	Miscellaneous	Pelican Case	PELICAN	1200	S091		RDSTF Region 4	Zwissler, Joseph			S091
1/30/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085655		RDSTF Region 4	Zwissler, Joseph	1/30/2018	1/30/2019	S091
1/30/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251145		RDSTF Region 4	Zwissler, Joseph	1/30/2018	1/30/2019	D091
1/30/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185336		RDSTF Region 4	Zwissler, Joseph	1/30/2018	1/30/2019	S091
1/30/2018	Miscellaneous	Pelican Case	PELICAN	1200	S005		RDSTF Region 4	Frank, Gary			S005
1/30/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	01083791		RDSTF Region 4	Frank, Gary	1/30/2018	1/30/2019	S005
1/30/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251206		RDSTF Region 4	Frank, Gary	1/30/2018	1/30/2019	S005
1/30/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00184949		RDSTF Region 4	Frank, Gary	1/30/2018	1/30/2019	S005
1/30/2018	Miscellaneous	Pelican Case	PELICAN	1200	S083		RDSTF Region 4	Longen, Julie			S083
1/30/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251154		RDSTF Region 4	Longen, Julie	1/30/2018	1/30/2019	S083
1/30/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085653		RDSTF Region 4	Longen, Julie	1/30/2018	1/30/2019	S083
1/30/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185318		RDSTF Region 4	Longen, Julie	1/30/2018	1/30/2019	S083
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	01083800		RDSTF Region 5	Natal, Andy	3/15/2017	3/15/2018	S012
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	01083807		RDSTF Region 5	Caban, Julio	10/16/2015	10/16/2016	S017
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	01083836		RDSTF Region 5	McRae, James	3/15/2017	3/15/2018	S043
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	01084018		RDSTF Region 5	Grubbs, Suzanne	3/23/2012	3/23/2013	S047
5/9/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251185		RDSTF Region 5	Crowe, David	1/22/2016	1/22/2017	S009
5/12/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251259		RDSTF Region 5	Natal, Andy	3/15/2017	3/15/2018	S012
5/12/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251273		RDSTF Region 5	Caban, Julio	10/16/2015	10/16/2016	S017
5/12/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251304		RDSTF Region 5	Grubbs, Suzanne	3/23/2012	3/23/2013	S047
5/30/2008	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	AW-801	1521	64029438	RDSTF Region 5	Brock, Melissa	1/22/2016	1/22/2017	S009
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185029		RDSTF Region 5	Crowe, David	1/22/2016	1/22/2017	S009
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185075		RDSTF Region 5	Natal, Andy	3/15/2017	3/15/2018	S012

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185206		RDS1F Region 5	Grubbs,Suzanne	3/23/2012	3/23/2013	S047
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00191098		RDS1F Region 5	Caban,Julio	10/16/2015	10/16/2016	S017
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S009		RDS1F Region 5	Crowe,David			S009
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S010		RDS1F Region 5	Steele,Donald			S010
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S012		RDS1F Region 5	Natal,Andy			S012
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S017		RDS1F Region 5	Caban,Julio			S017
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S018		RDS1F Region 5	Brock,Melissa			S018
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S021		RDS1F Region 5	Frazier,Cheryl			S021
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S022		RDS1F Region 5	Young,Mary			S022
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S027		RDS1F Region 5	Makieski,Anthony			S027
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S031		RDS1F Region 5	Vogt,Charles			S031
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S043		RDS1F Region 5	McBae,James			S043
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S044		RDS1F Region 5	Flynn,Sean			S044
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S047		RDS1F Region 5	Grubbs,Suzanne			S047
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S059		RDS1F Region 5	Dunn,Cheryl			S059
7/31/2008	Miscellaneous	Pelican Case	PELICAN	1200	S062		RDS1F Region 5	Price,Julianne			S062
1/20/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	4061130		RDS1F Region 5	Crowe,David	1/22/2016	1/22/2017	S009
1/20/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083797		RDS1F Region 5	Steele,Donald	10/19/2015	10/19/2016	S010
1/20/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	Siemens	Model 2401-P	251151		RDS1F Region 5	Steele,Donald	10/19/2015	10/19/2016	S010
1/20/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185062		RDS1F Region 5	Brock,Melissa	10/19/2015	10/19/2016	S018
1/20/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251221		RDS1F Region 5	Brock,Melissa	10/19/2015	10/19/2016	S018
1/20/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185091		RDS1F Region 5	Frazier,Cheryl	10/19/2015	10/19/2016	S021
1/20/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083811		RDS1F Region 5	Frazier,Cheryl	10/19/2015	10/19/2016	S021
1/20/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251138		RDS1F Region 5	Frazier,Cheryl	10/19/2015	10/19/2016	S021
1/20/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185096		RDS1F Region 5	Frazier,Cheryl	10/19/2015	10/19/2016	S021
1/20/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083813		RDS1F Region 5	Young,Mary	10/19/2015	10/19/2016	S022
1/20/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251268		RDS1F Region 5	Young,Mary	10/19/2015	10/19/2016	S022
1/20/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185100		RDS1F Region 5	Young,Mary	10/19/2015	10/19/2016	S022
1/20/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083818		RDS1F Region 5	Makieski,Anthony	12/9/2013	12/9/2014	S027
1/20/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	248255		RDS1F Region 5	Makieski,Anthony	12/9/2013	12/9/2014	S027
1/20/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185124		RDS1F Region 5	Makieski,Anthony	12/9/2013	12/9/2014	S027
1/20/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083824		RDS1F Region 5	Vogt,Charles	12/19/2014	12/19/2015	S031
1/20/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251125		RDS1F Region 5	Vogt,Charles	12/19/2014	12/19/2015	S031
1/20/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185135		RDS1F Region 5	Vogt,Charles	12/19/2014	12/19/2015	S031
1/20/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01084013		RDS1F Region 5	Flynn,Sean	10/19/2015	10/19/2016	S044
1/20/2010	Dosimeter	POCKET RADIATION GM PANCAKE	Siemens	Model 2401-P	251283		RDS1F Region 5	Flynn,Sean	10/19/2015	10/19/2016	S044
1/20/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085200		RDS1F Region 5	STORAGEE,	12/19/2014	12/19/2015	S044
1/20/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251147		RDS1F Region 5	Dunn,Cheryl	12/19/2014	12/19/2015	S059
1/20/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185234		RDS1F Region 5	Flynn,Sean	10/19/2015	10/19/2016	S044
1/20/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085285		RDS1F Region 5	Price,Julianne	12/19/2014	12/19/2015	S062
1/20/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251184		RDS1F Region 5	Price,Julianne	12/19/2014	12/19/2015	S062
1/20/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185238		RDS1F Region 5	Price,Julianne	12/19/2014	12/19/2015	S062
10/13/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10053	64035119	RDS1F Region 5	Brock,Melissa	10/19/2015	10/19/2016	S018
10/13/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	HP-265	10052	64035118	RDS1F Region 5	Brock,Melissa	2/2/2015	2/2/2016	10052
10/13/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10157		RDS1F Region 5	Brock,Melissa			10053
10/13/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10142		RDS1F Region 5	Brock,Melissa			10052
10/13/2011	Probe	Na-1 Probe	W.B. Johnson Instruments	GSP-1	10187		RDS1F Region 5	Brock,Melissa			10053
11/18/2015	Probe	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP178	64036701	RDS1F Region 5	Brock,Melissa			10052
5/30/2008	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	AM-801	1518	64029431	RDS1F Region 6	Smith,Geordie	11/18/2015	11/18/2016	
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S007		RDS1F Region 6	Wilson,Shawn			S007
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S108		RDS1F Region 6	Chang,Louise			S108
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S116		RDS1F Region 6	Kish,Ginny			S116
4/27/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00184962		RDS1F Region 6	Wilson,Shawn	2/8/2018	2/8/2019	S007
4/27/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083793		RDS1F Region 6	Wilson,Shawn	2/8/2018	2/8/2019	S007
4/27/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251175		RDS1F Region 6	Wilson,Shawn	2/8/2018	2/8/2019	S007
10/13/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10055	64035121	RDS1F Region 6	Love,Jim	5/6/2016	5/6/2017	10055
10/13/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10152		RDS1F Region 6	Smith,Geordie			10055
10/13/2011	Probe	Na-1 Probe	W.B. Johnson Instruments	GSP-1	10178		RDS1F Region 6	Smith,Geordie			10055

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10054	64035120	RDSTF Region 6	Love,Jim	5/6/2016	5/6/2017	10054
10/17/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10145		RDSTF Region 6	Smith,Geordie			10054
10/17/2011	Probe	Na-I Probe	W.B. Johnson Instruments	GSP- 1	10185		RDSTF Region 6	Smith,Geordie			10054
10/5/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	01083810		RDSTF Region 6	Moore,Andrea	7/1/2016	7/1/2017	S020
1/2/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251214		RDSTF Region 6	Kish,Ginny	2/6/2018	2/6/2019	S116
1/2/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085752		RDSTF Region 6	Kish,Ginny	2/6/2018	2/6/2019	S116
1/2/2013	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00189520		RDSTF Region 6	Kish,Ginny	2/6/2018	2/6/2019	S116
1/2/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251325		RDSTF Region 6	Chang,Louise	2/6/2018	2/6/2019	S108
1/9/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085740		RDSTF Region 6	Chang,Louise	2/6/2018	2/6/2019	S108
1/2/2013	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00189140		RDSTF Region 6	Chang,Louise	2/6/2018	2/6/2019	S108
1/2/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251112		RDSTF Region 6	Bauer- Windhorst, Holl y	2/6/2018	2/6/2019	S111
1/2/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085743		RDSTF Region 6	Bauer- Windhorst, Holl y	2/6/2018	2/6/2019	S111
1/2/2013	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00189439		RDSTF Region 6	Bauer- Windhorst, Holl y	2/6/2018	2/6/2019	S111
11/19/2013	Miscellaneous	Pelican Case	PELICAN	1200	S111		RDSTF Region 6	Bauer- Windhorst, Holl y			S111
4/18/2018	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP184	64036707	RDSTF Region 6	Smith,Geordie	4/24/2018	4/24/2019	
9/7/2018	Miscellaneous	Pelican Case	PELICAN	1200	S037		RDSTF Region 6	Smith,Nastash a			S037
9/7/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251220		RDSTF Region 6	Smith,Nastash a	10/12/2018	10/12/2019	S037
9/7/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	01083830		RDSTF Region 6	Smith,Nastash a	10/12/2018	10/12/2019	S037
9/7/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185170		RDSTF Region 6	Smith,Nastash a	10/12/2018	10/12/2019	S037
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S079		RDSTF Region 7	Vomero,Antho ny			S079
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S088		RDSTF Region 7	Alzugaray,Man ual			S088
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S113		RDSTF Region 7	Coke,Trevor			S113
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S114		RDSTF Region 7	Harrison,Scott			S114
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S115		RDSTF Region 7	brookman,willi am			S115
2/3/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085639		RDSTF Region 7	Vomero,Antho ny	12/1/2016	12/1/2017	S079
2/3/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185310		RDSTF Region 7	Vomero,Antho ny	12/1/2016	12/1/2017	S079
2/3/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185333		RDSTF Region 7	Alzugaray,Man ual	4/9/2012	4/9/2013	S088
2/3/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251143		RDSTF Region 7	Vomero,Antho ny	12/1/2016	12/1/2017	S079
2/3/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251222		RDSTF Region 7	Alzugaray,Man ual	4/9/2012	4/9/2013	S088
2/4/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	4060450		RDSTF Region 7	Alzugaray,Man ual	4/9/2012	4/9/2013	S088
3/4/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251139		RDSTF Region 7	Coke,Trevor	4/6/2012	4/6/2013	S113
3/4/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00189498		RDSTF Region 7	Coke,Trevor	4/6/2012	4/6/2013	S113
3/4/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085745		RDSTF Region 7	Coke,Trevor	4/6/2012	4/6/2013	S113
3/4/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251180		RDSTF Region 7	brookman,willi am	3/23/2012	3/23/2013	S115
3/4/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00189505		RDSTF Region 7	brookman,willi am	3/23/2012	3/23/2013	S115
3/4/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1uR/hr - 999 R/hr)	CANBERRA Milron	MRAD-213	03085751		RDSTF Region 7	brookman,willi am	3/23/2012	3/23/2013	S115
3/19/2009	Miscellaneous	Pelican Case	PELICAN	1200	S011		RDSTF Region 7	Hanson,Tim			S011
6/17/2010	Miscellaneous	Pelican Case	PELICAN	1200	S020		RDSTF Region 7	Moore,Andrea			S020
7/19/2010	Survey Instrument	Digital Rate Meter (Multiple Probes)	LUDLUM MEASUREMENTS INC.	Model 2241-2	199953		RDSTF Region 7	Colson,George	7/20/2010	7/20/2011	
7/20/2010	Probe	GM PANCAKE PROBE	LUDLUM MEASUREMENTS INC.	44-9	PR206698		RDSTF Region 7	Colson,George			
7/20/2010	Probe	Na-I Probe	LUDLUM MEASUREMENTS INC.	44-2	PR208903		RDSTF Region 7	Colson,George			
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10056	64035122	RDSTF Region 7	Vomero,Antho ny	5/1/2014	5/1/2015	
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10057	64035123	RDSTF Region 7	Vomero,Antho ny	5/1/2014	5/1/2015	
10/17/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10147		RDSTF Region 7	Vomero,Antho ny			10056

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due	Kit#
10/17/2011	Probe	GM PANCAKE PROBE	W.B. Johnson Instruments	HP-265	10159		RDSIF Region 7	Vomero,Anthon			10057
10/17/2011	Probe	Na-I Probe	W.B. Johnson Instruments	GSP-1	10183		RDSIF Region 7	Vomero,Anthon			10056
10/17/2011	Probe	Na-I Probe	W.B. Johnson Instruments	GSP-1	10203		RDSIF Region 7	Vomero,Anthon			10058
10/5/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENT'S INC.	Model 2401-P	251155		RDSIF Region 7	Harrison,Scott	7/1/2016	7/1/2017	S114
10/5/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00189499		RDSIF Region 7	Harrison,Scott	7/1/2016	7/1/2017	S114
10/5/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Milion	MRAD-213	03085750		RDSIF Region 7	Harrison,Scott	7/1/2016	7/1/2017	S114
10/5/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENT'S INC.	Model 2401-P	251198		RDSIF Region 7	Hanson,Tim	7/1/2016	7/1/2017	S011
10/5/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185073		RDSIF Region 7	Hanson,Tim	7/1/2016	7/1/2017	S011
10/5/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Milion	MRAD-213	01083799		RDSIF Region 7	Hanson,Tim	7/1/2016	7/1/2017	S011
10/5/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENT'S INC.	Model 2401-P	251194		RDSIF Region 7	Moore,Andrea	7/1/2016	7/1/2017	S020
10/5/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185147		RDSIF Region 7	Moore,Andrea	7/1/2016	7/1/2017	S020
9/7/2014	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	AM-801	1510	64029426	RDSIF Region 7	Vomero,Anthon			
12/7/2015	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP185	64036708	RDSIF Region 7	Vomero,Anthon	12/8/2016	12/8/2017	

Date Received	Category	Description	Manufacturer	Model	Serial	DOH#	Location	Customer	Cal Date	Cal Due
4/28/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185092		RSTF Region 6	Nagelhout, David	6/10/2015	6/10/2016
4/28/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251286		RSTF Region 6	Nagelhout, David	6/10/2015	6/10/2016
8/19/2011	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251227		RSTF Region 1	Lavoie, Lisa	6/6/2017	6/6/2018
8/19/2011	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083831		RSTF Region 1	Lavoie, Lisa	6/6/2017	6/6/2018
12/12/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251157		RSTF Region 1	Mettler, Stephen	6/6/2017	6/6/2018
12/12/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185136		RSTF Region 1	Mettler, Stephen	6/6/2017	6/6/2018
12/12/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083825		RSTF Region 1	Mettler, Stephen	6/6/2017	6/6/2018
8/19/2011	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185171		RSTF Region 1	Lavoie, Lisa	6/6/2017	6/6/2018
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S032		RSTF Region 1	Mettler, Stephen		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S038		RSTF Region 1	Lavoie, Lisa		
5/30/2008	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	AM-801	1514	64029434	RSTF Region 1	Anderson, Andy		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S050		RSTF Region 1	Anderson, Andy		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S048		RSTF Region 1	May, Shaun		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S056		RSTF Region 2	Combass, Jerry		
2/9/2012	Miscellaneous	Pelican Case	PELICAN	1200	S190		RSTF Region 2	Mitchell, Spencer		
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10050		RSTF Region 3	Frank, Patricia	10/5/2015	10/5/2016
10/17/2011	Survey Instrument	Digital Rate Meter (Multiple Probes)	W.B. Johnson Instruments	DSM 525	10051		RSTF Region 3	Frank, Patricia	10/5/2015	10/5/2016
11/18/2015	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP176	64036699	RSTF Region 3	Frank, Patricia	11/18/2015	11/18/2016
4/11/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085287		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185090		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
4/11/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185235		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
4/11/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251195		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
4/11/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251160		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
4/11/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185278		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
4/11/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085283		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
4/11/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251278		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
12/12/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01067775		RSTF Region 3	Courson, Sandi	3/20/2017	3/20/2018
12/12/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185247		RSTF Region 3	Courson, Sandi	3/20/2017	3/20/2018
4/11/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085630		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
4/11/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251322		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
4/11/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185248		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
4/11/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	03085605		RSTF Region 3	Dennis, Anthony	3/20/2017	3/20/2018
12/12/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251265		RSTF Region 3	Courson, Sandi	3/20/2017	3/20/2018
3/28/2017	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP176	64036699	RSTF Region 3	Dennis, Anthony	3/28/2017	3/28/2018
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S069		RSTF Region 3	Dennis, Anthony		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S073		RSTF Region 3	Dennis, Anthony		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S068		RSTF Region 3	Courson, Sandi		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S064		RSTF Region 3	Dennis, Anthony		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S060		RSTF Region 3	Dennis, Anthony		
4/8/2009	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251206		RSTF Region 4	Frank, Gary	4/11/2016	4/11/2017
4/8/2009	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-213	01083791		RSTF Region 4	Frank, Gary	4/11/2016	4/11/2017
4/8/2009	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00184949		RSTF Region 4	Frank, Gary	4/11/2016	4/11/2017
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S091		RSTF Region 4	Zwissler, Joseph		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S083		RSTF Region 4	Schlepp, Danielle		
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S005		RSTF Region 4	Frank, Gary		
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S001		RSTF Region 4	Vozniak, Joseph		
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S002		RSTF Region 4	Holmes, Alfred		
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S006		RSTF Region 4	Juarbe, Israel		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S094		RSTF Region 4	Sauko, Justin		
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S013		RSTF Region 5	Dyjack, Angela		
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S011		RSTF Region 5	Vornhagen, Mike		

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4/28/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-2113	01083816		RDSTF Region 6	Nagelhout, David	6/10/2015	6/10/2016
10/8/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185131		RDSTF Region 6	Legg, Keith	6/10/2015	6/10/2016
5/6/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	248283		RDSTF Region 6	Legg, Keith	6/10/2015	6/10/2016
10/8/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-2113	01083822		RDSTF Region 6	Legg, Keith	6/10/2015	6/10/2016
9/8/2011	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185130		RDSTF Region 6	Burroughs, Ray	6/17/2015	6/17/2016
9/8/2011	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	248259		RDSTF Region 6	Burroughs, Ray	6/17/2015	6/17/2016
9/8/2011	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-2113	01083820		RDSTF Region 6	Burroughs, Ray	6/17/2015	6/17/2016
4/27/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185117		RDSTF Region 6	Love, Jim	6/18/2015	6/18/2016
4/27/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251242		RDSTF Region 6	Love, Jim	6/18/2015	6/18/2016
4/27/2010	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-2113	01083834		RDSTF Region 6	Tompkins, Richard	6/22/2015	6/22/2016
4/27/2010	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185341		RDSTF Region 6	Tompkins, Richard	6/22/2015	6/22/2016
4/27/2010	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251249		RDSTF Region 6	Tompkins, Richard	6/22/2015	6/22/2016
12/8/2015	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP184	64036707	RDSTF Region 6	Smith, Geordie	12/9/2015	12/9/2016
4/10/2008	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-2113	01083817		RDSTF Region 6	Kosiba, Robert	8/9/2016	8/9/2017
5/6/2008	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	248248		RDSTF Region 6	Kosiba, Robert	8/9/2016	8/9/2017
6/18/2008	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185122		RDSTF Region 6	Kosiba, Robert	8/9/2016	8/9/2017
1/8/2013	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-2113	01083830		RDSTF Region 6	Smith, Nastasha	1/27/2017	1/27/2018
1/8/2013	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185170		RDSTF Region 6	Smith, Nastasha	1/27/2017	1/27/2018
1/8/2013	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251220		RDSTF Region 6	Smith, Nastasha	1/27/2017	1/27/2018
4/17/2012	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-2113	01083823		RDSTF Region 6	Smith, Geordie	2/3/2017	2/3/2018
4/17/2012	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185133		RDSTF Region 6	Smith, Geordie	2/3/2017	2/3/2018
4/17/2012	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	251113		RDSTF Region 6	Smith, Geordie	2/3/2017	2/3/2018
9/7/2018	Dosimeter	DOSIMETER, EPD	Siemens	Mark 2.3	00185130		RDSTF Region 6	Burroughs, Ray	10/12/2018	10/12/2019
9/7/2018	Survey Instrument	POCKET RADIATION GM PANCAKE	LUDLUM MEASUREMENTS INC.	Model 2401-P	248259		RDSTF Region 6	Burroughs, Ray	10/12/2018	10/12/2019
9/7/2018	Survey Instrument	CDV-719 Ultra-Radiac GM Survey Meter (1µR/hr - 999 R/hr)	CANBERRA Mirion	MRAD-2113	01083820		RDSTF Region 6	Burroughs, Ray	10/12/2018	10/12/2019
9/7/2018	Miscellaneous	Pelican Case	PELICAN	1200	S028		RDSTF Region 6	Burroughs, Ray		
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S019		RDSTF Region 6	Nagelhout, David		
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S020		RDSTF Region 6	Brandon, April		
7/16/2008	Miscellaneous	Pelican Case	PELICAN	1200	S025		RDSTF Region 6	Love, Jim		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S029		RDSTF Region 6	Legg, Keith		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S033		RDSTF Region 6	Fisher, Steven		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S036		RDSTF Region 6	Kallotte, Robert		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S037		RDSTF Region 6	Swartz, Marc		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S041		RDSTF Region 6	Tompkins, Richard		
9/8/2011	Miscellaneous	Pelican Case	PELICAN	1200	S028		RDSTF Region 6	Burroughs, Ray		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S026		RDSTF Region 6	Kosiba, Robert		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S028		RDSTF Region 6	Burroughs, Ray		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S030		RDSTF Region 6	Smith, Geordie		
4/17/2012	Miscellaneous	Pelican Case	PELICAN	1200	S030		RDSTF Region 6	Smith, Geordie		
9/8/2011	Miscellaneous	Pelican Case	PELICAN	1200	S037		RDSTF Region 6	Smith, Nastasha		
12/8/2015	Survey Instrument	Alpha-Beta Air Particulate Monitor	Bladewerx	Sabre BPM	AP185	64036708	RDSTF Region 6	Smith, Nastasha	12/9/2015	12/9/2016
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S098		RDSTF Region 7	Vomero, Anthony		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S103		RDSTF Region 7	Alterwein, Daniel		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S093		RDSTF Region 7	Whyman, Alan		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S087		RDSTF Region 7	Miller, Randall		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S080		RDSTF Region 7	Wozy, Mary		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S080		RDSTF Region 7	Coates, Charles		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S071		RDSTF Region 7	Philoctete, Charles		
7/21/2008	Miscellaneous	Pelican Case	PELICAN	1200	S111		RDSTF Region 7	Mayer, Tim		
5/30/2008	Survey Instrument	Portable Portal Monitor	W.B. Johnson Instruments	AM-801	1510	64029426	RDSTF Region 7	Vomero, Anthony		

# APPENDIX 6

## INCIDENT REPORTING

## Incident Reporting

Notification of incidents to ERCE will take place via a phone call to the ERCE emergency response number **(407-297-2095)**, and if the incident is reported via another section of the Bureau, submission of the incident via the DL ERC Incident. Caller should request to speak to the incident response coordinator (IRC), a member of the emergency response group, or the acting IRC, in that order.

ERCE will categorize the incident as one of the following:

Licensed Radioactive material (will be issued incident number and further categorized as indicated below, incident report emailed).

- A. Medical event
- B. Non-medical event

ERCE will notify the State Watch Office and NRC as required for radioactive materials incidents.

The current BRCpedia SOPs indicate that: "All Investigation Assignment Requests for Field Operations will go through the ERCI Investigation Coordinator" and then sent to the regional managers.

Experienced Managers or experienced inspectors, as well as those who have taken the MQA basic investigation and/or the advanced course, may be assigned the investigation by the ERCI Investigation Coordinator.

Non- licensed radioactive material (will be issued an incident number, incident report emailed). Incidents in this category can be further categorized as scrap metal, waste alarms, concerned citizen, etc.

Non ionizing (no incident number issued, will be referred to ERCT-James Futch)

Machine generated (no incident number issued, will be referred to ERCX)

Once processed, all incidents will be sent back out via DL ERC incident with the standard information presented in the subject line, followed by the category and sub category.

For Example; **FL18-100, Wheelabrator S Broward, non-licensed RAM, waste alarm**

For licensed radioactive material event, **ERCM will determine** if ERCI or ERCT action is required, and if so, will coordinate with ERCI/ERCT and determine what actions should be included in the investigation.

For non-licensed radioactive material events, ERCE will determine if ERCI action is required, and request assistance as necessary from appropriate regional manager.

ERCM will post initial incident reports into LaserFiche.

When in the field, if there is an incident that has not been called in, ERCI staff can proceed with an investigation if deemed necessary, and call the ERCE Emergency line.

Investigation reports will be distributed via **DL ERC Incident**.



## Incident Reporting

The ERCI Investigation Coordinator, or if not available the regional managers will review to ensure if there is enough and appropriate documentation, and then post the investigation report to Laserfiche,. *INSTEAD of ERCM will post the investigation report into LaserFiche. ???*

ERCM will distribute final decision (enforcement action yes/no) for licensed materials events. ERCM will post final decision to Laserfiche.

ERCE will update final incident report with ERCM data and verify that all incident files are posted to Laserfiche, including final incident report.



























**Note:** Confidential information shall not be emailed, faxed or posted to Laserfiche. The original documents should have confidential information redacted before transmission/posting activities.























































# APPENDIX 7

## SS&D REVIEW PROCEDURES, GUIDES AND STANDARDS (NOTEBOOK)

# APPENDIX 8

## RAM – DIRECTORY OF AVAILABLE ELECTRONIC FILES

Name	Date modified	Type	Size
 0016 ERCM Delegation of Authority.docx	2/16/2016 9:27 AM	Microsoft Word Document	67 KB
 28-104 F.A.C. 2018.pdf	12/5/2018 11:44 AM	Adobe Acrobat Document	90 KB
 64 E-5 F.A.C. R.15 03-21-2016.pdf	12/5/2018 11:51 AM	Adobe Acrobat Document	3,033 KB
 119.071-FLStatute2018.pdf	12/5/2018 12:05 PM	Adobe Acrobat Document	201 KB
 120-FLStatutes2018.pdf	12/5/2018 12:03 PM	Adobe Acrobat Document	118 KB
 404-FLStatutes2018.pdf	12/5/2018 12:02 PM	Adobe Acrobat Document	283 KB
 468.3001-FLStatutes2018.pdf	12/5/2018 12:00 PM	Adobe Acrobat Document	116 KB
 483.901-FLStatute2018.pdf	12/5/2018 11:42 AM	Adobe Acrobat Document	128 KB
 2019 IMPEP Incident Reporting.pdf	12/26/2018 2:01 PM	Adobe Acrobat Document	80 KB
 2019 IMPEP Increased Controls Licensees.pdf	6/3/2019 6:47 AM	Adobe Acrobat Document	73 KB
 2019 IMPEP Inspection Enforcement Procedures.pdf	6/5/2019 7:06 AM	Adobe Acrobat Document	101 KB
 2019 IMPEP Inspection Frequencies by Licence Type.pdf	12/5/2018 10:03 AM	Adobe Acrobat Document	507 KB
 2019 IMPEP Inspection Tracking Actions.pdf	4/18/2019 11:16 AM	Adobe Acrobat Document	86 KB
 2019 IMPEP Inspections Completed by Inspector 4-15 to 5-19.pdf	6/5/2019 6:43 AM	Adobe Acrobat Document	362 KB
 2019 IMPEP Intial and Routine Inspections 4-15 to 5-19.pdf	6/5/2019 6:41 AM	Adobe Acrobat Document	97 KB
 2019 IMPEP Licensing Actions Completed by Evaluator.pdf	6/4/2019 12:38 PM	Adobe Acrobat Document	696 KB
 2019 IMPEP Master Control List 2015-2019.pdf	6/4/2019 12:11 PM	Adobe Acrobat Document	725 KB
 2019 IMPEP Open Licensing Actions 06-04-2019.pdf	6/4/2019 2:08 PM	Adobe Acrobat Document	224 KB
 2019 IMPEP Reciprocity Inspections by Cat. 2015-2019.pdf	6/5/2019 12:37 PM	Adobe Acrobat Document	102 KB
 2019 IMPEP SSDR New and Amended.pdf	6/6/2019 12:52 PM	Adobe Acrobat Document	79 KB
 2019 IMPEP SSDR Procedures Guides Standards.pdf	11/30/2018 10:36 ...	Adobe Acrobat Document	8 KB
 2019 IMPEP Standard Medical License Conditions.pdf	12/5/2018 9:47 AM	Adobe Acrobat Document	57 KB
 2019 IMPEP Technical Model Procedures, Guides, and Licenses.pdf	12/5/2018 9:28 AM	Adobe Acrobat Document	5,415 KB
 2019 IMPEP Terminated Licenses During Review Period.pdf	6/4/2019 12:31 PM	Adobe Acrobat Document	76 KB
 IMPEP Restaurant -Entertainment Guide 2019.docx	6/7/2019 8:30 AM	Microsoft Word Document	21 KB
 2019 IMPEP Technical Model Produres, Guides, and Licenses Individual PDF's	3/5/2019 1:09 PM	File folder	

Name	Date modified	Type	Size
 2019 Cover sheet Technical Procedures for Licensing_Model Licenses_Review Guides.pdf	12/5/2018 9:25 AM	Adobe Acrobat Document	56 KB
 IMPEP-2019 Appl Form Human Use Form1322_12-09.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	39 KB
 IMPEP-2019 Appl Form Non Human1054_12-09.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	47 KB
 IMPEP-2019 Checklist Brachy Seeds for Localizations.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	11 KB
 IMPEP-2019 Checklist Fixed Gauge-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	51 KB
 IMPEP-2019 Checklist Gamma Knife-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	54 KB
 IMPEP-2019 Checklist Gliasite.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	30 KB
 IMPEP-2019 Checklist Guidant - Amendment-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	26 KB
 IMPEP-2019 Checklist Guidant - New 5A License-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	53 KB
 IMPEP-2019 Checklist HDR-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	23 KB
 IMPEP-2019 Checklist I-131 Animal Use.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	117 KB
 IMPEP-2019 Checklist I-131 Patient Release Aug07.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	94 KB
 IMPEP-2019 Checklist Ind. Radiography-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	102 KB
 IMPEP-2019 Checklist Industrial Radiography-Appl.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	109 KB
 IMPEP-2019 Checklist Instrument Calibration-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	25 KB
 IMPEP-2019 Checklist Intravascular Brachytherapy-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	26 KB
 IMPEP-2019 Checklist Laboratory-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	30 KB
 IMPEP-2019 Checklist Medical June11.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	39 KB
 IMPEP-2019 Checklist Mobile Nuclear-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	32 KB
 IMPEP-2019 Checklist Portable Gauge-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	42 KB
 IMPEP-2019 Checklist QMP-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	39 KB
 IMPEP-2019 Checklist Radioactive Material-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	45 KB
 IMPEP-2019 Checklist Respiratory Protection Program-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	25 KB
 IMPEP-2019 Checklist TENORM-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	44 KB
 IMPEP-2019 Checklist THERASPHERES Eval-App CHECKLIST.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	11 KB
 IMPEP-2019 Checklist Training Program-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	35 KB
 IMPEP-2019 Checklist Type A Broad Scope 3M_III_-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	45 KB
 IMPEP-2019 Cumulative Exposure Form 1623.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	21 KB
 IMPEP-2019 EmergencyNoticePoster.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	25 KB
 IMPEP-2019 Model 5F Medical License with Conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	41 KB
 IMPEP-2019 Model Basic License with Conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	52 KB
 IMPEP-2019 Model Cyclotron License with Conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	59 KB
 IMPEP-2019 Model Fixed Gauge License with Conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	46 KB
 IMPEP-2019 Model Gamma Knife License with Conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	43 KB
 IMPEP-2019 Model HDR License with conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	51 KB
 IMPEP-2019 Model Ind Radiography License with Conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	45 KB
 IMPEP-2019 Model Inventory Form.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	11 KB
 IMPEP-2019 Model Medical License with Conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	57 KB
 IMPEP-2019 Model Pharmacy License with Conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	60 KB
 IMPEP-2019 Model Portable Gauge with Conditions.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	40 KB
 IMPEP-2019 Model Termination License.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	26 KB
 IMPEP-2019 Notice_to_Employees_3-01PDF.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	114 KB
 IMPEP-2019 Occupational Dose Period Form 1622.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	18 KB
 IMPEP-2019 R Guide Fetus Dose 3_36.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	145 KB
 IMPEP-2019 R Guide Fixed Gauge 1-2_R2_FG_2-15-08.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	1,474 KB
 IMPEP-2019 R Guide Medical Use 1_30 Revision-5 Medical.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	1,790 KB
 IMPEP-2019 R Guide Occupational Dose Calculations 3_34.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	163 KB
 IMPEP-2019 R Guide Occupational Dose Reporting 6_7.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	39 KB
 IMPEP-2019 R Guide Portable Gauge 1.10-Revision-5.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	1,870 KB
 IMPEP-2019 R Guide Preceptor Attestation 3-5.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	704 KB
 IMPEP-2019 R Guide Unsealed-Sealed Sources-1-50 Rev0-2-8-07.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	1,547 KB
 IMPEP-2019 RAM Disposition Form 1059.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	30 KB
 IMPEP-2019 Suppl Guide Bone Mineral Analyzer-E.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	26 KB
 IMPEP-2019 Transfers-Of-Industrial-Devices-Report-04-2007.pdf	12/5/2018 9:13 AM	Adobe Acrobat Document	143 KB

# APPENDIX 9

## STATE REGULATIONS (CH 64E-5)

# APPENDIX 10

## STATUTES

404.071

Chapter 64E-5  
Governing Florida Statutes

**404.071 Inspection, agreements, and training programs.—**

(1) Authorized representatives of the department have the authority to enter upon any public or private property at all reasonable times for the purpose of determining compliance with or violation of the provisions of this chapter, the rules and standards adopted hereunder, and the terms and conditions of a license or registration.

(2) The Governor may enter into agreements with the Federal Government, other states, or interstate agencies whereby this state will perform, on a cooperative basis with the Federal Government, other states, or interstate agencies, inspections, emergency responses to radiation accidents, and other functions related to the control of radiation.

(3) The department is authorized to institute training programs for the purpose of qualifying personnel to carry out the provisions of this chapter and may make such personnel available for participation in any program or programs of the Federal Government, other states, or interstate agencies in furtherance of the purpose of this chapter. Educational programs for the purpose of training or educating persons who possess, use, handle, transport, or service radioactive materials or radiation machines must be approved by the department.

**History.**—s. 1, ch. 78-373; s. 2, ch. 81-318; ss. 7, 22, ch. 82-186; ss. 5, 17, 18, ch. 84-190; s. 4, ch. 91-429.

**Note.**—Former s. 290.072.

**404.051 Powers and duties of the Department of Health.**—For protection of the public health and safety, the department is authorized to:

(1) Develop comprehensive policies and programs for the evaluation, determination, and amelioration of hazards associated with the use, possession, or disposal of sources of ionizing radiation. Such policies and programs shall be developed with due regard for compatibility or consistency with federal programs for regulation of radiation machines and byproduct, source, and special nuclear materials.

(2) Advise, consult, and cooperate with other agencies of the state, the Federal Government, other states, interstate agencies, political subdivisions, and other organizations concerned with the safe use of sources of radiation.

(3) Encourage, participate in, or conduct studies, investigations, public hearings, training, research, and demonstrations relating to the control of sources of ionizing radiation, the measurement of ionizing radiation, the effect upon public health and safety of exposure to ionizing radiation, and related problems.

(4) Adopt, promulgate, amend, and repeal rules and standards which may provide for licensure, registration, or regulation relating to the manufacture, production, transportation, use, possession, handling, treatment, storage, disposal, sale, lease, or other disposition of radioactive material, including naturally occurring radioactive material and low-level radioactive waste, and radiation machines as may be necessary to carry out the provisions of this chapter. The recommendations of nationally recognized bodies in the field of radiation protection shall be taken into consideration in the adoption, promulgation, amendment, and repeal of such rules and standards.

(5) Require the submission of plans, specifications, and reports for new construction and material alterations on the design and protective shielding of installations for radioactive material and radiation machines, excluding X-ray machines of less than 200,000 volts potential, and on systems for the disposal of radioactive wastes, for the determination of any ionizing radiation hazard; and it may render opinions and approve or disapprove such plans and specifications.



- (6) Require all sources of ionizing radiation to be shielded, transported, handled, used, possessed, treated, stored, or disposed of in a manner to provide compliance with the provisions of this chapter and rules and standards adopted hereunder.
- (7) Conduct evaluations of the levels of radioactive materials in the environment for the purpose of determining whether there is compliance with, or violation of, the provisions or standards contained in this chapter or the rules issued pursuant hereto or to otherwise protect the public health and safety.
- (8) Collect and disseminate information relating to the control of sources of ionizing radiation, including, but not limited to:
- (a) Maintenance of files of all radioactive material license applications, issuances, denials, amendments, transfers, renewals, modifications, suspensions, and revocations.
  - (b) Maintenance of files of all radiation machine registrants requiring registration under the provisions of this chapter.
  - (c) Maintenance of files of department licensees and nuclear power plant licensees of the United States Nuclear Regulatory Commission that generate low-level radioactive waste, recording the quarterly amount of low-level radioactive waste shipped by each licensee to commercial low-level radioactive waste management facilities.
- (9) Require, on forms prescribed and furnished by the department, registration and periodic reregistration of radiation machines, and licensing and periodic renewal of licenses for radioactive materials.
- (10) Exempt certain sources of ionizing radiation, or kinds of uses or users, from the licensing or registration requirements set forth in this chapter when the department determines that the exemption of such sources of ionizing radiation, or kinds of users or uses, will not constitute a significant risk to the health and safety of the public.
- (11) Adopt rules pursuant to this chapter which may provide for the recognition of other state and federal licenses as the department deems desirable, subject to such registration requirements as it may prescribe.
- (12) Respond to any emergency which involves possible or actual release of radioactive materials, carry out or supervise any required decontamination, and otherwise protect the public health and safety.
- (13) Act as the designated state agency in this state responsible for ensuring compliance with the provisions of the Southeast Interstate Low-Level Radioactive Waste Compact and for assessing penalties for noncompliance with such provisions as prescribed in ss. [404.161](#) and [404.162](#).
- (14) Require department licensees and nuclear power plant licensees of the United States Nuclear Regulatory Commission to take appropriate measures to reduce the volume of low-level radioactive waste they generate, and to monitor the progress of department licensees and nuclear power plant licensees of the commission in reducing such volume.
- (15) Develop and implement a responsible data-management program for the purpose of collecting and analyzing statistical information necessary to protect the public health and safety and to reply to requests from the Southeast Interstate Low-Level Radioactive Waste Commission for data and information.
- (16) Accept and administer loans, grants, or other funds or gifts, conditional or otherwise, in furtherance of its functions from the Federal Government and from other sources, public or private.
- History.—s. 1, ch. 78-373; s. 2, ch. 81-318; ss. 5, 22, ch. 82-186; ss. 2, 17, 18, ch. 84-190; s. 4, ch. 91-429; s. 56, ch. 97-237.
- Note.—Former s. 290.052.

**404.022 Declaration of policy.**—It is the responsibility of the State of Florida, for protection of the public health and safety:

- (1) To institute and maintain a program to permit development and utilization of sources of radiation for purposes consistent with the health and safety of the public.

(2) To prevent any associated harmful effects of radiation upon the public through the institution and maintenance of a regulatory program for all sources of radiation, providing for:

(a) A single effective system of regulation within the state.

(b) A system consonant with those of other states.

(c) Compatibility with the standards and regulatory programs of the Federal Government for byproduct, source, and special nuclear materials.

**History.**—s. 1, ch. 78-373; s. 2, ch. 81-318; ss. 17, 18, ch. 84-190; s. 4, ch. 91-429.

**Note.**—Former s. 290.021.

#### 404.131 Fees.—

(1) The department is authorized to charge and collect reasonable fees for specific and general licenses and for the registration of radiation machines. The fees shall not exceed the estimated costs to the department of performing licensing, registration, inspection, and other regulatory duties. Unless otherwise provided by law, such fees shall be deposited to the credit of the Radiation Protection Trust Fund, to be held and applied solely for salaries and expenses of the department incurred in implementing and enforcing the provisions of this chapter.

(2) The department shall require that each person who possesses a specific license to use, manufacture, produce, transport, transfer, receive, acquire, own, or possess radioactive material annually pay to the department an additional 5 percent of his or her annual licensing and inspection fee for the purposes of s. [404.122](#). All fees collected as specified in this subsection shall be deposited in the Radiation Protection Trust Fund. These fees are not refundable.

(3)(a) The department is authorized to charge and collect reasonable fees from department licensees and nuclear power plant licensees of the United States Nuclear Regulatory Commission who ship low-level radioactive waste to commercial low-level radioactive waste management facilities. Such fees shall be levied according to the cubic foot amount of low-level radioactive waste shipped quarterly by each department licensee and nuclear power plant licensee of the United States Nuclear Regulatory Commission and shall be set by the department to provide an amount no greater than the costs to the department of surveying the external radiation levels of a vehicle carrying low-level radioactive waste, inspection of the package bracing of a vehicle carrying low-level radioactive waste, verification of required marking and placarding of a vehicle carrying low-level radioactive waste, examination of required shipping papers, routing of low-level radioactive waste shipments to their final destinations, and ensuring compliance with the provisions of the Southeast Interstate Low-Level Radioactive Waste Compact. Fees shall be \$1.25 per cubic foot for the first year and shall be determined by department rule for succeeding years.

(b) All moneys collected by the department shall be deposited in the Radiation Protection Trust Fund.

(4)(a) The department is authorized to charge and collect reasonable fees in an amount no greater than the costs to the department of issuing a permit to a person to transport low-level radioactive waste into or through the borders of the state which is destined to a commercial low-level radioactive waste management facility.

(b) All moneys collected by the department shall be deposited in the Radiation Protection Trust Fund.

(5)(a) The department is authorized to collect reasonable fees from industries extracting solid minerals as defined in s. [211.30](#)(1), licensees, and nuclear power plants to meet the actual costs of surveillance activities performed for the purpose of monitoring the

radiological environmental impact of activities conducted by such solid mineral extraction industries, licensees, and nuclear power plants.

(b) All moneys collected by the department shall be deposited into the Radiation Protection Trust Fund and used for environmental surveillance activities.

History.—s. 1, ch. 78-373; s. 2, ch. 80-187; s. 2, ch. 81-318; ss. 13, 22, ch. 82-186; ss. 8, 10, 17, 18, ch. 84-190; s. 58, ch. 85-81; s. 4, ch. 91-429; s. 21, ch. 93-120; s. 20, ch. 96-418; s. 1014, ch. 97-103; s. 59, ch. 97-237.

Note.—Former s. 290.131.

#### 404.131 Fees.—

(1) The department is authorized to charge and collect reasonable fees for specific and general licenses and for the registration of radiation machines. The fees shall not exceed the estimated costs to the department of performing licensing, registration, inspection, and other regulatory duties. Unless otherwise provided by law, such fees shall be deposited to the credit of the Radiation Protection Trust Fund, to be held and applied solely for salaries and expenses of the department incurred in implementing and enforcing the provisions of this chapter.

(2) The department shall require that each person who possesses a specific license to use, manufacture, produce, transport, transfer, receive, acquire, own, or possess radioactive material annually pay to the department an additional 5 percent of his or her annual licensing and inspection fee for the purposes of s. [404.122](#). All fees collected as specified in this subsection shall be deposited in the Radiation Protection Trust Fund. These fees are not refundable.

(3)(a) The department is authorized to charge and collect reasonable fees from department licensees and nuclear power plant licensees of the United States Nuclear Regulatory Commission who ship low-level radioactive waste to commercial low-level radioactive waste management facilities. Such fees shall be levied according to the cubic foot amount of low-level radioactive waste shipped quarterly by each department licensee and nuclear power plant licensee of the United States Nuclear Regulatory Commission and shall be set by the department to provide an amount no greater than the costs to the department of surveying the external radiation levels of a vehicle carrying low-level radioactive waste, inspection of the package bracing of a vehicle carrying low-level radioactive waste, verification of required marking and placarding of a vehicle carrying low-level radioactive waste, examination of required shipping papers, routing of low-level radioactive waste shipments to their final destinations, and ensuring compliance with the provisions of the Southeast Interstate Low-Level Radioactive Waste Compact. Fees shall be \$1.25 per cubic foot for the first year and shall be determined by department rule for succeeding years.

(b) All moneys collected by the department shall be deposited in the Radiation Protection Trust Fund.

(4)(a) The department is authorized to charge and collect reasonable fees in an amount no greater than the costs to the department of issuing a permit to a person to transport low-level radioactive waste into or through the borders of the state which is destined to a commercial low-level radioactive waste management facility.

(b) All moneys collected by the department shall be deposited in the Radiation Protection Trust Fund.

(5)(a) The department is authorized to collect reasonable fees from industries extracting solid minerals as defined in s. [211.30](#)(1), licensees, and nuclear power plants to meet the actual costs of surveillance activities performed for the purpose of monitoring the radiological environmental impact of activities conducted by such solid mineral extraction industries, licensees, and nuclear power plants.

(b) All moneys collected by the department shall be deposited into the Radiation Protection Trust Fund and used for environmental surveillance activities.

History.—s. 1, ch. 78-373; s. 2, ch. 80-187; s. 2, ch. 81-318; ss. 13, 22, ch. 82-186; ss. 8, 10, 17, 18, ch. 84-190; s. 58, ch. 85-81; s. 4, ch. 91-429; s. 21, ch. 93-120; s. 20, ch. 96-418; s. 1014, ch. 97-103; s. 59, ch. 97-237.

Note.—Former s. 290.131.

#### 404.20 Transportation of radioactive materials.—

(1) The department shall adopt reasonable rules governing the transportation of radioactive materials which, in the judgment of the department, will promote the public health, safety, or welfare and protect the environment.

(a) Such rules shall be limited to provisions for the packing, marking, loading, and handling of radioactive materials, and the precautions necessary to determine whether the material when offered is in proper condition for transport, and shall include criteria for departmental approval of routes in this state which are to be used for the transportation of radioactive materials as defined in 49 C.F.R. s. 173.403(l)(1), (2), and (3) and (n)(4)(i), (ii), and (iii), and all radioactive materials shipments destined for treatment, storage, or disposal facilities as defined in the Southeast Interstate Low-Level Radioactive Waste Compact. The department may designate routes in the state to be used for the transportation of all other shipments of radioactive materials.

(b) Such rules shall be compatible with, but no less restrictive than, those established by the United States Nuclear Regulatory Commission, the United States Federal Aviation Administration, the United States Department of Transportation, the United States Coast Guard, or the United States Postal Service.

(2)(a) Rules adopted by the department pursuant to subsection (1) may be enforced, within their respective jurisdictions, by any authorized representative of the department, the Department of Highway Safety and Motor Vehicles, and the Department of Transportation.

(b) The department, through any authorized representative, is authorized to inspect any records of persons engaged in the transportation of radioactive materials when such records reasonably relate to the method or contents of packing, marking, loading, handling, or shipping of radioactive materials.

(c) The department, through any authorized representative, is authorized to enter upon and inspect the premises or vehicles of any person engaged in the transportation of radioactive materials, with or without a warrant, for the purpose of determining compliance with the provisions of this section and the rules promulgated hereunder.

(3)(a) All persons licensed by the department to use, manufacture, produce, transfer, transport, receive, acquire, own, process, or possess radioactive materials, as well as nuclear power plants licensed by the United States Nuclear Regulatory Commission, which desire to ship radioactive materials to a treatment, storage, or disposal facility as defined in the Southeast Interstate Low-Level Radioactive Waste Compact shall notify the department no less than 48 hours before the time of shipment.

(b) Upon notification from a department licensee or nuclear power plant licensee of the United States Nuclear Regulatory Commission, the department shall send an authorized representative to inspect each cargo of radioactive materials ready for shipment to a treatment, storage, or disposal facility as defined in the Southeast Interstate Low-Level Radioactive Waste Compact. Such inspection shall include, but not be limited to, the survey of the external radiation levels from the vehicle, inspection of package bracing, verification of required marking and placarding of the vehicle, and examination of shipping papers for

completeness as required by the United States Department of Transportation in 49 C.F.R. part 172 and as required by the department.

(c) Such shipping papers shall contain information as required by 49 C.F.R. part 172 in addition to the expected time of shipment, the proposed route on which the shipment will proceed, and the time the shipment is scheduled to arrive at its final destination. The shipping papers shall be signed and approved by the department representative.

(4) A person who collects radioactive materials for transport from more than one department licensee or nuclear power plant licensee of the United States Nuclear Regulatory Commission shall prepare a special shipping paper reflecting consolidated shipments. A special shipping paper shall be a listing or index of all department licensees and nuclear power plant licensees of the United States Nuclear Regulatory Commission which are to be served. A special shipping paper shall include the time at which a transporter expects to arrive at each pickup point, a proposed route, and an expected time of arrival at a treatment, storage, or disposal facility. A special shipping paper shall be approved by a department representative at the initial pickup by the transporter of radioactive materials and checked by a department representative at succeeding pickup points.

(5) A department licensee or nuclear power plant licensee of the United States Nuclear Regulatory Commission shall, within 72 hours of receiving notice of the arrival of its shipment at a destination for unloading, notify the department of such arrival. Such licensee shall also forward to the department, within 2 weeks of receiving notice of the arrival of its shipment at a destination for unloading, records of receipt and any other records indicating that a shipment is in violation of applicable rules at a treatment, storage, or disposal facility.

(6) Any person desiring to transport radioactive materials into or through the borders of this state, destined to a treatment, storage, or disposal facility as defined in the Southeast Interstate Low-Level Radioactive Waste Compact, shall obtain a permit from the department to bring such materials into the state. A permit application shall contain the time at which such radioactive materials will enter the state; a description of the radioactive materials to be shipped; the proposed route over which such radioactive materials will be transported into the state; and, in the event that such radioactive materials will leave the state, the time at which that will occur.

(7) Upon a finding by the department that any provision of this section, or of the rules adopted hereunder, is being violated, it may issue an order requiring correction.

(8) The violation of any of the provisions of this section or the rules promulgated hereunder constitutes a misdemeanor of the first degree, punishable as provided in s. [775.082](#) or s. [775.083](#).

History.—ss. 1, 2, 3, 4, ch. 71-271; s. 97, ch. 77-147; s. 25, ch. 82-186; ss. 15, 18, ch. 84-190; s. 71, ch. 91-221; s. 76, ch. 91-224; s. 4, ch. 91-429; s. 60, ch. 97-237; s. 49, ch. 99-397; s. 47, ch. 2004-5.

Note.—Former s. 381.512.

#### 404.22 Radiation machines and components; inspection.—

(1) The department and its duly authorized agents may inspect in a lawful manner at all reasonable hours any hospital or other health care facility or other place in the state in which a radiation machine is installed for the purpose of determining whether the facility, the radiation machine and its components, the film and film processing equipment, the techniques and procedures, any mechanical holding devices, the warning labels and signs, the written safety procedures, and the resultant image produced meet the standards of the department as set forth in this chapter and rules adopted pursuant to this chapter. Such rules may include standards for radiation machine performance, surveys, calibrations, and spot checks; requirements for quality assurance programs and quality control programs;



standards for facility electrical systems, safety alarms, radiation-monitoring equipment, and dosimetry systems; requirements for visual and aural communication with patients; procedures for establishing radiation safety committees for a facility; and qualifications of persons who cause a radiation machine to be used, who operate a radiation machine, and who ensure that a radiation machine complies with the requirements of this chapter and with rules of the department. If, in the opinion of the department, a radiation machine that fails to meet such standards can be made to meet the standards through an adjustment or limitation upon the stations or range of the radiation machine or through the purchase of a component meeting the standards, the department shall order the owner of the radiation machine to make the necessary adjustment or to purchase the necessary component within 90 days after the date of receipt of the order. However, if the radiation machine cannot be made to meet the standards, the department shall order the owner to cease the use of the radiation machine.

(2) Any person who enters the state with a radiation machine or component owned by him or her for the purpose of installing and utilizing the radiation machine shall register the radiation machine with the department. The department shall inspect the radiation machine to determine its compliance with the standards and shall approve or disapprove the radiation machine or shall order adjustments to the radiation machine in accordance with the provisions of subsection (1). Each person who installs or offers to install or service radiation machines must register with the department and must apply to the department, on forms furnished by the department, before furnishing or offering to furnish any such service.

(3) No person shall sell or offer to sell in this state any radiation machine or component thereof which does not meet the standards of the department or which cannot be adjusted to meet such standards in accordance with the provisions of subsection (1).

(4) The department shall enforce the provisions of this section and may impose an administrative fine, in addition to all other fines and penalties imposed by law, in an amount of \$1,000 for each violation of this section.

(5)(a) The department may charge and collect reasonable fees annually for the registration and inspection of radiation machines pursuant to this section. Such fees shall include the registration fee provided in s. [404.131](#) and shall be deposited into the Radiation Protection Trust Fund. Registration shall be on an annual basis. Registration shall consist of having the registrant file, on forms prescribed and furnished by the department, information which includes, but is not limited to: type and number of radiation machines, location of radiation machines, and changes in ownership. The department shall establish by rule a fee schedule based upon the actual costs incurred by the department in carrying out its registration and inspection responsibilities, including the salaries, expenses, and equipment of inspectors, but excluding costs of supervision and program administration. The fee schedule shall reflect differences in the frequency and complexity of inspections necessary to ensure that the radiation machines are functioning in accordance with the applicable standards developed pursuant to this chapter and rules adopted pursuant hereto.

(b) The fee schedule and frequency of inspections shall be determined as follows:

1. Radiation machines which are used in the practice of medicine, chiropractic medicine, osteopathic medicine, or naturopathic medicine shall be inspected at least once every 2 years, but not more than annually, for an annual fee which is not less than \$83 or more than \$145 for the first radiation machine within an office or facility and not less than \$36 or more than \$85 for each additional radiation machine therein.

2. Radiation machines which are used in the practice of veterinary medicine shall be inspected at least once every 3 years for an annual fee which is not less than \$28 or more than \$50 for the first radiation machine within an office or facility and not less than \$19 or more than \$34 for each additional radiation machine therein.

3. Radiation machines which are used for educational or industrial purposes shall be inspected at least once every 3 years for an annual fee which is not less than \$26 or more

than \$47 for the first radiation machine within an office or facility and not less than \$12 or more than \$23 for each additional radiation machine therein.

4. Radiation machines which are used in the practice of dentistry or podiatric medicine shall be inspected at least once every 5 years but not more often than once every 4 years for an annual fee which is not less than \$16 or more than \$31 for the first radiation machine within an office or facility and not less than \$5 or more than \$11 for each additional radiation machine therein.

5. Radiation machines which accelerate particles and are used in the healing arts shall be inspected at least annually for an annual fee which is not less than \$153 or more than \$258 for the first radiation machine within an office or facility and not less than \$87 or more than \$148 for each additional radiation machine therein.

6. Radiation machines which accelerate particles and are used for educational or industrial purposes shall be inspected at least once every 2 years for an annual fee which is not less than \$46 or more than \$81 for the first radiation machine within an office or facility and not less than \$26 or more than \$48 for each additional radiation machine therein.

7. If a radiation machine fails to meet the applicable standards upon initial inspection, the department may reinspect the radiation machine and charge a reinspection fee in accordance with the same schedule of fees as in subparagraphs 1.-6.

(6)(a) For purposes of this subsection, "mammography" means radiography of the breast for the purpose of enabling a physician to determine the presence, size, location, and extent of cancerous or potentially cancerous tissue in the breast.

(b) All radiation machines used for mammography shall meet the accreditation criteria of the American College of Radiology or similar criteria established by the department.

(c) All radiation machines used for mammography shall be specifically designed to perform mammography.

(d) All radiation machines used for mammography shall be used exclusively to perform mammography.

The department shall adopt rules to implement the provisions of this subsection.

History.—s. 1, ch. 80-187; s. 2, ch. 81-133; s. 40, ch. 83-218; ss. 16, 18, ch. 84-190; s. 1, ch. 91-76; s. 4, ch. 91-429; s. 23, ch. 97-103; s. 61, ch. 97-237; s. 25, ch. 98-151; s. 184, ch. 98-166; s. 30, ch. 2000-242; s. 1, ch. 2000-326.

Note.—Former s. 381.507.

# APPENDIX 11

## STANDARD LICENSE CONDITIONS



STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL

**LICENSEE COPY**

# RADIOACTIVE MATERIALS LICENSE

Pursuant to Chapter 404, Florida Statutes, and Chapter 64E-5, Florida Administrative Code (F.A.C.), and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to receive, acquire, possess and transfer the radioactive material(s) designated below and to use such radioactive material(s) for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders of the state of Florida, Department of Health now or hereafter in effect and to any conditions specified below.

1. Name: _____ Licensee		3. License Number: _____ is hereby
2. Address: _____ _____, _____		4. Expiration Date: _____ 5. Category: _____
6. Radioactive Material (element and mass number)	7. Chemical And/Or Physical Form	8. Maximum Quantity Licensee May Possess At Any One Time

- |    |   |    |  |    |                 |
|----|---|----|--|----|-----------------|
| A. | Any radioactive material described in subsection 64E-5.626(1), F.A.C.         | A. | Any radiopharmaceutical for diagnostic use involving measurements of uptake, dilution or excretion as described in subsection 64E-5.626(1), F.A.C.         | A. | 500 millicuries |
| B. | Any radioactive material described in subsection 64E-5.627(1), F.A.C.         | B. | Any radiopharmaceutical for diagnostic use involving imaging and localization as described in subsection 64E-5.627(1), F.A.C.                              | B. | 2 curies        |
| A. | Any radioactive material described in subsection 64E-5.626(1) and (2), F.A.C. | A. | Any radiopharmaceutical for diagnostic use involving measurements of uptake, dilution or excretion as described in subsection 64E-5.626(1) and (2), F.A.C. | A. | 500 millicuries |
| B. | Any radioactive material described in subsection                              | B. | Any radiopharmaceutical for diagnostic use involving imaging and   | B. | 2 curies        |

**STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL**

64E-5.627(1) and (2),  
F.A.C.

localization as described in  
subsection 64E-5.627(1) and (2),  
F.A.C.

- |  |   |                    |
|--|---|--------------------|
| A. Any radioactive material described in subsection 64E-5.626(2), F.A.C. | A. Any radiopharmaceutical for diagnostic use involving measurements of uptake, dilution or excretion as described in subsection 64E-5.626(2), F.A.C. | A. 500 millicuries |
| B. Any radioactive material described in subsection 64E-5.627(2), F.A.C. | B. Any radiopharmaceutical for diagnostic use involving imaging and localization as described in subsection 64E-5.627(2), F.A.C.                      | B. 2 curies        |
| B. Any radioactive material described in subsection 64E-5.627(3), F.A.C. | B. Any radiopharmaceutical for diagnostic use involving imaging and localization as described in subsection 64E-5.627(3), F.A.C.                      | B. 1 curie         |
| C. Any radioactive material described in subsection 64E-5.630(1), F.A.C. | C. Any radiopharmaceutical for therapeutic use as described in subsection 64E-5.630(1), F.A.C.  | C. 5 curies        |
| C. Any radioactive material described in subsection 64E-5.630(2), F.A.C. | C. Any radiopharmaceutical for therapeutic use as described in subsection 64E-5.630(2), F.A.C.  | C. 5 curies        |
| C. Any radioactive material described in subsection 64E-5.630(3), F.A.C. | C. Any radiopharmaceutical for therapeutic use as described in subsection 64E-5.630(3), F.A.C.  | C. 5 curies        |
| C. Any radioactive material described in subsection 64E-5.630(4), F.A.C. | C. Any radiopharmaceutical for therapeutic use as described in subsection 64E-5.630(4), F.A.C.  | C. 5 curies        |

6. Radioactive Material  
(element and mass number)

7. Chemical And/Or Physical Form

8. Maximum Quantity Licensee May  
Possess At Any One Time

- |  |  |             |
|--|--|-------------|
| D. Any radioactive material described in section 64E-5.632, F.A.C. | D. Any sealed source for brachytherapy as described in section 64E-5.632, F.A.C. | D. 2 curies |
|--|--|-------------|

License Number:  
Amendment No.:  
Control Number:

**LICENSEE COPY**

Page 2 of 11 Page(s)

Category:

[ ]

Expiration Date:

**STATE OF FLORIDA**  
**DEPARTMENT OF HEALTH**  
**BUREAU OF RADIATION CONTROL**

D. Any radioactive material described in subsection 64E-5.632(2), F.A.C.	D. Any sealed source for brachytherapy as described in subsection 64E-5.632(2), F.A.C.	D. 2 curies
D. Any radioactive material described in subsection 64E-5.632(3), (4) and (10) F.A.C.	D. Any sealed source for brachytherapy as described in subsection 64E-5.632(3), (4) and (10) F.A.C.	D. 2 curies
E. Xenon 133	E. Gas for diagnostic use involving imaging as described in subsection 64E-5.627(1), F.A.C.	E. 200 millicuries
F. Molybdenum 99/ Technetium 99m	F. Solid and liquid (Molybdenum/ Technetium 99m generators)	F. 5 curies
G. Strontium 82/85 Rubidium 82	G. Solid and liquid (Strontium/ Rubidium generator, model Cardiogen-82®)	G. 2 curies
H. (Insert isotopes)	H. Solid and liquid [(insert isotopes) generators]	H. @ curies
I. Yttrium 90 as described in section 64E-5.664, F.A.C.	I. SIR-Spheres® (Sirtex Medical Limited or ANSTO radiopharmaceuticals and industrials) resin microspheres	I. 945 millicuries, not to exceed 189 millicuries per vial
J. Yttrium 90 as described in section 64E-5.664, F.A.C.	J. TheraSpheres® (MDS Nordion) glass microspheres	J. 1.1 curies, not to exceed 540 millicuries per vial
K. Iodine 125 as described in section 64E-5.664, F.A.C.	K. GliaSite® (Cytac Surgical Products II) Organically bound iodine 125, Iotrex™	K. 5 curies
L. Iodine 125 as described in section 64E-5.664, F.A.C.	L. Iodine 125 as described in section 64E-5.664, F.A.C.	L. 10 millicuries; no individual source to exceed 0.7 millicuries
M. Palladium 103 as described in section 64E-5.664, F.A.C.	M. Palladium 103 as described in section 64E-5.664, F.A.C.	M. 10 millicuries; no individual source to exceed 0.7 millicuries

License Number:  
Amendment No.:  
Control Number:

**LICENSEE COPY**

Page 3 of 11 Page(s)

Category:

[ ]

Expiration Date:

STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL

- |  |  |             |
|--|--|-------------|
| N. Any radioactive material described in section 64E-5.631, F.A.C. | N. Any sealed sources for diagnostic use as described in section 64E-5.631, F.A.C.   | N. 1 curies |
| O. (Insert isotope(S)) as described in section 64E-5.664, F.A.C.   | O. (Insert isotope(S)) for therapeutic use as described in section 64E-5.664, F.A.C. | O. 5 curies |

9. Authorized Use

- A. Any medical use described in subsection 64E-5.626(1), F.A.C.
- B. Any medical use described in subsection 64E-5.627(1), F.A.C.
- A. Any medical use described in subsections 64E-5.626(1) and (2), F.A.C.
- B. Any medical use described in subsections 64E-5.627(1) and (2), F.A.C.
- A. Any medical use described in subsection 64E-5.626(2), F.A.C.
- B. Any medical use described in subsection 64E-5.627(2), F.A.C.
- B. Any medical use described in subsection 64E-5.627(3), F.A.C.
- C. Any medical use described in subsection 64E-5.630(1), F.A.C.
- C. Any medical use described in subsection 64E-5.630(2), F.A.C.
- C. Any medical use described in subsection 64E-5.630(3), F.A.C.
- C. Any medical use described in subsection 64E-5.630(4), F.A.C.
- D. Any medical use described in subsection 64E-5.632, F.A.C.
- D. Any medical use described in subsection 64E-5.632(2), F.A.C.
- D. Any medical use described in subsections 64E-5.632(3), (4) and (10), F.A.C.
- E. To be used for pulmonary function studies as described in subsection 64E-5.627(1), F.A.C., in accordance with subsection 64E-5.627(4), F.A.C.

License Number:  
Amendment No.:  
Control Number:

**LICENSEE COPY**

Page 4 of 11 Page(s)

Category:

[ ]

Expiration Date:

STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL

- F. Production of technetium 99m pertechnetate for processing with reagent kits in preparing radiopharmaceuticals in accordance with subsection 64E-5.628(1), F.A.C., or calibration standards in accordance with section 64E-5.617, F.A.C. This use does not include distribution.
- G. Production of rubidium 82 chloride with the infusion system manufactured by Rbm Services, LLC in accordance with subsection 64E-5.628(2), F.A.C. Possession of strontium 82/85 as breakthrough contaminants from the generator. This use does not include distribution.
- H. Production of [insert isotope(S)] for processing with reagent kits in preparing radiopharmaceuticals in accordance with subsection 64E-5.628(3), F.A.C., or calibration standards in accordance with section 64E-5.617, F.A.C. This use does not include distribution.
- I. To be used in accordance with section 64E-5.664, F.A.C. for the treatment of malignant hepatic tumors as described in FDA PMA number P990065 with a Sirtex Medical Limited Model SIR-Spheres brachytherapy afterloader, distributed by Sirtex Wilmington, LLC.
- J. To be used in accordance with section 64E-5.664, F.A.C. for the treatment of unresectable hepatocellular carcinoma in accordance with the FDA's Humanitarian Device Exemption (HDE – H9800006) restrictions or as approved by the Institutional Review Board.
- K. To be used in accordance with section 64E-5.664, F.A.C. for treatment of malignant brain tumors using a Cytac Surgical Products GliaSite® Radiation Therapy System (RTS).
- L. - M. To be used as low dose rate Brachytherapy seeds used for localization of non-palpable lesions as described in section 64E-5.664, F.A.C. **OR For medical use described in section 64E-5.632(11), F.A.C. in the COMS Eye plaque as described in correspondence dated @**
- N. Any medical use described in section 64E-5.631, F.A.C.
- O. Any medical use described in section 64E-5.664, F.A.C.

CONDITIONS

10. A. The authorized place of use is the licensee's facility located at the address in Item 2.
- B. **Use only for facilities undergoing a move:** Until relocation to condition 10 A is completed, the authorized place of storage is the licensee's facility located at street address, city, state zip.
11. Failure to comply with the provisions of this license is a felony of the third degree pursuant to section 404.161, Florida Statutes. Also, violations may warrant an administrative fine of up to \$1,000.00 per violation per day, pursuant to section 404.162, Florida Statutes.

License Number:  
Amendment No.:  
Control Number:

**LICENSEE COPY**

Page 5 of 11 Page(s)

Category:

[ ]

Expiration Date:

**STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL**

12. A. The following individuals or persons under their supervision are authorized for the materials and uses as indicated:

<b>Authorized Material and Uses as Described in Items 6, 7, 8, and 9</b>	<b>Names</b>
64E-5.664 I-125	
Include the below as required 64E-5.664 Y-90 SIR-Spheres®	
64E-5.664 Y-90 TheraSphere®	
64E-5.664 I-125 GliaSite®	

- B. The radiation safety officer is @.
- C. Radiologic technologists who use and administer radioactive materials or perform brachytherapy or teletherapy procedures under the general supervision of an authorized user shall hold a valid certificate as required by Chapter 468, F.S.
- D. The authorized medical physicists for medical physics support are: OR
- D. The authorized medical physicist for medical physics support is:

<b>Authorized Material and Uses as Described in Items 6, 7, 8, and 9</b>	<b>Names</b>

13. Radioactive material transported on public thoroughfares shall be packaged, prepared for shipment, and transported in accordance with Title 49, Code of Federal Regulations and Chapter 64E-5, F.A.C.
14. Sealed sources containing licensed material shall not be opened.
15. The licensee shall not authorize release from confinement for medical care any patient administered a radiopharmaceutical until:

License Number:  
Amendment No.:  
Control Number:

**LICENSEE COPY**

Page 6 of 11 Page(s)

Category:

[ ]

Expiration Date:

STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL

- A. The dose rate is less than 5 millirem (50 microsieverts) per hour at a distance of 1 meter; or
  - B. The amount of radioactive material in the patient is less than 30 millicuries; or.
  - C. The patient is released under the terms of 64E-5.622(4), F.A.C. and Condition @ @.
16. Any dose of iodine 131 shall be received in capsule form only.
- @ The licensee shall conduct an inventory at intervals not to exceed six months and a radiation survey at intervals not to exceed three months, of brachytherapy sources as described in section 64E-5.618, F.A.C.
- @. The licensee shall not authorize release from confinement for medical care any patient administered a permanent implant until the dose rate from the patient is less than 5 millirem (50 microsieverts) per hour at a distance of 1 meter.
- @. Provided that upon removal of the last temporary implant source from a patient, the licensee shall make a radiation survey of the patient, and pursuant to subsection 64E-5.102(1), F.A.C., an exemption is granted to subsection 64E-5.622(3), F.A.C., authorizing release from confinement for medical care any patient administered a temporary iodine 125 or palladium 103 localization seed or temporary iodine 125 eye plaque, as described in Condition @ @.
- @. Individuals involved in operations which utilize, at any one time or over a 3 month period, radioiodine in an unsealed form that exceeds activities specified in table 1 shall have bioassays performed at the frequency specified in subsection 64E-5.1320(1), F.A.C. Records of the bioassays shall be maintained for inspection by the department for 3 years.
- @. Provided that the dose rate from the patient is less than 5 millirem (50 microsieverts) per hour at a distance of 1 meter and pursuant to subsection 64E-5.102(1), F.A.C., an exemption is granted to subsection 64E-5.622(3) F.A.C., authorizing release from confinement for medical care any patient administered a temporary iodine 125 eye plaque, as described in Condition @ @.

S/R Generators:

- @ A. The licensee shall follow all of the U.S. Food and Drug Administration (FDA) requirements of the Cardiogen-82 Label and Assay Label as revised 2/2012 (FDA DARRTS Reference ID # 3084430).

License Number:  
Amendment No.:  
Control Number:

**LICENSEE COPY**

Page 7 of 11 Page(s)

Category:

[ ]

Expiration Date:

STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL

- B. The licensee shall follow all of the requirements in manufacturer's CardioGen-82 Infusion System User Manual Revision 22, its supportive documents and updates. The licensee is required to maintain and follow updates to the manual provided by the manufacturer. Copies of this manual, its supportive documents and updates shall be available to each person using and persons having responsibility for the use of, the device and shall be available for inspection by the department.
- C. The Certified Nuclear Medicine Technologists and authorized users who use the generator and the Radiation Safety Officer must receive device specific training by the manufacturer prior to initial use. The Certified Nuclear Medicine Technologists who use the generator and the Radiation Safety Officer must annually receive the manufacturer's refresher or recertification training for this device. Documentation of the initial, retraining, and refresher or recertification training shall be available for inspection by the department.



STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL

- @ D. For each generator the licensee shall maintain an on-going record of all eluate volumes, (washing, testing and dosing volumes), including a summary of the cumulative volume of eluate. The on-going daily records of volume usage shall be maintained for three years and be available for inspection by the department.
- E. The licensee shall measure and calculate the Strontium 82 (Sr-82) /Rubidium 82 (Rb-82) and Strontium 85 (Sr-85)/Rb-82 concentrations using a dose calibrator set on its most sensitive microcurie scale and record all values with at least one significant figure and at least two places to the right of the decimal place according the following schedule below. Records of these tests shall be kept in accordance with subsection-64E-5.628(2)(c), the manufacturer's user manuals and its supportive documentation.
1. Daily on days of use prior to administration; and
  2.
    - a. Additional daily test at the midpoint of the day should the initial test concentrations of Sr-82 reach 0.002 microcuries per millicurie of Rb-82; or
    - b. Additional daily test at the midpoint of the day should the initial test concentrations of Sr-85 reach 0.02 microcuries per millicurie of Rb-82; or
    - c. Additional daily tests during the day when 14 liters of total eluate has passed through the generator at the time points determined by the day's elution volumes where tests are performed at every 750 milliliters eluate use for that day. (i.e., one additional test when 750 milliliters of eluate is used during the day, a second additional test when 1,500 milliliter of eluate is used during the day and an additional test for each 750 milliliters of eluate used during the day.)
- F. The licensee shall immediately stop using the generator to treat patients at the expiration limits listed below:
1. 17 liters for the generator's cumulative eluate volume; or
  2. 42 days post generator calibration date; or
  3. An eluate concentration of Sr-82 of equal to or greater than 0.01 microcuries per millicurie of Rb-82; or
  4. An eluate concentration of Sr-85 of equal to or greater than 0.10 microcuries per millicurie of Rb-82.

STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL

- G. The licensee shall follow the manufacturer's annual preventative maintenance schedule for the Infusion Cart System and complete all of the recommended corrective actions. The licensee shall retain copies of all preventative maintenance checks, corrective actions taken and any manufacturer's quality review audits for inspection by the department.
- @ H. The licensee shall participate in the manufacturer's generator and infusion cart system monitoring programs to determine use or stability of these products.
- I. The licensee shall immediately report to the department each occurrence when the eluate concentration of Sr-82 equals or exceeds 0.02 microcuries per millicurie of Rb-82 or the eluate concentration of Sr-85 equals or exceeds 0.20 microcuries per millicurie of Rb-82.
- @. The Best Vascular, Inc. Beta-Cath system will be used according to procedures listed in condition @@, and the following conditions:
- A. The Model A1767 transfer device must be equipped with a user-exchangeable battery compartment and the battery must be replaced in accordance with the manufacturer's instructions.
- B. The Model A1767 transfer device must be returned to the manufacturer for service at intervals not to exceed twelve months or 250 cycles.
- C. Prior to treatment the authorized user will complete manufacturer provided training or complete training provided by an authorized user or a therapeutic radiological physicist who is authorized for the same Beta-Cath System. Records will be maintained for inspection.
- D. All treatments will be performed under the supervision and physical presence of an authorized user.
- E. Any use approved by the Radiation Safety Committee will be documented in writing and records maintained for inspection.
- @. The licensee shall implement the quality management program (QMP) as stated in Condition @@ and section 64E-5.611, F.A.C.

STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL

- @@. A. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, 8, and 9 of this license in accordance with statements, representations and procedures contained in the licensee's application dated @, signed by @@, @ and correspondence dated:
- B. The licensee shall comply with all applicable requirements of Chapter 64E-5, Florida Administrative Code, and these regulations shall supersede the licensee's statements in applications or correspondence, unless the statements are more restrictive than the regulations.
- C. For the purpose of these rules "Total effective dose equivalent (TEDE)" means the sum of the effective dose equivalent for external exposures and the committed effective dose equivalent for internal exposures and when the external exposure for compliance with subsection 64E-5.308(3) is determined by measurement with an external personal monitoring device, the deep-dose equivalent must be used in place of the effective dose equivalent, unless the effective dose equivalent is determined by a dosimetry method approved by the department.

lastpagebookmark this must be the last line in document

**For the Bureau of Radiation Control:**

**Issuance Date:** \_\_\_\_\_

**4052 Bald Cypress Way – Bin C21  
Tallahassee, FL 32399-1741  
(850) 245-4545**

A party whose substantial interest is affected by this order may petition for an administrative hearing pursuant to sections 120.569 and 120.57, Florida Statutes. Such proceedings are governed by Rule 28-106, Florida Administrative Code. A petition for administrative hearing must be in writing and must be received by the Agency Clerk for the Department, within twenty-one (21) days from the receipt of this order. The address of the Agency Clerk is: Agency Clerk, 4052 Bald Cypress Way, BIN # A02, Tallahassee, Florida 32399-1703. The Agency Clerk's facsimile number is 850-410-1448. A copy of the petition should also be sent to: Bureau Chief, Bureau of Radiation Control, 4052 Bald Cypress Way, BIN # C21, Tallahassee, FL 32399-1741. The Bureau Chief's facsimile number is 850-487-0435. Mediation is not available as an alternative remedy. Your failure to submit a petition for hearing within 21 days from receipt of this order will constitute a waiver of your right to an administrative hearing, and this order shall become a "final order." Should this order become a final order, a party who is adversely affected by it is entitled to judicial review pursuant to Section 120.68, Florida Statutes. Review proceedings are governed by the Florida Rules of Appellate Procedure. Such proceedings may be commenced by filing one copy of a Notice of Appeal with the Agency Clerk of the Department of Health and a second copy, accompanied by the filing fees required by law, with the Court of Appeal in the appropriate District Court. The notice must be filed within 30 days of rendition of the final order.

License Number:  
Amendment No.:  
Control Number:

**LICENSEE COPY**

Page 11 of 11 Page(s)

Category:

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Expiration Date:

# APPENDIX 12

## TECHNICAL LICENSING PROCEDURES AND STANDARD CONDITIONS (ELECTRONIC)

# APPENDIX 14

## REPORT FORMS (ELECTRONIC)

# APPENDIX 13

## INSPECTION PROCEDURES AND GUIDES



**Bureau of Radiation Control**

**Procedures for Qualification,  
Certification and Training of Bureau Staff**

**~~November~~ April 20195**

## Introduction

Radiation issues reach into many areas in today's world. Medical, industrial, commercial, energy, security, public safety, environmental and entertainment are all areas in which the application of radiation, both ionizing and nonionizing, continues to increase. This increase in use requires greater oversight from regulatory entities to ensure that above all, the public is not unduly stressed physically, mentally or emotionally by the perceived or real risks; ~~perceived or real~~, from radiation in the environment. To realize this daunting task, those involved in radiation regulation must ensure that the public is receiving accurate and up to date information regarding the realities of the effects of radiation on health and the environment and that the public's actual exposures are minimized due to industry compliance with established regulations and the ALARA philosophy.



St Lucie Nuclear Power Plant.



"Cyberknife" unit.

Private sector entities have far more direct contact with the public than do regulatory agencies. Regulatory agencies and the private sector radiation industry need to establish and maintain an atmosphere of competent and professional use of all things "radioactive." ~~In order for~~For the bureau to operate both effectively and efficiently, staff must be more than minimally prepared to fulfill their position responsibilities. BRC staff must have basic radiological principals at the beginning ~~in order to~~to converse intelligently with the radiation industry and the public. Staff must be provided opportunities for continuing education, so they may maintain pace with newly emerging technologies. An aggressive, fully involved and supported training section is necessary to develop, maintain and retain quality personnel, ensuring the bureau is intellectually sound enough to meet the challenges of the future.

## Training Goal

Developing the bureau's intellectual soundness begins with identifying the radiation issues, ideas and concepts most needed by employees to perform their duties. At the most basic level, all BRC staff should be familiar with the capabilities and responsibilities of the bureau and understand the basic science of radiation and radiation protection. All employees should be given the opportunities to understand the key issues of each section in the bureau. All employees should have sufficient knowledge to: 1) be able to identify a radiation-related question, and 2) be able to answer the



question accurately or direct the inquiry to the appropriate subject matter expert; and 3) perform professional activities in a manner that instills confidence and trust from the public and the industry. In general, the goal is to develop, implement and maintain a program whereby all bureau staff are trained in their duties, certified to bureau established standards and rewarded for their commitment with advanced training opportunities and responsibilities.

The bureau's training section focuses on 3 areas:

**Development**

**Distribution**

**Operation**

### TRAINING PROGRAM DEVELOPMENT

- Qualification procedures and journals
- Core training
- Section standard operating procedures
- Section training modules
- Position standard operating procedures
- Training modes
- Equipment

### QUALIFICATION PROCEDURES AND JOURNALS

Each section shall develop and maintain a Qualification procedure (QP) for each position within the section. The QP is a road map of the training requirements that the employee is expected to complete prior to a specified date ~~in order to~~ be ~~retained in~~ better prepared for that position. A completion timeline and description of the probationary items will be included in the QP and the manager's handbook for training. The purpose of the procedure is to aid the employee in qualifying for the position. This procedure will also allow the individual to identify the standard for determining successful completion of each sequential qualification requirement. The section administrator shall ensure the generation of the qualification procedures for their staff.

The Qualification Journal (QJ) provides the employee with a listing of the mandatory skills and competency requirements, as well as advanced training opportunities available and a means of documenting their qualification progress. The journal is also a management tool that supervisors can use to determine the capabilities of their staff based on an established qualification schedule.

Staff are directed to applicable sections of the QJ and can discuss their qualification path with their supervisor. Each employee progresses towards certification by following the steps identified in the journal and verifying to their supervisor or other designated qualified individual that they have successfully completed these steps. Each position within the bureau will be required to qualify in one or more applicable sections of the Qualification Journal.

## CORE TRAINING

Certain skills, knowledge and abilities are required of all BRC staff regardless of position. For this reason, “bureau core” training materials have been developed. Training modules, orientations, courses and other learning tools are developed to ensure that every individual within the bureau has been exposed to the same approved concepts and principles of operation. Core training components for staff include the following:

\*Required by FDOH training policy.

Course/Training	Location of Training	Completion Date
Section Orientations	BRCpedia	1 year probation
Regulatory/Rad. Control Rules & Statutes Module	BRCpedia	1 year probation
IS-5 Hazardous Materials Awareness, or equivalent	TRAIN	1 year probation
IS-301 Radiological Emergency Response	TRAIN	1 year probation
Basic Radiation Safety-prior to ARP course, prior to handling RAM (Under development)		1 year probation
*BSTP Basic Supervisory Training Program Leadership (required for all supervisors)	TRAIN	(within 6 months)
*BSTP Basic Supervisory Training Program HR (required for all supervisors)	TRAIN	(within 6 months)
*IS-200.b ICS for Single Resources and Initial Action Incidents(required for all supervisors)	TRAIN	(within 6 months)
<b>*IS-100 Introduction to Incident Command System online course</b>	TRAIN	(within 30 days)
<b>*IS-700 National Incident Management System</b>	TRAIN	(within 30 days)
<b>*Code of Ethics</b>	TRAIN	(within 30 days) AND Annually
<b>*Equal Opportunity</b>	TRAIN	(within 30 days) AND Annually
<b>*Information Security and Privacy/ HIPPA</b>	TRAIN	(within 30 days AND Annually)
<b>*Sexual Harassment</b>	TRAIN	(within 30 days) AND Annually

## Procedures for Training BRC Staff

<b>*Workplace Safety</b>	TRAIN	(within 30 days AND Annually)
<b>*Violence in the Workplace</b>	TRAIN	(within 30 days) AND Annually
<b>*Records Management</b>	TRAIN	(within 60 days) AND every Two years
<b>*Fuel Card</b>	TRAIN	(prior to operating state vehicle)
<b>*Public Health Preparedness Orientation</b>	TRAIN	(within 30 days)
<b>*DOH New Employee Orientation</b>	TRAIN	(within 60 days)
<b>FDOH Customer Focus</b>	TRAIN	
<b>FDOH Annual Refresher</b> (Cover requirements for annual reviews of Sexual Harassment, Workplace Safety, Violence in the Workplace, Equal Opportunity and Ethics courses.)	TRAIN	Prior to December 31
<b>FDOH Information Security</b>	TRAIN	Prior to December 31
<b>*Basic vehicle use, log policy, maintenance policy</b>	Office Managers	(prior to operating state vehicle)
ARP Applied Radiation Physics course	BRCpedia	When available
IR Radiological Incident Response Course	BRCpedia	When available
ER Emergency Response and Survey Techniques training (Power Plant Drill)		When available
(RERO) Radiological Emergency Response Operations course	FEMA CDP website	1 year probation, <u>when available</u>
<b>*PeopleFirst</b>	TRAIN	
HIV/AIDS (recommended for inspection and RAM staff within 60 days)	TRAIN	

In addition to the table above, all technical staff shall meet the requirements for Refresher training, as set forth in NRC publication IMC 1248 "Qualification Programs for Federal and State Materials and Environmental Management Programs." Qualified materials license reviewers and inspectors must maintain their qualification by completing 24 hours of refresher training in the established requalification cycle of 24 months. The beginning of each requalification cycle will be determined using the month and year the license reviewer/inspector completed his or her qualification. If the date of completion is unknown, the supervisor should establish a requalification cycle based on the

best available information. The supervisor may grant a 6-month extension, if for good reason (course not available, travel restrictions, etc), the individual was unable to complete the required refresher training within the limits of the requalification cycle. The 24--month period shall begin at the end of a new employees 12 month probation. Refresher training may consist of topics related to health and safety, security or regulation of radioactive materials. The supervisor may identify the training needed and develop a plan for the individual to acquire the needed training. Examples of training that may be considered include:

1. NRC sponsored technical training courses
2. State sponsored technical training courses
3. Webinars sponsored by NRC, States, or vendors
4. External training courses provided by vendors or universities
5. Lectures given at professional organizations
6. State developed presentations on subjects related to health and safety, security or regulation of radioactive materials
7. Directed self-study
8. Other training approved by the supervisor

Any additional training requirements are position specific and are identified in the Bureau Qualification Journal.

Given the increasing shortage of applicants with radiological backgrounds, the bureau has generated a multiple choice "questionnaire" to accompany applications for vacancies. Such a questionnaire could be a useful tool in addressing the training needs of the future by allowing the bureau a means of assessing the skills and knowledge base of the applicant pool.

### **SECTION STANDARD OPERATING PROCEDURES**

Section Standard Operating Procedures are used to describe the operations of the section. These are useful in identifying internal processes and duties which in turn help define the focus of training. Section SOP's describe activities such as Training, Enforcement, Applications, Renewals, Inspections, Investigations, Staff meetings, Document Review, Filing, etc. Position responsibilities are identified but specific step-by-step descriptions are addressed in the Position SOP's. Section SOP's may follow a consistent format, however due to the diversity of duties within the bureau some variation is expected. Similar to SOP's are Guidance Documents (GD). These documents describe the steps to follow ~~in order to~~ achieve some desired goal. For example, the Radioactive Materials Section has developed GD for applicants applying for Portable Gauge licenses. The Portable Gauge GD is a tool the applicant can use to assist them through the application process. It's also a tool for the evaluator, assisting them with the evaluation process. Therefore, the document can be used as a training tool for new evaluators.

## Procedures for Training BRC Staff

The following table is a sampling of some of the processes in each section.

### **XRAY**

- Register x-ray machines, collect registration fees, & issue x-ray regulations
- Coordinate performance of radiation machine inspections by ERCI staff, process inspection reports & enforcement actions
- Manage grants/agreements with the U.S. Food & Drug Administration & other outside organizations for mammography & other specialized x-ray inspections
- Communicate with inspection staff on x-ray-related regulatory & safety issues
- Develop (w/ inspection staff) x-ray-related guidance documents, inspection forms & procedures, training materials

- Investigate (w/ inspection staff) x-ray-related allegations & incidents
- Register & regulate radiation machine vendors
- Assure inspectors have appropriate calibrated instruments & associated equipment
- Serve as the point of contact for bureau staff, registrants & the public on radiation machine registration & enforcement issues

### **RAM**

- Approve or deny radioactive materials licenses
- Identify needed inspections of licensees by field staff
- Collect fees
- Decommissioning process

- Enforce rad. materials section requirements
- Reciprocity
- Medical and non--medical event investigations

### **TECHNOLOGY, STANDARDS AND CE'S**

- Assist Medical Quality Assurance (MQA) with certification of radiologic technologists, especially those with foreign educations.
- Approve RT continuing education courses and providers.
- Assist MQA with enforcement of RT section requirements and act as a "probable cause" panel.

- Assist MQA with non--certified operator investigations.
- Act as "board" for profession and maintain advisory council.
- Audit RT exams.
- Revise and maintain Basic X-ray Machine Operator BXM~~X~~O study guide.

### **ERCE**

#### **LABORATORY INCLUDING DRINKING WATER**

- Testing & analyses for the HP Lab
- Prepare & analyze samples for gross alpha, gross beta, tritium, C-14, Ni-63, Sr-89/-90, I-125 & other radionuclides using liquid scintillation spectrometer, proportional counter or gamma spectrometer
- Radiochemical analysis of soil & water samples

#### **EMERGENCY RESPONSE**

- Providing training on radiological incident response
- Participating in annual exercises at nuclear power plants to test readiness to respond to accidents
- Responding to accidents involving RAM
- Performing on-site analysis of environmental samples on site with a mobile laboratory (MERL)

#### **RADIOLOGICAL SURVEILLANCE/EQUIPMENT**

##### **CALIBRATION**

- Repair, calibration & distribution of radiation detection instruments used by BRC staff & by first responders
- Control & disposition of orphaned & confiscated RAM.

#### **POWER PLANT SURVEILLANCE/LLRW**

- Collect and analyze air, water, soil, vegetation, fish, and milk for radiation levels around nuclear power plants
- Direct procurement, operation, maintenance & calibration of lab & field instruments.
- Plan & inspect low-level rad. waste shipments; prepare inspection reports; review regulations to determine impact on RAM transportation
- Inspect shipments for package integrity, load bracing, radiation levels, shipping papers, driver qualifications, & verify transport routes.

#### **PRE- & POST-MINING**

- Collect radon, soil & water samples & perform soil characterizations
- Rad. surveillance of phosphate mining operations to determine environmental impacts
- Environmental sampling based on planned mining & reclamation activities

### **ERC ADMINISTRATION**

- Development & Implementation Of Bureau Procedures
- Revenue Processing
- Grant/Contract Management
- Rule Promulgation
- Quarterly & Annual Reports
- Travel Voucher Review

- Purchasing
- Leases
- Variances/Waivers
- Records Custodian
- Property

### ERCI

- Inspect radiation machines & facilities
- Inspect rad. materials licensees
- Inspect radiologic technologist certifications
- Respond to radiation incidents & allegations
- Assure inspections are performed correctly & timely

- Monitor for inspector training needs & consistency
- Vehicles maintenance and use reports
- Bureau Training and Quality Assurance

The section administrator is responsible for the generation of Section SOP's and any additional technical or guidance documents. These section SOP's shall be maintained current and reflect the most up to date advances in science and industry as well as regulatory changes. Administrators should meet regularly as a group with representatives from the training staff and inspection staff to ensure that advances and changes are shared throughout the bureau and updates can be incorporated into the appropriate training and qualification materials. [ERCI](#) ERCM ERCE ERCT ERCX

### TRAINING MODULES

Training modules are the detailed learning tools developed to familiarize and educate the employee about bureau concepts and activities. For example, ERCM staff are expected to have a certain level of conceptual and physical knowledge of portable gauge equipment and operation. Therefore, a training module covering portable gauges is required. Any bureau employee whose duties coincide with the issues pertaining to the portable gauges would be expected to successfully complete the portable gauge training modules as part of their qualification procedure.

Training module development is the responsibility of the section administrator and the bureau training team. The training team may designate the lead administrator when the module topic crosses section boundaries. The administrator will seek input from other sections whose duties coincide. All bureau training team members shall be reviewers and a representative from the training section will be the development team's facilitator.

### POSITION STANDARD OPERATING PROCEDURES

Position SOP's are instructions detailing the steps to perform a specific task. These are found in the Inspection Procedures in the BRCpedia. Both Xray and Material inspections are covered in detail. The tasks are identified in the Xray/Material SOP's, as are the specific instructions for accomplishing the tasks. Position SOP's, while time intensive on the front end to create, are valuable tools for discovering inefficiencies and if properly maintained, keep errors at a minimum.

The section administrator is responsible for ensuring the generation of Position SOP's.



### **TRAINING MODES**

Training shall be provided in a variety of formats. Lecture, self paced, hands-on, print and electronic, and audio/visual are examples of successful formats in the learning environment. It's important to incorporate as many of these formats as possible to keep the training interesting. Much of the material will be presented more than once to ensure good retention by the employee. Third party training will be available but only to the extent that 1) bureau funds are available; 2) the training is valid and can not be provided internally; 3) and it benefits the bureau and the employee.

All managers and selected senior level staff should attend train the trainer courses, as they will be the frontline trainers of new personnel. Attending third party training should be seriously considered for selected staff, staff who could return and provide and/or develop training for the rest of the bureau.

### **EQUIPMENT**

In addition to normal office supplies and equipment, training-specific tools and equipment is necessary to provide a thorough, modern and effective training package for new and established employees. Adequate hardware and software should be available to all staff, so they may fully benefit from all training formats. Production style software and hardware are becoming increasingly useful and affordable and should be available to training developers. All staff computers should have ~~DVD~~USB/SDHC capability. All section offices should have effective means of presenting training materials to groups of individuals. Some sections may require materials that make use of technologies such as GPS and wireless communications that would be invaluable for hands-on and drill scenario trainings. The bureau should also pursue training partnerships with hospitals, pharmacies, universities and other facilities where hands-on scenarios are available. The division is currently moving towards a "paperless" office. As the bureau's functions become more dependent on computers and other electronics, all staff will need to be trained and regularly updated on the use of the tools that make a paperless office possible.

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### **TRAINING SECTION DISTRIBUTION**

- Notification
- Written materials
- Scheduling
- Video/audio/print library

### **NOTIFICATION**

Methodologies for notifying new hires of their training requirements and processing them through the training schedule shall be developed. The Administrative Assistant (AA) for ERC will be the



first to receive verification from Human Resources (HR) that the new hire is approved. In addition to the several other tasks that must be performed at that time, the AA will notify the Training Program Consultant of the new hire status. The consultant will draft a “Welcome” letter to be sent to the new employee and the supervisor. This letter will contain information about the core training materials, instructions on the training process and locations for written and electronic materials.

### **ELECTRONIC AND WRITTEN MATERIALS**

~~The majority of~~Most of the information needed by our staff is contained on the BRCpedia. ~~Each Individual~~Everyone shall have the BRCpedia installed on their computers. Field offices and section offices will maintain copies of training modules, qualification journals, SOP’s and reference materials at their locations. If this material is missing or unavailable the field office should notify the consultant as soon as possible to make arrangements for replacement materials to be delivered.

### **SCHEDULING**

The supervisor is responsible for assuring that new employees are scheduled to attend core training courses as soon as possible, when applicable. The “Welcome” letter will contain instructions on signing into the department’s learning management system, TRAIN. It’s important that new staff log into TRAIN early, as many of the core courses are due for completion within the first 30 days of hire. Most of the TRAIN courses are self-paced and can be taken from any computer at any hour. Some courses are instructor lead and employees need to be enrolled as soon as possible to ensure a seat. The supervisor will contact the training section for information on course dates and assistance in scheduling.

The training section maintains the training calendar and coordinating with them will prevent scheduling conflicts. The training section must be notified of all enrollments and completions to ensure that the training record is properly maintained. The training section should be notified immediately if the employee will be unable to attend on the scheduled date. This is especially true of NRC courses. Potential NRC course attendee’s names are submitted to NRC for consideration. An applicant can cancel prior to selection and the bureau can offer NRC a substitute or standby applicant. However, the bureau loses the standby option if the applicant cancels after being selected.

It is crucial for field offices to coordinate with the training section to take advantage of contracted training opportunities in their areas, such as computer training provided by CompUSA, Computer Tutors and similar commercial providers. The bureau is progressing towards a paperless operation, relying more heavily on technical and support staff’s abilities to efficiently navigate through various software environments. Given the dynamic nature of the computer and software industries, it will be increasingly important that training is provided to match skills with technology. Notification of electronic training course opportunities can come in a variety of ways. Often the department, division or bureau will send out information on upcoming training opportunities. However, sometimes notifications may come directly to the individual or field office. If any staff receive information on training opportunities from sources other than the bureau or division, they should contact the training section with the course information. All training, bureau or otherwise, is subject

to budget approval. It's required that staff get pre-approval from the training section or administration before registering for any courses.

### **VIDEO/AUDIO/PRINT LIBRARY**

Training section staff shall develop and maintain a video/audio/print library of health physics related materials. New materials should be screened by members of the training section and should be distributed to other appropriate bureau staff for additional input to determine the value of the material. Bureau staff should be able to select a topic of interest and either view the material online or request a copy be sent to them. A "check out" schedule should be developed to ensure adequate access of materials to all staff. Some of the materials may be incorporated into an employee's official qualification procedure but individuals may also use these materials for personal professional development.

The library should also contain all reference materials listed in any qualification procedure, training module and section SOP. Whenever possible, procedures and modules should direct the employee to the library for additional information. Photographs stored in the library should be named according to a protocol developed by the training section that will provide the employee an adequate description of the file ~~and also~~ and allow for efficient cataloging.

An electronic clearinghouse for much of this material will be on the BRCpedia and Resource Library and departments' "Sharepoint" website.

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## **TRAINING SECTION OPERATION**

- **Employment**
- **Tracking**
- **Professional Development**

### **EMPLOYMENT**

During the employee's initial employment stage, they receive paperwork covering issues ranging from an email address to vehicle assignment. During this period the training section will ensure that the new employee and their supervisor receive introductory materials, including references and procedures that the employee will use during the probationary period. During the probationary period, the employee's supervisor will ensure that the employee is making sufficient progress towards qualification and that the employee is enrolled in all required courses as availability allows. Beyond the probationary period, the employee assumes a more proactive role in his or her training. During this stage the employee makes use of the library materials and request attendance at conferences, trainings, new product or technique orientations and other activities that build the employees professional knowledge and understandings. This stage also represents the period in which an employee seeks higher levels of qualification in their specific position.

Initial employment stage: Once an individual has been approved for hire, the Administrative Assistant in ERC notifies the hiring supervisor and the Training consultant. The Training consultant will ensure the new employee is entered into the training/tracking database. A tailored training package will be created and sent to the employee and his supervisor.

Probationary stage: The employee's supervisor will ensure the employee is enrolled in the appropriate core training courses and is given sufficient time to complete any prerequisite obligations. The employee's supervisor and the Training section will consult to determine the appropriate time frame for any course attendance. The Training consultant will also consult with Orlando staff (ERCE) pertaining to emergency response and nuclear power plant training availabilities. Completed core requirements must be reported to the Training section staff in a timely manner. The supervisor will aid the employee and document time and effort devoted to the employee's training. Core materials must be successfully completed or termination becomes an option. **Course Failure:** In the event of a course failure, the course instructor will notify the Bureau Chief by email, fax or letter within one week of the end of the course. The Bureau Chief will notify the employee's supervisor. A 60 day mentoring period will begin and then the employee will retake the exam. The written test and/or practical test will use a different bank of questions. If the employee fails to pass, *and they are past their probationary period*, they will be placed on a performance improvement plan and will retake the course. Employees who *are in probationary status* and fail two attempts at passing an exam will be terminated prior to the end of their probation according to department procedures and guidance.

Professional development: After successfully completing the probationary period, employees may request training opportunities that are geared more towards their professional development. This includes training in areas requiring more complex duties, knowledge, skills and responsibilities. Employees are encouraged to request approval to attend any opportunities they feel will enhance their skills. In most instances the bureau will approve in-house, in-state and out-of-state opportunities, in that order. In an effort to reduce cost, whenever practicable, an employee attending third party courses will be ~~tapped-asked~~ by the training section to assist in developing an in-house course to offer to additional staff in the future.

### TRACKING

Tracking the training and professional development of each employee is ultimately the responsibility of the employee. However, the bureau shall maintain a database of training and professional development achievements for each employee. The Training consultant shall be notified by the employee or the supervisor when training and professional development items have been successfully attended or completed, or for assistance in scheduling such courses. This is especially important for items that relate directly to the employee's position qualifications. Position qualifications may be used to determine promotions, bonuses or the assignment to special duties and the qualification history should be an official record. Items that are not directly related to an employee's position qualification but do add to the skills, knowledge and abilities of the employee will also be included in this official record. The Training consultant shall update the employee's

training and professional development record once documentation of attendance or completion is received. Original documents/certificates (not recommended); electronic versions of original documents (preferred); or emails indicating completion or attendance from the administering body, are acceptable. No record shall be updated based on word of mouth alone. In some instances, if the providing training organization does not provide a certificate, ~~the.~~ ~~The~~ TQA section will produce certificates ~~in these instances~~ and provide them to deserving attendees. If an exam is given by the course provider, and the attendee fails the exam, the bureau will not provide that attendee with a certificate.

### **PROFESSIONAL DEVELOPMENT AND CONTINUING EDUCATION**

All bureau employees are encouraged to seek and participate in opportunities for professional development. Professional development is attaining additional knowledge, skills and/or abilities in areas at or above the person's current professional level. Professional development includes attaining certifications, licenses or other designations granted that require periodic continuing education updates. Continuing education refers to attendance or activities that provide credits for the continuance of a certification, license or other established designation.

### **TRAINING INFRASTRUCTURE**

All training documents, presentations and other materials shall be available to all bureau staff. In addition, the bureau's training section staff will maintain a calendar of training and professional developments events on the departments' "Sharepoint" website:

<http://def.sharepoint.doh.ad.state.fl.us/DEH/RadControl/default.aspx>  
<https://floridahealth.sharepoint.com/sites/EMERGENCYPREPAREDNESS/RADIATION/Pages/Default.aspx>

Employee DOH training records will be maintained using the departments "TRAIN" system and the bureau's own Access and Laserfiche databases. All trainings listed in the Qualification journal shall be tracked through the bureau's Access database. Training and other professional development opportunities, that are not part of an employee's qualifications, and/or are offered through 3<sup>rd</sup> party providers, will not be tracked using the TRAIN system.

Opportunities for Bureau certification will be provided to deserving individuals who have demonstrated exceptional skill and ability in particular job specific duties. Managers will verify the trainee's successful completion of individual qualification steps and initial in the appropriate area of the journal. Accompaniments will include the trainee and at least one qualified employee. Provisional qualifications will be granted to the trainee after successfully completing an audit by the manager or designee. Final certification will be granted after successful evaluation by a bureau Certifier. Annual proficiency audits will be performed by the manager.

Certifiers will be selected according to geographic region, knowledge of the subject matter and recommendation from the manager, Section administrators and the bureau training team members.

The selected individual must complete the areas listed in the qualification journal. The certifiers performance will be evaluated annually by the training team members and results reported to the assistant bureau chief.

It ~~is~~<sup>s</sup> important that these core training modules reflect the most current science, industry and governmental ~~issues~~standards. The Training staff (section administrator, section manager and section consultant), with the assistance of the bureau's Training Team shall review all training modules annually and update those modules when needed, with input from other sections, as technological and regulatory changes progress.

# ERCI Inspection Training Policy

## IV. Inspector Qualifications Journal

1: Inspector Name	2: Inspector Number

### Select the checkbox next to the categories of Radioactive Material Licenses that you can inspect

This document serves as an update for the Inspection Qualifications Journal that the bureau retains. It is important that this form is filled out accurately and honestly to update the inspector's status for the upcoming **Integrated Materials Performance Evaluation Program (IMPEP)** inspection

If you have any questions, please direct them to your Manager and/or Training and Quality Assurance

Materials Inspections	
<input type="checkbox"/>	Nuclear Medicine
<input type="checkbox"/>	Sealed Source Non-Medical
<input type="checkbox"/>	Unsealed Source Non-Medical
<input type="checkbox"/>	General Licenses
<input type="checkbox"/>	Brachytherapy/HDR
<input type="checkbox"/>	Teletherapy
<input type="checkbox"/>	Increased Controls
<input type="checkbox"/>	Industrial Radiography
<input type="checkbox"/>	Pool Irradiators
<input type="checkbox"/>	Broad Scope Specific Licenses
X-ray Inspections	
<input type="checkbox"/>	Dental, Radiographic, and Fluoro
<input type="checkbox"/>	Non-Medical X-ray
<input type="checkbox"/>	Accelerators (Medical)
<input type="checkbox"/>	Industrial Radiography

3: Supervisor's Name	4: Inspector Number

[illegible][illegible]

# APPENDIX 15

## BRC PROCEDURES FOR QUALIFICATION, CERTIFICATION AND TRAINING OF BUREAU STAFF

### ERCI INSPECTION TRAINING POLICY



# **ERCI Inspection Training Policy**

## **Table of Contents**

- I. Basic Inspection Training**
- II. Additional Inspection Types**
- III. Attestation of Basic inspection Training**
- IV. Inspector Qualification Journal**

# ERCI Inspection Training Policy

## I. Basic Inspection Training

The Bureau of Radiation Control's Inspector Training Program is a performance based system that focuses on teaching general inspection skills as a foundation. The general inspection skills are taught through the guidance and accompaniments of inspection managers and seasoned inspection staff. The **"Inspection Guidelines for Field Operations"** training module is a detailed guide to this process.

The Bureau also conducts an in-house **"Applied Radiation Physics"** course and an **"Incident Response"** course for all technical Staff.

There are 3 basic inspection training modules, **"X-ray Training Manual"**, **"Portable Gauge Training"** and **"Diagnostic Nuclear Medicine Training"**. These modules will, in detail, guide the training of an inspector in a Medical and a Non-Medical inspection type. Once these modules are completed by an inspector and inspection audits performed, the inspector is authorized to perform other types of inspections after accompaniment with an experienced inspector and the approval of the inspection manager. There are additional, supplemental training modules such as **"Transportation of RAM"**, and **"Radiopharmaceutical Therapy"**. Additionally, technical staff are encouraged to attend relevant supplemental and refresher training offered by NRC, FEMA, CRCPD, FDA, CDC, DHS, HPS, AAPM, and other organizations. Bureau staff will also participate and train in emergency exercises with other agencies.

Upon completion of the 3 basic inspection training modules or equivalent, inspectors will have a good understanding of the following:

- Basic/fundamental Health Physics
- Understanding of Regulations
- Use of SOP
- Use of Field Notes
- License and Registration Review
- Interviewing
- How to perform entrance and exit interviews
- Observations
- Sampling
- Records Reviewing
- Demonstrations
- Cross-referencing inspection information
- How to Survey
- Documentation of inspection results
- How to respond to incidents
- Completing Inspection Reports
- Submitting Inspection Reports

# ERCI Inspection Training Policy

## II. Additional Inspection Types

There are the types of inspection that have either a training module or should have an initial accompaniment:

- Dental (X-ray Training Manual)
- Radiographic (X-ray Training Manual)
- Fluoro (X-ray Training Manual)
- Nuclear Medicine (Diagnostic Nuclear Medicine Training Manual)
- Sealed Source Non-Medical (Portable Gauge Training Manual)
- Unsealed Source Non-Medical
- General Licenses
- Non-Medical X-ray
- Accelerators (Medical)
- Increased Controls
- Industrial Radiography (Materials)
- Industrial Radiography (X-ray)
- Pool Irradiators
- Broad Scope Specific Licenses

Inspection types not addressed directly in the basic inspection training will use the Field Notes, SOP, and Regulations as a training document with guidance through facility visits, accompaniments, management, and seasoned inspection staff.

## ERCI Inspection Training Policy

### III. Attestation of Basic Inspection Training

Inspector's Name: \_\_\_\_\_

Date training completed: \_\_\_\_\_

This attestation is to confirm that the inspector has performed the required basic training or the equivalent as listed in the ERCI Inspection Training Policy. The inspector has completed the "Applied Radiation Physics" and "Incident Response" courses. The inspector has been provided with copies of the "Inspection Guidelines for Field Operations", "Portable Gauge Training Module", "Diagnostic Nuclear Medicine Module", "X-Ray Training Manual", and a copy of the "Standard Operating Procedures for inspections".

☐ Inspector has been trained and audited for Diagnostic Nuclear Medicine and Portable Gauge inspections.

☐ Inspector has been trained and audited for Dental, Radiographic, and Fluoroscopy inspections.

Supervisor:

Signature:

Lastname	Firstname	EmployeeID	start date	email	program	inspector	evaluator	MQSA	MQSAID	Location
Adams	Jeff	173	24-Aug-18	<a href="mailto:Thomas.Adams@fhealth.gov">Thomas.Adams@fhealth.gov</a>	ERCIF	TRUE	FALSE	FALSE		Tampa
Andresen	Lynne	162	06-Sep-16	<a href="mailto:Lynne.Andresen@fhealth.gov">Lynne.Andresen@fhealth.gov</a>	ERCT	FALSE	FALSE	FALSE		Tallahassee
Burns	Melissa	167	16-Jun-17	<a href="mailto:Melissa.Burns@fhealth.gov">Melissa.Burns@fhealth.gov</a>	ERCM	FALSE	TRUE	FALSE		Tallahassee
Cordero	Karmin	166	16-Jun-17	<a href="mailto:Karmin.Cordero@fhealth.gov">Karmin.Cordero@fhealth.gov</a>	ERIC	TRUE	FALSE	TRUE	12561	Lantana
Eldredge	Clark	161	02-Sep-16	<a href="mailto:Clark.Eldredge@fhealth.gov">Clark.Eldredge@fhealth.gov</a>	ERCX	TRUE	FALSE	FALSE		Tallahassee
Estevez	Jorge	171	06-Aug-18	<a href="mailto:Jorge.Estevez@fhealth.gov">Jorge.Estevez@fhealth.gov</a>	ERCIM	TRUE	FALSE	FALSE		Miami
Ganesh	Devkumar	165	06-Jun-17	<a href="mailto:Devkumar.Ganesh@fhealth.gov">Devkumar.Ganesh@fhealth.gov</a>	ERIC	TRUE	FALSE	FALSE		Lantana
Gann	Wendy	160	15-Jan-16	<a href="mailto:Wendy.Gann@fhealth.gov">Wendy.Gann@fhealth.gov</a>	ERCIOF	TRUE	FALSE	FALSE		Orange Park
Laguna	Jorge	170	06-Aug-18	<a href="mailto:Jorge.Laguna@fhealth.gov">Jorge.Laguna@fhealth.gov</a>	ERIC	TRUE	FALSE	FALSE		Tallahassee
Nicholson	Jason	544	30-Oct-17	<a href="mailto:Jason.Nicholson@fhealth.gov">Jason.Nicholson@fhealth.gov</a>	ERCE-PPS	FALSE	FALSE	FALSE		Orlando Lab
Ohara	David	172	10-Aug-18	<a href="mailto:David.Ohara@fhealth.gov">David.Ohara@fhealth.gov</a>	ERCX	FALSE	FALSE	FALSE		Tallahassee
Owens	Jim	541	16-Jan-17	<a href="mailto:Jim.Owens@fhealth.gov">Jim.Owens@fhealth.gov</a>	ERCE-Lab	FALSE	FALSE	FALSE		Orlando Lab
Pascarella	David	542	18-Aug-17	<a href="mailto:David.Pascarella@fhealth.gov">David.Pascarella@fhealth.gov</a>	ERCE-Lab	FALSE	FALSE	FALSE		Orlando Lab
Pickett	Grey	168	02-Feb-18	<a href="mailto:Grey.Pickett@fhealth.gov">Grey.Pickett@fhealth.gov</a>	ERCIM	TRUE	FALSE	FALSE		Miami
Shaw	Virginia	543	26-Jan-18	<a href="mailto:Virginia.Shaw@fhealth.gov">Virginia.Shaw@fhealth.gov</a>	ERCX	FALSE	FALSE	FALSE		Tallahassee

# APPENDIX 16

## EMERGENCY PLAN


Bureau of Radiation Control  
Department of Health  
State of Florida

Standard Operating Procedure 1  
January 2019

Operations

Approved by  Date 4 JAN 19  
Timothy Dunn  
Manager, Emergency Response Group

Approved by  Date 01-09-19  
John A. Williamson  
Administrator, Environmental Section

Approved by  Date 01-18-19  
Cynthia Becker  
Chief, Bureau of Radiation Control

# Operations

*How the Bureau of Radiation Control (BRC) responds to radiological incidents and allegations.*

An “incident” may be an actual or alleged occurrence, outside of normal licensed operating conditions, involving or having involved radiation, where the radiation may be machine or radioactive material in origin, or ionizing or non-ionizing, or the “incident” is deemed an emergency or nonemergency, or meets any regulatory reporting requirements.

## Definitions

### Incident

An allegation is an assertion made by a party that must be proved or supported by evidence. The alleege is any party that makes an allegation, either by telephone, in person, by mail, or during an investigation or enforcement conference.

### Allegation

An “incident” will be considered an emergency according to section 404.031(7) of the Florida Statutes, which defines a radiological emergency as any condition existing outside the bounds of nuclear operating sites owned or licensed by a federal agency, and further means any condition existing within or outside the jurisdictional confines of a facility licensed by the department [Department of Health] and arising from byproduct material, source material, special nuclear materials, or other radioactive materials, which is endangering, or could reasonably contaminate the environment. The Environmental Protection Agency’s Protective Action Guides (PAG) Manual, NRC’s 10 CFR Part 20, chapter 64E5 of the Florida Administrative Code as well as these SOPs may be consulted to help interpret “endangering” or “contaminate” as used in this definition.

### Emergency

“Incidents” involving non-ionizing radiation are the responsibility of the administrator of the Technology, Standards & CE section of BRC or as assigned by the Bureau Chief. “Incidents” involving machine-generated ionizing radiation are the responsibility of the administrator in the X-ray section of BRC. “Incidents” of these types shall be referred to the appropriate responsible party or their designee at the earliest opportunity.

Hereafter in these standard operating procedures (SOPs), an incident shall be understood to be any “incident” where the alleged source of ionizing radiation is some material.

The administrator of the Environmental section of BRC is responsible (except when otherwise directed by the Chief) for response to incidents involving:

- Accelerator produced or naturally occurring material (NARM/NORM)
- NRC regulated material not connected with a Florida licensee, or
- NRC regulated material connected with a Florida licensee that appears to have the potential to further expose citizens in Florida

The administrator of the Environmental Section delegates this

## Management



responsibility to the Incident Response Coordinator (IRC). The IRC will manage (in consultation with appropriate BRC staff) response to all incidents by notifying other local, state and federal agencies, assessing the incident, determining proper response level, assigning and directing response personnel, compiling data from all sources, and writing final reports.

If the incident involves NRC regulated material connected with a Florida licensee and does not have the potential to further expose the citizens of Florida the incident will be transferred to the administrator of the Radioactive Materials section for investigation. If during that investigation by the Radioactive Materials section it is determined that a sample will be taken, sample form (see SOP 6) numbers will be obtained from the IRC.

Licensees will notify the IRC or the emergency response duty officer (DO) directly. BRC staff will notify the IRC or DO immediately when they are made aware of an incident. Outside agencies and the public may notify BRC through the State Warning Point (SWP). When notification does not come from the SWP, the IRC or DO will notify them when appropriate.

## **Notification**

### **State Notification**

During normal working hours (7 a.m. to 5:30 p.m. weekdays, excluding state holidays), the IRC will take the information necessary to complete the applicable incident report form. When the IRC is absent, a member of the emergency response group, the DO, or the environmental manager/specialist on duty, in that order, will assume the duties of the IRC.

### **Work Hours**

Outside normal working hours the DO will assume the duties of the IRC and will receive notification via smart phone, or computer. The DO will call the notifying party and collect all the information necessary to complete the applicable incident report form. The incident needs to be reported to ERCE by 7:00am the following morning.

### **Non-work Hours**

If the initial notification is made by a first response group (haz-mat, law enforcement, emergency medical team, or fire department) it must be determined if anyone on scene has radiation detection equipment, that this equipment is operational, and they are trained to use it before relying on radiological measurements coming from the field. In addition, the following information should be kept in mind:

## **Advice for Non-BRC Initial Responders**

- Injured victims should be treated for trauma or other life threatening medical problems; contamination or exposure effects are secondary.
- If the hazardous material ID number is known, follow the appropriate guide in the Hazardous Material Emergency Response Guidebook.
- Persons who might be contaminated or exposed should be detained until they can be monitored. If this is not possible, get names, addresses and telephone numbers to contact them later.
- If smoke or fumes are present, approach the area from upwind.
- Cleanup of the area should be postponed until radiological emergency team members arrive.
- Give an ETA for the BRC field team.

- If the accident involves serious exposure to radiation, the phone number for the 24-hour emergency physician at REAC/TS may be found in the Severe Accident Response Phone Directory given to all duty officers. Give this number to the on-scene staff.

As an agreement state, Florida's notification criteria are governed by SA-300, Reporting Material Events. Florida BRC shall report events requiring notification from Immediate to within 24 hours to the NRC Operations Center's 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](mailto:HOO.HOC@nrc.gov). Events that require reporting within 5 to 60 days to the NRC can be electronically reported using the local NMED Agreement State software or the document "Upload" program on the NMED website. However, if the Agreement State prefers to send the event report via mail, then the report should be mailed to NRC's Radioactive Materials Safety Branch (RMSB) (See SA-300 Appendix C for mailing address).

## NRC Notification

An example of an incident requiring immediate notification is a stolen soil moisture/density gauge. The NRC is also interested in incidents that involve the media. When in doubt, it is appropriate to call the NRC to discuss reporting needs. When the NRC is contacted, they should be asked what follow-up information they will require. The incident report number for the event will also be given to the NRC to identify the incident. The NRC's internal incident number will be requested and recorded.

Reference NRC Reporting Material Events SA-300 for guidance.

## Abnormal Occurrence Criteria

It is the policy of BRC to manage allegations concerning radioactive materials or radiation exposure in such a way as to:

## Allegations

- Encourage parties to come forward and identify safety concerns to their employers or to BRC.
- The extent possible, protect the party's identity so as to preclude potential harassment and intimidation, reprisal or retaliation by employers and stigmatization by co-workers.
- Expeditiously investigate the validity and safety significance of allegations and where appropriate, require corrective actions.
- Inform allegers of the resolution of their concerns.

If the allegor asks that their identity be protected, he or she will be informed that BRC files are public records, available to anyone for review. This is necessary since the allegor may assume that BRC can protect his or her identity under all circumstances. Allegor's identities will be withheld from BRC staff except on a need-to-know basis.

## Protecting an Allegor's Identity

Treat the allegor courteously and be responsive to his or her assertions. The assumed safety significance of the allegation should not affect the

## Receipt of an Allegation

treatment of the alleged. The IRC should obtain as much of the following information as possible:

- The alleged's full name, position or relationship to the facility or activity involved, home mailing address (not business) and telephone number.
- The alleged's employer, the facility or activity involved.
- Nature and details of the allegation.
- Potential safety impact.
- How the alleged found out about the concern(s).
- Other individuals BRC should contact for additional information.
- Records that BRC should review.
- Has the alleged raised the concern with the employer? If not, why and if so, what actions the employer took.
- Can BRC release the alleged's identity?
- Can BRC refer these issues to the employer?

Allegations will be managed as incidents in that they will be assigned incident numbers and the same forms will be used. Allegations involving non-ionizing radiation or machine generated ionizing radiation will be referred to the responsible parties identified in paragraph 4, page 1 of this SOP. Allegations are occasionally reported to NRC, the field offices, or to BRC in Tallahassee, and those involving radioactive material will be referred to the IRC at the Environmental Radiation Section in Orlando. Allegations will be categorized as "Other". When possible, results of the field investigation will be provided to the alleged by phone or in writing. If allegeders are interested in any licensing penalties levied by the Radioactive Materials Section in Tallahassee that information will be provided, when available, by phone or in writing. If the alleged does not provide a point of contact, it will be suggested that they call periodically asking for findings.

## Management and Reporting of an Allegation

For incidents where there is a potential threat to public health or safety the IRC should arrange for a press release detailing the risk (press releases for nuclear power plant accidents will be done through the EOF facility by the Operations Officer). For licensed material this will be coordinated with the law enforcement agency involved, the licensee, or the administrator of the Radioactive Materials section.

## Press Releases

For non-work hour incidents, the DO will coordinate the response based on severity of the incidents. For incidents requiring immediate action regional on-call personnel or regional area inspectors will be used for response. The Environmental section maintains the Severe Accident Phone Directory listing contact numbers for all BRC personnel. The DO should call the ERCE Emergency Response Manager, the Administrator, and Chief to report any serious incidents (Nuclear Power Plant emergencies, large quantities of lost/stolen radioactive material, etc.), for all other incidents, the Initial Incident Report should be emailed to the DL ERC Radiation Incident group once the form has been completed.

For work hour incidents, the IRC will coordinate the response based on severity of the incidents. For incidents requiring immediate action regional area Managers will be contacted, and area inspectors will be used for

## Response Initial Activities

response. The Environmental section maintains the Severe Accident Phone Directory listing contact numbers for all BRC personnel. All incidents should be emailed to the DL ERC Radiation Incident group once the form has been completed.

When an on-scene response to an incident is deemed necessary, teams composed of one or more Field Operations Specialists (FOS) will be dispatched from the nearest BRC regional inspection area. If no inspection staff is available, or in the case of severe accidents, environmental specialists from other groups may be required to respond. When possible, the assignment of personnel will be coordinated with their supervisors. If the supervisor cannot be reached in a reasonable length of time or is not available, the IRC or DO will assign staff as needed. See SOP 6 for additional information on FOS response efforts.

## On-Scene Response

An incident number will be assigned by the IRC. This number will be entered on all forms, follow-up reports and supplementary information connected with the incident. The format for the number is "FL" followed by the last two digits of the current calendar year, a dash (-), and the sequential number of that incident in the current calendar year. For example, the 27th incident in the year 2015 would be FL15-027.

## Incident Numbers

The IRC will brief the Emergency Response Manager, and the Administrator of the Environmental section and other persons as directed by the administrator on significant changes in the incident. Significant changes include information on personnel exposure, dose rates, a change in the source activity, releases to the atmosphere, the number of sources involved, the number of persons involved, or press coverage.

## Updates

Radioactive Materials (RAM) in scrap metal and refuse is a major problem for scrap metal dealers, foundries, sanitary landfills, and co-generation plants. Problems range from worker safety to contamination of buildings, grounds and equipment. To prevent the inclusion of RAM in incoming shipments, these facilities have installed portal monitors at their scale houses, and any alarm usually results in the total rejection of the load.

## USDOT Exemptions Introduction

For a shipper or carrier to legally carry RAM in a rejected load that has not been declared on the shipping papers and whose specific identity is unknown, a USDOT exemption is needed. The Conference of Radiation Control Program Directors (CRCPD) has an agreement with USDOT that allows the states to issue an exemption to the shipper, on a case-by-case basis, for a load whose survey reading does not exceed 50 mR/hr. DOT-E10656 pertains to scrap metal and DOT-SP11406 pertains to waste/recycled materials. The dealer or shipper must request the exemption and report the incident as explained in the exemption. The IRC will issue the exemption and fax/email the exemption form with the accompanying shipping papers to the carrier. Fax/email only the exemption form to the destination state (if applicable), destination firm, shipper, and CRCPD. Forms can be uploaded to CRCPD electronically via the website: [www.crcpd.org](http://www.crcpd.org).

## Issuing Exemptions

Copies of USDOT-E10656 and SP11406 are on file at BRC admin offices,  
2100 All Children's Way, Orlando 32818

USDOT-E10656  
And E11406

## **Reporting Report Forms**

Depending on the situation, an incident form or forms will be selected from the following for initial reporting. Each question or blank on the form should be completed in its entirety (if no information is available or the blank is not appropriate, a N/A should be entered).

- The BRC Incident Report Form (Figure 1-1) will be completed for all incidents by the DO or IRC and by any responding FOS.
- The State of Florida Notification Message Form for Nuclear Power Plants (Figure 1-2) will be used by the IRC or the DO for incidents at Florida nuclear power plants.
- The appropriate Farley Emergency Notification form will be used by the IRC or the DO for incidents at Farley.

Responders will furnish the IRC with timely telephone updates of actions taken at the incident scene. They will also call before leaving the scene. The response team(s) and the DO will include the Incident Report Form in their report submitted to the IRC. This report may be handwritten and may be sent to the IRC without the immediate supervisor's signature (it is used for information only). The report must be faxed and/or emailed to the IRC, and loaded into Laserfiche by the next working day. Responders will include any documents obtained in the field with the report. The immediate supervisor should OK this report.

## **Initial Incident Reporting**

Within ten working days of the receipt of the last report(s) from the on-scene response teams, the final report on the incident will be written by the IRC, and placed into Laserfiche. The possible components of this report are:

## **Final Reports**

- The Radiological Incident Final Report Form (Figure 1-3) must be used by the IRC in generating all final reports or any updates for all incidents. The form is self-explanatory and should be filled out in its entirety.
- An abstract page will be an attachment, if needed. It will contain the incident report number, date of the report and a complete summary of the incident, including but not strictly limited to, any unusual details pertaining to the initiation of the incident, the response, the results or resolution of the incident, all names, titles, phone numbers and addresses of key persons involved in the incident. Any analytical or field data will be included in this section. The author should strive for factual information rather than generalities. Personal opinions, inferences and assumptions must not be included in the report.
- A narrative will be an attachment, if needed. It will consist of a time line of the incident and the response.
- Supplementary materials including but not restricted to photographs, forms, diagrams, charts, and maps, will be an attachment.

A copy of the report will be distributed to the administrator of the Radioactive Materials section. When the report involves a Florida licensee, a final copy will be sent to the appropriate regional inspection manager.

The Nuclear Materials Events Database (NMED) is updated electronically every quarter by the IRC. NRC has access to all Florida incidents via this database. BRC is required to send special written reports, known as Abnormal Occurrence Reports (AORs), to the NRC. AORs will be written by the ERCE Incident Response Coordinator. AORs will contain the date and place of the occurrence, the license involved if applicable, the nature and probable consequences of the occurrence, the cause or causes of the occurrence, and any action taken to prevent any recurrence. AORs will describe actions taken by the licensee and state, including enforcement actions if applicable.

## NRC Reports

An annual summary of the incident quarterly reports for each fiscal year shall be compiled by the IRC in July for reference use.

## Annual Reports

Quarterly a summary of all incidents shall be prepared for the Bureau chief and the Environmental Radiation section administrator listing the number of incidents by incident category. The incidents shall be grouped under the categories of major, moderate, minor.

## Quarterly Reports

A summary of incidents involving inspection office staff shall be prepared for the administrator of the Field Operations section of BRC. The summary shall be grouped by field offices, and include the incident number/date, and the date/time investigated.

Each inspector shall be provided a copy of all incidents involving licensees from their area of responsibility.

Duties described in these SOPs are discussed below. Some duties are always in effect. Others are active only during severe emergencies. Staff members are trained for these duties according to Table 1-1. All staff members should keep in mind that they are responsible for the contents of all the SOPs.

## Duty Descriptions

Upon activation during a severe emergency, staff members should proceed by the most expeditious manner to their assigned station. Staff members have been provided with and should bring with them their dosimeter badge, TLD card, state employee identification card, Cell phone, Laptop computer, and their copy of the SOPs. During long term incident response, when more than one shift will be used, they will need to track what they are doing in order to effectively brief their replacement.

The Incident Response Coordinator (IRC) is a position in the emergency response group in the Environmental section of BRC. The IRC directs response to incidents involving or allegedly involving radioactive materials. The IRC takes the initial and follow-up calls (during normal working hours), determines appropriate response in accordance with the SOPs and in consultation with the appropriate BRC management staff, assigns staff for response, issues sample form numbers and enters the information into the computer sample form number log, monitors field response work, assures

## Incident Response Coordinator

samples are analyzed and the results are reliable (for severe accidents when the Mobile Emergency Radiological Laboratory is used, this role will be assumed by the MERL Supervisor), completes the proper forms, writes the necessary reports, and briefs the appropriate managers and administrators.

The IRC has been authorized by the Radiation Safety Officer (RSO) to establish radiological control areas (storage areas, radiation areas, high radiation areas, exclusionary areas, contamination control areas, and high airborne areas).

The IRC is responsible for completing the BRC Incident Report (see Figure 1-1), and BRC Radiological Incident Final Report (see Figure 1-3) as needed.

The Duty Officer (DO) is a position in the Environmental section of BRC. BRC prepares an on-call duty roster of DOs. The DO assumes the duties of the IRC during off-duty hours including weekends and holidays and must be reachable by wireless phone. The DO's responsibility ends only after debriefing the IRC, the manager of the emergency response group or the administrator of the Environmental section on the first working day following an incident and after having completed a BRC Incident Report Form. The Incident Report Form must be submitted to the IRC within one working day.

## Duty Officer

This position has been authorized by the Radiation Safety Officer to establish radiological control areas (storage areas, radiation areas, high radiation areas, exclusionary areas, contamination control areas, and high airborne areas).

The DO is responsible for completing the BRC Incident Report (see Figure 1-1), and the State of Florida Notification Message Form for Nuclear Power Plants (see Figure 1-2).

Field Operations Specialists (FOSs) are the on-scene investigators for BRC. For severe accidents, some BRC staff members are trained for this duty; however, any BRC staff member who responds to an incident is a FOS. FOSs investigate and report the details of the incident, monitor for and report radioactive contamination levels, and collect and return samples for analysis to the radiochemistry laboratory in Orlando, the MERL, or elsewhere as directed. Specific instructions for field operations may be found in SOP 6.

## Field Operations Specialist

FOSs will report to and are directed by the IRC or the DO through their respective supervisors if feasible. In a severe accident, the Field Team Director will assume this responsibility. Where staffing requirements warrant and when available, each field team will consist of two FOSs. When two FOSs are assigned, one will be designated as the senior specialist and shall be responsible for the internal operation of that team.

The FOSs are responsible for completing the Field Monitoring Log (see

SOP 6), the Sample Control Form (see SOP 6), and verifying the Team, Instrument, & Equipment Information Log (see SOP 6).

This position is activated in the event of a severe accident. The Operations Officer directs the response of BRC to a severe accident. To accomplish this, the Operations Officer will:

Operations Officer  
and Assistant

- Respond to a Terrorist event using the guidance in SOP 10.
- Upon the declaration of an alert, site area emergency or general emergency at a nuclear power plant or the notification by the IRC of a severe accident at another site, establish an operational headquarters during the initial response phase and assume responsibility for the mobilization of the staff and the taking of environmental measurements at the accident scene. In most cases this operational base will be MERL and the Operations Officer will accompany the MERL Supervisor in MERL when in transit to the site.
- Upon relocation to the Emergency Operations Facility (EOF) or any other near scene site assumes responsibility for all BRC operations.
- Through the Assistant Operations Officer:
  - direct FOSs and the MERL staff.
  - direct the dose assessment team to make dose projections and confirm any projections made by others; evaluate field team data, population dose estimates, offsite radioactive contamination measurements, analyses of environmental samples; and compare field measurements to plant release parameters.
  - initiate the use of potassium iodide (KI) for BRC personnel when radioiodines are present or are expected to be present. The Operations Officer will notify the county representatives at the EOF when KI has been authorized for use by BRC staff.
- Based on dose projections and field measurements, coordinate with either the utility's Recovery Manager or the owner of the facility or material, and other federal and state agencies in providing a uniform assessment and monitoring effort and the issuance of protective action recommendations (PARs). In making these recommendations they should consider the Protective Action Guides (PAGs) in SOP 16.
- Authorize KI for the public in accordance with guidance in SOP 20.
- Act as BRC spokesperson in any media briefings given.
- Determine the need to invoke the Southern Mutual Radiation Assistance Plan (SMRAP) or the Emergency Management Assistance Compact (EMAC).
- For severe accidents which result in or are likely to result in the release of airborne radioactive material, request through the Division of Emergency Management (DEM) the activation of the Nuclear/Radiological Incident Annex of the National Response Framework plan. In particular, the aerial monitoring equipment should be requested to determine the existence, location, and isotopic content of the plume and/or deposition from the plume. The Department of Energy Radiological Assistance Program region 3 (DOE RAP3) is an example of assets (Field teams, aerial monitoring, etc.) that can be requested. Additionally, they need to determine if annex A (REP) or E (Terrorism) applies from the State Comprehensive Emergency



Management Plan.

- For nuclear power plant accidents follow additional guidance in SOP 13 and for space vehicle accidents follow additional guidance in SOP 12.

This position has been authorized by the Radiation Safety Officer to establish radiological control areas (storage areas, radiation areas, high radiation areas, exclusionary areas, contamination control areas, and high airborne areas) and to adjust the allowable dose for members of BRC response group.

This position is activated in the event of a severe accident. The Resource Coordinator (RC) is responsible for all BRC resources. This includes all field team personnel, backup shift personnel and staff members without a specific assignment at the time of activation. Operational personnel not participating in the initial phases of the emergency response activity will report to the person manning this position. The RC will maintain a personnel and matériel pool to be deployed at their direction contingent on operational requirements of the incident. To accomplish this, the RC will:

Resource Coordinator

- Upon activation proceed by the most expeditious manner to the EOF or SEOC as directed. In addition to the items discussed in the introduction to this section, they are provided with and must bring with them a state credit card, a Severe Accident Response Telephone Directory, a Southern Mutual Radiation Assistance Plan and a Federal Radiological Emergency Response Plan.
- Determine from the Operations Officer which personnel have been activated, where they are now, what additional personnel will be needed, and the need to notify other agencies or states. The RC will make the necessary notifications. When activating staff, the RC will give them an estimated length of assignment, tell them what they are expected to do, what to expect when they arrive (e.g., blocked roads), and what they should bring with them (money, personal items, credit cards, vehicles, and instruments). The RC will estimate when staff will arrive and have them report their arrival by phone.
- Determine if BRC personnel will need accommodations. If so, the RC will make reservations using the state credit card (individuals will pay the charges using their own state or personal credit cards). If they have difficulty finding rooms at a reasonable rate, for nuclear power plant incidents they may coordinate with a utility representative. Under extreme conditions it may be necessary to consider opening a National Guard Armory or public shelter. This will require assistance from the Division of Emergency Management.
- Based on telephone contacts and ETAs, begin formulating a roster giving names, duties and reporting times. The RC will determine where personnel can be reached at any time (under most circumstances, this will be where they are lodged).
- Determine whether additional vehicles will be needed. The RC will consider using BRC, county health department or rental cars. If rentals are used, billing arrangements will need to be worked out.
- When extended operations occur, determine vendors who will repair

equipment and vehicles and provide any required supplies (e.g., liquid nitrogen). The RC will brief the current personnel dosimetry vendor on the influx of dosimeters for processing and will arrange for additional dosimeters to be ordered.

- If needed, make arrangements to have additional instrumentation from BRC offices brought to the area.
- If aircraft are needed, make arrangements with the Florida Fish and Wildlife Commission (FWC), Florida Highway Patrol (FHP), Division of Forestry, Department of Agriculture and Consumer Services, the Civil Air Patrol, and the local sheriff's office.
- Consider the use of county personnel and law enforcement staff to make up for shortfalls in personnel, especially in sample pickup teams, the transportation of samples back to the Health Physics Laboratory for analysis, etc. The RC will coordinate with the county representatives at the Emergency Operations Facility for this assistance.
- Consider the use of Florida National Guard 44<sup>th</sup> and 48<sup>th</sup> Civil Support Teams (CSTs) for field team augmentation, personnel monitoring decontamination and additional communication/instrument assets.
- Consider the use of the Florida National Guard Chemical, Biological, Radiological, Nuclear, and High yield explosive, Enhanced Response Force Package (CERFP). It consists of a Search & extraction Squadron, a decontamination Battalion, and a medical group.
- Manage BRC requests for health physics support from federal agencies, EMAC, or SMRAP. BRC's use of other state agencies or federal agencies must be through the State Emergency Operations Center Coordinator, with the exception of DOE RAP3.

This position is activated in the event of a severe accident. Under direction by the Assistant Operations Officer, the Field Team Director (FTD) will deploy BRC field monitoring teams and will instruct these teams on the types of measurements or samples to be taken during the actual release, recovery and reentry phases of the incident. Whenever possible, at least two FTDs will work as a team. To accomplish these tasks, the FTD will:

- Upon activation, proceed by the most expeditious manner to the EOF, EOC, or other operations center. In addition to the items discussed in the introduction to this section they are provided with and should bring with them a state credit card, laptop computer, and a Severe Accident Response Telephone Directory.
- Upon arrival, they will determine the communications resources that are present and test for operability. If one or more of these resources are not working, the FTD will arrange for repairs through the Resource Coordinator. The FTD should be in contact with the field teams using radios, cellular phones, or satellite phones. If direct communication is not possible, the FTD will relay communications through MERL, or whatever resource is available.
- The FTD should firmly and quickly assume control of field team operations. Conduct communications checks with all players in an expeditious manner and then let all know that you have control of the communications network. **Take Control!**
- At the initial deployment, brief the field teams concerning areas of

Field Team Director

contamination, facility conditions, meteorology and any previous field measurements. Subsequently, the FTD will brief the field teams on these parameters as they develop. However, it is desired that every 30 minutes an update be given to include a “no change” update, if applicable. After the initial deployment, newly arriving FOSs will be briefed at MERL or other staging area. FTDs should attempt to remind field personnel to read their dosimetry every half-hour, however reading dosimetry is the responsibility of the user.

- Direct all field team work in coordination with the Assistant Operations Officer and any other agency’s field team directors. The FTD will keep a map showing the real-time location of field teams.
- When assigning field team sample/measurement locations, they will keep in mind:
  - predesignated sample locations,
  - the principles of ALARA (e.g., keep teams on the edges of the plume, do not search for the “center-line”),
  - the time needed for travel to the sample location,
  - projected plume direction, wind speed, and activity (to prevent stranding teams or overexposing them),
  - and the appropriateness of measurements and sampling requested for the accident phase (e.g., field readings, swipes, and air samples during the emergency phase, soil deposition or swipes for relocation, etc.).
- Receive via Radresponder, radio or telephone, field team environmental measurements and transcribe these measurements onto the Field Data Acquisition Log (see Figure 1-5). The FTD will relay this information to the Assistant Operations Officer immediately.
- When samples are requested, the FTD will assign the number and log this information in the Field Data Acquisition Log. The sample number format will be team field team call sign-sequential number-type of sample (D=dirt, W=water, A=air, V=vegetation, M=milk, S=smear/swipe, B=biota). An example would be FT9-1D (Foxtrot Tango nine one Delta). Once the samples are collected, the FTD will ensure that the sample is delivered to the appropriate analysis facility.
- Relay analytical results from MERL to the Assistant Operations Officer.
- Keep projected dose records for field team members and keep field team members and the Assistant Operations Officer apprised of the estimated total doses. Dosimeter readings will be logged onto the Field Data Acquisition Log and using these measurements, the FTD will estimate if the doses received by the field team members will exceed guidelines in SOP 2. FTDs should regularly check with dose assessment personnel to see what projected exposures field teams may encounter in the near future.
- Periodically fax/email the Field Data Acquisition Log to the MERL Supervisor.
- Upon direction by the Assistant Operations Officer, check that field team members have taken KI and log the time in the Field Data Acquisition Log. If the use of protective gear is mandated by the Operations Officer, the FTD is responsible for ensuring field team members use the proper protective gear when responding.

- Arrange with the Resource Coordinator for replacement field teams.

This position is activated in the event of a severe accident. The Dose Assessment Specialists will make exposure rate and cumulative dose predictions to persons in the vicinity of the affected site. These doses can be from ingestion, inhalation, or external exposure to radioactive materials and gasses from the plume or ground deposition. Whenever possible, two Dose Assessment Specialists will work as a team.

## Dose Assessment Specialist

The involved parties will need to determine which model will be the one used for decision making. The accident assumptions put into the model(s) and the dose and dose rate predictions coming out of the model(s) will be compared to those of other involved parties (the utilities for nuclear power plant accidents, federal government agencies, etc.). In most instances, dose and dose rate values that are within an order of magnitude or so of each other will be deemed equivalent. The Dose Assessment Specialists will keep the Operations Officer informed as to the plant conditions being used by the utility for their projections. That means that the DAS need to keep in contact with the utility dose assessment for current assumptions being used. Those assumptions should be used for runs for comparative purposes. The DAS are encouraged to make runs using other assumptions to show the Ops Officer worst case scenarios. For nuclear power plant accidents, the dose model will be the utilities. See SOP 17 for more information on dose assessment calculations.

The Dose Assessment Specialists are responsible for completing the Nuclear Power Plant Accident Status form (Figure 1-7) that is given only to the communicator. Only official information posted on briefing boards should be entered on the form. The form should be updated when there is a change, or every hour.

This position is activated in the event of a severe accident. Upon activation, the Communicator will proceed by the most expeditious manner to the EOF, EOC or other operations center as assigned. In addition to the items discussed in the introduction to this section they are provided with and should bring with them a credit card, and a Severe Accident Response Telephone Directory.

## Communicator

The Communicator is responsible for collecting information on plant status, dose projections, KI issuance, meteorological data, and protective action recommendations to relay by telephone to BRC staff located at other sites. For nuclear power plant accidents, these sites and staff include:

- the BRC County Emergency Operations Center Technical Advisors,
- the State Emergency Operations Center Coordinator,
- other personnel as directed by the Operations Officer.

This information can be gathered from BRC Operations Officers, BRC Dose Assessment, Field Team Directors, and when available, the EOF FP&L/Progress Energy staff. Plant status is available from the plant status boards in the EOF. The Communicator will use the Nuclear Power Plant

Accident Status Form (see Figure 1-7) or the state notification form (see Figure 1-2) as a guide in the type of information relayed. The information blocks on this Form are on the status boards. County EOC BRC technical advisors sometimes ask specific equipment status related questions. Track down answers to specific questions, as time permits, but don't let that interfere with your primary job of gathering the information listed above and relaying it. Use all the SOPs and attachments (particularly Definitions & Terms) as a resource. If there is any thing you don't understand or are not sure about, ask the Operations Officers. If available, ask an Operations Officer to monitor your phone while you gather data, go to the rest room, etc.

After the EOF takes control of an incident, the communicator will ensure all information being relayed to other BRC sites (e.g., the environmental laboratory) is redirected to the EOF. For nuclear power plant emergencies faxes/emails will be rerouted from the environmental laboratory to MERL. *Press Releases, EAS messages, etc., should not be passed to MERL.* The MERL actual fax number at the deployed location will be verified and passed to the EOF fax & copy center. Any paper you give to the center for photocopy or fax is stamped "This is a Drill" or is date time stamped, so if you don't want your original stamped, ask the staff to make an unstamped copy first and give them the copy for making multiple copies or faxing.

The Communicator will act as liaison between the base of operations and the SEOC when the Operations Officer requests assistance of state and local agencies. The Communicator may be called upon by any one of the above to answer questions regarding the emergency. The Communicator is responsible for accuracy and detail in his or her conversations with others. A detailed log or notes should be kept that at a minimum contains time, event, or information conveyed. *Do not get involved in activities that hamper your primary job of collecting & passing information to BRC staff, particularly the county EOC staff.*

This position is activated in the event of a severe accident. The State Emergency Operations Center (SEOC) Coordinators will provide health physics expertise to personnel located in the SEOC by explaining health physics terminology, data concerning protective action recommendations, samples collected by Field Operations Specialists, laboratory results, etc., being received from the site or other field operations center. [The Nuclear Power Plant Accident Status Form may be used to receive data from the EOF communicator.] They will be the primary interface between BRC and other state, county and local field agencies (e.g., the facilitation of the collection of milk samples through asking the Division of Dairy Industries for locations of affected dairies and local staff members to assist with the process). The SEOC Coordinator will, if directed by the Resource Coordinator and through the Division of Emergency Management (DEM), contact and coordinate actions with federal agencies. They will arrange through DEM for assistance requested through the Southern Mutual Radiological Assistance Plan (SMRAP) Or the Emergency Management Assistance Compact (EMAC). To ask for DOE (FRMAC & RAP Teams) support call the Savannah River 24-hour emergency operations center in

SEOC Coordinator

Aiken, South Carolina. The number is in the rear of the Severe Accident Response Phone Directory under FEDERAL and DOE. When possible, two SEOC Coordinators will serve as a team. The four specific items that our SEOC rep should enter into EMConstellation:

Time that BRC activates (soon after alert declaration)

Time that BRC is on site, resources available including field teams deployed including location of field team deployment

Time and reason for KI distribution to the emergency workers

Time and reason for KI distribution to public.

Other items that may be entered: discussions with DEP and Ag regarding food and water issues or missions Staffing issues (simply indicating that BRC has 3 deep 24 hour staffing available)

This position is activated in the event of a severe accident. County EOC Technical Advisors will go to the County EOC they are assigned to by the Operations Officer. They will report to the EOC Director or his or her designee. Information from the EOF will be relayed to them by telephone from the Communicator. Verify the phone number for your location in the EOC and then contact the communicator if the number is not what is in the severe accident phone list. If you are not sure on the phone number, call your cell from the phone and use caller ID. The Technical Advisors are responsible for explaining information regarding site conditions, releases, plume projections, dose rates, and the rationale for PARs to County EOC staff. Use the utility representative (rather than the communicator) as a source of information concerning plant equipment status.

County EOC  
Technical Advisor

The County EOC Technical Advisors may use the Nuclear Power Plant Accident Status Form (see Figure 1-7) to receive information from the communicator. At times if the communicator is not available call BRC Dose Assessment & Field Team Directors for necessary information. Their numbers for each EOF are in the Severe Accident Phone Directory. **You must be careful not to gather and pass information that has not been through our Operations Officer or has not been officially approved/accepted by EOF/EOC representatives** – any questions in that regard should be asked of the Operations/Assistant Officers.

This position is activated in the event of a severe accident. Upon activation, the MERL Supervisor (MS) will ensure MERL, the Sample Preparation Vehicle (SPV), and Field Team trailer(s) are driven to a location near the affected site. Upon arrival, the MS will oversee the preparation of MERL, the SPV, and adjoining areas in order to get field teams operational and to be prepared to receive samples. In general, MSs are responsible for the overall operation of the forward berthing location including MERL and the SPV. To accomplish this, the MS will:

- Arrange for the MERL the SPV, and Field team trailer to be driven to the appropriate berthing location (see SOP 13 for predesignated berthing locations for the nuclear power plant sites). The MERL Checklist (see Figure 1-4) will be used to prepare for departure. At least one vehicle will accompany MERL, preferably the SPV.
- Ensure the Operations Officer rides in MERL. While in transit the Operations Officer will contact onsite staff using cellular/satellite

MERL Supervisor

telephones.

- Upon arrival, prepare MERL, the SPV, and the Field Team trailer for the deployment of field teams and the arrival of field samples (in part, use the MERL Checklist). This will include testing the berthing location voice and fax phone numbers, and the WIFI cradle point prior to use to insure operability. These numbers will be provided to the communicator when the BRC staff arrives at the EOF. The MS will assist the Field Team Supervisor in preparing field teams for departure. They are responsible for making sure that MERL does not become contaminated by either samples or by airborne material.
- Receive and transmit all fax/email, radio and telephone messages sent to MERL (The operating procedure for the XMediusFAX is kept in MERL). They will relay messages between the EOF and the field teams as necessary. All incoming fax messages will be kept. The MS will brief the MERL staff on any important information received. The Nuclear Power Plant Accident Status Form (see Figure 1-7) may be used to receive information from the communicator.
- Conduct a pre-deployment briefing for the Field Teams (see SOP 6 Figures for briefing guide) and MERL staff on the situation, to include health & safety issues. Control the field teams until the Field Team Directors assume net control.
- Track the movement of samples using the Sample Form Log (see SOP 8). The MS will ensure chain-of-custody for field samples is maintained once they reach MERL. The Operations Officer sets sample analysis priorities, but the MS will make sure the field samples are analyzed in the correct order, with the appropriate analysis and in a reasonable time frame. They will report analytical results to the EOF as soon as possible.
- Maintain the security of the MERL berthing area, MERL and the SPV by preventing unauthorized persons from entering these areas. If in doubt or police security is needed, the MS will contact the Operations Officer for instructions. In general, they will only allow themselves, Field Team Supervisors, and the Analytic Equipment Specialists in MERL and Sample Preparation Specialists in the SPV. Exceptions may be granted by the MS.
- Maintain the well being of the staff by scheduling breaks and meals in a manner that keeps the forward site operational at all times.

MSs are responsible for completing the Sample Form Log (see SOP 8) and the MERL Checklist (see Figure 1-4).

This position is activated in the event of a severe accident. The Field Team Supervisor (FTS) dispenses dosimetry, protective clothing, KI, survey equipment, and all other necessary supplies to Field Operations Specialists (FOSs) and MERL staff. The equipment necessary for field response will vary according to the accident type and the following will need to be adapted to suit the response.

Field Team  
Supervisor

For response to a nuclear power plant accident, the FTS will use the checklist in Figure 6-2 and:

- Assist the MERL Supervisor in controlling the activities of the FOSs

while they are at the staging location. This includes limiting access to MERL and SPV, maintaining a smooth flow of equipment and samples in and out of the Field Team trailer, MERL and the SPV, and passing through the hot line.

- If available, direct the FOSs to check their radio and satellite/cellular phones with the EOF or other operations center and/or MERL. The FTS will ensure the field teams are operating on the correct frequency.
- If provided, the FTS will ensure the team's inventory the emergency kit.
- **Using the red Cs-137 button source # 0 with the label out, source check each Ludlum models: 2241, 26 and 26-1. Using red Cs-137 button source # 3 with the label in, source check each CDV-718 issued.** For all instruments the reading should be within the range shown in the most current instrument performance check in the black binder book located in the top left book holder above the computer.
- Dispense all necessary equipment and supplies to the FOSs, completing the Team, Instrument, & Equipment Information Log (see SOP 6 Figures).
- Ensure FOSs have their dosimeter badges and their TLD cards.
- Assign field teams to vehicles, making certain the teams have two sets of keys and posting this roster on the outside of MERL and near the radios inside MERL or in a prominent place if the teams are being dispatched from another operations center. They will notify the Field Team Director of these assignments.
- Issue Tablets/Laptops cradle points and cellular & satellite phones to each field team.
- Have the teams check the operability of all equipment issued.
- Ensure non-BRC staff at MERL or accompanying the field teams are issued appropriate dosimetry, understand the use of the dosimeters issued, and are aware the consequences of exposure to radiation.
- Through the AES assign dosimetry to all MERL/SPV personnel and make sure the AES prints computer readings after use.
- If Direct Reading Dosimeters are issued, the Emergency Radiation Exposure Card (figure 1-6) must also be issued.
- Assist in hot line set-up.
- TLD Badges are available in MERL for issuance to non BRC emergency workers at the Operations Officer direction. Use the Form in SOP 19 to issue these Badges.
- Set-up the area radiation monitors for MERL and ensure the monitor in the Sample Preparation Vehicle has been set up.
- Direct incoming field teams to the Hot Line. Ensure the chain of custody is transferred when the samples are processed through the hot line.
- Receive dosimetry from hot line, decontaminate (if necessary) dosimeters for reuse, and download the data using the MERL computer.
- Receive incoming instruments from field teams through the hot line personnel, verify the instruments are operational and uncontaminated (if they are, decontaminate them), and store them for reuse.
- Obtain dosimeter readings for all staff at the MERL from the AES computer and report these readings to the Field Team Director or Operations Officer.



- Assist the MERL Supervisor with security, radio and phone traffic, and incident status briefings.

This position is activated in the case of a severe accident. Contamination Control Specialists are responsible for establishing a Hot Line where field team members, equipment and samples will be monitored using survey meter/portal monitor and decontaminated as required. Contaminated clothing and instruments will be isolated until decontaminated, or properly packaged for disposal. Incoming samples will be bagged, screened and stored. Personnel, who can't be decontaminated onsite and all contaminated vehicles, will be taken to the county wash down location. Two specialists will work as a team. Specific instructions for this position can be found in SOP 5.

## Contamination Control Specialist

This position is activated in the case of a severe accident. The Sample Preparation Specialists report to the MERL Supervisor. Their duties include setting up the sample preparation area, preparing samples for counting, managing waste from the preparation process, and preventing loose contamination from reaching MERL. Specific instructions for this position are found in SOP 8 and equipment Operating Instructions.

## Sample Preparation Specialist

This position is activated in the event of a severe accident. The Analytic Equipment Specialists (AES) report to the MERL Supervisor. The AES's responsibilities include assisting the MERL Supervisor in driving MERL and the SPV to the berthing location, setting up the frisking station/area monitor, setting up the analytical equipment (especially the gamma spectroscopy system), reducing raw analytical data, and reporting results to the MERL Supervisor. The AES is responsible for completing the MERL Sample Log (see SOP 9) for samples analyzed in MERL. Specific instructions for analysis using gamma spec, alpha/beta, or liquid scintillation counters are located in MERL. The AES is also responsible for zeroing and setting parameters for the Electronic Personnel Dosimeters (EPDs) prior to issuance by the Field Team Supervisor. The AES will also read the EPDs after they have been used. Specific instructions are found in MERL where the dosimeters are stored.

## Analytic Equipment Specialist

When a Federal Radiological Monitoring and Assessment Center (FRMAC) is established by the Department of Energy, BRC will transfer field operations related staff to that facility. The Assistant Operations Officer will assume the role of BRC FRMAC Manager. On arrival at the FRMAC, they will brief the FRMAC Director and staff on the incident situation and coordinate BRC field monitoring with that of the federal teams.

## FRMAC Staff

MERL may be relocated to the FRMAC to facilitate coordination of field team deployment and sample analysis. The FRMAC Manager will coordinate sample analysis priority in the MERL and confer on decisions to use fixed laboratories such as the Environmental Radiation Control Health Physics Laboratory for analytical analysis of samples. The FRMAC Manager will ensure that all information sent to the Operations Officer has

been agreed to and signed off by all managers in the FRMAC.

If MERL is not available due to maintenance or multiple events the following procedures should be followed. The field team vehicles and the SPV, if available, should be loaded with equipment needed to respond to the early phase of an accident. A laptop should be taken with an EPD reader to activate and log the EPDs out. The laptop can be powered by any vehicle that has a dc to ac power converter.

## **Non MERL Support**

The Emergency Response Field Team trailer, if available, will be pulled by the SPV or a truck. The trailer will contain instrumentation, PPEs, sample collection items, replacement collection gear, a generator, full gas cans, hot line equipment, tools; etc. There should be enough supplies to equip a minimum of two field teams. It will leave as soon as possible after notification.

Field team operations should be located at a berthing location if possible. Ensure that the radios, spare batteries, and satellite phones are available, and operational. If it is a terrorist event the field team operations location should be dictated by communications availability and accessibility to both the accident site and incident command location (where our ops officer probably will be located). Field Team Directors may work out of field team staging area or at the incident command center, depending on communications.

If the Hot Line equipment is not available, a county reception center or wash down facility will be used for contamination control. The Contamination Control Specialists will collocate with the appropriate facility. The equipment needed will be bags and frisking equipment. There may be portal monitors at the county facility. The samples and equipment will have to be tightly controlled.

If the SPV is available, it will be used to prep the samples. If not, the samples will be packaged per SOP 5 when they pass through the hot line. Avoiding cross contamination problems will be paramount.

The portable ORTEC Detective-EX 100 may be used to analyze samples. This unit incorporates a high-purity germanium (HPGe) detector for identification using gamma-ray emissions and a moderated neutron detector for detection of the neutron emissions. It is mechanically cooled, powered by either AC or DC power; it can operate off its lithium-ion battery for about 3 hours. The internal battery cannot be used to cool the detector from room-temperature - external power is required for that, and it can take up to 12 hours to fully cool the unit. Other external power sources are a 12 V Li-ion battery which uses an adapter cord. Use the accompanying instrument operator manual to operate this instrument.

All operations will follow SOPs. Any modifications required by circumstances will be decided by the Operations Officer and clearly briefed to all responders.

FIGURE 1-1: BRC Incident Report Form

BRC Incident Report Form			
1. Date/time	2. Incident Number <b>FL</b> <b>—</b>		
3. Owner/Licensee Name		4. Phone Number	
5. Address			
6. Incident Location			
7. Description of Incident			
8. Radiation readings taken by onsite staff (use cautiously)			
9. Response requested: <input type="checkbox"/> Immediately <input type="checkbox"/> End of next day <input type="checkbox"/> By end of week <input type="checkbox"/> Other:			
10. Have you notified owner/licensee of your arrival date/time? <input type="checkbox"/> Yes <input type="checkbox"/> No, why not?			
11. Before departure, make sure you have: <input type="checkbox"/> This form <input type="checkbox"/> Sample tags <input type="checkbox"/> Sample bags <input type="checkbox"/> Tape to secure bags <input type="checkbox"/> Gloves/shoe covers			
12. Also, take these instruments (check calibration and function): <input type="checkbox"/> Ion chamber <input type="checkbox"/> Scintillator <input type="checkbox"/> Scaler/GM pancake probe <input type="checkbox"/> SAM			
13. On scene contact person, title		14. Phone number	
15. Address			
16. Date/time incident investigated	17. Date/time incident occurred	18. Date/time incident discovered	19. Date/time incident reported
20. Description of investigation			
21. Cause(s) of incident			
22. Corrective actions taken by owner/licensee to prevent recurrence			
23. Other agencies onsite (include full name, staff present, phone number, case number or other documentation cross reference)			
24. Radioisotopes present (include physical form, activity)			
25. Radiation readings (include instrument type, serial number, calibration date, background levels)			
26. For a sample or possibly radioactive device/object collected, obtain tag numbers, fill out sample tag completely (remember chain-of-custody). Tag number(s) assigned: _____		27. Call the IRC (or the DO) at (407)297-2095 before leaving the incident investigation site. Person contacted: _____	
28. Preparation time/Investigation time/Report writing time		29. Signature/Inspector number or print name	

FIGURE 1-2: State of Florida Notification Message Form for Nuclear Power Plants

FLORIDA NUCLEAR PLANT EMERGENCY NOTIFICATION FORM																			
1. A. <input type="checkbox"/> This is a DRILL      B. <input type="checkbox"/> This is an EMERGENCY																			
2. A. Date: _____ B. Contact Time: _____ C. Reported By (Name): _____																			
D. Message Number: _____ E. Reported From: <input type="checkbox"/> Control Room <input type="checkbox"/> TSC <input type="checkbox"/> EOF																			
F. <input type="checkbox"/> Initial/New Classification      OR <input type="checkbox"/> Update Notification																			
3. SITE:      A. <input type="checkbox"/> Crystal River Unit 3      B. <input type="checkbox"/> St. Lucie Unit 1      C. <input type="checkbox"/> St. Lucie Unit 2 D. <input type="checkbox"/> Turkey Point Unit 3      E. <input type="checkbox"/> Turkey Point Unit 4																			
4. EMERGENCY CLASSIFICATION:      A. <input type="checkbox"/> Notification of Unusual Event      B. <input type="checkbox"/> Alert C. <input type="checkbox"/> Site Area Emergency      D. <input type="checkbox"/> General Emergency																			
5. A. <input type="checkbox"/> EMERGENCY DECLARATION      B. <input type="checkbox"/> EMERGENCY TERMINATION      Date: _____ Time: _____																			
6. REASON FOR EMERGENCY DECLARATION:      A. <input type="checkbox"/> EAL Number(s): _____ OR      B. <input type="checkbox"/> Description _____ _____ _____																			
7. ADDITIONAL INFORMATION:      A. <input type="checkbox"/> None      OR      B. <input type="checkbox"/> Description _____ _____ _____																			
8. WEATHER DATA:      A. Wind direction from _____ degrees      B. Downwind Sectors Affected: _____																			
9. RELEASE STATUS:      A. <input type="checkbox"/> None (Go to Item 11)      B. <input type="checkbox"/> In Progress      C. <input type="checkbox"/> Has occurred, but stopped																			
10. RELEASE SIGNIFICANCE CATEGORY AT SITE BOUNDARY: A. <input type="checkbox"/> Under evaluation      B. <input type="checkbox"/> Release is within normal operating limits C. <input type="checkbox"/> Non-significant (fraction of protective action guide range)      D. <input type="checkbox"/> Protective action guide range E. <input type="checkbox"/> Liquid release (no actions required)																			
11. UTILITY PROTECTIVE ACTION RECOMMENDATIONS FOR THE PUBLIC A. <input type="checkbox"/> No utility recommended actions at this time B. <input type="checkbox"/> Utility recommends the following protective actions: <table border="1"> <thead> <tr> <th></th> <th>Evacuate Sectors</th> <th>Shelter Sectors</th> <th>Monitor and Prepare Sectors</th> </tr> </thead> <tbody> <tr> <td>Evacuate Zones: _____ OR 0-2 Miles</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Shelter Zones: _____ 2-5 Miles</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____ 5-10 Miles</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> <p style="text-align: center;">AND consider issuance of potassium iodide (KI)</p>					Evacuate Sectors	Shelter Sectors	Monitor and Prepare Sectors	Evacuate Zones: _____ OR 0-2 Miles	_____	_____	_____	Shelter Zones: _____ 2-5 Miles	_____	_____	_____	_____ 5-10 Miles	_____	_____	_____
	Evacuate Sectors	Shelter Sectors	Monitor and Prepare Sectors																
Evacuate Zones: _____ OR 0-2 Miles	_____	_____	_____																
Shelter Zones: _____ 2-5 Miles	_____	_____	_____																
_____ 5-10 Miles	_____	_____	_____																
<p style="text-align: center;"><i>If form is completed in the Control Room, go to item 15. If completed in the TSC or EOF, continue with item 12</i></p>																			
12. PLANT CONDITIONS:      A. Reactor Shutdown: <input type="checkbox"/> Yes <input type="checkbox"/> No      B. Core Adequately Cooled: <input type="checkbox"/> Yes <input type="checkbox"/> No C. Containment Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No      D. Core Condition: <input type="checkbox"/> Stable <input type="checkbox"/> Degrading																			
13. WEATHER DATA:      A. Wind Speed _____ MPH      B. Stability Class _____																			
14. ADDITIONAL RELEASE INFORMATION:      A. <input type="checkbox"/> Not Applicable (Go to Item 15)																			
Distance	Projected Thyroid Dose (CDE) for _____ hour(s)	Projected Total Dose (TEDE) for _____ hour(s)																	
1 Mile (Site Boundary)	B. _____ mrem	C. _____ mrem																	
2 Miles	D. _____ mrem	E. _____ mrem																	
5 Miles	F. _____ mrem	G. _____ mrem																	
10 Miles	H. _____ mrem	I. _____ mrem																	
15. MESSAGE RECEIVED BY: (Name) _____ Date: _____ Time: _____																			

FIGURE 1-3: BRC Radiological Incident Final Report Form


		<b>State of Florida Bureau of Radiation Control</b> <b>Radiological Incident Final Report</b>		Incident Number FLXX-xxx																	
Abnormal Occurrence <input type="checkbox"/> No		Follow-up Report <input type="checkbox"/> No		Allegation <input type="checkbox"/> No																	
				Incident Date <input type="text"/>																	
				Report Date <input type="text"/>																	
Licensee or Owner <input style="width: 100%;" type="text"/>																					
Street Address <input style="width: 300px;" type="text"/>		City, State and Zip Code <input style="width: 150px;" type="text"/>		License # <input style="width: 50px;" type="text"/>																	
				License Type/Category <input style="width: 100px;" type="text"/>																	
Contact Person, Title, Address if Different from Licensee or Owner <input style="width: 550px;" type="text"/>				Phone Number <input style="width: 100px;" type="text"/>																	
Isotope(s) <input style="width: 300px;" type="text"/>		Activity(s) <input style="width: 300px;" type="text"/>																			
Material Form: Chemical Form: Physical Form <input style="width: 300px;" type="text"/>		Probable Disposition of Material <input style="width: 300px;" type="text"/>																			
Exposure? <input type="checkbox"/> No	Number <input style="width: 30px;" type="text"/>	Type of Individual(s) <input style="width: 100px;" type="text"/>	Exposure Source <input style="width: 100px;" type="text"/>	Dose Delivered to <input style="width: 100px;" type="text"/>	Maximum Dose Received <input style="width: 100px;" type="text"/>																
Incident Category <input style="width: 100%;" type="text"/>																					
Incident Location <input style="width: 550px;" type="text"/>				Location Classification <input style="width: 100px;" type="text"/>																	
Incident Description <input style="width: 100%; height: 80px;" type="text"/>																					
<table border="0" style="width: 100%;"> <tr> <th style="width: 25%;">Device Type (Quantity)</th> <th style="width: 25%;">Manufacturer</th> <th style="width: 25%;">Model Number</th> <th style="width: 25%;">Serial Number(s)</th> </tr> <tr> <td>1 <input style="width: 150px;" type="text"/></td> <td><input style="width: 150px;" type="text"/></td> <td><input style="width: 150px;" type="text"/></td> <td><input style="width: 150px;" type="text"/></td> </tr> <tr> <td>2 <input style="width: 150px;" type="text"/></td> <td><input style="width: 150px;" type="text"/></td> <td><input style="width: 150px;" type="text"/></td> <td><input style="width: 150px;" type="text"/></td> </tr> <tr> <td>3 <input style="width: 150px;" type="text"/></td> <td><input style="width: 150px;" type="text"/></td> <td><input style="width: 150px;" type="text"/></td> <td><input style="width: 150px;" type="text"/></td> </tr> </table>						Device Type (Quantity)	Manufacturer	Model Number	Serial Number(s)	1 <input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	2 <input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	3 <input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>
Device Type (Quantity)	Manufacturer	Model Number	Serial Number(s)																		
1 <input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>																		
2 <input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>																		
3 <input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>	<input style="width: 150px;" type="text"/>																		
Emergency Groups at Scene <input style="width: 550px;" type="text"/>																					
Organizations Notified <input style="width: 550px;" type="text"/>																					
Media Contacted <input style="width: 550px;" type="text"/>																					
Investigator's Name, Title <input style="width: 250px;" type="text"/>		Office <input style="width: 200px;" type="text"/>		Date, Time Investigated <input style="width: 150px;" type="text"/>																	
Incident Response Coordinator, Environmental Section, Bureau of Radiation Control				Date <input style="width: 100px;" type="text"/>																	
Emergency Response Supervisor, Environmental Section, Bureau of Radiation Control				Date <input style="width: 100px;" type="text"/>																	
ATTACHMENTS: Abstract <input type="checkbox"/> Yes <input type="checkbox"/> No; Narrative <input type="checkbox"/> Yes <input type="checkbox"/> No; Supplementary Material <input type="checkbox"/> Yes <input type="checkbox"/> No; Total Page(s) _____																					
DISTRIBUTION: Administrator, Radioactive Materials Licensing Section, Bureau of Radiation Control; Incident File, Environmental Section, Bureau of Radiation Control																					
DOH/HRS Form 142, Dec 93																					

FIGURE 1-4: Checklist for MERL

## **PREDEPARTURE**

### **1. Prior to starting vehicle**

- ☐ Check the Chassis & Module power switches, located driver side floor by seat, in the ON position.
- ☐ Turn off air conditioners, refrigerator and inside lights.
- ☐ Stow all loose equipment.
- ☐ Fully shut all inside drawers and cabinet doors.
- ☐ Load EPD case from EP Manager's office.
- ☐ Shut off circuit breakers in MERL.
- ☐ Shut off circuit breaker in outside box.
- ☐ Disconnect shore power line and connect Onan line, if generator is to be used.
- ☐ Stow shore power line in MERL.
- ☐ Disconnect telephone line if in use.
- ☐ Check Alarm Bypass in the A/C room is in the correct position.
- ☐ Stow telephone line inside MERL.
- ☐ If in use, remove stairs and stow in rear passenger side outside compartment.
- ☐ Close and lock all external compartments.
- ☐ Close and secure external tables.
- ☐ Make sure all Dewars are refilled with liquid nitrogen.

### **2. To start ONAN power for MERL, if used**

- ☐ Check ONAN oil and water level (visually). Ensure the oil cap is tight.
- ☐ Ensure there is sufficient fuel in the driver's side tank, the generator pulls from that tank only.
- ☐ Heat the glow plugs for 30 seconds.
- ☐ Start ONAN, allow time to stabilize.
- ☐ Turn on circuit breakers on ONAN and in MERL.
- ☐ Turn on air conditioners, as needed.
- ☐ Turn on refrigerator, if needed.

### **3. To start engine:**

- ☐ Check vehicle oil and coolant levels, fill if necessary.
- ☐ Verify that both fuel tanks are at least  $\frac{1}{2}$  full.
- ☐ Make sure transmission is in neutral.
- ☐ Make sure parking brake is engaged.
- ☐ Turn the key to the run position. If the yellow WAIT light is on - wait until it is extinguished and then turn the key to the start position to crank the engine.

### **4. Before departure:**

- ☐ Make sure you have the gas card and your number.
- ☐ Update vehicle log.
- ☐ Turn on Cell phone.
- ☐ Turn on radio.
- ☐ Check radio operations with another vehicle.
- ☐ Adjust seats for distance from controls, up/down & lumbar support electronic switches on right side, back rest fore/aft lever on left side of seat.
- ☐ Fasten seat belts.
- ☐ Do not operate with more than two persons on board.
- ☐ While applying brakes, release parking brake, place transmission in D and depart.
- ☐ While in motion observe 12' 6" clearance of vehicle.

FIGURE 1-4: Checklist for MERL (continued)

## **SET-UP**

### **1. Upon arrival**

- ☐ Park near power hookup, where there is room for the SPV, trailer, and a hot line.
- ☐ Turn air conditioners and refrigerator off.
- ☐ Shut off circuit breakers in MERL.
- ☐ Stop ONAN, if was in use.
- ☐ Disconnect and connect appropriate power line, as needed.
- ☐ Plug shore power line into the power hookup, if it is available.
- ☐ Turn outside circuit breaker and circuit breakers in MERL on.
- ☐ Connect telephone cable(s).
- ☐ Set-up cradle points.
- ☐ Remove stairs from storage and install them.
- ☐ Turn on all necessary equipment such as UPS→ computer (in that order), radios, and air conditioners.
- ☐ Have Analytic Equipment Specialist set up frisker station/area monitor.
- ☐ Have Analytic Equipment Specialist set up intercom with SPV & Trailer, if necessary.
- ☐ Contact the Health Physics Lab by phone and have them send a test FAX.
- ☐ Contact the EOF by telephone and radio and have them send a test FAX.

### **2. Deploy field teams**

- ☐ Assist the Field Team Supervisor with equipping the teams.
- ☐ Assist the AES in getting EPDs ready for use.
- ☐ Assist the teams in getting ready for deployment.
- ☐ Help with radio/cellular/satellite phone checks.
- ☐ Brief the Field Team Supervisor on any radio, phone, email or FAX information received.

### **3. Prepare for sample analysis**

- ☐ Have Analytic Equipment Analysts check the analytical equipment.
- ☐ Have Sample Preparation Specialists set up SPV and prepare for sample arrival.
- ☐ Have Field Team Supervisor set up the hot line.
- ☐ Have Sample Preparation Specialist set up frisker station/area monitor in SPV.
- ☐ Have Sample Preparation Specialist set up intercom with MERL.
- ☐ Find and use the Sample Tracking Log.
- ☐ Coordinate sample analysis with the EOF.
- ☐ Make sure Analytical Equipment Specialist is completing the MERL Analytical Log.
- ☐ If necessary, find & mark a location to put hot samples temporarily.

### **4. Report analytical results**

- ☐ Report any results to the Assistant Operations Officer via the Field Team Director ASAP.
- ☐ Make arrangements to have samples sent to the Health Physics Lab when necessary.

### **5. Other duties**

- ☐ Is security in place and adequate? No unauthorized persons in MERL/SPV/Hot line secure area.
- ☐ Schedule breaks and meals.
- ☐ Report important information to the EOF, such as ill staff and equipment malfunctions.

FIGURE 1-5: Field Team Data Acquisition Log

[illegible]



FIGURE 1-6: Emergency Radiation Exposure Card, Front

<b>EMERGENCY RADIATION EXPOSURE RECORD</b>			
Name: _____			
SS #: _____			
Date _____			
Circle Dosimeter Model			
<div style="display: flex; justify-content: space-around;"> <span>0-200 mrem</span> <span>0-5 rem</span> <span>0-20 rem</span> </div>			
Dosimeter #: _____			
Time Read	Dosimeter Reading	Total Exposure	Location
@ Charge			
<b>NOTICE: READ AT LEAST EVERY 30 MINUTES</b>			

FIGURE 1-7: Nuclear Power Plant Accident Status Form

Plant Site: \_\_\_\_\_, Unit: \_\_\_\_\_ Current Date: \_\_\_\_\_ Current Time: \_\_\_\_\_

**Meteorological Data**

Wind Direction From	<input type="text"/>	Outside Temperature (°F = 1.8 * °C + 32)	<input type="text"/>
Stability Class	<input type="text"/>	Wind Speed (mph = 2.24 * m/s)	<input type="text"/>
Precipitation	<input type="text"/>	Downwind Sectors (3)	<input type="text"/>

**Plant Status from Plant Status Boards**

Reactor Trip Time	<input type="text"/>	Release Start Time	<input type="text"/>
Release Pathway	<input type="text"/>	Emergency Class	<input type="text"/>
Containment High Range Radiation Monitor	<input type="text"/> R/hr	Containment Pressure	<input type="text"/> PSIG
Noble Gas Release Rate	<input type="text"/> Ci/sec	Iodine Release Rate	<input type="text"/> Ci/sec
Total Estimated Noble Gas Released	<input type="text"/> Ci	Total Estimated Iodine Released	<input type="text"/> Ci

**Projected Dose Information**

Projected Offsite Dose Rate at _____			Sectors With the Largest Dose Commitment	Projected Offsite Total Dose for _____ Hours		
Range (miles)	Whole Body-TEDE (mrem/hr)	Thyroid-CDE (mrem/hr)		Range (miles)	Whole Body-TEDE (mrem)	Thyroid-CDE (mrem)
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	1	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	2	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	5	<input type="text"/>	<input type="text"/>
10	<input type="text"/>	<input type="text"/>	<input type="text"/>	10	<input type="text"/>	<input type="text"/>
15	<input type="text"/>	<input type="text"/>	<input type="text"/>	15	<input type="text"/>	<input type="text"/>
20	<input type="text"/>	<input type="text"/>	<input type="text"/>	20	<input type="text"/>	<input type="text"/>

**Protective Action Recommendation**

Remember: sectors are translated to evacuation areas (St. Lucie) or zones (Turkey Point)

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TABLE 1-1: Severe Accident Duty Assignments  
(Revision Jan. 2019)

<u>State Emergency Operations Center</u>			
SEOC Coordinator	M. Stephens	P. Pavlick	C. Becker
SEOC Coordinator	K. Nesmith	L. Thomas	M. Burns
<u>County Emergency Operations Center</u>			
Technical Advisor	S. Furnace	J. Laguna	
Technical Advisor	M. Cornwell	F. Nicoleau	J. Major
<u>Emergency Operations Facility</u>			
Operations Officer	*J. Williamson	* J. Futch	*T. Dunn
Assistant Operations Officer	M. Phillips	R. Fabii	S. Clayton
Dose Assessment Specialist	E. Kurz	K. Barnhart	C. Eldredge
Dose Assessment Specialist	R. Penn	N. Pospishil	J. Kidder
Field Team Director	L. Perazzelli	M. Vornhagen	R. Latham
Field Team Director	D. Ganesh	L. Gavathas	J. Mize
Communicator	L. Bakersmith	L. Andresen	
Resource Coordinator	D. Borek	J. Stephenson	S. Rosevelt
<u>Mobile Emergency Response Laboratory</u>			
MERL Supervisor	M. Seidensticker	A. Moody	D. Pieski
Field Team Supervisor	J. Nicholson	M. Senison	P. Norman
Analytic Equipment Specialist	T. McKelvey	J. Owens	D. Nguyen
Sample Preparation Specialist	D. Pascarella	K. Gebreyes	K. Mercorella
Sample Preparation Specialist	G. Joseph	G. Hastings	A. Carlson
Contamination Control Specialist	L. Fontaine	K. Cordero	B. Crawford
Contamination Control Specialist	M. Leiba	H. Serrano	T. Wallace
<u>FRMAC</u> (* staff transfers from EOF)			
Manager	J. Williamson	J. Futch	T. Dunn

### HEALTH PHYSICS LABORATORY

Jim Owens

### FIELD OPERATIONS SPECIALISTS

T. Adams J. Estevez K. Forsett W. Gann J. Jordan R. Larson  
J. Locke R. Nash D. O'Hare A. Ortega G. Pickett V. Shaw  
D. Ward

# APPENDIX 17

## RAM ENFORCEMENT PROCEDURES

STATE OF FLORIDA  
BUREAU OF RADIATION CONTROL  
**PROCEDURES FOR RADIOACTIVE  
MATERIALS ENFORCEMENT ACTIONS**

May 2000

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## Procedures For Radioactive Materials Enforcement Actions

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### **Overview:**

The department uses notices of violation, civil penalties such as administrative fines, and final orders to assure compliance with program requirements for the safe use of radioactive material. A Notice of Violation identifies a requirement and how it was violated and formalizes a violation. A civil penalty is a monetary fine issued as specified in Chapter 404, Florida Statutes, and may be assessed in an amount up to \$1,000 per violation per day. The department issues Notices of Violation and penalties based on violations or because of a threat to public health and safety.

These procedures apply to radioactive materials licensees, their employees, and contractors who supply licensees with products that relate to licensed activities. Neither licensees, their employees, nor their contractors may engage in deliberate misconduct that causes a licensee to be in violation of the requirements of 64E-5 or knowingly submit to the department or to a licensee information that is incomplete or inaccurate and that relates to licensed activities.

### **Criminal Penalties:**

Section 404.161, F.S., states that any person who violates the provisions of Chapter 404, F.S., or Rule 64E-5, F.A.C.; fails to comply with a lawful order issued within the time frame fixed by the department, or as provided by Chapter 404, F.S.; or interferes with, hinders, or opposes any agent, officer, or member of the department in the discharge of his or her duties under Chapter 404, F.S.; is guilty of a felony of the third degree.

### **Administrative Fines**

The department imposes different amounts of administrative fines for violations of different severities. The department considers the gravity of the violation; the licensee's efforts to promptly identify, report, and correct violations; management involvement in the licensee's operations; past performance; the degree to which the violation is repeated during a particular time interval; and the number and type of similar violations.

In general, the department imposes administrative fines for Severity Level I or II violations unless there are mitigating circumstances. Fines are considered for Severity Levels III, IV, and V violations, for violations that are similar to previous violations, for numerous violations, or for previous violations that the licensee did not correct. The department will consider administrative fines any willful violation of any departmental requirement at any severity level.

The department imposes administrative fines based on Table 1, below.

**TABLE 1**  
**ADMINISTRATIVE FINES**

SEVERITY LEVEL	MAXIMUM ADMINISTRATIVE FINE*
I	\$1,000.00
II	\$900.00
III	\$750.00
IV	\$500.00
V	\$250.00

\*The department has statutory authority to assess fines on a per-violation per-day basis.

### **Severity Level I - Examples**

- Single radiation exposure to a worker in excess of 25 rem of total effective dose equivalent (TEDE), 150 rem to the skin, or 375 rem to the feet, ankles, hands, or forearms
- Annual TEDE exposure of a member of the general public in excess of 1.0 rem
- Release of radioactive material to an unrestricted area in excess of 10 times the limits specified in Table II of "ALIs, DACs, and Effluent Concentrations"
- Disposal of licensed material in quantities or concentrations in excess of 10 times the limits specified in Table I of "ALIs, DACs, and Effluent Concentrations"
- Breach of transportation package integrity resulting in surface contamination or external radiation levels in excess of 10 times the limits specified in 49 CFR
- The making of a false statement that results in a violation at this severity level
- Possession or use of radioactive materials without a license
- Falsification of records deliberately by or with the knowledge of management

### **Severity Level II - Examples**

- Single TEDE exposure to a worker in excess of 5 rem, 30 rem to the skin of the whole body, or 75 rem to the feet, ankles, hands, or forearms
- Annual TEDE exposure of a member of the general public in excess of 0.5 rem
- Release of radioactive material to an unrestricted area in excess of 5 times the limits specified in Table II of "ALIs, DACs, and Effluent Concentrations"
- Failure to make an immediate notification as required by 64E-5.343 and 64E-5.344, F.A.C.
- Failure to make a written report to the department as required by 64E-5.345, F.A.C.
- Disposal of licensed material in quantities or concentrations in excess of 5 times the limits specified in 64E-5.330, F.A.C. and Table III of "ALIs, DACs, and Effluent Concentrations"
- Use of licensed material by an individual not listed on the license
- Possession or use of radioactive materials without a license
- Exposure of a worker in restricted areas to airborne radioactive material in excess of 5 times the limits specified in Table I of "ALIs, DACs, and Effluent Concentrations"
- Failure to notify the department of a shipment of low-level radioactive waste destined for a commercial treatment, storage, or disposal facility, as required by 404.20, F.S.
- Breach of transportation package integrity resulting in surface contamination or radiation levels in excess of the limits specified in 49 CFR
- Transportation package surface contamination or radiation levels in excess of 5 times the limits specified in 49 CFR that did not result from a breach of package integrity
- A false statement or a failure to report information that, if available to the department and accurate, would have resulted in the department's seeking further information
- Release of radioactive material or contaminated equipment for unrestricted use that poses a realistic potential to cause significant exposure of members of the general public or that reflects a programmatic rather than an isolated weakness in the licensee's radiation control program
- Cumulative worker exposure above regulatory limits when such cumulative exposure reflects a programmatic rather than an isolated weakness in the licensee's radiation protection program
- Use of licensed material by an individual not listed on the license
- The making of a false statement where the action results in a violation of this severity level
- Deliberate falsification of records involving significant information

### **Severity Level III - Examples**

- Single TEDE exposure to a worker in excess of 3 rem, 7.5 rem to the skin of the whole body, or 18.75 rem to the feet, ankles, hands, or forearms
- Annual TEDE exposure of a member of the general public in excess of 0.1 rem of radiation
- A radiation level in an unrestricted area such that an individual could receive greater than 2 millirem in a one-hour period
- Failure to make immediate or 24-hour notification as required by 64E-5.344(2), F.A.C.
- Substantial potential for an exposure or release in excess of Chapter 64E-5, Part III, F.A.C., whether or not the exposure or release occurs
- Release of radioactive material to an unrestricted area in excess of the limits specified in Table II of "ALIs, DACs, and Effluent Concentrations"
- Improper disposal of licensed material not addressed under Severity Levels I or II
- Exposure of worker in restricted areas to airborne radioactive material in excess of the limits specified in Table I of "ALIs, DACs, and Effluent Concentrations"
- Release of radioactive material or contaminated equipment for unrestricted use that poses a realistic potential for significant exposure to members of the general public
- Worker exposure above regulatory limits
- Conduct of licensee activities by a technically unqualified person
- Breach of transportation package integrity
- Transportation package surface contamination or radiation levels in excess of but less than 5 times the limits specified in 49 CFR
- Any violation of 49 CFR with respect to labeling, placarding, shipping paper requirements, packaging, loading, or other requirements that could reasonably result in the following:
  - Improper identification of the type, quantity, or form of material
  - Failure of the carrier or the recipient to exercise adequate controls
  - Substantial potential for personnel exposure, contamination, or improper transfer of material
- Chronic failure to perform a periodic quality control or assurance
- Use of licensed material by an individual not listed on the license or for whom documentation of experience and training is not available
- Possession or use of unauthorized radioactive material
- Failure to post areas or rooms as required by 64E-5.323, F.A.C.
- A false statement which is not a Severity Level I or II violation
- Worker exposure above regulatory limits
- Deliberate falsification or falsification by or with the knowledge of management of records that did not involve significant information

### **Severity Level IV - Examples**

- Exposures in excess of the limits specified in 64E-5.304, 64E-5.308, 64E-5.310, 64E-5.311, F.A.C., and Table I of "ALIs, DACs, and Effluent Concentrations" that do not constitute a Severity Level I, II or III violation
- Failure to make a 30-day notification required by 64E-5.343, 64E-5.344, 64E-5.345, or 64E-5.346, F.A.C.
- Failure to make a follow-up written report required by 64E-5.347 and 64E-5.349, F.A.C.
- Failure to perform a periodic quality control or assurance
- Worker exposure above regulatory limits
- Failure to post documents described in 64E-5.901, F.A.C.



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## Procedures For Radioactive Materials Enforcement Actions

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- Failure to provide personnel monitoring reports to workers as required by 64E-5.903, F.A.C.
- Violations of 49 CFR requirements that are of minor significance
- A false statement caused by an inadvertent clerical or similar error involving information which, had it been available to the department and accurate at the time the information should have been submitted, would probably not have resulted in regulatory action or the department seeking additional information

### **Severity Level V – Examples**

- Failure to provide documentation of performance of a quality assurance function
- Violations that have minor safety or environmental significance
- Failure to maintain records

The department considers violations of Severity Levels I, II, and III to be serious. If the licensee does not correct serious violations, the department will issue orders in conjunction with administrative fines to achieve immediate corrective actions and to deter recurrence of serious violations. Examples of enforcement actions that could be taken for similar Severity Level violations are set forth in Table 2 below. The actual progression to be used in a particular case will depend on the circumstances. However, enforcement sanctions normally will escalate for recurring similar violations.

**TABLE 2\***  
**EXAMPLES OF PROGRESSION OF ESCALATED ENFORCEMENT ACTIONS**  
**FOR SIMILAR VIOLATIONS**

SEVERITY OF VIOLATION	NUMBER OF SIMILAR VIOLATIONS OR REPEAT OCCURRENCES		
	1 <sup>ST</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>
I	a, b, c	a, b, c	a, b, c
II	a, b	a, b, c, e	a, b, c, e
III	a	a, e	a, b, c, e
IV	---	d, e, f	a, e, f
V	---	d, e, f	a, e, f

a = Administrative Fine

b = Suspension or modification of license

c = Modification or revocation of license

d = Further Action

e = Severity Level may be upgraded

f = Consideration of escalated action

\* These are examples only and fines may be assessed according to Table 1 at any time.

### **Related Enforcement Actions**

In addition to the enforcement mechanisms of notices of violation, administrative penalties, and orders, it is possible for the department to use bulletins, information notices, generic letters, and confirmatory action letters or enforcement conferences, and any other legal means to supplement its enforcement program. The department expects licensees to adhere to any obligations and commitments resulting from these processes and will not hesitate to issue appropriate orders or take other legal means to assure that licensees meet such commitments.

Bulletins, information notices, and generic letters are written notices to groups of licensees identifying specific problems and recommending specific actions. Confirmatory action letters

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## **Procedures For Radioactive Materials Enforcement Actions**

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are letters confirming a licensee's agreement to take certain actions to remove significant concerns regarding health and safety, safeguards, or the environment. Enforcement conferences are open meetings between the department and the licensee or other persons when the department has learned of apparent violations. The enforcement conference does not mean the department has concluded that a violation has occurred or that enforcement action will be taken. The purpose of the conference is to obtain information that will assist the department in determining the appropriate enforcement actions, such as:

- A common understanding of the facts, root causes, and missed opportunities to identify the violation sooner
- A common understanding of corrective actions
- A common understanding of the significance of the issues and the need for lasting and effective corrective action.

Enforcement conferences normally will be held at the bureau's headquarters and are not meetings to negotiate sanctions. The department is authorized to take immediate enforcement actions prior to the conference to protect public health, safety, or property. An enforcement conference normally will be held if the licensee requests it.

# APPENDIX 18

## POSITION DESCRIPTIONS