

Radioactive Waste Management An Overview

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PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER COMMUNITY



Goals

- Start a Dialogue
- Form a Partnership
- Explain What Services We Can Provide to You
- Better Understand Your Concerns
- Support Your Industry Needs
- Provide Useful and Valuable Guidance

We Are Here to Help

Call Us

We do NOT want to license you

Office of Radiation Protection

- Then -

1957 - First Radiation Control Office formed

- 1 Section Head and 3 Staff People

1961 - First state laws specific to radiation protection were passed RCW 70.98

1966 - Became an Agreement State

- Signed December 31, 1966

1967 - Issued our first Radioactive Material License

- University of Washington

Office of Radiation Protection

- Now -

- ORP Comprised of 6 Sections
 - Radiological Emergency Preparedness
 - Radioactive Air Emissions
 - Environmental Sciences
 - X-Ray
 - Radioactive Materials
 - Waste Management
- 62 Employees
- Oversee 336 Radioactive Materials Licensees

Regulatory Categories

Radioactive Material

Unlikely to Encounter

- Licensed Material

Likely to Encounter

- Unlicensed Material

Licensed Material Unlikely to Encounter

- Specifically Licensed Material
 - Possession and use of certain quantities and types of radioactive material require a Specific License issued by ORP
 - Specific License issued to facility/entity (e.g. university, hospital)
 - Material may only be transferred to another Specific Licensee
 - Material must be disposed at Low-Level Radioactive Waste Site
- Generally Licensed Material
 - General license is “issued” when the object is purchased (e.g. tritium exit signs, portable gauges, static eliminators)
 - Material may only be transferred to a Specific Licensee
 - Material must be disposed at Low-Level Radioactive Waste Site

Unlicensed Material Likely to Encounter

- Exempt Material
 - No license required to possess or use (e.g. smoke detectors)
 - Material must be disposed at facility that can accept this material
 - Residential smoke detectors may be disposed at SW landfills
- Naturally Occurring Radioactive Material “NORM” and Technologically Enhanced Naturally Occurring Radioactive Material “TENORM”
 - e.g. refractory bricks, granite, ores, pipe scale
 - State of Washington does not have a definition for TENORM

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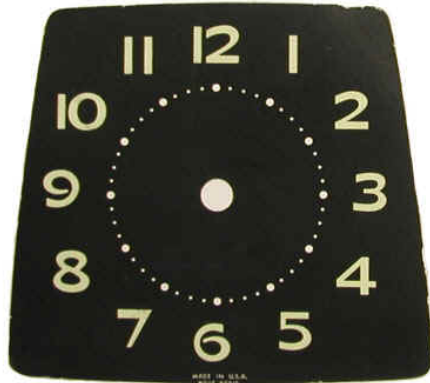
How Do You Encounter?

- Member of the Public
- Call You For Guidance
- Bring You the Radioactive Material
- Believed To Be or Is Radioactive Material
 - Either have a radioactive material symbol/caution label (e.g. smoke detector)
 - Oral history (e.g. glass jars of rocks, revigators)
 - Cleaning out Dad's garage
 - » static brushes, military artifacts, chemistry kits

Radioactive Labels and Markings



Radioactive Items



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What Do You Do?

- Phone Calls
 - Forward the caller to Office of Radiation Protection
 - ORP will send a staff person to retrieve the item
- Radioactive Material Dropped off at Your Facility
 - Secure the item
 - Do not open the item
 - Minimize handling of the item
 - Call Office of Radiation Protection
 - ORP will send a staff person to retrieve the item

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Worker Safety

- Implement universal precautions
- Limit handling of the item
- Do not open the item
- Do not take item apart
- Store item in a safe location

SW Landfill

How Do You Encounter?

- *Surprise!*
- Alarming Portal Monitor
 - Vintage/Antique Objects
 - Exempt Material
 - Medical Waste
 - Diffuse Material (NORM/TENORM)/ Construction Debris
- Member of the Public
- Industry
- In a Truck/Vehicle

SW Landfill

What Do You Do?

- Do you have protocols in place for responding to alarming portal monitors?
- Verify the source of the alarm (driver or truck)
- Call Office of Radiation Protection
 - ORP staff can survey to locate/identify the radioactive material
 - ORP may be able to take items
 - If not ORP staff can help determine the proper disposal pathway for the material
 - ORP staff can help you find a broker to package waste and properly dispose of the waste

SW Landfill Worker Safety

- Implement universal precautions
- Isolate the truck
- Secure the load
- Do not empty the truck without a survey meter

Contacts

- During Business Hours for Alarming Portal Monitors/ Item Pick-Up
 - (360)236-3300
- After Hours Emergency Number
 - 260 NUCLEAR (206)682-5327
- Technical Discussions on Any Disposal Issues
 - Kristen Schwab (360)236-3244

References

- EPA: Radiation Training Presentations for Scrap Metal Processing and Demolition Sites
<https://www.epa.gov/radiation/radiation-training-presentations-scrap-metal-processing-and-demolition-sites>
- ASTSWMO: Materials Management Subcommittee, Radiation Task Force
Draft Guidance for Solid Waste Managers accepting diffuse radioactive material
- 246-220 WAC through 246-254 WAC