



Bureau of Radiation Protection

Incidents Involving Common Carriers

Tracy Scherer (PA) & Jenny Goodman
(NJ)

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Outline

- I-131 Misdelivery (PA)
- “Lost” HDR Source (PA)
- Lost Sr/Rb Generator (NJ)
- Audience Examples and Discussions

I-131 misdelivery

- December 10, 2020 at 11:50 am, a package containing ~475 mCi of liquid I-131 was delivered to the wrong address.
- The unlicensed facility drove it to the correct address to deliver it.
- By 12:40 pm, the correct facility was in possession of the package.

I-131 misdelivery

Issues with this incident

- Package was left at wrong facility
- RAM transported by unlicensed individual
- PA DEP realized we had no good contact for the common carrier responsible.

“Lost” HDR source

- March 3, 2021, PA DEP was notified of a missing Ir-192 HDR source, ~10 Ci.
- The tracking number indicated the package was delivered to Bristol, PA on March 1, 2021.
- RSO received a second tracking number with a later delivery date.
- It was determined the package didn't leave the vendor until March 2 due to inclement weather.

“Lost” HDR source

Issues with this incident

- RSO or PA DEP did not have a good contact with the carrier to discuss the open issue.
- How did a non-existent package end up being marked as delivered in Bristol, PA.

Lost Sr/Rb Generator

- Feb. 8, 2021: Unused generator was picked up by common carrier in Albany
 - Generator was unused because the inlet and outlet tubes were switched- NJ licensee issue
- Feb. 9, 2021: Package arrives at NJ Licensee WITHOUT the generator inside
 - Missing were the security seal, Styrofoam lid, generator, and lower & upper lead shields
- Feb. 11, 2021: NJ Licensee notifies common carrier of the missing items
- Feb. 17, 2021: Common carrier finds generator



Lost Sr/Rb Generator

Common Carrier Investigation

- The common carrier hired a consultant who determined that damage had occurred consistent with the package falling off a conveyor or belt.
- Common carrier was contacted with our questions, and they could not confirm that the generator fell off the belt
- No information was provided to explain why the generator was removed from the package.
- It was determined by employee interviews that the separated generator was sent to the Overgoods Department where it was finally located.



Lost Sr/Rb Generator

Possible apparent violations?

- Empty package was sent with Yellow II Label even though there was no radioactive material present
- When the package was found, a common carrier employee repackaged it into a container that the licensee sent. Are common carriers authorized to do this? Sounds like licensed activity to me. Wearing a dosimeter and received minimal exposure.
- Where was the unshielded generator located and who was in proximity to it during those 8 or 9 days? 140 mR/h on top
- Contacted NRC who gave us the contact information for the US DOT.
- Sent them an email on 7/15/21 and have not heard back.



Lost Sr/Rb Generator

Extenuating Circumstances

•Weather Events:

- 1st weather event Feb 1 – 3, 36 in of snow in and around EWR.
- 2nd weather event Feb 11, 4-5 in of snow.
- 3rd weather event Feb 12 with an ice storm in MEM, TX and part of Northeast United States.
- 4th weather event Feb 13/14/15 with Accumulations: Snow: Trace Freezing Rain: 0.1" to 0.2" Ice Pellets: <0.1" in and around the EWR area.
- By the week of Feb 15, systems had been adversely impacted by weather events that had disrupted operations nationally, inundating their logistics systems with traces and response times.



Lost Sr/Rb Generator

Discussion Points

- Safety culture of common carriers?
 - Another cardiogen generator was misplaced at the Atlanta Airport
- What are we worried about?
 - Safety and security – that's what we do. We did not know where this material was for several days. We believed that nefarious use could not be ruled out.
- How is it that a common carrier can package radioactive materials? Who is watching them?
- Are the US NRC regulations adequate to protect the public health and safety regarding common carriers? It seems like anything goes – we aren't the regulators.
- Should OAS ask the GAO to look into the DOT oversight of common carriers?



Audience Examples and Discussions

- What are some of your stories or concerns?
- Are current common carrier regulations enough?
- Should they be changed?
 - If so, how?



pennsylvania

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Questions or Comments?

Tracy Scherer
PA DEP Southeast Regional
Office
Radioactive Materials
Inspector
trscherer@pa.gov

484.250.5830



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Jenny Goodman
NJ Department of Environmental
Protection
Manger
Jenny.Goodman@dep.nj.gov
609.984.5498

