Incidents Involving Common Carriers

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OAS Annual Meeting
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I-131 Misdelivery (PA)

“Lost” HDR Source (PA)

Lost Sr/Rb Generator (NJ)

Audience Examples and Discussions
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.
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.
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.
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.
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.
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 Fed 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.
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 oversite of common carriers?
• What are some of your stories or concerns?

• Are current common carrier regulations enough?

• Should they be changed?
  • If so, how?
Questions or Comments?

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