

*Exceptional service in the national interest*



# Environment, Safety & Health

Together, we create a stronger Sandia.



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# Static Eliminator Event

## April 2015

EFCOG May 2016

K. Barcal



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# In-Line Static Eliminator

Also known as an “alpha-ionizer”



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- Item is commercially available and used in many industries such as:

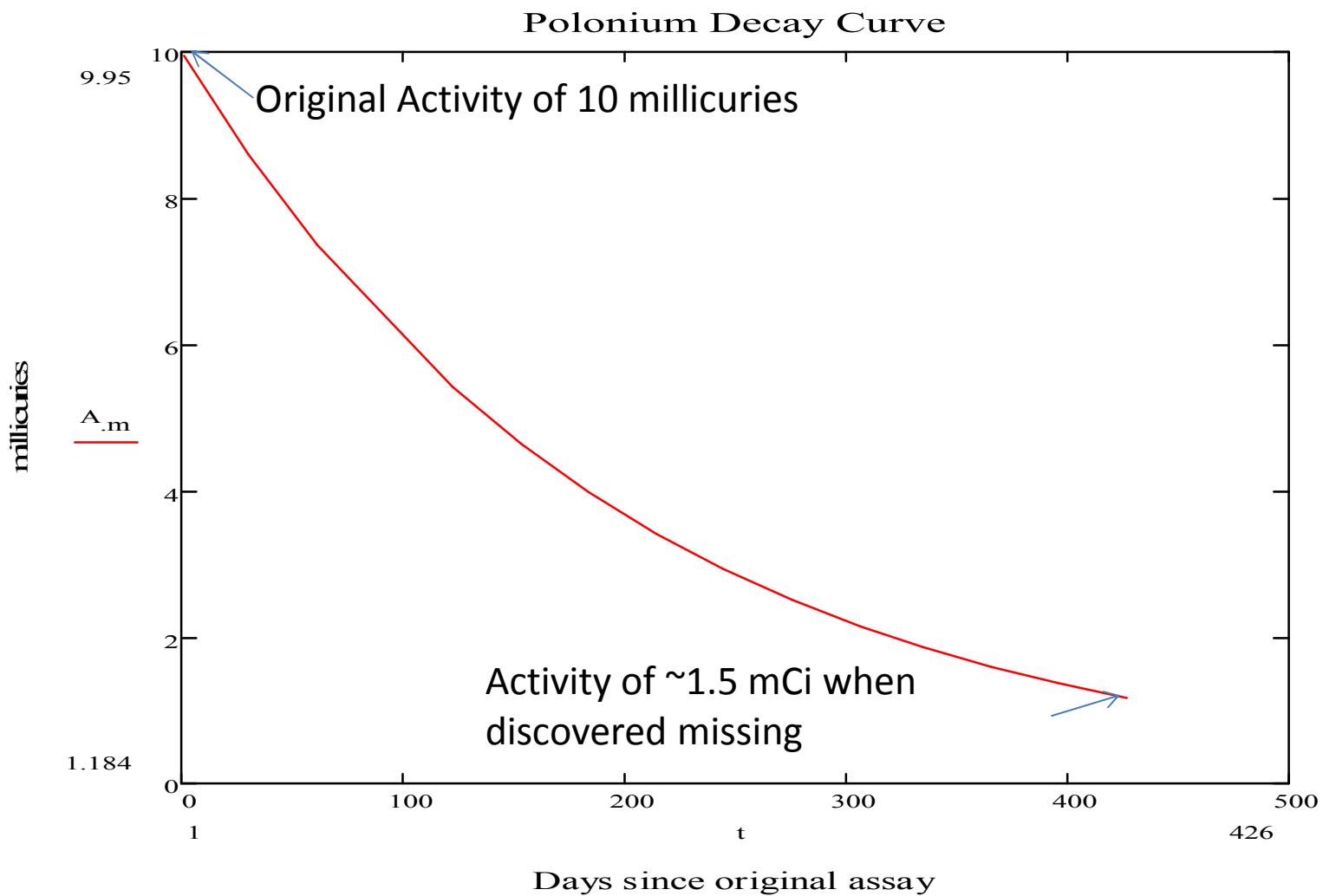
- Plastics processing
- Painting/automotive industry
- Clean room environments
- Electronics components
- Computer circuit boards and wafer manufacturing
- Printing and packaging



- Commercially, workers are not required to have any radiation safety training to use the item
  - Manufactured so that material is not accessible
  - Polonium is integrated with metal foil (inert)
  - After 1 year (~3 half lives) item is considered no longer useful and must be returned to manufacturer
  - These items are leased



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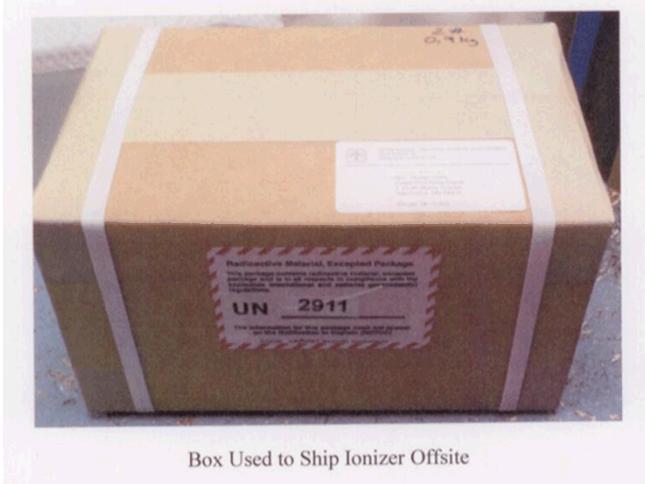
- Design of unit is approved by the NRC so that the exposure and health risk is not measureable
- The exposure from a single dental X-ray is at least 10 times higher than the dose from the Alpha Ionizer in a year

❖ By now you're wondering how SNL could take something commercially available, approved by NRC, and very low hazard and make a BIG DEAL about it????



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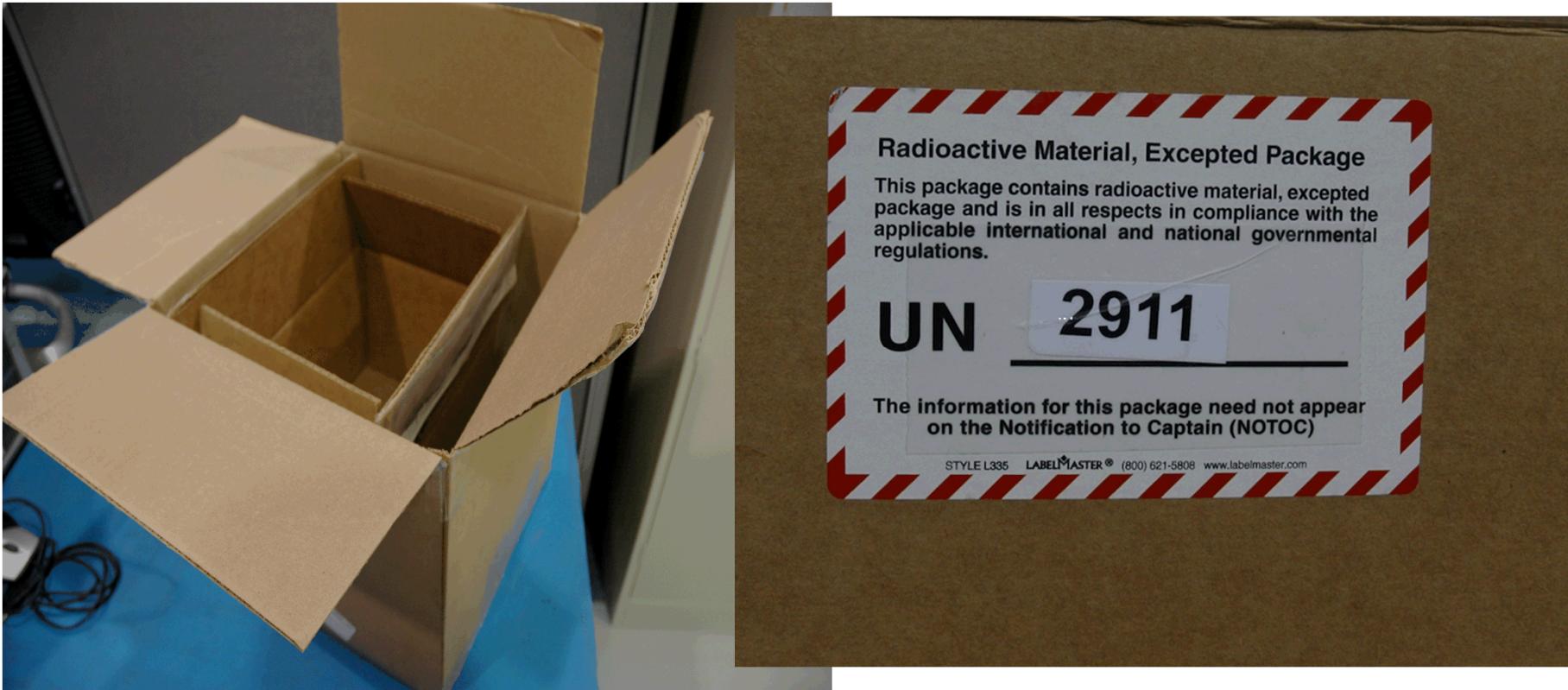
- SNL had a need to use the item at a remote location
- After the use, it was determined to be needed again later at the same facility and left there



SNL requested it back from remote site  
The item never made it



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- the label was on the *inner* box from original outgoing shipment along with packing foam.
- Shipped in the outer cardboard box via commercial carrier (UPS, FedEx, etc) back to SNL
- Employee who received box found some paperwork in box, but no item; then had a family issue and was out for a week
- Upon return, boxes and foam were gone.....



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# And the F5 storm that followed

- We used all kinds of “have you seen me?” outreach
  - Searched desk and package drop off area
  - Asked Custodial staff
  - Dumpster diving
  - Landfill visit
  - Any scheduled meeting with people who might have seen, touched, or known about it



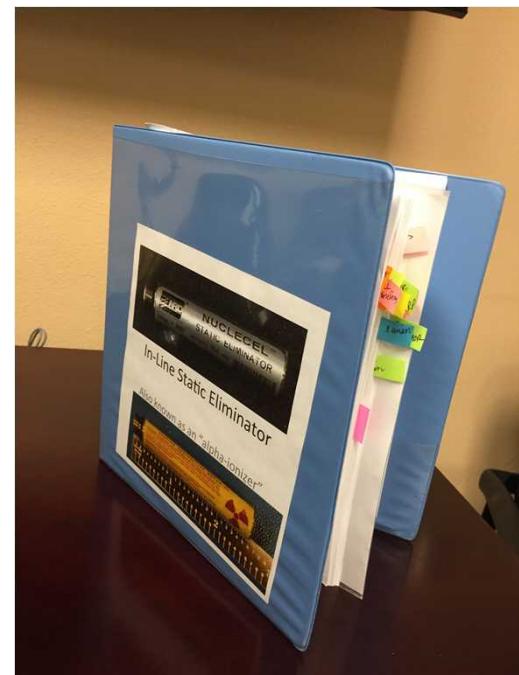
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We looked *everywhere*, including a trip to the landfill (had to toss some smelly boots)

Developed a briefing for the division VP to give to the Mayor of Albuquerque

We notified our SFO, reported in ORPs, notified OE, generated an NTS and had multiple conference calls,

We learned a LOT along the way



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We held a causal that generated multiple corrective actions for various organizations

We held lessons learned meetings-a-plenty

Put Quality Significant Lessons Learned in the Sandia Daily News

- LL in the Integrated Military Systems newsletter
- Issued an article for the Porcelain Press

Presented lessons learned with divisions involved

- Held LL with shipping and receiving
- Worked with purchasing to add detail in the procurement process

Revised our Radiation Protection Program Manual  
Section on *Control of Radioactive Material*



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And on 10/26/15 we received the best possible outcome (from email announcement):



“The office of Nuclear Safety Enforcement (EA-12) has formally issued Sandia the Letter of Enforcement related to the Po Ionizer event (attached). This is a positive regulatory outcome for this incident. EA-12 credited Sandia for making appropriate notification to external stakeholders and conducting a causal analysis that identified corrective actions to prevent recurrence.”



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Any Questions?



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