

PROTECTING WHAT MATTERS

Radio Isotope Shipping Pig and System Guide



When designing packages for shipping radioactive materials, there are several important factors to consider. It is essential to have a good understanding of the isotope being shipped and the specific shipping requirements. This will enable you to determine the appropriate packaging construction needed in collaboration with your Shipping System Partner.

The purpose of this guide is to assist you in capturing the needed information that is typically missed or not considered. Some of these items may seem minimal but they can be critical to ensure that the pig and packaging function as needed. Consider how the packaging will be utilized at your manufacturing or pharmacy site, as well as by end customers at hospitals or pharmacies.

Please contact us to discuss your specific needs for any current isotope shipping containers, new shipping systems or shipping pigs.

Ask yourself these questions:

- 1) What isotope are you shipping?
 - a) What is the maximum activity that you will be shipping?
 - b) What is the maximum Volume per unit that you will be shipping?
- 2) How do you want to ship; Yellow II or at another radiation level?
- 3) What is the maximum weight you want to handle and what is the ideal weight?
- 4) What is the maximum and minimum size of your overpack?
- 5) Do you require the shipment to be transported at a specific temperature?
- 6) What is the weight, size, and handling limitations or concerns of the site receiving the package?
- 7) What vial or syringe will you be shipping?
- 8) How will the user connect with the package and shipping pig?
- 9) Is this a one-way pig or will you reuse it? (The answer to this question determines the best materials to use in the pig and over pack.)
 - a) How will the receiver of the package return the used system if it is being sent back? What will you do when you receive the system back?
 - b) How many packages will you need in rotation to serve your customer base?
- 10) What type of ergonomic issues should you be aware of both at your site and at your customer's site?
- 11) What interface issues should you consider in your hood or hot cell?
 - a) What machinery is used to put vial into lead pig and what pig dimensions fit into the machinery?
- 12) Describe your current or expected System from inside to out?
 - a) What other items are required in your packaging (GPS trackers, ice packs, packaging inserts, etc.)?
- 13) Is exposed lead permissible?
- 14) What coatings or paint requirements do you have?
- 15) Is there a dose rate requirement for surface shielding?
- 16) Are you buying a shipping pig or the complete shipping system?
- 17) Who will handle the DOT and IATA certifications?