Shipping Issues at the INL

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Desired Payload Compositions

- Uranium bearing fuels
  - U-Mo, U-Pu-Zr, U-Pu-Am-Zr, Carbides, Nitrides
- Plutonium bearing fuels
- Transuranics
- Irradiated Steels / nickel alloys
Quantities

- Met mount samples (~2-3 grams material)
  - ~50 Sv/hr γ on contact
- Tensile test samples
  - Fuel foils
  - Clad materials (steel & Zr)
  - Irradiated Steels
- Segments of fuel pins (inches?)
- Irradiated fuel pellets
  - AGR type fuel
Immediate Destinations

• SCK
  – 2008 Estimate of $588K for shipment
• France
• Germany
• Canada
• Argentina
Desired Shipments

- Cost Dependent
- Versatility dependent
  - Several small shipments
  - Fewer large shipments
  - Composition limitations
- 4-5 Shipments per year
Handling Issues

- Capable of handling casks ~5 tons routinely
- Capable of handling commercial casks with modifications to cell
- Small cells currently being installed
  - GE-100 capable
  - Small shielded ‘pigs’ (~3-4” lead)
- Special Capsules readily available (~$500)
  - 2 inches x 6 inches