



Idaho National Laboratory

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