JL SHEPHERD & ASSOCIATES

ALTERNATE FORMS OF CS-137

As JLS&A does not yet have definitive information from Mayak or Reviss Services on new forms for Cs-137 source capsules, this presentation is based on surmises, based on our previous experience.

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Projected alternate forms such as Cesium in pollucite, may result in larger replacement source capsules, depending upon the specific activity.

If this surmise is correct, then direct source capsule exchange into existing irradiators will not be possible.

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If the current Irradiator user could not accept a smaller source with less Curies, than a new irradiator body would need to be manufactured at current costs from $252,000 to over $325,000, plus the cost of the new Cs-137 source.

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Additional costs:

Transportation, using freight companies compliant with security requirements for RAMQC:

Estimated from $12,000.00 to + $50,000.00 per source, dependent on location.

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Additional costs:

Source removal and installation, including new IDD kit installation and rigging:

Estimated from $25,000.00 to

+ $100,000.00

dependent on location and rigging challenges.

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Questions:

1. Who is expected to pay for the new source replacement?

2. Would NNSA's Global Treat Reduction Initiative pay for second IDD kits to be installed on the irradiators or would this be a direct cost to the Irradiator user?

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JLS&A is actively involved with a company attempting to develop a promising alternate technology, to meet future irradiator and calibrator needs.