-----Original Message-----
From: Saverot, Pierre
Sent: Wednesday, September 26, 2012 2:11 PM
To: 'William Brown'
Subject: RE: Evaluation of GE 1500 vs NPI-20WC-6MKII Transport Casks

Bill,

As I told you over the phone, I reviewed the dose rate calculations provided in the document you e-mailed me yesterday.

The NPI packaging consists of an inner container and a wooden protection jacket. The outer diameter of the jacket is 44". Per 10 CFR 71.47, the surface dose rate is the outer surface of the package, not the surface of the inner container that you used in your calculation. Thus, your calculation of a "dose rate on contact" is incorrect.

Using the results provided in the document, i.e., 1.4 R/hr on the surface of the inner container, neglecting the shielding provided by the wooden protection jacket and its steel shell, the dose rate projected to the outer surface of the package (with 9,500 Ci of Co-60) is approximately 1.4 * (9/22)^2 = 0.23 R/hr. Under Hypothetical Accident Conditions, the wooden protection jacket is assumed to be completely lost. Per 10 CFR 71.51, the dose rate at 1 meter from the surface of the inner container is 1.4 *(9/(9+39))^2 = 0.049 R/hr.

Therefore, the package with 9500 Ci of Co-60 meets the regulatory requirements of 10 CFR 71.47 and 71.51. When calculating the dose rate for regulatory compliance, it is important to remember that the package must be used in its entirety rather than only the bare inner container.

Regarding the dose that the occupational workers might receive, that is not part of Part 71 regulations. The users have to conform to Part 20 to determine the actual operational needs for additional radiation protection or limit the time each worker can spend, e.g., as part of loading operations.

Again, you need to demonstrate that no current certified package (e.g., NPI, AOS, 10-160B among others) can be used for the shipments you request and that contents cannot be reconfigured.

Thanks,

Pierre

-----Original Message-----
From: William Brown [mailto:huntingtonharborbill@yahoo.com]
Sent: Tuesday, September 25, 2012 11:33 PM
To: Saverot, Pierre
Subject: Evaluation of GE 1500 vs NPI-20WC-6MKII Transport Casks

Pierre:

Attached is our assessment of each cask. Information is objective and obtained from prior shipment records, existing CoC's, and drawings relative to each cask. (Note: NPI did not

furnish JLS&A information on cask operations and has claimed that their loading and handling procedures are proprietary).

Best regards,

Bill