

RAI#8

The new radiological latent cancer fatality impacts provided in the LPES report (LPES, 2013) and in the updated Table 4.2-2 for the “CREW”, “OFFLINK” and “ONLINK” do not appear to be from the results in the RADTRAN output provided with the RAI 1c response. It is not clear as to why the impacts for shipments of the same number of tails cylinders to Paducah are about twice the values for shipment of tails cylinders to Hobbs, but the distance to Paducah is about 90 times the distance to Hobbs. Please provide clarifications.

Response: We determined that the data presented in the LPES report, (LPES, 2013), Table 4.2-2 had been cross-linked in error with the modeling output data resulting in an error in Table 4.2-2. A corrected version of the table and the referencing text is presented below:

Table 4.2-2 presents the radiological impacts in terms of latent cancer fatalities from incident-free transport. Incident-free transport represents the transport of the radioactive shipment without a release from the shipment. Radiological latent cancer fatalities from incident-free transport were estimated to be 0.0769 individuals per year in the peak year, or one every 10 years. For comparison purposes, an individual has a lifetime probability of dying of cancer from all sources of about 246,000 in 1 million, or 24.6% (CDC 2011). The estimated population within the 800 meter buffer zone associated with all routes is 3.3 million individuals of which there would be 6,490 cancer related fatalities each year with or without the proposed expansion. This illustration does not include the drivers, handlers, or individuals on the roadways or at stops which were included in the analysis. These effects would be less than significant.

Table 4.2-2. Latent Cancer Fatalities from Incident-Free Transportation of Radioactive Materials

Link	Crew	Public Off-Link	Public On-Link	Stops	Loading	Total
Port Hope, ON	4.25E-03	5.05E-04	4.16E-03	1.43E-02	3.09E-05	2.32E-02
Metropolis, IL	2.51E-03	2.61E-04	1.79E-03	7.99E-03	5.39E-05	1.26E-02
Richland, WA	2.60E-04	2.59E-05	3.20E-04	1.25E-03	3.37E-04	2.19E-03
Columbia, SC	2.21E-04	4.02E-05	2.76E-04	8.21E-04	1.06E-03	2.42E-03
Wilmington, NC	2.39E-04	4.23E-05	2.89E-04	9.77E-04	3.51E-04	1.90E-03
Clive, UT (Solid)	5.28E-07	3.60E-08	4.40E-07	1.21E-02	3.51E-04	1.25E-02
Clive, UT (Liquid)	9.18E-08	6.27E-09	7.65E-08	4.11E-07	3.51E-04	3.52E-04
Paducah, KY	3.42E-03	2.19E-04	2.00E-03	1.39E-02	1.06E-03	2.06E-02
Hobbs, NM	2.42E-05	2.19E-06	9.43E-06	6.51E-05	1.06E-03	1.16E-03
Total	1.09E-02	1.10E-03	8.84E-03	5.14E-02	4.65E-03	7.69E-02

Source: SNL, 2007.