

Items to be discussed at the February 12, 2014, public meeting with URENCO USA
needed for completion of the environmental review

1. Provide approval for posting in ADAMS, as publicly available, from the URENCO USA (UUSA) e-room, the following 20 air concentration files which will be referenced in the environmental review:

emission files:	NEFEMISyy.TXT	5 files
met files:	yyyy.OUT	5 files
ISC option files:	NEFyyyy.INP	5 files
output files:	NEFyyyy.OUT	5 files

where yy=87/88/89/90/91 and yyyy=1987/1988/1989/1990/1991

2. The design of the storage pad has changed from the design discussed in the Supplemental Environmental Report (ER). The e-mail from Slama to Malliakos, Dec. 6, 2013, states "Figure 1 of the July 31st RAI response, is the accurate representation of the future plans of extending the Uranium Byproduct Cylinders (UBC) Storage Pad further in the east direction." There was no discussion for the plans for the west direction.
 - a) As currently defined, provide the overall storage pad dimensions and the exact location of the storage pad with respect to the nearest north, south, east, and west property boundaries.
 - b) Update the UBC Storage Pad Annual Dose Equivalent Isopleths shown in Figures 4.12-3 and 4.12-4, based on the new storage pad configuration.
 - c) Table 4.12-1 in the Supplemental ER provides the direct radiation dose at the site fence in the North and West direction from the Storage Pad and Cylinder Receipt and Dispatch Building (CRDB). Provide the fence line doses to the public in all directions (north, south, east, and west) for the new configuration.
3. Section 4.2.3 of the Supplement ER estimates that 2,800 non-radiological operational deliveries and waste shipments would occur once the expansion is complete. This is consistent with the ER Rev. 20f for the 3 MSWU facility. Please confirm that the total annual number of non-radiological shipments associated with operation of the expanded (10 MSWU) facility is expected by UUSA to remain the same at 2,800.
4. As noted in the UUSA response to RAI 1a, an average of four 30B product cylinders is expected to be on an enriched product shipment. The LPES, Inc. RADTRAN transportation risk analysis for product cylinders appears to use the external dose rate based on exposure to one cylinder, not four cylinders, thereby underestimating external exposure impacts to the public. Also, the single cylinder dose rate at two meters was used in the analysis. Since the RADTRAN dose rate input used is for one meter from the vehicle, the one meter dose rate should be used to estimate the exposure to the public (not the driver) to be conservative. There is also no discussion in either the Supplement ER or LPES report as to the assumed package configuration on the

transport vehicle. The accident risk analysis does consider the contents of four 30B product cylinders.

Transportation risks to both the crew and the public should be estimated in the same manner as originally done in NUREG-0170, *Final Environmental Statement on the Transportation of Radioactive Material By Air and Other Modes.*”

Provide an estimate of the external dose rate at one meter from the side of the transportation vehicle (with 4 30B cylinders loaded in the intended configuration).

5. Section 4.2.6.4 of the Supplement ER states that 60 fifty-five gallon drums per shipment are assumed in order to estimate that 19 to 23 low-level waste shipments will be needed annually. The LPES, Inc. RADTRAN transportation risk analysis assumes only 8 drums per shipment for the solid waste shipments and only 4 drums for the “liquid waste” shipments. The analysis should have considered 60 drums per shipment in keeping with the Supplement ER assumption. In addition the external dose rate used is for only one drum (instead of 60) at a distance of 2 meters rather than 1 meter. In this case, the drums would be fairly close to the side of the vehicle and the 1 meter dose rate would be more appropriate. The request for clarification is with respect to the external dose rate of the low-level waste shipments as it pertains to potential population risk.

Transportation risks to both the crew and the public should be estimated in the same manner as originally done in NUREG-0170, *Final Environmental Statement on the Transportation of Radioactive Material By Air and Other Modes.*

Provide:

- a) An estimate of the external dose rate at one meter from the side of the transportation vehicle (with 60 drums loaded in the intended configuration).
 - b) The potential population accident risks for 60 drum of solid low-level waste shipments.
6. UUSA stated (email, Slama to Malliakos, Dec. 6, 2013, 11:57 AM) approximately 23 solid waste shipments (from solidified wastewater) and 4 liquid waste shipments of LLRW would occur on an annual basis.

Section 4.2.6.4 of the Supplemental ER (Rev. 4c.) states “The number of these waste material packages will increase with the expansion, from approximately 477 fifty-five gallon drums of solid waste annually, to between 1,140 and 1,380. Using a nominal 60 drums per waste truck shipment, approximately 19 to 23 low level waste shipments per year are anticipated with the expansion.”

Table 4.13-1 of the Supplemental ER shows a projection for the annual amount of radioactive waste generated during Phase 5 which totals 2,198,371 lbs, the bulk of which is solidified wastewater. Typical full loads (legal weight) on a tractor/semi-trailer combination are about 40,000 to 45,000 lbs. If a full load based on weight (40,000 lbs)

were sent each time, approximately 55 annual shipments would be required to transport the waste in Table 4.13-1.

- a) Clarify the total number of annual shipments of low-level radioactive waste expected when the UUSA facility is operating at 10 MSWU per year.
- b) Provide an assessment of the liquid waste shipment accident population risks.
- c) Give the expected breakdown by radioactive waste type as listed in Table 4.13-1 of the Supplement ER (number of annual shipments for each waste type) and revise the Supplement ER and transportation report accordingly.