

## **Meeting Summary:**

### **Council of State Governments, Midwestern Radioactive Materials Transportation**

**Committee** (November 27-29, 2007; Columbus, OH)

Attending from WGA: Alex Schroeder; from WIEB: Jim Williams

The second 2007 meeting of the CSG-MW Radioactive Materials Transportation Committee was held November 27 & 28 in Columbus, OH. A tour of the Portsmouth Gas Diffusion Plant in Pike County, OH was conducted on November 29. Notable features of the meeting were the role of committee members as chairs of various working groups, and the participation of legislators from several Midwestern states. Useful off line discussions were conducted with Melissa Bailey (CSG-ERC), Tony Dimond (BLET), John Erikson (Office of the Governor, NE), Lisa Janairo (CSG-MW), Mel Massaro (FRA), David Niezgodski and Stephen Buehrer (legislators in IN & OH), Earl Easton (NRC), Jon Schwarz (NE Radiological Programs manager), Thor Strong (MI DEQ), and Alex Thrower (DOE/ORCWRM), among others.

## **Key Notices:**

- Section 180c comments: now due January 22, 2008. CSG-MW has completed comments, and does not plan to add or amend.
- The review of the draft transportation plan for the SNF transfer between SRS & INL is tentatively scheduled for March 25 & 26, at the Savannah River Site. Whether additional travel funding will be available is uncertain. The draft transportation plan is expected to be released sometime in January.
- TRANSCOM2000 “super user” training classes will be offered on Wednesday Jan. 16 & Monday April 14, in Albuquerque. Call (575) 234-7651 or (505) 842-5608.
- The TRANSCOM users group meeting will be held on March 4<sup>th</sup> in Albuquerque.
- The repository design for license application will be completed in December, 2007. The LA is still scheduled for submission in June 2008.
- The DOE is still operating on continuing resolution. The FY 2008 OCRWM budget request is \$378 million, up from \$355 in FY 2007. The request for transportation is only \$15 million, down from \$67.7 million in the FY 2007 budget request. The LA seems to be absorbing all available funding at OCRWM.
- DOE/EM’s draft EIS for Greater-Than-Class C waste (NOI July 23, 2007) is scheduled for completion in “mid-2008.”
- The radiation specialist training program (phase 1) was piloted in Harrisburg, PA in October. Tim Walker (OH Dept. of Health) attended and provided a useful review in Columbus. Phase 2 of the course will be piloted in Idaho in the Spring of 2008.
- In conjunction with the shipment of remote-handled TRU waste to WIPP, DOE/EM will conduct joint exercises with the state of Idaho and the Shoshone-Bannock Tribe (late Spring 2008, in Fort Hall), and with the Acoma & Laguna Pueblos and the Cibola County Emergency Management agencies (late March, in Acoma, NM). Discussions are underway regarding a similar exercise in Nebraska.
- A draft transportation plan for uranium oxide shipments (from Paducah, KY & Portsmouth, OH to Clive/Energy Solutions and NTS) will be available February 2008. (See: Portsmouth tour, below).

- The CSG-MW transportation committee will tour Yucca Mountain on June 8 & 9. Their next meeting will be July 14-17 in Rapid City (in conjunction with their legislative meeting), or (if that doesn't work) June 16-20 in Indianapolis.
- NRC stakeholder meetings regarding enhanced security for transportation of “radioactive material quantities of concern (RMQC) will be held January 17 in Oakland (CA) and January 23 in Washington, DC. The NRC is preparing the technical basis for proposed rules regarding RMQC, which do not include SNF or HLW. Their question is, how well are the 202 NRC orders issued since 9/11 working. In Oakland, the particular focus will be the transport of such materials in port facilities.

### Key Presentations

- Lisa Janairo provided a short introduction for new CSG-MW committee members, emphasizing the relatively small quantity (but high level of concern & regulation) of SNF shipments, and the midwestern states with shipping sites (EM & OCRWM) and transport.
- Mel Massaro (FRA) discussed his assessment of short line railroad conditions, and their potential utility for SNF shipment from nuclear power plants. The study, which began with the Winchester & Western short line (serving the Hope Creek & Salem plants) will extend over the next couple of years. As might be expected, the study is of considerable interest in the eastern region, but it should also be of interest in the west, since it has implications for modal mix and early make-up of dedicated trains.

Though Mel's study focuses on rail line conditions and utility for shipments of SNF, it is apparent that upgrades would be required. Where would the funding come from? Not OCRWM, says Alex Thrower. Perhaps from other federal or state programs.

- Alex Thrower discussed (and passed around) the DOE/OCRWM “classification guide” for the security of various types of information. NRC has similar guidelines, but these are keyed to NRC regulations and procedures, and are not consistent with DOE's. Basically, the guide makes distinctions regarding the release of various types of information: e.g.
  - Is the shipment escort armed? YES Type of arms? NO
  - Has the cask been tested against a high-energy device? YES Type of device? NO
  - What's the shipment consist? YES, re what's is observable. NO, re communications, armor.

Another discussion is what info is released to whom—the general public (eg via websites), authorized governors representatives, others with a need to know. Still another discussion is what information is released to whom, *when*....years in advanced, for transportation planning?; months in advance, for emergency preparedness?; immediately in advance, for notification? How all this makes consistent sense is not immediately apparent.

- Ella McNeil presented an update on DOE-EM activities, which was similar to the presentation provided at the WGA and SSEB meetings. Updates included announcements that DOE intends to circulate a proposal on incident/event reporting during the week of December 3<sup>rd</sup>, and that DOE is looking into whether they can include SNF shipments in the prospective shipment report.

- John Shine (DOE/Portsmouth) provided an “official use only” presentation of the upcoming campaign for shipment of uranium oxide from Portsmouth & Paducah to Clive/Energy Solutions and NTS. About 700,000 metric tons will be shipped in 58,000 cylinders (12 MT/cylinder), mostly in unit (not “dedicated”) trains of 5-7 cars. Material not appropriate for disposal at Energy Solutions will be shipped by truck to NTS. USEC will be the incident commander and crisis manager. A comment from the State of Nevada (not discussed) is delaying the amended ROD. The contractor is Uranium Disposal Services (see: Portsmouth Tour), whose website is [www.uds-llc.com](http://www.uds-llc.com).

### **Portsmouth Gaseous Diffusion Plant**

The plant is on a 3700 acre federal reservation (obtained in the early 1950s via federal eminent domain) in the midst of attractive farmland in southern Ohio. The huge plant (3 buildings, each covering about 30 acres) was constructed in 1952-56 to produce (in conjunction with the Paducah, KY facility) highly enriched uranium for nuclear weapons. HEU production was suspended in 1991, but (under a lease to the US Enrichment Corp.) the plant continued to produce LEU for commercial power plants until 2001. The gas diffusion process required massive amounts of electric power (2200 MW, generated by two nearby coal-fired plants), and produced huge volumes (250,000 MT) of depleted uranium hexafluoride (DUF6), now stored onsite in 20,000 steel cylinders.

Today, the high assay DUF6 tails can be converted to commercially marketable hydrofluoric acid and uranium oxide, for power plant fuel or disposal. In 2002, DOE contracted with Uranium Disposal Services (UDS) to build and operate a conversion plant, which is now nearing completion. The plant uses AREVA (Framatome) technology, and will be the source of prospective uranium oxide rail shipments to Energy Solutions in Utah, and, perhaps, truck shipments to NTS. Material shipped to NTS will be “fissile accepted.”

The Paducah gas diffusion facility continues to operate, but it cannot compete with centrifuge technology.<sup>1</sup> A uranium enrichment plant using Urenco (British Nuclear Fuels) technology is under construction in Eunice (NM), and AREVA plans to license a similar facility nearby. USEC’s “American Centrifuge” received a NRC license in April 2007, and reuses DOE buildings at Portsmouth. A demonstration facility (which we did not see, but which investors groups do) has been constructed. Currently USEC is a major nuclear plant fuel provider, but it’s sources are: a) The Megatons to Megawatts program<sup>2</sup> (150 reactors: almost 30% of the global market, including 44% of the US market), and b) the still-operating Paducah gas diffusion facility. When the Portsmouth centrifuge is in full operation, the Paducah facility will be shutdown.

---

<sup>1</sup> An interesting side note: The US attempted to “skip” the centrifuge technology, by development (primarily at LLNL) of a laser technology for separating U235 from U238. Power requirements for the laser technology promised to be 1% those of centrifuge technology, which are about 5% those of gaseous diffusion. The gamble did not work, however. Meanwhile, British Nuclear Fuels and Framatome (in France, now part of AREVA) developed centrifuge separation, the current “state of the art.”

<sup>2</sup> USEC is the agent for the US government.