

**MINUTES**  
**of the**  
**FOURTH MEETING**  
**of the**  
**RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE**

**October 26-27, 2009**  
**Hobbs and Carlsbad**

The fourth meeting of the Radioactive and Hazardous Materials Committee was called to order at 1:15 p.m. by Representative John A. Heaton, vice chair, on Tuesday, October 26, 2009, at New Mexico Junior College in Hobbs.

**Present**

Rep. John A. Heaton, Vice Chair  
Sen. Vernon D. Asbill  
Rep. William J. Gray  
Sen. Carroll H. Leavell  
Rep. Jeff Steinborn  
Rep. Jeannette O. Wallace

**Absent**

Sen. Richard C. Martinez, Chair  
Sen. Stephen H. Fischmann  
Rep. Antonio Lujan  
Sen. John Pinto  
Rep. Jim R. Trujillo  
Sen. David Ulibarri

**Advisory Members**

Sen. Rod Adair  
Rep. Donald E. Bratton  
Sen. Gay G. Kernan  
Sen. William H. Payne

Rep. Eliseo Lee Alcon  
Rep. Thomas A. Anderson  
Sen. Dianna J. Duran  
Sen. Lynda M. Lovejoy  
Rep. Rodolpho "Rudy" S. Martinez  
Rep. Nick L. Salazar

**Guest Legislator**

Rep. Shirley A. Tyler

**Staff**

Gordon Meeks  
Mark Harben  
Damian Lara

**Monday, October 26**

The committee toured the Louisiana Energy Services (LES) facility in the morning.

**National Enrichment Facility Status: Report from LES**

Reinhard Hinterreither, president and chief executive officer of LES, thanked the committee for taking a tour of the LES facility. He said that safety is the top priority of LES in order to ensure the well-being of the community. Mr. Hinterreither stated that LES has 331 full-time

employees working in design, engineering, licensing, operations, maintenance and construction management. There was a peak of 1,600 employees during the biggest construction phase in the spring and summer of 2009. He discussed the amount of money spent with New Mexico companies in 2008, totaling \$110 million. Gross receipt taxes paid to vendors since the start of construction have been \$29 million; annual payroll is \$35 million (including benefits); \$6 million in New Mexico income taxes, along with \$3 million in property taxes, have been paid out; and construction payroll amounts to \$11 million per month. Mr. Hinterreither relayed safety statistics to the committee, saying that there have been no lost-time accidents during the 6.8 million man hours tabulated, and the site was recently awarded the Occupational Excellence Achievement Award. He also discussed historical milestones for the company.

LES, according to Mr. Hinterreither, received construction and operating licenses in June 2006 and chose the Greenfield site outside of Eunice, New Mexico. He provided status updates for the construction site, including the security/visitor center; the technical services building; the cylinder receipt and dispatch building; the central utilities building; the CUB emergency diesel generator; the centrifuge assembly building; and the Pete V. Domenici separation building module. Mr. Hinterreither explained aspects of the centrifuge process, along with the handling process, including feed, product and tailings stations.

Discussion points included issues with getting and keeping enough employees and New Mexico losing out on new home construction to Texas because of requirements for contractors in New Mexico.

### **Algae Biodiesel Project**

Doug Lynn, executive director, Center of Excellence for Hazardous Materials Management (CEHMM), discussed the algae project currently underway, saying that its algae is very versatile in marginal water. He said that he is growing marine microalgae in open ponds at the New Mexico State University Agricultural Experimental Station. Mr. Lynn said the CEHMM is working with industry and university partners to implement a fully integrated system for growing, harvesting and making fuel and co-products from algae. He told the committee that algae is not only good for fuel, but has been found to be a great form of cattle feed.

Mr. Lynn discussed the production goals of the CEHMM and said that it would like to refine winter cultivation protocol; establish data trend sets for lipid content, carbohydrates and production yield; build and test larger ponds; maximize growth in all ponds; and test increased pond depth models. The CEHMM is growing algae in deeper ponds than its competitors. He discussed progress, including construction of a new one-fourth-acre pond with an experimental raceway design; a ribbon-cutting event for the public attended by U.S. Congressman Harry Teague; a lease agreement for production space; and permits for water rights.

Mr. Lynn explained the research and production goals of the CEHMM. He said that there is a commitment to increasing the harvest rate to optimize trend yield and to test, build and install a prototype harvesting system. He discussed fractionation, extraction, purification and conversion. Mr. Lynn told the committee that 80% of the on-site pilot plant to optimize yield is completed.

He said that there are some legislative issues that the company would like the committee to assist with, including addressing standards that are not necessary.

### **Produced Water**

Tim Coakley, president, SCW, Inc., described produced water uses, saying that 28.9 billion gallons of produced water from oil and natural gas fields are pumped out of the ground in New Mexico each year on average. Mr. Coakley stated that water quality varies over the range of 3,500 to 305,000 parts per million of total dissolved solids (TDS). He also said that produced water contains amounts of crude oil that can be economically recovered in the treatment process. According to Mr. Coakley, SCW's mission is to convert this toxic waste into a valuable resource. He discussed uses of remediated produced water such as industrial process uses, oil and gas, biodiesel and potable water supply. Mr. Coakley discussed cost drivers for produced water remediation, such as destination for cleaned water, TDS magnitude, total organic carbon in parts per million, available volume and location accessibility. The remediated water can also be used for drilling fluid and drinking water and possibly used for biodiesel ponds. Mr. Coakley explained the component for treating produced water, such as hydrocyclones and a vacuum distillation unit. In future, remediated water could be used for municipal needs. The committee also discussed costs.

The meeting recessed at 3:50 p.m.

### **Tuesday, October 27**

The meeting reconvened at 9:14 a.m. at the Pecos River Village Conference Center in Carlsbad.

### **Waste Isolation Pilot Plant (WIPP) Resource Conservation and Recovery Act of 1976 Permits Update**

James Bearzi, Department of Environment (NMED), thanked the committee for the opportunity to speak before it. There are three levels of permit types: class 1, class 2 and class 3, each getting more difficult to obtain. Class 3 has a significant process, including drafting new permits and seeking public comment. WIPP is renewing its permits because the permits expire next month. There have been many unforeseen challenges during the lifetime of WIPP, but those challenges have been met by the state, the NMED and permittees. The permittees had meetings to gather all the necessary information and establish a useful strategy to renew the permits.

WIPP decided that it would like to have a permit similar to the permit on which it has been operating. The permittees did ask for an extension on the submittal date, which was granted, extending it from May to September 2009. Mr. Bearzi said it is entirely possible to have the renewal process complete in 18 months, which is incredibly fast. There are rules and requirements in the process, including an administrative completion checklist (all elements in the permit request are complete), a technical adequacy evaluation and a draft permit coupled with a public comment period. According to Mr. Bearzi, WIPP and the NMED are both going forward to get the process done.

The NMED is also looking at the WIPP audits to ensure that waste is characterized properly according to its categorization. Mr. Bearzi discussed other sites in the country that are similar to the WIPP site, and the department has sent people to view and evaluate those sites. Mr. Bearzi also discussed the provision in the permit that allows WIPP to resolve a dispute it may have with the department. The dispute resolution clause allows for a resolution without a lawsuit.

### **Potash Solution Mining**

Leonard Kaskiw, general manager of Intrepid Potash-New Mexico, LLC, discussed potash solution mining. He talked about possible solution mining sites and where the underground mines would be flooded. Mr. Kaskiw said that solution mining and evaporative mining are proven techniques around the world. He said that there will be a 500-acre evaporative pond where the brine is pumped in to allow for evaporation. Mr. Kaskiw discussed the process of solution mining, saying salty brine is pumped into the area for mining, which will bring up the potash when that brine is pumped into the evaporative ponds.

Mr. Kaskiw discussed the major facilities to be constructed, including six injection wells and five extraction wells, with associated pipelines on federal and state lands; 500 acres of solar evaporation ponds on Intrepid property; and a flotation plant adjacent to the west plant. He told the committee that the mine will have a 28-year life, yielding 184,000 tons of potash a year. An environmental impact statement is currently in progress by the Bureau of Land Management (BLM), and the NMED draft discharge permit is expected to go to a second public notice and public comment by the end of 2009. According to Mr. Kaskiw, Intrepid has established good working relationships with both agencies.

Mr. Kaskiw continued to explain the benefits of the process, saying that there will be associated federal and state royalties associated with the low-cost extraction of five million tons of potash, a total estimated investment of over \$400 million to construct and operate the project and the hiring of an additional work force of 40 employees to be drawn from the local area, along with the first year construction phase employing 150 to 200 contract workers. He added that the process minimizes the environmental impacts and utilizes green technologies, including reusing extract salt, thus not creating a new salt tailings pile; minimal surface disturbance; use of salty, nonpotable ground water to inject into underground workings; no ground water impacts; and use of solar energy for evaporation.

Jim Stoval, BLM, said that HB Potash is proposing to use in-situ mining for potash around Carlsbad and discussed the conditions for such a process in the area.

### **Carlsbad Brine Well Report**

Mark Fesmire, director, Oil Conservation Division, Energy, Minerals and Natural Resources Department (EMNRD), told the committee that on July 16, 2008, a brine well collapsed southeast of Artesia, and there was a collapse in November 2008 north of Loco Hills. The first brine well collapse was 400 feet wide and 100 feet deep.

Jim Griswald, senior hydrologist, Environmental Bureau, Oil Conservation Division, EMNRD, discussed the collapse of a well operated by a trucking company, I & W, Inc.,

providing history and background of the company and the area that experienced the collapse. According to Mr. Griswald, an I & W early warning system is in place and is currently configured with three borehole tiltmeters, each installed approximately 15 feet beneath the ground above the brine cavern; electronic pressure transducers installed in each of the ground water monitoring wells; an electronic barometer to measure ambient atmospheric pressure; a signal conditioning system; an on-site computer and wireless connection with a secure remote server; and a temporary building on the site that protects the signal conditioning, computer and internet equipment. Mr. Griswald also provided the committee with a time line of activity and monitoring of brine well collapses in the area.

The committee adjourned at 12:30 p.m. and took a tour of WIPP.