

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

**November 16, 2011
Room 321, State Capitol
Santa Fe**

D The fifth meeting of the Radioactive and Hazardous Materials Committee was called to order at 10:15 a.m. by Representative Antonio Lujan, chair, on Wednesday, November 16, in Room 321 at the State Capitol.

Present

Rep. Antonio Lujan, Chair
Rep. Thomas A. Anderson
Rep. Brian F. Egolf, Jr.
Sen. Stephen H. Fischmann
Sen. Carroll H. Leavell
Rep. Jim R. Trujillo

Absent

Sen. Richard C. Martinez, Vice Chair
Sen. Vernon D. Asbill
Rep. Cathrynn N. Brown
Sen. John Pinto
Rep. Shirley A. Tyler
Sen. David Ulibarri

Advisory Members

Rep. Eliseo Lee Alcon
Rep. Donald E. Bratton
Rep. Jim W. Hall
Sen. Lynda M. Lovejoy
Sen. Nancy Rodriguez

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Sen. Rod Adair
Sen. William F. Burt
Sen. Eric G. Griego
Sen. Gay G. Kernan
Sen. William H. Payne
Rep. Nick L. Salazar
Sen. Bernadette M. Sanchez

Staff

Renée Gregorio
Cassandra Jones
Gordon Meeks

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Guests

The guest list is in the meeting file.

Handouts

Handouts and other written testimony are in the meeting file and/or posted on the web site.

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Wednesday, November 16

Waste Isolation Pilot Plant (WIPP) Transportation Route Change

Alvin Dominguez, secretary of transportation, and Todd C. Wilson, state risk manager, Risk Management Bureau, Department of Transportation (DOT), updated the committee on WIPP route changes. Secretary Dominguez indicated that a 15-year grant agreement from the federal Department of Energy (DOE) expired in September, and the DOT sent a letter requesting

additional funding of \$998 million for the next 15 years. He said that the original WIPP routes are in need of repair, and with the current agency shortfalls and deficiencies in the state's highways, the WIPP route could quickly deteriorate. The DOT's executive summary backs up his concerns and delineates the original WIPP routes as well as those proposed for repair.

Secretary Dominguez referred to another handout, in which the proposed southern route through Texas and the proposed northern route were indicated. He added that these routes first need consideration, then approval, from the State Transportation Commission, which would be meeting the next day in Fort Sumner. He stated that the DOT personnel have driven the routes, feel comfortable with the alternate routes and are recommending a temporary approval for a year, with the hope that the DOE could assist the DOT with funding at a later date. Funding would allow the DOT to make these alternate routes permanent. He added that the commission would vote on the actual approval at its January meeting in Santa Fe.

Committee questions, comments and responses included:

- concern over the state "holding the federal government hostage" for more money after the federal government has already completed funding for much of the cost for WIPP's high-quality roads;
- that the DOT stated that the money would be used for preventive maintenance of WIPP routes;
- how decisions are made for the chosen routes and how much leeway drivers have to make a decision about what route to take;
- that drivers must take preapproved routes;
- that all shipments are monitored by state police by satellite;
- what the situation is in Carlsbad regarding the sinkhole and clarification about routing around this area;
- that the final inspection of trucks before they make the final turn into WIPP has been discontinued;
- that, originally, the alternate routes were not in good shape, but the DOT has spent a lot of money to upgrade them; and
- the safety of Highway 599 as a WIPP route and clarification on which interchange is being upgraded.

Greater-Than-Class C (GTCC) Radioactive Waste at WIPP and Los Alamos National Laboratory (LANL) Legacy Waste Cleanup

F. David Martin, secretary of environment, reported on both topics to the committee. He stated that WIPP is the only operating deep-geologic repository in the U.S. for transuranic (TRU) wastes. He reviewed permitting time lines for WIPP as well as the key components of WIPP's success, stressing its collaborative approach to problem solving, credibility of its scientific framework and the support of local communities. He spoke of WIPP's economic impact in New Mexico, which includes adding 1,500 well-paying jobs to the mix and improving the state's highways. He also said that WIPP has created an environment in southeastern New Mexico that welcomes the nuclear industry to the state, as evidenced by URENCO and International Isotopes both locating here. He indicated that the final report from the blue ribbon commission will be issued the first part of next year.

In terms of storage at WIPP, Secretary Martin said that the site is about 50% full. As of early October of this year, there are over 78,000 cubic feet of defense-related TRU waste

disposed of at the site. He said that over 10,000 shipments have been safely placed at WIPP. In further discussion, the secretary indicated that there is GTCC waste, which is low-level radioactive waste, most of which is not generated by defense-related activities, that could be stored at WIPP in the future, but this would require revisions to the federal WIPP Land Withdrawal Act, which limits WIPP disposal to include only defense-related waste. The total inventory of GTCC waste is 11,600 cubic meters, he reported, of which a small fraction contains the majority of the radioactivity. In summarizing, Secretary Martin indicated that WIPP is capable of isolating the GTCC waste from a storage volume and radioactivity level perspective. He reiterated that WIPP is a strong model for America's nuclear future, one that is based on safety, compliance, good citizenship and sustainable economic growth.

In updating the committee on LANL's legacy waste cleanup, Secretary Martin said that the Department of Environment (NMED) is working with the federal DOE to accelerate legacy waste cleanup at LANL. He gave an overview of what contamination exists, which includes the identification of over 2,100 sites, some of which require further investigation. Contamination has been found in the shallow subsurface at many LANL sites as well as in the canyon near LANL property. In addition, tritium and volatile organic compounds have been found beneath several material disposal areas at LANL, and contamination in ground water at LANL has been detected.

Secretary Martin reviewed accomplishments made under the consent order of 2005. He reported that the NMED has issued certificates of completion for cleanup of about 160 legacy sites, actions have been taken to reduce the transport of sediment during floods and the ground water monitoring network is nearly completed. He added that the NMED has told the DOE and the National Nuclear Security Administration (NNSA) to prioritize TRU waste removal from Area G at LANL. He said that ground water protection and protection of Rio Grande water quality as related to the Buckman Diversion Project are both primary concerns.

He stated that the NMED is working with the appropriate officials at other agencies to revise the cleanup schedule so that the highest-risk projects can be completed first. He clarified that the NMED is not renegotiating the consent order, but it is really only making scheduling changes to that order. He expressed concern over proposed operating budget decreases for both LANL and WIPP, which could jeopardize the department's ability to comply with the order as well as jeopardize jobs at WIPP. The secretary said that LANL needs at least \$250 million annually for cleanup, and that WIPP's baseline funding needs are at \$228 million.

Secretary Martin asked Ryan Flynn, Jim Davis and Frank Marcinowski to join him for committee questions.

Committee questions, comments and responses included:

- concern over whether, geologically or technically, there is anything to prevent WIPP from "becoming another Yucca Mountain";
- that there is no intent for WIPP to be considered as a site such as Yucca Mountain, as WIPP's TRU mission has been successful and there is still a significant inventory of TRU waste that needs to be disposed of;
- whether it is prudent to wait and see what the blue ribbon commission concludes before contemplating the next steps for WIPP;
- what the total cost is for all legacy cleanup;

- the consent order was conceived as a document to secure funding for cleanup, but there are not any causes for action if the federal government does not appropriate money to implement such cleanup;
- there is GTCC waste stored at Los Alamos;
- reports can be delivered to the committee that deal with findings of citizens' advisory groups and other oversight groups;
- GTCC waste is in fact similar to waste shipped to WIPP now; and
- the priorities for cleaning up Area G as related to the consent order.

Hydraulic Fracturing

Dr. Tom Engler, chair of the Petroleum Engineering Department and dean of engineering at the New Mexico Institute of Mining and Technology (NMIMT), and Dr. Daniel Lopez, president, NMIMT, gave a presentation on hydraulic fracturing (fracking), with the caveat given by Dr. Lopez that the NMIMT does not take a position on fracking, but that it wants to bring forward the science behind it. He said that fracking is about 60 years old, so it is not a new process. He reported that about one million wells have been fracked, and there have been only two properly documented, defensible examples of contamination.

Dr. Engler gave some background on and a definition of fracking, which is essentially injecting water and sand under high pressure into a rock formation, creating fissures in the rock that allow for a passageway for oil and gas to flow to the wellbore. He said that fracking is very commonplace today. This is done thousands of feet underground, he added. He explained that when a rock is fracked, it is cracked based on the existing chemical properties of the rock. He pointed to diagrams in the handout that show how a rock fractures and how an opening is first created and then maintained. He also spoke of the well construction, where each well is encased in many layers of steel and each casing is surrounded by cement, which ensures the containment and protection of fresh water.

Committee questions, comments and responses included:

- review of the controversy about fracking, especially the Duke University study, which showed that carcinogens were found in wells where fracking has occurred as well as a higher methane content;
- what the source of the contamination actually is;
- request for an offline discussion of these different studies to evaluate what they are saying about fracking;
- a distrust expressed about this method and questions regarding disclosure laws that are in place as well as safety issues around fracking;
- concern about poorly drilled wells;
- if regulations have kept up with the technology for fracking;
- in fracking, one-third of the water does not come back, and the two-thirds of water that comes back has to be recycled;
- fracking is done to increase oil and gas production;
- fracking has been done in tight sand and in water wells to increase permeability;
- people have to be educated about fracking because it can be done safely, but it can be dangerous because of the high pressure involved; and
- that safety concerns are paramount.

Fire Impact Update

Pete Maggiore, deputy assistant manager, Environmental Projects Office, NNSA, reviewed the effects of the Las Conchas fire, the responses by local and state officials and teams and the impacts on LANL. He reiterated that the federal, state and local interaction was superb and decisions were made quickly to alleviate fire damage. He stated that all air sampling done during the fire showed there were no LANL contaminants present. He reviewed initiatives taken after the fire, which included protection of infrastructure, removal of materials, safety measures and monitoring of air, water and biota. Photographs in the handout provided show barriers erected to block flood water, the sealing of well heads on ground water monitoring wells, the cleaning of water catchment systems, the removal of sediment from Los Alamos Canyon and the baseline sampling done by biologists at Cochiti Lake before and after the fire. He spoke of the regional monitoring efforts under way by several agencies as well as LANL's goals for evaluating contamination and taking action to mitigate risks and repair damage. He gave an overview of the results from storm water monitoring after the fire, which indicated that the presence of cyanide, dioxins, metals, radionuclides and PCBs is consistent with observations from other fire sites. He told committee members that results could be viewed at the RACER web site (<http://racernm.com>).

Committee questions, comments and responses included:

- if there was evidence of lab-produced contaminants after the fire, to which LANL said no;
- how funding of \$330 million received by LANL for the Cerro Grande fire affected the response and impact of the Las Conchas fire;
- clarification on the squirrel-generated fire on LANL property;
- capability of the Buckman filtering system to handle ash and associated costs; and
- oversight of LANL's environmental programs.

Concerned Citizens for Nuclear Safety (CCNS) Statement

Joni Arends, executive director, CCNS, began by speaking about the formation of CCNS, which was due to concerns for safety in the transportation of nuclear waste to WIPP. She said that CCNS was a plaintiff in 1991 alongside the state and the Southwest Research and Information Center in opposing the opening of the WIPP site; as a result of those delays, WIPP is now a safer facility. She said that her organization is also involved in the hazardous waste permitting process for LANL. She added that CCNS responded to community concerns regarding the fires in the state.

Ms. Arends refuted what was said by representatives from LANL. To begin with, she indicated PCB contamination was severe, and that the cleanup done by LANL was done because of the work of CCNS. This work included removal of high levels of PCBs in canyon walls, she said. Also, she stated that PCBs are from operations during the Manhattan Project, not from global fallout.

She reported that CCNS is pleased at the actions of the DOE in looking at changing the WIPP route to avoid the sinkhole issues in Carlsbad. She said that CCNS has ongoing concerns about waste from LANL, and that multiple trucks are traveling in caravans with waste. She added that CCNS's concern is related to the fact that a risk analysis has not been done.

Regarding the disposal of GTCC waste at WIPP or LANL, Ms. Arends stated that at the scheduled closure of WIPP in 2033, when it will be filled with TRU waste, there will be about

three million curies in the TRU waste, which represents more than 50 times less radioactivity than there would be in the GTCC waste. She reiterated that the people of New Mexico have been told many times that WIPP would be only for defense waste, not commercial waste, and added that two federal laws prohibit the disposal of such waste at WIPP. She said that although LANL is a proposed site for GTCC waste, it is not an appropriate one as LANL already has about 21 million cubic feet of waste that has to be cleaned up. She stated that the recommendation from CCNS is that the DOE should not consider any sites in New Mexico as reasonable for the disposal of commercial GTCC waste.

D Regarding the cleanup of LANL's legacy waste, Ms. Arends highlighted seismic activities and issues in the Pajarito Plateau and the Rio Grande. She stated that Area G is a particular concern for CCNS and the public, especially in relationship to the Buckman well field, which provides Santa Fe with approximately 40% of its drinking water. She expressed concern over the proposed cleanup of Area G, mainly in relationship to inflated cost estimates that predetermine the use of a "cap and cover", or as she named it, a "hide and hope" solution.

Committee questions, comments and responses included:

- what Ms. Arends presented differed vastly from what LANL presented, and LANL staff stated that they would be happy to come back to the committee to give a broader view of what it is doing;
- whether PCBs came from lab operations or can be traced back to the Manhattan Project area wastewater plant;
- GTCC waste has to be transported in shielded containers per the DOE;
- analysis of seismic risk at LANL; and
- a request from committee members to tour Area G, which LANL responded to positively.

Public Comments

Sister Joan Brown, executive director of New Mexico Power and Life, spoke to the issue of fracking from a moral perspective. She looks at water as a gift that needs to be protected. She said that at this point, the federal Environmental Protection Agency (EPA) does not regulate fracking and that it is excluded from the federal Clean Water Act. She added that the EPA is researching the effects of fracking on drinking water and that this will be available in 2014. She stated that her organization recommends an effective regulatory structure to protect water and air. She added that there have been over 1,000 cases where drinking water has been affected by fracking and that there is a case in court now in Pennsylvania related to a fracking accident that polluted water there. She insisted on disclosure of the composition and safety of chemicals used in fracking, the development and use of drilling company best practice standards and a ban on natural gas drilling in environmentally sensitive areas.

Eleanor Bravo of the Food and Water Watch Organization stated that she supports clean water and safe food for all people. She said that shale gas production has increased and that the oil and gas industry has lobbied for fracking. She passed out handouts to the committee on the safety of water in the Rio Grande and on a ban on gas fracking.

Scott Kovak from Nuclear Watch New Mexico said that there is an aquifer at 900 to 1,000 feet below Area G. He stated that his organization believes that a modification to the consent order of the magnitude discussed by the NMED, which is to modify a deliverable to the consent

order by adding a two-year time extension, cuts a two-year gap into all the deliverables of that order and therefore is a major modification.

Reverend Holly Beaumont encouraged committee members to tour Area G because it is startling to be on that site and see what LANL says is adequate containment. She advocated support for nuclear disarmament rather than building a new generation of weapons. She said that there are grassroots organizations on limited funds battling Bechtel, which now operates LANL as a for-profit corporation. She added that Bechtel is recognized for mismanagement and abandoning projects. She concluded by saying that people live in a post-Fukushima world and cannot put their trust in the reputation of LANL.

Jeff Genauer, a student at Northern New Mexico Community College (NNMCC), expressed concern about hydraulic fracking. He announced that NNMCC in Espanola would be presenting a film about fracking. He added that there is not enough water in New Mexico to risk contamination and that there is the question of whether fracking increases the rate of earthquakes. He ended by saying that he witnessed the Las Conchas fire and he evacuated, but with all the focus on protecting Los Alamos, there was not protection for the Pueblo of Santa Clara.

Marianne Naranjo, Pueblo of Santa Clara, spoke passionately about the fact that the Jemez Mountains are the pueblo's homeland. She said that since the Manhattan Project, great disasters and traumatic changes have happened in her culture. She said pueblo culture supports and represents life, and these projects cut life in half to destroy things. She questioned where her people are headed with the fires as well as a continuing fear of Los Alamos as a neighbor. She said that Mother Earth is cleaning herself and that people need to pay attention. She ended by saying that people do not even know what to do with the waste that has already been created.

Michelle Dumond, a Santa Fe resident for four years, said that she is questioning whether Santa Fe is any longer a good place to live because of the monumental nature of the issues the city is facing, especially related to nuclear waste. She said that LANL is no longer what it was a decade ago because it is now run by a corporation that has a very bad track record. She sees the nature of what residents are faced with as catastrophic, and to consider storing more waste in an unpredictable environment with potential for more fires and accidents is untenable. She also stated that to embrace hydraulic fracturing in a state with such a lack of water is foolhardy at best.

Adjournment

There being no further business, the committee adjourned at 5:15 p.m.

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