

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

**July 19, 2018
Center of Recreational Excellence
Hobbs**

The second meeting of the Radioactive and Hazardous Materials Committee was called to order by Senator Jeff Steinborn, chair, on Thursday, July 19, 2018, at 9:20 a.m. in the conference room of the Center of Recreational Excellence in Hobbs, New Mexico.

Present

Sen. Jeff Steinborn, Chair
Rep. Cathrynn N. Brown
Rep. David M. Gallegos
Sen. Ron Griggs
Sen. Gay G. Kernan
Sen. Richard C. Martinez
Rep. Angelica Rubio
Rep. Debra M. Sariñana
Rep. Larry R. Scott

Absent

Rep. Carl Trujillo, Vice Chair
Sen. Carlos R. Cisneros
Sen. Carroll H. Leavell

Advisory Members

Rep. Jane E. Powdrell-Culbert
Sen. Nancy Rodriguez

Sen. Gregory A. Baca
Sen. William F. Burt
Rep. Kelly K. Fajardo
Rep. Stephanie Garcia Richard
Sen. William H. Payne
Rep. Nick L. Salazar
Sen. Clemente Sanchez
Rep. Jim R. Trujillo

Guest Legislator

Rep. Debbie A. Rodella

Staff

Shawna Casebier, Staff Attorney, Legislative Council Service (LCS)
Sara Wiedmaier, Research Assistant, LCS

Guests

The guest list is in the meeting file.

Handouts

Handouts and other written materials are in the meeting file.

Thursday, July 19

Call to Order and Introductions

Senator Steinborn welcomed the committee and guests to the meeting and invited committee members and staff to introduce themselves.

Welcome

Sam Cobb, mayor, City of Hobbs, and Kelvin Sharp, president, New Mexico Junior College (NMJC), welcomed the committee to Hobbs. Mayor Cobb noted the benefits of the recently opened Center of Recreational Excellence, a \$65 million economic development collaboration between the City of Hobbs, NMJC, the Hobbs Municipal League and Lea County.

Rail Transportation of Radioactive Waste

Scott Palmer, nuclear policy analyst, Brotherhood of Locomotive Engineers and Trainmen, and Don Gallegos, New Mexico state legislative director and secretary/treasurer, Local 1687, International Association of Sheet Metal, Air, Rail and Transportation Workers, discussed infrastructure and safety and regulatory concerns regarding the proposed rail transportation of radioactive waste to an interim storage facility located in southeastern New Mexico between Carlsbad and Hobbs, approximately 35 miles from the nearest town. Mr. Palmer stated that his main concern is the lack of protections in place for engineers and trainmen regarding exposure to radiation and a lack of training for railroad employees who handle radioactive waste.

Mr. Palmer shared his view that the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA), which is the principal authority that regulates the working conditions of railroad employees during transport, does not currently have adequate protections for locomotive engineers and workers who may be exposed to radioactive material; for example, under the OSHA regulations, there is no radiation limit for pregnant workers. He noted that while OSHA sets the exposure limit during transport, it is the Federal Railroad Administration under the federal Department of Transportation (DOT) that regulates the engine yard and waste site. He compared these standards to the more restrictive standards set by the U.S. Department of Energy (DOE), the regulatory authority for exposure of the public to radioactive and hazardous materials, noting that shipments of used nuclear fuel (UNF) surpass the dose limit allowed for the public.

Mr. Palmer described the extent of safety procedures currently in place as insufficient and behind the times, stating that railroad employees are only required to be able to recognize and locate hazard warning signs and OSHA hazard communication pictograms but are under no obligation to track their exposure to radiation — an oversight that could potentially lead to legal recourse against the railroads rather than the owner of the hazardous material being transported.

He said that the railroads currently follow the "as low as reasonably achievable" method (ALARA) to regulate worker exposure to irradiation through the approaches of time, distance and shielding. ALARA principles are utilized by the DOE and the entire nuclear industry to mitigate exposure.

Both Mr. Palmer and Mr. Gallegos expressed concern that regulations and safety measures in place for railroad workers are insufficient to protect those workers from intermittent exposure to radioactive materials, as the effects of exposure are cumulative. They noted that the trains lack dosimetry equipment, technology that was used by the U.S. Navy 30 years ago, to detect any irradiation.

Another major issue discussed was how to train the roughly 100,000 railroad employees on hazardous material response and procedures. Other logistical, infrastructure and safety concerns include: the glazing on windows; no locks inside the train cars in the event of an attack on the shipments; the distance of railroad police being five hours away on average; speed capacity on more outdated railway routes, including the portion connecting Carlsbad and Clovis; and the lack of testing in real-world conditions of the cask technology that will be used to contain the UNF.

Mr. Gallegos further emphasized the disparity between safety regulations during his experience working with nuclear waste in the Navy and the current standards in place for railroad workers today. He voiced the opinion that current regulations are nowhere near the level needed to safely and responsibly transport spent nuclear fuel. He also noted that there are three railroads in New Mexico that would be utilized within the state for transport of the casks. Burlington Northern Santa Fe (BNSF) Railway and Union Pacific Railroad are more modern systems, supporting travel up to 70 miles per hour (mph), but the Southwestern Railroad (acquired by BNSF in 2017) that runs between Carlsbad and Clovis can only safely operate at 35 mph. He noted that track conditions and speed restriction pose a threat to worker safety, prolonging exposure and over-extending the usual 12-hour shift limits for crew members that are accustomed to local shipments, typically of oil.

In response to questions from the committee, Mr. Palmer confirmed that nuclear materials are currently being shipped via railroad, but this would be the first shipping campaign to transport spent nuclear fuel. He acknowledged that this material is safely transportable, with appropriate training, and he expressed concern that training has not been implemented in the last 40 years and is still not required for the close to 100,000 railroad workers.

Mr. Gallegos suggested that all trains need to be equipped with Positive Train Control and electronically controlled brakes, implementations that are many years behind due to a lack of infrastructure investment. He also noted that hazardous materials first-response training must be provided to all local entities surrounding the transportation route. Mr. Palmer added that safety training exercises for employees are likely stalled due to the uncertainty around whether there

will be a permanent spent fuel storage site at Yucca Mountain in Nevada and the assumption that the interim storage facility will not be operational in the near future.

In response to a question regarding alternative transportation methods, Mr. Palmer expressed confidence that railroads would be the best option. Regarding licensing, the Nuclear Regulatory Commission (NRC) works with the DOT but is the final regulatory authority for licensing, while the DOE plans the shipments.

Joy Russell, chief communications director, Holtec International (Holtec), then joined the panelists to address further questions. She explained that the NRC will issue an operating license for the facility for 40 years, and if no permanent site has been selected, the NRC will reissue the license for another 40 years. Holtec is confident that the design life and service life of its cask technology will exceed several hundred years and that its aging management program, as stipulated by the NRC license, will ensure the safety of the site throughout the initial 40-year license and beyond.

Mr. Palmer stated that implementation of hazardous material training must occur concurrently with a radiation protection program that should include dosimetry technology to monitor casks. He said that the railroads are already shipping radioactive materials that exceed public limits, but under OSHA, railroad workers are allowed a higher level of exposure, yet exposure is not required to be tracked.

In regard to the specific cask technology and safety features, Mr. Palmer stated that the NRC conducted four tests to verify the safety of this technology but that these tests are not conducted on every individual cask. Ms. Russell elaborated that the casks have undergone four types of physical and simulated tests, and if a leak is detected, the cask is sealed into an "overpack" container for transport back to the customer. The simulations have included a missile attack on the site, and the casks withstood the simulated impact without leaking. She highlighted the four layers of protection in place: the spent fuel is in pellet, not liquid, form and pellets are then stored inside of fuel rods, which are housed in the casks and then placed in overpacks.

Based on projections by BNSF, Mr. Gallegos stated that an additional 80 trains will be needed to meet shipping requirements between Clovis and Carlsbad. He also noted that the tracks between Clovis and Carlsbad will need improvements to support the 12-axle trains that are able to support loads of over 200 tons.

A committee member stated that the Radioactive and Hazardous Materials Committee is required under statute to monitor radioactive materials and nuclear sites and to ensure appropriate emergency response, which means that the state should have a role in the permitting phase of the project.

Ms. Russell clarified that the NRC is responsible for regulating radioactive material from point A to point B, including during shipment. She stated that emergency preparedness training

currently exists in Lea and Eddy counties but has not yet been expanded to communities along the route of the shipments.

Mr. Palmer estimated that about 10,000 casks will need to be shipped over many years, as the proposed interim storage facility will house all of the country's UNF. Ms. Russell added that Holtec intends for the site to house all current inventory plus future projections. Holtec has produced 1,100 systems around the world and approximately 90% of the casks in the United States, with the oldest cask dating to 2000. She noted that since the first cask, there was one incident of a canister with a broken pin, but no degradation or malfunction occurred and all casks were recalled while the issue was addressed.

Mr. Palmer emphasized the historic nature of this shipping campaign, stating that there have been no other campaigns of this magnitude anywhere in the world. He shared his belief that support for the project should be withheld until safety and response training and dosimetry are required for all crews and train cars.

Some committee members expressed hesitation about overregulating and stifling economic development in the state, noting that everything in life comes with inherent risks and that this project poses less than a one in a billion chance of a leak and is as close to no risk as possible.

Emergency Preparedness Training and Funding

Lorenzo Velasquez, director, Emergency Management, Lea County, expressed confidence in the emergency preparedness of the first responders in Lea County. Through regular interagency training exercises and table tops, Mr. Velasquez stated that the county is prepared to respond to any accident within Lea County or Eddy County. Since 2013, 59 training exercises have been conducted to prepare for emergency responses to issues raised by, for example, the Waste Isolation Pilot Plant (WIPP). The county has received \$6.4 million from the federal government for first responders, emergency preparedness training and emergency response systems. Mr. Velasquez stated his belief that there is a lot of emergency preparedness support for the area because of the many industries present.

Jennifer Armendariz, emergency manager, Emergency Management, Eddy County, stated that she would like to see similar initiatives in Eddy County and has been in contact with Mr. Velasquez for direction. Although Eddy County has also provided agency-wide training exercises for sinkhole preparedness and oil field emergency response through federal grants and Federal Emergency Management Agency funding, Ms. Armendariz expressed concern that Eddy County is not as prepared as Lea County first responders in the event of a nuclear leak or accident. She noted that during a collaborative meeting with Holtec, the company agreed to address any issues that arise.

Richard Lopez, chief, Carlsbad Fire Department, acknowledged that accidents can never be fully mitigated and stated that his department is prepared to manage risk day to day, as it has

done with WIPP. He expressed confidence in the design and infrastructure of the storage site, but was more concerned with the potential for incident during transport via railway.

In response to a question from a committee member, Mr. Velasquez stated that, currently, no training exercises focus on rail systems and that derailment response exercises should be implemented.

In the event that an interim storage site in Texas is approved by the NRC, Mr. Velasquez stated that Lea County would dispatch first responders to the surrounding area, meaning that they would be assuming all of the risk with none of the economic reward of the storage site being located in New Mexico.

In response to questions regarding concerns from the emergency management standpoint, Chief Lopez stated that he believes there is much greater risk in his line of work than in radiation exposure from spent nuclear fuel and that there is likely more exposure to an individual during an X-ray. He said that the best approach would be to monitor for leaks and prepare for a timely response. Ms. Armendariz added that her department "plans for the worst and hopes for the best", and Mr. Velasquez reiterated that there is risk in everything and that his department trains to handle any emergency situation that may arise because it is the department's duty to protect the community.

Mr. Velasquez said that Holtec has been in communication with the counties and has expressed great willingness to work with communities. Although the proposed storage site is very isolated, he stated that any community along the route of transport should also be consulted. He stated his own willingness to extend this training and share his knowledge with those potentially affected communities. Ms. Armendariz stated that through collaboration with other agencies and areas, training and equipment could be shared.

Public Comment

Ron Black, Lea County Commission, expressed his support for the project. He stated reasons such as tax revenue and a need to diversify the economic portfolio of New Mexico so the state will not be so dependent on one industry. He cited the nuclear history of the area and the URENCO site as reasons to believe that agencies and individuals in the area are more equipped to handle an incident than other areas. He stated that he is 100% convinced of the safety of the project and that there would be virtually no pollution or chance of water contamination. He argued that if the Holtec proposal is rejected, then the NRC will move forward with the interim storage site in Texas, which would mean that New Mexicans would still assume much of the risk but would receive none of the reward.

Mayor Cobb expressed support for the project, also citing the nuclear history and knowledge base of the area and the need for the state to diversify revenue sources. He shared his view that the interim storage facility will happen regardless of public dissent and that the Southwest is the most viable site. He added that the NRC is currently considering two

applications — the Holtec site in New Mexico and the Waste Control Specialists (WCS) site just across the border in Texas. He shared his concern that if the NRC decides to move forward with the WCS site and not the Holtec site, it would mean storage of UNF in a less secure facility that would actually be in closer proximity to New Mexico residents and would bring no financial benefit to the state.

Nicolas Maxwell, a Lea County resident, cited violations of the Open Meetings Act and Inspection of Public Records Act by the Eddy-Lea Energy Alliance.

Ed Hughs averred that an interim storage facility would change the way of life in the area and raised concern that if the storage facility is approved that it would be difficult for landowners to get insurance. He questioned why, if the project was a great economic idea, other communities do not want it.

Gene Harbaugh, a Carlsbad resident, shared his view that allowing construction of an interim storage facility for the nation's spent nuclear fuel is a justification for perpetuating toxic nuclear waste, giving a free pass to the nuclear generating companies to continue to produce waste without having to take any responsibility for that waste.

Nick King, a Carlsbad resident, voiced his concern that the area is becoming a nuclear waste dump and noted that the Holtec facility is a temporary solution to a permanent problem. He argued the need for permanent solutions in his opposition to the Holtec proposal and questioned who would be responsible for decommissioning the site after Holtec, a private company, leaves the state.

Melanie Beckham, councilor, City of Jal, voiced concern for the lack of information and community involvement around the project. She expressed skepticism for the claim by Holtec that there is a one in a billion chance for a leak or accident when there has never been a shipping campaign of this magnitude before. Although she did not state complete opposition to the Holtec proposal, she did state that the project should be considered with great caution and that Holtec should fund emergency response training exercises in all communities that may be affected.

John Heaton, chair, Eddy-Lea Energy Alliance, approached the committee to clarify some technical and logistical aspects of the project. He expressed confidence in the canister design being utilized by Holtec that will provide four layers of confinement to prevent any leaks or exposure. The number of cars per train will be limited to between seven and 10, the number of shipments will be limited to one per month, the number of canisters per shipment will be limited to about 10 and every shipment will be tracked by satellite and physically guarded. He said that the UNF is classified as Category 7 waste and therefore the trains transporting the spent fuel will be restricted to 50 mph, and even slower speed limits will be enforced if the track is degraded. He informed the committee that 1,300 spent fuel transports have been conducted in the U.S. without incident, about 30,000 worldwide, and despite 12 accidents that occurred around WIPP, there were no incidents of a leak in the nearly 12,000 transports of waste to site.

Karen Hadden, a resident of Texas and member of the SEED Coalition, told the committee that she is concerned for the impact to her community across the border that is located on the proposed transportation route. She cited the NRC as reporting that this waste is so toxic that any exposure within three feet will result in death in as little as one week. She questioned the need to transport the waste so far from the sites of production rather than keeping it on-site or, if located near water sources, moving the waste minimal distances.

Margo Hobbs, a resident of Amarillo, cited a significant occurrence of glioblastoma (a type of brain cancer) in Lea County. She also mentioned that WIPP was in operation for 14 years before a leak occurred, causing the site to cease operations, and despite not addressing its violations, the Trump Administration has proposed to increase funding to WIPP to \$403 million, an increase of \$79 million, as part of the overall federal budget proposal for the DOE. She concluded that, in her opinion, this is just another project that will make a profit for board members at the expense of community members.

Rose Gardner, Alliance for Environmental Strategies, told the committee that she feels disgruntled by the short window for public comment to the NRC. She stated that local consent should be considered, especially when railroad workers and first responders in the area will be at the greatest risk for exposure. She offered the suggestion that the state should instead be working toward increasing energy production from solar and wind.

Leona Morgan, Nuclear Issues Study Group, informed the committee that there is a law against uranium mining or transport of radioactive materials through the Navajo Nation but that the Navajo Nation does not have jurisdiction over the railroads. She also mentioned that Holtec has a business endeavor with SNC-Lavalin to work on decommissioning, which will mean economic benefit to the company rather than to New Mexico. She expressed concerns that interim storage is a mechanism to reprocess the waste, which will only create more waste, and noted that she was relieved that legislation did not pass in New Mexico to redefine nuclear energy as a renewable source, which would have made reprocessing easier to do.

Steve Vierck, Economic Development Corporation of Lea County, said that he had worked closely with URENCO and expressed support for the interim site being located in New Mexico. He stated his belief that the NRC will do a thorough evaluation moving forward and that this area of the state has a highly educated workforce to handle radioactive materials. He told the committee that between the two applications being considered by the NRC, the Holtec site in New Mexico and the WCS site in Texas, if the WCS site is selected, it will mean utilization of inferior containment technology and a buffer of only five miles from New Mexico residents in Eunice, as opposed to 35 miles if the Holtec proposal is approved.

Tom Smith, a member of Public Citizen group, told the committee that his biggest concern is the potential for the interim site to become permanent and asked who would be responsible for maintaining the site in the long term, as the federal government has been looking for a permanent repository for the past 50 years without success. He mentioned that typically, or

with one exception, these storage sites leak and that a single leak can contaminate an area of up to 42 miles. He informed the committee that the proposed railroad route is directly over the brine well sinkhole in Carlsbad.

Al Squire, a family dairy operator in Hagerman, shared his concern for the impact of the project on the dairy industry in the region. He reminded the committee that dairy production was also introduced as an economic development idea for southeastern New Mexico, now providing the area with more than 17,000 jobs indirectly related to dairy and over \$5 billion in state revenue. He said if the Holtec proposal is approved, it could adversely affect the dairy industry. He stated concern for the contamination of feed and wondered who would be held financially responsible if the dairies are affected. He told the committee that it seems more logical for Holtec to sell its containment technology to the generators so that the waste may be kept at the origin.

Carol Levine, a resident of Hobbs, told the committee that it seems irrational for the NRC to license Holtec before transportation and logistical issues are addressed. She stated her belief that New Mexico has already done a lot for the country and taken a lot of risks regarding nuclear activity since World War II, citing examples such as Los Alamos National Laboratory, the Trinity Site, plutonium experiments and WIPP. She reiterated prior suggestions that the waste be kept at the sites of production.

Richard Doss expressed his personal support for the project as well as for the Eddy-Lea Energy Alliance. He acknowledged that it is important for the country to move nuclear waste away from water sources and populous areas and that the proposed Holtec site is the perfect location because it is safe, dry and remote and would provide a great economic opportunity for New Mexico. However, he did emphasize the need to expand training to more local and statewide first responders in potentially affected areas.

Mike Orr, councilor, City of Jal, expressed opposition to the proposed interim storage facility. He cited the Jal City Council resolution that also expresses opposition to the project. He reiterated that, if the Holtec cask technology is really so safe, then why not contain the waste and leave it where it is.

Clay Pearson, a sixth-generation rancher in Lea County, implored the committee to consider the well-being of residents first. He voiced concerns about the devaluation of land and local businesses, which he believes will lead to an influx of out-migration and a decline in tourism.

Jimi Gadzia, a Roswell pecan farmer, told the committee that waste is not a good economic development strategy because no value is added by the storage of waste, as it will only create long-term liability. She expressed frustration that the east coast states are not taking responsibility for the waste from these reactors that they have benefited from for the past 70 years. She also noted that there are oil and gas sites all around the proposed Holtec site.

Daniel Johnson noted that, by his count, so far there were roughly seven opinions for and 14 against the proposal. He suggested that the residents who will be directly affected should be allowed to vote on the matter, since this project has been discussed for the past 10 years without any public input. He said that politicians and business people consider residents in sparsely populated areas to be expendable and argued that a 40-year license to operate does not seem "interim" or temporary for any of the people present.

Douglas Lynn, a former teacher at Carlsbad High School, stated that if all possible precautions are taken to protect people, wildlife and environment, then Lea County is the most logical location for the interim facility because of the low population and "high radiological IQ" of the workforce. He mentioned species of concern in New Mexico, such as the prairie chicken, and stated that the proposed site would not disrupt any species.

Russell Hardy, Carlsbad Environmental Monitoring and Research Center, expressed support for the project from a research potential standpoint. He told the committee that with proper monitoring and maintenance, the site would be safe, as the facility will be located 30 feet underground and fortified with concrete. He said that it would provide many research opportunities for students at the New Mexico Institute of Mining and Technology and New Mexico State University, giving the example of a heat pilot project, in which heat generated by the UNF could be harnessed for desalination to repurpose water from oil and gas operations.

Lorraine Villegas questioned how isolated the site is if it is only 35 miles from Carlsbad and Hobbs and if this area of the state continues to grow and experience more and more traffic from the increase in oil and gas production. She expressed concern that the purpose of the facility is for reprocessing and that the vision for the area is to erect small modular reactors.

Trace Hicks stated that after reviewing the engineering, designs and safety procedures laid out by Holtec, he is in favor of the project and believes that Holtec's technology will keep the population safe. He also said that relocating UNF here will mitigate the risk to large populations around the country.

Russ Doss, Economic Development Corporation of Lea County, told the committee that he supports the project because it will expand and diversify the economy in Lea County, providing 100 long-term jobs and generating \$2.4 billion in property taxes. However, he added, no economic development is beneficial if it puts the community at risk and that the 35-mile buffer zone seems reasonable. Citing that Holtec provides its technology to 60% of nuclear facilities worldwide, he feels confident that it is knowledgeable and equipped to handle the interim storage facility.

Denise Brown, Nuclear Issues Study Group, informed the committee that 1,303 letters in opposition to the project have been sent to the NRC. She encouraged the committee members to speak to their constituents because many people are highly concerned.

Mr. Heaton stated that the high-efficiency particulate air filter system at WIPP was installed with the expectation that it would prevent radioactive release and that accidents are not unanticipated.

Ms. Levine suggested that for future meetings, more citizens would be present if there was more media attention and notice given prior to the meeting.

Ms. Hadden asked the committee to consider that the area is not seismically stable and the potential impact on the potash industry.

Leona Morgan mentioned to the committee that legislation was considered that would file a contention with the NRC to extend the public comment period to September 14, sponsored by Representative Garcia Richard in the house and by Senator Cisco McSorley in the senate. She also requested that the minutes of the NRC government-to-government meeting be available to the public.

Gerges Scott from Albuquerque advised that the University of New Mexico Cancer Center has not found a cancer cluster in Lea County.

Adjournment

There being no further business, the committee adjourned at 2:43 p.m.