

Northern New Mexico Citizens' Advisory Board Meeting Minutes

Board Meeting Minutes**St. Vincents Hospital, SF****January 24, 2001**

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| Board Members Present: Menice Santistevan-Manzanares, Chair Fran Berting Jim Brannon George Chandler Agustin Garcia Dorothy Hoard Jim Johnston | Board Members Absent: Anthony Armijo Patrick Feehan Angelina Valdez Evelyn Maruska |
| Ex-Officio Members Present: Michael P. Baker, ER/LANL MJ Byrne, DDFO, DOE/LAAO James Bearzi, NMED Joe Vozella, DOE/LAAO | Guest: Julie Canepa, ER/LANL Trent Hannah, BOH Environmental Tom Baca, ER/Rocky Flats Harvey Svetlik, BOH Environmental Joni Arends, CCNS Bruce Gallegher, LANL Mat Johansen, DOE/LAAO Steven Reneau, ER/LANL Steven Tujague, Boh Environmental |
| Staff: | Facilitator: Diane LeResche |

I. OPENING

Joe Vozella, Acting DDFO, called the meeting to order at 6:04 p.m. A quorum was established. The agenda was approved as presented. George Chandler moved, seconded by Dorothy Hoard, that the October minutes as amended be approved. The Board voted 7-0. George Chandler moved, seconded by Dorothy Hoard that the November minutes as presented be approved. The Board voted 7-0.

I. PUBLIC COMMENT

Joni Arends, Concerned Citizens for Nuclear Safety, 107 Cienega, Santa Fe, New Mexico 87501, 505-986-1973 

Ms. Arends said that due to her workload she could not accept nomination to the Board. Ms. Manzanares invited her to consider membership at a later time.

I. REPORTS

A. LANL's RCRA Permit B Modifications – James Bearzi, Chief, Hazardous Waste Bureau, New Mexico Environment Department

Dr. Bearzi requested additional time on the Board's February agenda. He said that LANL had to comply with the RCRA permit for waste management. Dr. Bearzi felt that it was important for the Board to understand the importance of this permit and how it worked. In 1989, EPA issued this permit to LANL. The federal law was new and LANL's first permit would last ten years. The permit covered operations at TA-16, TA-50 and TA-54. The permit expired two years ago and is being reviewed by NMED. The permit is still in force because LANL made a complete and timely application before the original permit expired.

The reason that this permit is important for the Board to review is that it will guide waste management and environmental restoration decisions for the next ten years and beyond. The corrective actions are part of the permit. Dr. Bearzi offered to brief the Environmental Restoration and the Waste Management Committees. He would like the Board to be involved at a level beyond public comment. The draft permit will be out this calendar year.

B. Groundwater Update – Mat Johansen, Environmental Engineer, DOE/LAAO

Mr. Johansen updated the Board on results of testing the Otowi-1 well (a Los Alamos drinking water well) for tritium, perchlorate, and other contaminants. This well is in Pueblo Canyon. The recent test results showed no surprises, with tritium and perchlorates at about the same levels as last month and strontium-90 was at levels below detection. Recent tritium levels are a bit lower than previous levels. Mr. Johansen offered to the Board and the public a complete set of tables for all the tested wells.

Mr. Johansen distributed a handout describing the tritium findings in the test wells and drinking wells in the regional aquifer below LANL. Soon a new test well, R-5, will be drilled in Pueblo Canyon to test the regional aquifer near the Otowi-1 drinking water well to better understand movement of perchlorates and tritium. Mr. Johansen explained that tritium and perchlorates move more rapidly through the groundwater than most radionuclides. Tritium is a good tracer for understanding groundwater movement.

Mr. Johansen discussed sources of tritium. A map was handed out showing where LANL tritium discharges have occurred. It also showed levels of tritium in rainwater that reached their peak in the early 1960's due to atmospheric testing of nuclear weapons.

Mr. Johansen presented data that came from both LANL and NMED. Two NMED Oversight Bureau personnel were in attendance. The pooled data gave a more complete picture. The data shows that pathways do exist from surface areas to the regional aquifer. They are finding that the maximum values for tritium are far below the drinking water standards (20,000 picocuries per liter). The older measured values of tritium are generally higher than the current levels, but more wells are planned to provide a better picture.

Dorothy Hoard asked since the really high values of tritium are older is the tritium getting removed from the system or is there is a recharge somewhere. Mr. Johansen replied that the

decreased levels seen today are a result of both radioactive decay and the dispersion of tritium as it mixes in groundwater. Also that some canyons, particularly Mortandad Canyon, have yet to be fully investigated by the LANL Environmental Restoration program. Dr. Canepa said that all sources in Pueblo Canyon have been turned off. Mr. Vozella clarified that the TA-50 Radioactive Liquid Waste Treatment Facility is still discharging tritium into Mortandad Canyon and the lagoons at TA-53 evaporate liquid containing tritium. He offered to brief the Waste Management Committee on the steps that LANL took to reduce these contaminants.

Jim Brannon asked why EPA chose the 20,000 pico-curies standard. Mr. Johansen said that EPA established standards based on where radionuclides go in the body and the health hazards they present. Mr. Brannon asked about the epidemiological and low-level exposure standards used to set this standard. Mr. Johansen acknowledged that the effects of low level radiation are still debated. Mr. Brannon asked if LANL is getting better at detecting the low limits. Bruce Gallaher, LANL, responded that LANL uses the well-recognized lab at the University of Miami because they are experts on lower detection limits.

Joni Arends, CCNS, asked when was tritium first detected in Otowi-1. Mr. Johansen said that the first findings were made by NMED from sampling in 1998 that was reported early 1999. In 1999, Otowi-1 well was shut down for a while, then LANL sampled in June 2000 and found tritium which was the main topic of discussion at the October Board meeting. NMED and LANL have done more sampling since then, and will continue the high frequency sampling.

A. BOH Environmental

Stephen L. Tujague, President, described the research and development process for the ARROW-PAK™ container. The container can be used to ship and bury waste. DOE has approved it as a treatment for low-level waste on specific projects at Hanford and Oak Ridge.

BOH Environmental is developing a container to ship TRU waste to WIPP called the BOH PAK. Rocky Flats and other DOE facilities have shown interest in using the new BOH container to ship to WIPP. The proposed BOH PAK will contain an ARROW-PAK contained in a steel transport container for compliance with WIPP and other applicable requirements.

Mr. Johnston asked about the hydrogen gas build up in these containers. Mr. Tujague responded that several approaches are being taken to resolve this problem. If the Environmental Protection Agency and the New Mexico Environment Department accepted the BOH PAK as a treatment process, then the hydrogen gas test is not needed. If this test is not required, the Department will have considerable savings.

Mr. Johnston asked how BOH expected to ship the containers. Mr. Tujague replied that the containers would be shipped by truck. Mr. Baca explained that rail is much more expensive because they must be dedicated trains. The reason for this new method of treating waste is not only for ease of handling but is a reduction in space is needed for storage at WIPP. In WIPP, the salt will encapsulate the material put in WIPP and the environment will be safe for hundreds of years.

Mr. Chandler asked about the amount of plutonium that can be put in each container. Mr. Tujague responded that less than 13 grams would be placed in each container.

Ms. Hoard asked about the fire resistance properties of the ARROW-PAK™. Mr. Tujague responded that 800⁰ Farenheight for thirty minutes is standard for Land Disposal Restriction. The outer casing burns at temperatures above 650⁰ when oxygen is present. When the ARROW-PAK™ monolithic material burns it creates a thick billowing smoke (consisting of carbon and hydrogen) that will take up the oxygen in a closed space and put out the fire. Thus fire is not of great concern when considering the ARROW-PAK for use at WIPP.

Dr. Berting asked about the assumption that hydrogen is generated when plutonium and TRU waste is mixed with other materials. Mr. Baca responded that the assumption that hydrogen is generated when the material is not clumped, it is equally mixed. The ARROW-PAK™ container is a safety pressure vessel so it cannot generate enough hydrogen beyond 60 psi to be a problem.

Dr. Berting asked about the 300-year test of disintegration of the plastic liners over time. Mr. Tujague replied that the plastic used in the ARROW PAK™ is a higher quality and thickness than everyday garbage bags and is not subject to ultraviolet light in the ARROW PAK™.

Mr. Johnston commented that if LANL could ship the higher wattage material using these containers, DOE would realize considerable savings. The Department of Transportation allows the drums to be compacted at the rate of 4:1. Mr. Tujague added that DOE considers this a treatment process because there is no leaching.

Mr. Garcia asked if this was BOH Environmental's first presentation to a DOE facility. Mr. Tujague responded that in 1990, BOH began working with DOE at various facilities. Hanford and Oak Ridge have both used the ARROW PAK™ system for specific projects, deploying five times for approximately 1000 drums.

D. Chair's Report

Ms. Manzanares invited Board members to attend the SSAB Chairs meeting from February 7-10 in Las Vegas, Nevada. She announced that she, Jim Johnston, Dorothy Hoard, and Jim Brannon would attend this meeting and tour Yucca Mountain.

Ms. Manzanares announced that she and Mr. Garcia are interviewing prospective Board members. She hoped that some new members will attend the February Board meeting.

A. DOE Report

Mr. Vozella noted that since the last meeting, the Board has received the responses to two recommendations. The first response was to Recommendation 2000-3 concerning Santa Fe

Alloys company. Mr. Vozella reported that Albuquerque Operations is reviewing its contracts. The Safety Manager at DOE Headquarters received this recommendation and the suggestion that other sites also review their contracts. The response to Recommendation 2000-4 concerns expediting waste from LANL to WIPP. He said that LANL received \$15 million for fire risk mitigation at TA-54. This money will not expedite the shipment of waste but will make safer its temporary storage. Mr. Vozella said that LANL had not received additional funds to accelerate waste shipments. Mr. Chandler said that he talked with Veronica Rodriguez from Senator Domenici's office. The Senator's DOE expert, Pete Lyons, said that DOE Headquarters supported money being used for cleanup at other sites to quickly close them. Then more funds will be available to clean up and ship LANL's legacy waste.

A. Stewardship Principles

Mr. Brannon said that the SSAB conference on stewardship developed the principles that were sent to Board members. The conference requested that all the Site-Specific Advisory Boards adopt these principles so they can be sent to DOE Headquarters as a joint recommendation. Jim Brannon moved, seconded by Fran Berting, that the Board adopt the stewardship principles. The motion passed 7-0. ACTION: Ms. Manzanares asked the staff to prepare a letter for her signature to cover the Board's action.

A. Bylaws Committee

Dr. Berting described as a work in progress the draft of the Bylaws sent to the Board members. She presented the most important changes. Ms. Hoard added that the Bylaws Committee discussed the use of Robert's Rules of Order. Mr. Chandler said that the Bylaws could specify that Robert's Rules of Order could be stated as the default and consensus used only for recommendations to the Department of Energy. Dr. Berting said that the Board might receive another draft at the February Board meeting.

H. Environmental Restoration Committee

Dr. Berting distributed a written copy of her report. She presented for the first reading, the recommendation on Acid Canyon. Dr. Berting suggested some editorial changes to make the text easier to read. Joni Arends, CCNS, asked for the Committee's rationale for selecting option #2. Dr. Berting responded that this option included cleaning up the hotspots but does not require that the total habitat be destroyed.

Mr. Reneau said that the option is based on reducing the dose that the public might receive in an extended backyard scenario. Ms. Arends was concerned about the pathway that the tritium might follow to the Rio Grande. Ms. Hoard explained that if the plutonium moved, due to the water and soil dispersion, it would be reduced to trace levels. If LANL cleaned up all the sources, the habitat would be destroyed. Mr. Vozella said that LANL is doing further study on the tritium findings. He stated that there is no public health risk in the canyons if there were any transport of these contaminants.

I. Waste Management Committee

Mr. Chandler presented for the first reading the ARROW-PAK™ recommendation. He explained that DOE is looking at this technology. The purpose of this recommendation is to expedite shipping to WIPP the waste in temporary storage at TA-54.

Mr. Vozella said that a source of tritium is the Radioactive Liquid Waste Treatment Facility at TA-50. The discharge water flows into Mortandad Canyon. The Waste Management Committee was briefed on January 22 on what LANL is doing to minimize and achieve further reduction in the release of this contaminant. Mr. Vozella emphasized that all these releases are below EPA standards. Mr. Chandler added that the tritium releases are less than 4,000 which is of the magnitude of several 10s of thousands less than the 20,000 picocuries required by the drinking water standard. The outfall from the Waste Treatment plant contains strontium 90, perchlorates, nitrates and TRU waste in the stream. However, nothing exceeds the tritium standard or other components of the effluent permit. There are no standards or permit requirements for perchlorates. Mr. Chandler stated that he believes LANL needs more money to bring down these effluent levels even further. The technology and the processes exist to achieve this goal.

A. Community Outreach Committee

Mr. Johnston reported that staff sent out 140 letters and made 60 calls to request nominations to the Board. Four potential Board members will be interviewed on January 25 and another four on February 1.

The Board's website has been updated and a new carrier has been found. The most recent edition of the newsletter is available on line. Mr. Johnston will do the KRSN interview on January 25. He talked with PAC 8 to see if he can get a spot for the Board. On April 18, a Board member will participate in the Santa Fe High School Earth Day celebration. Mr. Johnston is recruiting a high school student to serve on the Board.

A. Budget Committee

The Budget Committee Chair, Mr. Martinez, resigned from the Board. Ann DuBois made the report in his stead. She noted that the equipment expenses that were supposed to be paid from last year's budget were charged to this year's funds. In July, the Budget Committee will begin the process of closing the fiscal year's budget.

I. Board Comments

James Bearzi, NMED, announced that on January 22 his Department released the standards on risk-based screening. Mr. Brannon requested that he include information on this topic during his February 28 presentation to the Board.

Ms. Manzanares announced that the Board would hold a Retreat when the new Board members are available.

V. ADJOURNMENT

Ms. Manzanares adjourned the meeting at 9:00 PM. The next meeting will be February 28 at the Northern New Mexico Community College in Española.

The minutes are an accurate and complete summary of the matters discussed and conclusions reached at the Northern New Mexico Citizens' Advisory Board meeting held on January 24, 2001.

Certified by:


Menice S. Manzanares, Chair Date

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