National Institute for Occupational Safety and Health (NIOSH)

Town Hall Meeting for Lawrence Livermore National Laboratory

Meeting Date: Tuesday, November 17, 2015; 7:00 p.m.

Meeting with: Current and former workers from Lawrence Livermore National Laboratory

NIOSH Team:

Stuart Hinnefeld, NIOSH, Director

LaVon Rutherford, NIOSH, Special Exposure Cohort (SEC) Team Lead

Mark Lewis, Advanced Technologies and Laboratories International, Inc. (ATL), Senior Outreach Specialist

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Proceedings

Stuart Hinnefeld began the meeting at 7:00 p.m. at the Robert Livermore Community Center in Livermore, California, with approximately 15 people in attendance. He stated that he is the Director of the Division of Compensation Analysis and Support (DCAS) at the National Institute for Occupational Safety and Health (NIOSH). NIOSH is part of the Centers for Disease Control and Prevention (CDC) an agency within the Department of Health and Human Services (DHHS). Mr. Hinnefeld explained that NIOSH performs the responsibilities of DHHS under the Energy Employees Occupational Illness Compensation Program Act (EEOICPA, or the Act).

Mr. Hinnefeld stated that the primary reason that he and his colleagues were in California was to attend the public meeting of the Advisory Board on Radiation and Worker Health in Oakland on November 18 and 19. He noted that NIOSH would give a very brief status update on the Special Exposure Cohort (SEC) petition evaluation for Lawrence Livermore National Laboratory (LLNL) at 4:45 p.m. on November 18. Following the LLNL update, the Advisory Board would hear public comments from stakeholders.

Mr. Hinnefeld explained that NIOSH decided to meet with current and former workers from LLNL to talk about EEOICPA, and to give people the opportunity to talk about their work at the site. He added that only non-classified information could be discussed during the meeting, but that NIOSH personnel could arrange interviews to discuss classified information in secure areas onsite at LLNL. NIOSH personnel are interested in talking with any current or former employees who may

have information that could help in the evaluation of the SEC petition, and have been conducting secure interviews on site.

An attendee asked how he could talk about classified information if he was retired and no longer had a security clearance.

Mr. Hinnefeld responded that DOE would reinstate his clearance for one day so he could go onsite to talk with NIOSH and Advisory Board personnel.

Mr. Hinnefeld began his presentation:

EEOICPA is an occupational illness compensation program for Department of Energy (DOE) employees, contractors, and subcontractors who may have become ill as a result of their employment at facilities in the nuclear weapons complex, including Lawrence Livermore National Laboratory (LLNL). The program also includes some private companies, or Atomic Weapons Employers (AWE), that had contracts with DOE's predecessors to provide specialized work.

Three federal agencies have responsibilities under the Act:

- The Department of Labor (DOL) receives all claims, and also verifies employment and medical diagnoses;
- DOE provides employees' personnel monitoring records and other records; and
- NIOSH performs radiation dose reconstructions for Part B cancer claims, develops the
 documents used during dose reconstruction, and evaluates SEC petitions when dose
 reconstructions cannot be done for certain groups of workers.

The Act provides for compensation of claims under two distinct parts: Part B provides compensation to nuclear weapons workers for radiation cancers, beryllium disease, as well as silicosis for certain employees the Nevada and Amchitka test sites; Part E provides compensation for any caused by exposure to toxic materials.

A retired employee of LLNL stated that he had spent many years during his career working at the Nevada Test Site during test shots. He asked how he could prove that an illness could have been caused by his work at the Test Site.

Mr. Hinnefeld responded that there should be records showing that he had been involved in activities there. There is a large period of time at the Nevada Test Site during which certain employees are covered by the SEC if they have specific cancers. NIOSH has a fair amount of information about the shots from which they can conclude an employee's radiation exposure if the employment does not fall within the SEC timeframe.

Mr. Hinnefeld explained that one of the reasons that the Act had been established was because DOE contractors and DOE routinely challenged and opposed occupational claims made by workers. Since there were a lot of resources on the DOE side, and not so much for the claimant, that was not a fair fight. The intent of EEOICPA is that the burden of proof lies with the

government, not the claimant. However, the claimant does have opportunities during the process to give information regarding his or her work history and exposures. And, since the work was secret, the survivors of workers often have no idea what their relative did and where they worked. NIOSH has done a lot of research to get specific information about the work processes and the potential radiation exposures at the sites.

Mr. Hinnefeld continued his presentation:

NIOSH created DCAS to handle the specific responsibilities of the Act. Most DCAS employees have a background at one of the DOE nuclear weapons sites.

Compensation under Part B is a lump sum payment of \$150,000, plus medical benefits if the cancer is determined to be "at least as likely as not" caused by a worker's occupational radiation exposure, or if the employee is part of an SEC class.

NIOSH only does dose reconstructions for Part B cancer claims. During the dose reconstruction process, NIOH uses all available worker and workplace information. NIOSH evaluates all doses of record for data quality shortcomings, and also evaluates the potential for undetected radiation dose. NIOSH dose reconstructors use standard tools to evaluate the "missed dose."

Mr. Hinnefeld explained that the dose reconstruction process begins when NIOSH receives the claim from DOL with information about the worker's cancer and employment. NIOSH then receives the individual dosimetry and bioassay data from DOE. NIOSH conducts a telephone interview with the worker, or with survivor claimants if the worker is deceased. NIOSH also researches the site documents for specific information about the facilities and programs in which the employee may have worked so that the dose reconstructor can calculate the highest possible radiation dose for the worker.

An attendee stated that he wore a dosimeter at LLNL, and another dosimeter when he worked at the Nevada Test Site. He asked if the doses from the separate dosimeters are combined.

Mr. Hinnefeld responded that NIOSH combines the doses. If LLNL does not have the employee's NTS records, NIOSH will check with the Test Site. NTS has a lot of external monitoring records, so NIOSH also can produce those.

Mr. Hinnefeld explained that NIOSH also uses standard tools to estimate the worker's "missed dose." When the dose record shows "0," NIOSH uses the minimum detectable level of the dosimeter to apply that amount of dose.

An attendee commented that he went to Oak Ridge and Los Alamos National Laboratory, and wore dosimeters at those places. He was also sent to the Marshall Islands.

Mr. Hinnefeld answered that NIOSH would request the dose records from Oak Ridge and Los Alamos, and from NTS for the Marshall Islands records. The DOE sites are very responsive when NIOSH requests the employee's dose records.

When NIOSH conducts the telephone interview, the worker is asked about specific job assignments, work areas, radiation monitoring and protection, and radiation sources where they worked.

NIOSH also uses specific cancer risk models to determine the worker's dose. The risk models consider many factors, such as age at exposure, age at diagnosis, gender, ethnicity, latency, radiation energy, etc. The annual organ dose for the worker's cancer is computed from the date of first employment to the date of the cancer diagnosis.

NIOSH uses all of this information to reconstruct the worker's radiation dose to find the probability of causation (POC) that the cancer was "at least as likely as not" related to workplace radiation exposure. If the POC is greater than 50%, then the case can be compensated.

An attendee commented that not a lot of medical research has been done on the synergistic effects of workers' simultaneous exposures to chemicals and radiation. He asked whether NIOSH considers the synergistic effects of the nuclear worker's chemical and radiation exposures.

Mr. Hinnefeld responded that NIOSH does not consider synergistic effects.

Mr. Hinnefeld continued the presentation:

If NIOSH concludes that there is not enough data to reconstruct a worker's dose with "sufficient accuracy," then the worker may be eligible for inclusion in the SEC.

NIOSH prefers to use individual monitoring data during dose reconstruction if it is available and of sufficient quality. If individual data is not available, then NIOSH can use data from area dosimeters, radiation surveys, and air sampling. NIOSH can use source term data to calculate the radiation dose if no monitoring data is available.

NIOSH calculates the annual organ dose of the worker's specific cancer from the date of first employment to the date of the cancer diagnosis.

NIOSH sends a draft dose reconstruction report to the claimant to review, and then contacts the claimant for a closeout interview.

An attendee asked, "What is the average time for NIOSH to complete a dose reconstruction?"

Mr. Hinnefeld responded that the average time is now less than five months from the time the claim is received from DOL until the draft dose reconstruction report is completed, unless there is a technical question.

Another attendee asked if dose reconstructions are always based on dosimeters. He stated that LLNL employees' badges were collected every six months to a year. As a construction worker working for a contractor, sometimes his badge would not be collected for two years. Sometimes an

inspector would come around to collect their badges, and then he would be without one for a while until he went to the badge office to ask for another one.

Mr. Hinnefeld answered that NIOSH has ways to deal with missing records. There is enough data on the different areas so that a dose can be calculated any way.

The attendee stated that he might have worked in a different building every day. He added that he had one dosimeter for two years.

Mr. Hinnefeld responded that NIOSH looks at how high the dose could have been, based on the worst case scenario.

Mr. Hinnefeld continued his presentation:

A class of employees may become members of the SEC when it is not possible to reconstruct radiation doses with sufficient accuracy for workers in specific facilities or areas during specific time periods. To be eligible for an SEC class, a worker must meet the class definition, have 250 days of employment at a covered facility, and have one of 22 cancers specified in the Act.

A petitioner can be a worker or former worker included in the proposed class, or survivor(s) of a deceased employee; a union representing employees in the proposed class; or a person authorized by one or more employees in the proposed class or their survivors.

The petitioner must provide a valid reason, or basis, why dose reconstruction cannot be completed with sufficient accuracy for a proposed class of workers in a facility during a certain time frame. NIOSH then determines if the petition qualifies for evaluation.

If the petition qualifies, then NIOSH evaluates all of the data they have to determine whether it is feasible to reconstruct radiation doses for the proposed class of workers.

NIOSH presents the petition evaluation to the Advisory Board. If the Advisory Board agrees with NIOSH, then they make their recommendation to the Secretary of HHS. If they do not agree with NIOSH, then they create a work group, or committee, to further investigate the petition.

When the Advisory Board makes its recommendation to the Secretary of HHS, the Secretary either designates the SEC class or recommends to deny the class.

An attendee asked if there is a class for family members who also have cancer. He explained that his father had passed away in 2010 and had been compensated. His mother had also passed away after battling breast cancer for fifteen years. She often wondered if she had been contaminated from doing his father's laundry for over 30 years.

Mr. Hinnefeld responded that the law only covers employees.

Mr. Hinnefeld stated that there is an SEC class for all LLNL workers from 1950 through 1973 who worked a total of 250 days and had one of the 22 cancers specified in the Act. By definition, the SEC class means that there is some piece of the dose during that time period that cannot be

reconstructed. So for workers with other cancers, the doses still must be reconstructed without the missing piece of dose.

An attendee asked if NIOSH makes assumptions when there are no available records. He stated that he had made at least 50 trips to the Marshall Islands over a 12-year period, during which he did not wear a dosimeter.

Mr. Hinnefeld responded that there is a lot of information about the Marshall Islands test shots.

NIOSH is currently evaluating a second petition for LLNL to add an SEC class for 1974 through 1995. The NIOSH team has been to the site to conduct interviews with current and former workers, and may interview additional workers before the evaluation process is finished. NIOSH is also waiting on additional information from the site.

Mr. Hinnefeld explained that the reason 1995 is the cut-off date for the petition is that the establishment of the Price-Anderson Act required contractors to do a better job of collecting the evidence showing that they were doing what they were required to do.

Mr. Hinnefeld stated that the site profile for LLNL will likely also be updated as a result of the SEC petition evaluation. If any of the new information causes a significant increase in dose, NIOSH will look at any dose reconstructions that were completed with a POC less than 50% to determine if the change in dose would be significant enough to make the claims compensable.

NIOSH is also revising its site profile for Sandia-Livermore National Laboratory based on new information found during NIOSH data collection efforts at that site.

An attendee asked if a claim that was denied at less than 50% POC will be looked at again if it is for an SEC-covered cancer (non-Hodgkin's lymphoma), if the employee becomes part of the new SEC class.

Mr. Hinnefeld responded that NIOSH can do dose reconstruction for any cancer, but only 22 cancers are covered under the SEC. He added that DOL would automatically reopen claims that would be affected if the SEC class is recommended.

Another attendee stated that she had become ill because the water at the Lab was contaminated with benzene. She had sent the report to DOL. She had worked before the water was cleaned up. (Inaudible.) She commented that it is difficult to be in a catch-22 and have to use two insurances.

Mr. Hinnefeld responded that the same situation was encountered at the Weldon Springs site in Missouri. After DOE closed the site, they gave it to the Army and Agent Orange was being disposed of there.

Another attendee asked if the DOL would contact the claimant's survivor if the claimant has died since the claim was denied.

Mr. Hinnefeld replied that DOL would look for survivors in those cases.

An attendee commented that he thought the program should take combined chemical and radiation exposures into consideration. He stated that he had worked with highly toxic chemicals along with the radiation he encountered in his work, including methyl-ethyl ketones, toluene, carbon tetrachloride, and others.

Mr. Hinnefeld responded that while he didn't disagree, the science hasn't been done. He added that he cannot explain the DOL handles those claims. Mr. Hinnefeld explained that DOL had been directed to establish an advisory board to monitor the Part E claims process, but members for that board have not been appointed yet.

Another attendee asked if there had been any discussion about combining that board with the Advisory Board on Radiation and Worker Health.

Mr. Hinnefeld replied that was probably not going to happen because most of the current Board's experience had to do with radiation.

Another short discussion ensued regarding the synergistic effects of chemicals and radiation. One attendee noted that an advocacy group was working on a proposal for a statutory change to include the synergistic effects of chemical and radiation exposures. He added that it needs to be addressed in order to protect workers' health.

An attendee asked Mr. Hinnefeld if NIOSH would consider a partial time period for the SEC.

Mr. Hinnefeld responded that was a possibility if NIOSH only found evidence that dose could be reconstructed for part of the proposed class period.

Mr. Hinnefeld concluded his presentation by providing the attendees with contact information for NIOSH. He stated that anyone could submit documents or statements to the NIOSH email address. Mr. Hinnefeld asked if anyone had other questions.

An attendee asked how long NIOSH has been evaluating the proposed SEC class.

Mr. Rutherford replied that NIOSH has been evaluating the petition for almost a year, and expects to make a recommendation at the Advisory Board's February 2016 meeting.

Mr. Hinnefeld introduced Eileen Montano, who serves as the Local Coordinator for the Former Worker Medical Screening Program. He asked if she would like to talk about the program for a moment

Ms. Montano stated that the program is available to all former workers from the DOE nuclear weapons complex. Former workers can be screened every three years, including vitals and a chest x-ray, as well as other tests.

Mr. Hinnefeld adjourned the meeting at 8:12 p.m.