THE ADVISORY BOARD ON RADIATION AND WORKER HEALTH
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
CENTERS FOR DISEASE CONTROL AND PREVENTION

Summary Minutes of the Forty-fourth Meeting
February 7-9, 2007

The Forty-fourth Meeting of the Advisory Board on Radiation and Worker Health (ABRWH or the Board) was held February 7 through 9, 2007 at the Cincinnati Marriott Northeast in Mason, Ohio. The meeting was called by the Centers for Disease Control and Prevention's (CDC) National Institute for Occupational Safety and Health (NIOSH), the agency chartered with administering the ABRWH. These summary minutes, as well as a verbatim transcript certified by a court reporter, are available on the internet on the NIOSH/Office of Compensation Analysis and Support (OCAS) web site located at www.cdc.gov/niosh/ocas.

Those present included the following:

Board Members:

Dr. Paul Ziemer, Chair; Ms. Josie Beach; Mr. Bradley Clawson; Mr. Michael Gibson (telephonically); Mr. Mark Griffon; Dr. James Lockey; Dr. James Melius; Ms. Wanda Munn; Dr. John Poston; Mr. Robert Presley; Dr. Genevieve Roessler; and Mr. Phillip Schofield.

Designated Federal Official: Dr. Lewis Wade, Executive Secretary.

Federal Agency Attendees:

Department of Health and Human Services:

Mr. Larry Elliott, Ms. Chris Ellison, Mr. Stuart Hinnefeld, Dr. James Neton, Mr. Mark Rolfes, Mr. LaVon Rutherford, Dr. Brant Ulsh (NIOSH); Ms. Emily Howell, Ms. Liz Homoki-Titus (Office of General Counsel); Ms. Chia-Chia Chang (Office of the Director of NIOSH); Mr. Jason Broehm (CDC Washington).

Department of Labor: Mr. Jeff Kotsch.

Department of Energy: Mr. Glenn Podonsky, Ms. Libby White.

Contractors:

Ms. Kate Kimpan, Oak Ridge Associated Universities.

Dr. Hans Behling, Ms. Kathy Behling (telephonically); Dr. Arjun Makhijani and Dr. John Mauro, Sanford Cohen & Associates.

Congressional Staff Members:

Ms. Bethany Bassett (Senator Edward Kennedy) via phone; Ms. Deb Detmers (Congressman John Shimkus); Ms. Erin Minks (Senator Ken Salazar) via phone; Mr. Robert Stephan (Senator Barack Obama) via phone; and Ms. Portia Wu (Senator Edward Kennedy) via phone.

Other Participants:

See Registration

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Wednesday, February 7, 2007

Dr. Paul Ziemer, Board Chairman, called the meeting to order. His opening remarks included a welcome to new Board members. **Ms. Josie Beach** was introduced as a nuclear chemical operator and lead hazardous waste trainer with more than 20 years experience at the Hanford facility. **Mr. Phillip Schofield** joined the Board from Los Alamos National Laboratory, where his 21 years experience included handling of plutonium and americium.

Dr. Lewis Wade, Designated Federal Official, joined in welcoming the new members, and thanked the entire Board for their service.

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NIOSH PROGRAM UPDATE

Mr. Larry Elliott,
NIOSH/OCAS

Mr. Elliott first announced the addition of two new positions on the NIOSH team. **Ms. Laurie Ishak-Breyer** will move into the new position of SEC counselor. Her duties will involve assisting individuals who would like to submit an SEC petition, working to ensure their understanding of the petition process, and the development and submission of their petition.

Working with **Ms. Ishak-Breyer** is new member **Ms. Denise Brock**, who will serve as ombudsman for Subtitle B dose reconstruction and SEC petition processing. **Ms. Brock**'s duties will include providing advice to SEC petitioners in compiling materials and documentation required for filing their petition, assisting with their presentations to the Board,

and assisting Subtitle B claimants with the dose reconstruction process.

While no dates have yet been set, meetings are being planned to inform the public about the SEC petition process. **Mr. Elliott** urged anyone desiring a meeting in a given area to contact **Ms. Brock** or **Ms. Ishak-Breyer** for assistance in the organization of such.

In his update **Mr. Elliott** announced the Department of Labor has referred 23,085 cases to NIOSH for dose reconstruction. In summary, 81 percent of those cases (18,659) have been returned to DOL; 16,664 with a DR report, 1,343 pulled by DOL for SEC evaluation, and 652 pulled by DOL for other reasons. Remaining at NIOSH for dose reconstruction are 4,213 cases, 18 percent of the total. The final one percent (213) of the cases have been administratively closed.

Mr. Elliott explained that the 16,664 cases returned to DOL for a final adjudication reflected 4,594 (28 percent) with a POC of greater than 50 percent and 12,070 (72 percent) with a POC of less than 50 percent. **Mr. Elliott** discussed the dose estimate types under which the cases have been completed, providing numbers of each of the various types (overestimates, underestimates and full reconstructions).

The 4,213 cases remaining at NIOSH for dose reconstruction were broken down as follows: 1,023 cases have been assigned to a health physicist for dose reconstruction; 878 draft DR reports are in the hands of claimants and NIOSH is awaiting the return of their executed OCAS-1 forms; 2,312 cases are in the development stage or awaiting assignment. **Mr. Elliott** added that 1,896 cases are more than one year old.

Reporting on NIOSH's efforts to complete the first 5,000 claims, **Mr. Elliott** indicated 4,315 have been sent to DOL for adjudication, and only 81 remain awaiting dose reconstruction. The other 604 cases include administratively closed, SEC evaluations, cases pending return of OCAS-1 forms, et cetera.

Mr. Elliott used various graphs to illustrate cases completed by NIOSH tracking number, submittals versus production, total administratively closed records, receipt and completion of cases returned by DOL for reworks. **Mr. Elliott** reiterated that most reworks are the result of changes reported by claimants rather than technical errors.

There are currently 322 outstanding requests to DOE for exposure records, only 70 of which are more than 60 days old. NIOSH has also requested large site-specific data sets from DOE to be used in developing coworker models to fill information gaps across sites. Six sites were listed.

There are currently 1,342 claims at DOL for class member status determination and claim adjudication as a result of recent additions of SEC classes.

Reporting on technical document development activities, **Mr. Elliott** announced there are currently 150 Technical Basis Documents and 60 Technical Information Bulletins in use. ORAU is in various stages of development of 12 additional TBDs.

Battelle's technical support and dose reconstruction activities have resulted in two approved TBDs. Of the 1,400 claims assigned for their dose reconstruction, 221 have been submitted for technical review and 312 DR reports have been provided to claimants. **Mr. Elliott** explained the SEC rule provides that when it has been deemed a dose reconstruction from a particular site cannot be done, it is identified as a potential Section 83.14 candidate. Battelle has tentatively identified 12 such sites.

Mr. Elliott noted that in recent meetings he had updated the Board on construction worker dose reconstructions. NIOSH has dealt with 4,604 claims with construction trades job titles in their work histories. DOL had been forwarded 3,881 claims with completed DRs, 26 percent of which were compensable. NIOSH is working on the dose reconstructions of the remaining 723 cases. Unless instructed to the contrary, **Mr. Elliott** indicated he planned to drop this from his future briefings.

The 80 cases the Board has audited to date included seven with construction trades job titles. The 40 cases currently under Board review includes 16 for construction trades workers.

Mr. Elliott explained that when NIOSH makes a change in a technical approach to dose reconstruction or in risk models for IREP, they prepare Program Evaluation Reports, or PERs. Seven such reports have been prepared to date on various specific issues. Occasionally it is necessary to develop a Program Evaluation Plan, or PEP, in order to describe the affected claimant population and technical approach to evaluation of their cases prior to completion of a Program Evaluation Report. To date, two PEPs have been completed. **Mr. Elliott** noted all PERs will not require a PEP, but additional PERs/PEPs will be developed in the future as needed.

NIOSH communication initiatives included the revised initial communication between the claimant and NIOSH, the "Claim for Dose Reconstruction Acknowledgement Packet", which began distribution in January, 2007. Several Board comments have been received on the "Draft Dose Reconstruction Report" language and are being worked into the

current draft. The dose reconstruction information video has been completed and will be distributed at public meetings, DOL resource centers, and upon request.

Other NIOSH accomplishments in 2006 included progress on completion of the first 5,000 claims; completion of a record 5,784 initial draft DRs to claimants; 82 percent of DRs completed within 60 days of assignment to a reconstructor; 75 percent of reworks completed and returned to DOL within 60 days of their receipt; eight new classes from eight sites added to the Special Exposure Cohort.

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Discussion Points:

- Future case load projections;
- How that may be affected by DOL Town Hall meetings;
- Availability of a listing for PERs in development;
- Bases for DOL returning cases to NIOSH for rework;
- How returned cases are handled;
- Presentations on projections for SEC petitions and site profiles might assist the Board in envisioning its future work.

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DOL PROGRAM UPDATE

Mr. Jeffrey Kotsch,
Department of Labor

Mr. Kotsch reiterated the two parts of the program under DOL administration, Part B including cancer, beryllium disease, silicosis, and the Department of Justice RECA program; Part E primarily addresses exposure to toxic materials and was originally under the Department of Energy. **Mr. Kotsch** provided statistics on cases and claims under both Parts B and E.

Mr. Kotsch reported that as of January 24, 2007 DOL has disbursed a total of $2.4 billion in compensation under the two parts. Under Part B $1.3 billion has been paid for cancer claims and $216 million for RECA. Part E payments total $556 million. Medical payments under both parts totals $128 million. Individual payees under Part B totals 22,417, and 4,596 under Part E.

Explaining there is always some variance between NIOSH and DOL numbers, **Mr. Kotsch** presented graphics illustrating final decisions, recommended

decisions, cases awaiting dose reconstruction and those pending DOL initial action. **Mr. Kotsch** also demonstrated the reasons for claim denials and the numbers comprising each category. Other slides described NIOSH referral case status, dose reconstruction case status and results of dose reconstruction cases.

Addressing SEC-related cases, **Mr. Kotsch** provided statistics on cases withdrawn for SEC review, final decision approvals and denials, recommendations and pending cases.

Mr. Kotsch reported NIOSH case-related compensation totaled $667 million, which included $572 million on DR cases and $95 million on added SEC cases.

Discussing the reasons for returning cases to NIOSH, **Mr. Kotsch** explained a number of reasons may be involved. He listed medical and employment factors as major reasons, and broke out the individual factors most prevalent in each of the two categories. He noted that when additional survivors are located NIOSH is only asked to interview them if the POC is less than 50 percent.

With Fernald, Rocky Flats and Mound on the agenda for discussion during this meeting, **Mr. Kotsch** provided numbers on claims, DRs, decisions and compensation payments for each of those sites.

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Discussion Points:

- The difference between the number of denials shown by NIOSH versus those shown by DOL is significant, but may reflect a number of cases that do not have a final decision.
- The number of technical reworks and reasons for the requests.

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DEPARTMENT OF ENERGY REMARKS

Mr. Glenn Podonsky, Chief
Health, Safety and Security
Department of Energy

Mr. Podonsky described the DOE reorganization which had created his office some five months earlier, explaining some of his responsibilities. He emphasized DOE's desire to provide NIOSH, the Board and others with records and data that have been requested.

Mr. Podonsky remarked that in the past months his office has coordinated within DOE and with DOL to improve access to records previously unavailable. He cited specifically the Los Alamos Medical Center. He also addressed the Mound records, asserting that not only the Board but the public needs to know what is in them, though the price of accessing and processing them may be steep.

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Discussion Points:

- Oversight committee to ensure records are made available as soon as possible;
- Department of Labor involvement;
- Are union representatives included with Labor and Energy in the process;
- Retrieval of Mound records from Area G;
- Risk assessment as part of the cost evaluation;
- DOE moratorium on burying records;
- Records may have become contaminated after shipment;
- Representation of **Mr. Podonsky**'s office at future meetings;
- Destruction versus preservation of records;
- Records retention and records destruction schedule;
- Possible destruction of buildings and their respective logbooks;
- Quality of aging records, as well as quality of reproduced records;
- Likelihood of records retained on obsolete technology being unreadable.

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SUBCOMMITTEE ACTIONS

Mr. Mark Griffon,
Subcommittee Chair

Mr. Griffon reported that the subcommittee had earlier asked NIOSH to provide additional information on approximately 60 cases selected as potential review candidates. After that further screening the subcommittee was recommending 28 cases to the Board as their seventh set of review subjects.

Dr. Ziemer clarified that the cases proposed by the subcommittee is their recommendation, but Board action will be deferred until later in the meeting so that members may have an opportunity to review the cases in more detail.

Mr. Griffon reported the subcommittee is underway on the fourth set matrix, explaining the process involves the subcommittee, SC&A and NIOSH. Resolution is near, and it is anticipated deliberations on this set can be concluded at a subcommittee meeting in April.

Further updates revealed the fifth set matrix is almost ready to go to NIOSH. SC&A has completed review of the sixth set and is ready to meet with individual Board teams to discuss their findings.

Addressing the issue of blind reviews, **Mr. Griffon** reminded the Board he had volunteered to draft a set of protocols for that task. He indicated he anticipates such can be accomplished with the eighth set of reviews. Advanced reviews were discussed briefly as a future undertaking. **Mr. Griffon** assured a report will be forthcoming as the project develops, adding that Board input would be welcome.

New Board members **Ms. Beach** and **Mr. Schofield** were assigned to existing review teams by **Dr. Ziemer**, being mindful of their conflicts of interest.

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SELECTION OF REMAINING PROCEDURES TO BE REVIEWED BY SC&A UNDER TASK III

Ms. Wanda Munn,
Procedures Review Workgroup Chair

Ms. Munn declared she had been let down by her computer as her presentation was coming up on the screen as all Y's. She had hoped copies currently being made would be available soon as they were tables SC&A had submitted on procedures previously reviewed under Task III, procedures reviewed as part of other tasks, and those not yet reviewed.

Dr. Ziemer offered to help **Ms. Munn** "stall" by observing that there are actually several charts that might prove helpful to the Board in their decision-making process. Therefore the Board may prefer to follow the same route taken by the subcommittee earlier, simply identifying the procedures recommended by the workgroup. That would allow the Board members to retrieve their electronic versions of various files and review them prior to making a decision.

Ms. Munn read a list of eight procedures contained on Table 2 which represented procedures reviewed under other tasks. It had been suggested those procedures be incorporated into the category of "Reviewed". She noted the working group had agreed with the

suggestion and was recommending they be included as Task III reviews completed by SC&A during FY 2007.

Six additional procedures had been suggested by SC&A for review. **Ms. Munn** reported the working group had chosen only two of those, their rationale being that a group of revisions or new OTIBs are in process at NIOSH which promise to be of considerable interest to the Board. The six procedures chosen by the working group for recommendation were identified for the Board.

It was agreed action would be deferred until Board members and the public could be provided with the written information.

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PUBLIC COMMENT SESSION

Public comment was solicited on the first two days of the meeting. Members of the public who spoke on this day are listed below. A full transcript of their remarks is available on the NIOSH/OCAS web site at www.cdc.gov/niosh/ocas.

Ms. Dorothy Clayton, NTS survivor; Mr. John Funk, NTS claimant; Mr. Vincent Kutemperer; Mr. John Ramspott, former General Steel Industries employee; Dr. Dan McKeel, SINuW; Mr. Larry Burgan, Dow/Spectrulite claimant; Mr. Randall Cox.

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With no further public comment offered, the Board officially recessed until 8:45 a.m.

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Thursday, February 8, 2007

Dr. Ziemer called the meeting to order with a reminder for everyone to register their attendance, and announced NIOSH personnel's availability for claimant assistance.

Dr. Wade thanked everyone for their attendance. Before addressing specific site issues, he reiterated an explanation of conflict of interest and the Board's manner of dealing with it.

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FERNALD SEC PETITION

NIOSH Evaluation Report

Mr. Mark Rolfes
NIOSH/OCAS

Mr. Rolfes began with a brief history of the Feed Materials Production Center, also known as Fernald. He covered the beginning of construction in 1951, with all plants operational by 1954, through its production shutdown in July of 1989. He described its purpose as a supplier of high purity uranium metal fuel cores to plutonium production reactors at Savannah River and Hanford, as well as production of thorium for the Aircraft Nuclear Propulsion program and for light water breeder reactors. In 1972 Fernald was designated as the DOE repository for thorium and was a raffinate storage site for K-65 silos.

The petition time line was described by **Mr. Rolfes**, from first submission in December, 2005 through addendum submissions, qualification for evaluation in April, 2006 and issuance of the evaluation report in November, 2006.

The proposed class definition is for "All employees of DOE, DOE contractors or subcontractors who worked at all locations at the Feed Materials Production Centers (FMPC) in Fernald, Ohio, also known as the Fernald Environmental Management Project (FEMP), from January 1, 1951 through December 31, 1989."

Mr. Rolfes described the variety of information sources available, which included ORAU Technical Information Bulletins and the Fernald site profile, employee interviews, case files in the NIOSH claims database, documentation and/or affidavits provided by the petitioner; miscellaneous databases providing historical records, health information; chest counts covering 24 years, and a study titled "Radon and Cigarette Smoking Exposure Assessment of Fernald Workers."

Addressing the availability of dosimetry data, **Mr. Rolfes** explained the NIOSH/OCAS Claims Tracking System (NOCTS) indicates there are 690 claims meeting the class definition; 619 of these have completed dose reconstructions. There were 631 cases where records of internal dosimetry were available, with 641 cases having external dosimetry. Dose reconstructions have been completed for 90 percent of the Fernald cases.

Mr. Rolfes presented the seven petition bases of concern, and then addressed each individually and in detail. Two sample dose reconstructions were presented to illustrate NIOSH's ability to perform

the task with those concerns in mind. One hypothetical case scenario made use of a dose maximizing approach with assigned intakes based on air sampling, and the other utilized individual bioassay data and dose correction factors. Three different target organs were illustrated in each sample, showing a range of POCs from 28 to 98 percent in the first and 24 to 99 percent in the second, depending on the target organ.

Using guidelines in 42 CFR 83.13, NIOSH evaluated the petition and submitted a summary of their findings in the Petition Evaluation Report sent to the Board and the petitioners on November 3, 2006. **Mr. Rolfes** explained the evaluation process use of the two-pronged test: Is it feasible to estimate with sufficient accuracy the radiation dose of individual members of the class; and if not, is there a reasonable likelihood that such exposures endangered the health of members of the class.

Mr. Rolfes reported NIOSH has determined monitoring records and source term data are adequate for dose reconstruction. Therefore NIOSH is not required to make a health endangerment determination. **Mr. Rolfes** explained this is a summary of the feasibility findings, with additional documentation and sample dose reconstructions available on-line under the NIOSH share drive folder, "Document Review\AB DocumentReview\Fernald".

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Petitioner Response

Ms. Sandra Baldridge,
Petitioner

Ms. Baldridge explained her father worked in Plant 6 from January, 1952 until November, 1963. She went on to describe deficiencies she had discovered in the Fernald site profile. She also discussed documents she has researched which led her to conclude the company had ignored DOE policy, resulting in many injuries to employees. Citing exposure levels inferred by documents, coupled with management indifference, she asserted it was impossible to adequately assess exposures incurred.

In discussing quality of data, **Ms. Baldridge** conceded there are differences of opinion. She discussed her notes on 12 specific documents. She emphasized Fernald had a cost-plus-award fee contract and was self-regulated, and could have suffered financially by reporting radioactive releases.

Ms. Baldridge addressed a variety of specific issues in painstaking detail, such as misapplication of OTIB-2 in dose reconstructions, class

of employees, substituting data from another site, coworker data, value of uranium urinalysis data, in vivo lung counting, maximum allowable concentrations for uranium dust, data falsification, questionable levels of exposure, need for neutron monitoring, and lack of good work records rendering environment exposures suspect. Some eight reasons were cited for her doubting NIOSH's ability to establish upper bounding limits for doses received.

The emphasis of **Ms. Baldridge**'s presentation, and her conclusion, is that there is not sufficient information to do accurate dose reconstructions.

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Mr. Ray Beatty,
Petitioner

Mr. Beatty began by calling into question the credibility of the Health Physics Information System, or HIS-20 database, noting it was non-functional more often than it was functioning, and its data was far from reliable. He noted workers' major concerns were residual contamination and the condition of the areas where they worked, which he felt cast further doubt on reliability of the data.
The name of a member of the team producing the site profile also appeared on the SEC evaluation report, and **Mr. Beatty** felt this raised an issue of objectivity.

Mr. Beatty asserted that plant goals -- production, then cost and schedule during shut-down -- were emphasized over health and safety. He discussed improper disposal of waste, and implementation of compromises which affected health and safety.

A NIOSH report from January 2001 was cited by **Mr. Beatty**. The report asked questions regarding identification of remediation workers; whether adequate worker, work history and medical data are available for that population; whether individual workers can be linked to their exposure and medical data; and whether, with current knowledge and understanding described in the report, epidemiologic exposure assessment of hazard surveillance studies of remediation workers and technologies they employed could be conducted now or in the future. **Mr. Beatty** indicated the answer to all the questions was the same, no.

Mr. Beatty concluded by adding that NIOSH is doing dose reconstructions based on data supplied by the contractor and DOE from 2000 to the present. He contended this data has no relevance to conditions from 1950 to 1989.

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Discussion Points:

- Are petitioners asserting there was neutron exposure;
- Did Fernald use a commercial TLD vendor;
- Outreach meetings and discussions with petitioners;
- SC&A review of Fernald site profile;
- Models in development and their relationship to SEC evaluation;
- Coworker model development and data distribution;
- Time period for radon breath sampling;
- Falsification of records;
- Value of documents prior to review and assessment, and assuming anecdotal information is limited to a single occurrence;
- Data used to compute a maximized intake for dose reconstruction;
- Possibility of flawed bioassay data;
- Techniques of applying bioassay data for individual dose reconstruction;
- Presence of thorium, and gaps relative to its presence as contained in the site profile;
- Accuracy of external/internal radiation exposure based on dosimetry badge readings;
- Interpreting the sense of Congress;
- Contradiction arising from NLO urinalysis data and NIOSH approach to assessing individual dose to claimants;
- The use of data for purposes other than that for which it was collected;
- Contradiction between the regulation and the NIOSH approach to using data, and how to get SC&A involved in SEC issues;
- The SC&A task to construct a matrix of site profile issues that pertain to the SEC petition.

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A motion was made and seconded that the Board request SC&A do a full review of the Fernald SEC petition.

Dr. Ziemer elaborated that such a motion, if passed, would defer action on the NIOSH recommendation to deny the Fernald SEC petition, and would initiate the SC&A, NIOSH and workgroup review and recommendation process.

With no further discussion, the motion carried.

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ROCKY FLATS SEC PETITION UPDATE

Dr. Wade announced that Board members **Ms. Josie Beach** and **Mr. Brad Clawson** are conflicted on Rocky Flats. In accordance with Board policy, they are barred from discussion or making a motion concerning the update presentation.

Mr. Mark Griffon, Chair
Rocky Flats Workgroup

Following a discussion of past and future meetings, **Mr. Griffon** announced SC&A has reviewed 52 individual cases and provided a report to NIOSH on the issue of complete data. The workgroup is now awaiting a response from NIOSH. **Mr. Griffon** observed that gaps in the data may be explained by changes in rules or procedures at the facility.

Mr. Griffon updated the status on some outstanding issues as follows:

- Questions on the 1969 fire. SC&A has issued a report noting gaps for employees, including non-plutonium workers, as well as individuals involved in the fire.

- Zeroes in the electronic database if field is blank on hard copy. The blank means the individual was not monitored. NIOSH is to get back to the workgroup.

- Use of coworker models for internal and external exposures. Use of the models may be more extensive than originally thought. The workgroup did not make this a priority, but since it now appears that NIOSH may rely more heavily on the models, there is concern about discrepancies among various databases. SC&A has been asked to look more closely at these data.

- Other radionuclides. Plutonium and uranium were the primary concerns. The workgroup has agreement between NIOSH and SC&A on everything except thorium. With scant monitoring data, a source term model is used. The workgroup and NIOSH are close to agreement on source terms and the workgroup is awaiting a NIOSH response.

- Records. Records at issue are safety concerns, data integrity and logbook analysis. Logbooks and radiation records have been compared by the workgroup to get a feel for whether there are

systemic discrepancies. SC&A analysis noted no indication of such.

Initially logbook samples from 1970 through the '90s were not available. Subsequently some were located in a voluminous records cache; however, they did not contain quantitative information comparable to the earlier logbooks and were not really useful.

- Super S plutonium. Based on six cases, NIOSH developed TIB-49 to reconstruct dose for super S plutonium exposure. However, there were 25 other individuals involved in the fire and the workgroup question is whether TIB-49 will bound those cases at the highest intake levels.

- Neutron dosimetry. While there are several technical follow-up issues, as well as questions on the coworker model, it appears none rise to the SEC level of concern.

- Proof of principle. The Board, NIOSH, SC&A and members of the workgroup may want to look carefully at sample dose reconstructions to ensure that the right questions were asked and answered and that, with some of the changes within the models, the approaches are still valid.

Discussion Points:

- Study from NIOSH's Health-related Energy and Research Branch (HERB) published in 2000;
- New Board members are listed on the web site;
- Encouragement that all logbooks be made available to SC&A for review.

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DOW CHEMICAL SEC PETITION UPDATE

Mr. LaVon Rutherford,
NIOSH/OCAS

Mr. Rutherford presented a chronology of plans for a report on the evaluation of the Dow SEC petition and efforts to obtain documents and data pertinent to such evaluation. He reminded everyone NIOSH had originally planned to report at the Naperville meeting last December. However, some technical issues remained unresolved and the 83.14 Form A petition submission had 37 affidavits which required study to ensure all issues were included in the evaluation and thus was delayed.

As the evaluation was nearing completion for presentation at the February meeting, four new documents were received which directly affected feasibility determination. **Mr. Rutherford** indicated it was also necessary to obtain additional documents from the Dow home office in Midland, Michigan, which still have not been received. Consequently, NIOSH anticipates presentation of the SEC petition evaluation report at the May Board meeting.

Discussion Points:

- Are the materials on the O drive;
- How do the unresolved issues affect the schedule;
- Dow/Olin will be requested to make the information available in a timely manner; however, if necessary, records will be subpoenaed.

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Petitioner Comment

Dr. Dan McKeel,
Petitioner representative

Dr. McKeel acknowledged the importance of obtaining records from Dow, detailed efforts that had been made to that end by petitioners, as well as Dow's response. He questioned the accuracy of their response.

A detailed slide presentation pointed out the location of rumored quantities of buried magnesium/thorium sludge. Maps showed various buildings where contaminated material was reported to have been.

Dr. McKeel provided an elaborate history of contract work done by Dow Madison, and the use of uranium, thorium and beryllium on the site. He detailed the history of film badge uses, lack of monitoring data, and workers' concern that the badges were never read.

Dr. McKeel discussed Dow's DoD contracts, the Rocky Flats contract for thorium work, and a contract with Lockheed to produce a beryllium/aluminum alloy for use in a spy plane in 1962. He discussed thorium plates stored by McDonald Douglas at Washington University that were shipped to Spectrulite in 1993 as a result of non-compliance, questioning why they would have been accepted if thorium production had stopped in 1982.

The thorium issue was discussed from various angles -- history of thorium licenses, company-sponsored cleanups, major federal cleanup, through the Army Corps of Engineers cleanup in 2000. The petitioners

do not believe the assertion arising from that cleanup, that the thorium present was related to activities other than those for the AEC.

Additional slides related to surveys by the Pangea Group in 2003 and 2005 indicating high levels throughout the plant buildings. He cited 66 affidavits confirming the plant was heavily thorium-contaminated.

Dr. McKeel asserted ample evidence to conclude workers were seriously harmed. And while he expressed the petitioners' appreciation for the 83.14 SEC designation, he declared they felt the class definition of 1957 to 1960 was too limited and should be expanded up to the present time.

Dr. McKeel presented the Board with seven specific requests, including expansion of the class, review tasks to be assigned SC&A, encouragement for NIOSH to subpoena records from Dow, encouragement for NIOSH to set a definite delivery date for the SEC evaluation, that NIOSH publish unredacted Dow affidavits; that NIOSH accelerate dose reconstructions for the site; encouragement for expeditious completion of site profile section 7.2 on thorium and site-specific appendices for Batelle TBD-6000.

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Ms. Debbie Detmers from the office of **Congressman Shimkus** reiterated belief that the class definition should be expanded and that dose reconstruction should be expedited. She offered assistance from her office to aid in this effort in any way possible.

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Discussion Points:

- Was thorium processing in 1955 for commercial purposes;
- Documentation does not support AEC work after the 1957-1960 time frame;
- Thorium alloy-related work for Department of Defense is acknowledged;
- NIOSH responsibility and authority relating to SEC class definition and dose reconstruction matters;
- How were dates for AEC versus commercial work determined, and what are the bases for such determination;
- There appears to be a DOE connection which exceeds the SEC time frame limits;
- Dose reconstructions for residual periods involving uranium and thorium;
- Affidavits which attest to the shipment of thorium to Rocky Flats;

- Incomplete records and documentation concerning other radionuclides;
- Tasking SC&A to review technical issues of SEC petitions;
- Absence of a contract as proof that there was no relationship between Dow and Rocky Flats beyond 1960;
- Are delays in evaluation for the purpose of inclusion or exclusion;
- If residual contamination can't be reconstructed with sufficient accuracy, do individuals qualify for an SEC class;
- The Board could proceed with a partial approval of the evaluation at the next meeting;
- The Board could consider establishing separate SEC classes based on partial approval of the evaluation report;
- Resolution of residual contamination and thorium issues in dose reconstruction.

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Petitioner Comments

Mr. Bill Hoppe,
Petitioner

Mr. Hoppe described his 18 years in the rolling mill and 22 years in maintenance at Dow, noting four trucks loaded with 36,000 to 40,000 pounds of thorium each were usually shipped per month. There was dust everywhere in the rolling mill. In maintenance he worked frequently in the pot room checking instruments.

Mr. Hoppe discussed badges being tossed in a bucket and thrown away. He recollected warning stickers on metal shipped to Rocky Flats. Employees did a variety of jobs and it was rare for an individual to do the same job for an extended period.

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Mr. Homer Simmons,
Petitioner

Mr. Simmons spoke of his 45 years at Dow Chemical, reiterating that people worked all over the plant. He remarked that even when they cleaned the plant, it failed inspection. He described his brother's death from cancer at the age of 46, and explained he'd also worked at Dow.

Verifying that a large part of the plant's work was done for government contracts, **Mr. Simmons** commented that government contracts had priority over other orders.

* * *

A motion was made and seconded that the Board ask SC&A to begin a limited SEC evaluation review related to Dow Chemical.

Dr. Ziemer clarified that the mover did not wish to expand the motion to include new documentation that might become available.

The mover explained the motion requires SC&A to become familiar with available documentation to ensure a more rapid review when the SEC evaluation is presented.

With no further discussion, the motion passed unanimously.

* * * * *

WORKGROUP UPDATES

Mr. Robert Presley, Chair
Workgroup on Nevada Test Site site profile

Mr. Presley reported the workgroup has not met since shortly before the December meeting of the Board. They have received SC&A's matrix of comments and will prepare their responses.

* * *

Mr. Mike Gibson, Chair
Workgroup on Savannah River Site site profile

Mr. Gibson reported the workgroup has experienced difficulty getting necessary records from DOE. He indicated Q-cleared members of the workgroup, NIOSH and SC&A will go to Savannah River Site the end of February to look at classified data. Though not scheduled, a conference call is planned to confirm visit goals. The workgroup anticipates having a report for the Board at the May meeting.

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Dr. John Poston, Chair
Workgroup on Chapman Valve SEC petition

While the workgroup has not formally met, **Dr. Poston** provided a chronology of the Chapman Valve SEC petition. He noted that less than a month after the Board meeting in September there was a complete

rewrite of the evaluation report, causing delay in SC&A's evaluation. **Dr. Poston** added he and **Drs. Makhijani** and **Mauro** from SC&A had participated in a meeting with former Chapman Valve employees where they conducted interviews with some of those workers.

SC&A provided their evaluation in December, and it covers both the original and the rewrite of the NIOSH evaluation report. **Dr. Poston** observed there were no major issues, but a couple of concerns. One relates to the June fire which involved five people. If the date of intake is changed by only a few days, it changes the dose significantly so that issue must be addressed. Another involves the incinerator and exposure of workers who turned the chips to ensure they were completely oxidized. **Dr. Poston** added he would like to schedule a workgroup meeting as soon as possible.

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Dr. James Melius, Chair
SEC Issues Workgroup

Dr. Melius reported the workgroup met in Cincinnati in January, with all members present along with NIOSH and SC&A participation. Two separate issues were addressed, one being the high exposure shorter time period issue regarding Special Exposure Cohorts. A short report was prepared for the workgroup by SC&A, and **Dr. Melius** indicated he believed it had been cleared for some Privacy Act concerns and then distributed to the rest of the Board.

In discussing distribution, Privacy Act concerns came up and **Ms. Homoki-Titus** from the Office of General Counsel clarified that Board members could exchange all information with each other, but not all information could be made public. The issue of Congressional access was raised. Ultimately **Dr. Wade** summarized that documents need to be cleared for distribution to Congressional representatives; they need to be made available for posting; and they should be made available to Board members. **Mr. Elliott** added that certain SEC petition-related documents should also be made available to petitioners. After continued discussion, **Dr. Mauro** volunteered that when a document has been properly cleared and is sent out from SC&A, it will contain a statement that it has been checked and may be distributed. Otherwise it will be noted that the document contains potentially Privacy Act material and should be handled accordingly. They will distribute information only to NIOSH and/or Board members.

In response to concerns about e-mail security, **Ms. Homoki-Titus** indicated the government is aware of the issue and each agency is working on a policy in that regard. When the CDC finishes establishing

their policy, that change will come to the Board. SC&A and other contractors will have to follow that policy regarding the use of laptops, wireless internets and unsecured networks to send Privacy Act information. Until then, everyone must use his own common sense.

Continuing with his report, **Dr. Melius** indicated the workgroup had discussed Ames Laboratory, following which it was decided that SC&A would clarify some of the issues regarding potential exposures from fires and explosions at the facility. From the Nevada Test Site the workgroup would identify a number of exposure incidents regarding above-ground testing, and then evaluate those in the context of potential exposures people may have received in a period of less than 250 days. These would form the basis for a subsequent workgroup report.

Dr. Melius said the plan was to get SC&A together with NIOSH and/or ORAU to work out some of the technical details about how those examples would be developed. Another workgroup meeting is planned for a time prior to the April Board meeting.

The second part of the report deals with the SEC 83.14 issue. The workgroup was charged with determining the types of information and most useful ways to present it in the evaluation of those petitions. The workgroup had no 83.14 cases to discuss, so they worked from experience with Monsanto and General Atomics. The NIOSH definition of class with respect to work areas was discussed. The workgroup agreed it would be helpful to have backup information available to the Board for those reports. NIOSH is already in the process of implementing this recommendation.

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Dr. James Lockey, Chair
Workgroup on Non-qualifying SEC Petitions

Dr. Lockey reported there are four such petitions under review by the NIOSH Director's review panel. Summary reports are to be made available to the workgroup within the next week. The workgroup plans to finalize a report during the last two weeks of March.

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Dr. James Melius, Chair
Workgroup on Hanford Site Profile and SEC petition

Dr. Melius reported the workgroup had a conference call with NIOSH and SC&A where the main issue was neutron dose at the facility. The

workgroup will schedule a meeting to develop a report on that issue. A problem has been the availability of **Mr. Jack Fix** for the meeting. This raises the issue of document ownership and also presents a problem in that **Mr. Fix** is conflicted on Hanford, yet has the technical expertise which would be useful to the workgroup. **Dr. Melius** observed it presented an awkward situation.

Discussion Points:

- There is a workgroup on conflict of interest;
- That workgroup plans to meet sometime in the last two weeks of March.

*** * ***

Ms. Wanda Munn, Chair
Workgroup on Blockson Chemical SEC petition

Ms. Munn announced the group has not met because the original site profile and the SEC petition required additional work, currently underway. The group will not meet until those documents are available. **Ms. Munn** added there had been a productive worker outreach meeting sponsored by DOL, and it is anticipated the workgroup will meet in late March if the documents are available.

Discussion Points:

- The outreach meeting was quite helpful and provided valuable information;
- It would be helpful to have a Board member present at all outreach meetings.

*** * * * ***

PUBLIC COMMENT PERIOD

Dr. Ziemer began with a reminder that the purpose of the Board is advisory. The members are independent, from various backgrounds. The Board members do not do dose reconstructions, adjudicate cases or handle individual problems. But they are interested in hearing what difficulties are being faced by claimants in an effort to inform their advice to the Secretary. **Dr. Ziemer** then introduced individual Board members and gave some information on their backgrounds.

Public comment was solicited on the first two days of the meeting. Members of the public who spoke on this day are listed below. A full

transcript of their remarks is available on the NIOSH/OCAS web site at www.cdc.gov/niosh/ocas.

Ms. Kay Barker, ANWAG; Mr. John Funk, Nevada Test Site claimant; Ms. Terrie Barrie, ANWAG; Ms. C. Chang from NIOSH read a letter from Washington Senator Maria Cantwell; Mr. John Ramspott, SINuW; Dr. Dan McKeel; Ms. Deb Jerison, Mound survivor; Ms. Sandra Baldridge, Fernald petitioner; Mr. Andrew Evaskovich, Los Alamos; Mr. Don Kummler, Fernald claimant; Ms. Catherine Tidwell, Mound survivor; Ms. Lisa Crawford, Fernald Residents for Environmental Safety and Health.

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With no further public comment offered, the Board officially recessed until 8:30 a.m.

* * * * *

Friday, February 9, 2007

Dr. Ziemer called the meeting to order, noting a quorum was present. He called attention to a scheduled agenda item which was no longer necessary, commenting that this may prove helpful to people needing to schedule their departures.

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REPORT ON UPCOMING SEC PETITIONS

Mr. LaVon Rutherford,
NIOSH/OCAS

Mr. Rutherford offered statistics on the SEC petition process overall. Including one received the previous day, NIOSH has received 84 SEC petition submissions. Nine of those are in the qualification process; 34 have qualified, and 11 are in the evaluation process; NIOSH has completed evaluations of 23. The remaining 34 petitions did not qualify.

Four SEC petitions have completed evaluations and are with the Board, awaiting recommendation. The status of the four was reported as follows: Rocky Flats and Chapman Valve are under review by Board workgroups; Feed Materials Production Center (Fernald) evaluation report was presented at this meeting and a workgroup will begin its review; Los Alamos National Laboratory petition evaluation report was sent to petitioners and Board members on February 7, 2007. The evaluation report will be presented at the Board meeting in May.

The nine qualified petitions currently under evaluation are Bethlehem Steel, Hanford, Blockson Chemical, Dow Chemical, Y-12, NUMEC, Ames Lab and W. R. Grace. **Mr. Rutherford** addressed each in turn, reporting on the specific issues involved and, where possible, providing estimated time to completion.

There were 11 sites described by **Mr. Rutherford** as having been identified as potentially 83.14 petition candidates. They are Combustion Engineering, Kellex/Pierpont, Lovelace Respiratory Research Institute, SAM Laboratories at Columbia University, Lake Ontario Ordnance Works, Massachusetts Institute of Technology, Naval Research Laboratory, Norton Company, University of Rochester Atomic Energy Project, Watertown Arsenal (Building 421), and University of California.

Mr. Rutherford reported ORAU is making efforts to verify that all appropriate searches have been accomplished for data to support dose reconstruction. A time line has been established, and the searches are projected to have been completed by March. Following that, the contractor will provide professional judgment and class proposals which will be reviewed, and then the 83.14 process will move forward.

Acknowledging some lessons learned from previous Board meetings and reviews of evaluation reports, **Mr. Rutherford** included the need to: create tables which clearly lay out all the issues considered in the feasibility findings; provide a folder with analyses which support NIOSH conclusions; develop a matrix which helps eliminate inconsistencies in interpretation of feasibility; and clearly define all sources of information.

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Discussion Points:

- Legal implications of failing to meet the 180-day requirement for completion of an evaluation report;
- Outreach to claimants, especially from older, more complex sites;
- Establishing workgroups to deal with upcoming SEC petition evaluations.

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As representative for Congressman Tom Udall of New Mexico, **Ms. Michele Jacquez-Ortiz** extended her appreciation to NIOSH for their efforts in assisting and advising the petitioners in preparation of the Los Alamos

National Laboratory documentation, specifically with regard to the medical records.

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NIOSH CONFLICT OR BIAS MANAGEMENT POLICY
Implementation Status Update

Mr. Larry Elliott,
NIOSH/OCAS

Mr. Elliott observed that the NIOSH policy statement on conflict or bias bears a slightly different title than in the past as a result of refinements by **Dr. John Howard**, NIOSH Director. The purpose stated is to prevent individuals with either apparent or perceived conflicts from being the primary document owner on any key program function document, and to promote and provide transparency in the dose reconstruction process and in the creation of key program documents.

Summarizing some of the policies over the six years of the program, **Mr. Elliott** emphasized a major change in the current policy is the establishment of an Office of Conflict or Bias Officer, a person not involved in the dose reconstruction program. That position is currently held by **Mr. Frank Hearl**, chief of staff to **Dr. Howard**.

Mr. Elliott noted that his presentation only related to NIOSH actions to implement the policy. This implementation process, now underway, requires disclosure of every individual at NIOSH from **Dr. Howard** and **Mr. Hearl** to health physicists, public health advisors, the IT computer specialist, secretaries, communications specialist and the legal team, virtually anyone associated with this program.

The web site, www.cdc.gov/niosh/ocas/defaulthtml, will soon contain disclosure forms. A conflicted individual at a site during any period cannot perform any program function for that site, as defined in the policy. On the web site you will see multiple sites listed where conflict exists. There will be a one-page summary to front an individual's set of disclosures to provide the reader a straightforward understanding without having to go through each set of disclosure forms for a site.

Explaining NIOSH is not allowed to place contractor disclosure forms on their web site, **Mr. Elliott** indicated a link will take the reader to the contractor's web site where their disclosures may be found.

On sites where a NIOSH individual has no conflict but for which additional explanation is required, that will be listed separately on

the multiple site disclosure forms. As an example, **Mr. Elliott** cited his personal situation wherein he found himself not conflicted on any site; however, he does supervise individuals who are conflicted and is supervised by an individual who could be. Therefore, he provides that explanation.

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Ms. Kate Kimpan,
Oak Ridge Associated Universities (ORAU)

Ms. Kimpan announced she would present an update on some things she'd discussed before, as well as some new items.

As NIOSH has worked to finalize its Conflict or Bias Policy, the ORAU team has been managing the project so that no dose reconstructions or other key program functions are performed or developed by individuals with inappropriate conflicts of interest as defined by that policy. She reminded the Board that when these discussions were emerging, ORAU replaced any document owner who, under the NIOSH policy released at that point, would have been conflicted at the time the document was prepared or contributed to.

It's an unusual way to proceed, **Ms. Kimpan** observed, in that many documents were written well before the conflict of interest policy with such specific requirements was even on the books. She added the ORAU team has endeavored to assure that no dose reconstruction, or peer review of a DR, has ever been performed by a conflicted individual on the team. Asserting her belief the team had achieved that goal, she explained they had a computerized system to assure that a dose reconstructor could not be assigned to a dose reconstruction where there was a conflict.

Although the discussion today was primarily about documents, **Ms. Kimpan** added that the ORAU team has performed tens of thousands of DRs. And there is a way, regardless of actual bias or conflict, for a claimant to say they don't want a particular person touching the work on their case.

Ms. Kimpan explained that what ORAU began implementing a year or so ago was to apply the same COI policy to all the documents they develop. The team, in close work with NIOSH, has submitted hundreds of documents NIOSH has approved for use in the program. They are all rigorously reviewed.

What ORAU will be doing now, as soon as the new policy is finalized, is to look back at work done years before through the lens of the new

policy. That is because of the important nature of assuring that scientific findings, conclusions and contributions are appropriate, scientifically sound and free of the influence that a paper conflict or bias concern might raise.

Ms. Kimpan remarked that all document owners who have had a conflict of interest under the proposed policy have been replaced with a non-conflicted document owner. She noted that some conflicted individuals, the names of whom have been raised often though not always accurately, have remained involved in appropriate, non-key roles as subject expert or site expert. She explained the document owner is ultimately responsible for assuring every conclusion in the document rises to the proper scientifically defensible level required by this program's outstanding science.

ORAU has developed and is finalizing procedures to implement the NIOSH conflict or bias policy once the revision has been signed into effectiveness. They don't want to take action yet lest there be another change, but the system is in place where employees will fill out their disclosure forms on-line through a password-protected system, and a PDF version of their disclosure form will be posted on the ORAU web site. Once the revision, in process, is signed into policy, ORAU will be able to have all team forms completed within one week of the effective date.

Ms. Kimpan emphasized ORAU has done everything they believe they can do appropriately until the policy is in effect. Assuming there are no more changes to the basic queries and questions, ORAU is ready to go.

Calling attention to the fact that the NIOSH policy is drifting toward being site-based, **Ms. Kimpan** remarked that has been done by ORAU all along. And while a site-based policy is more restrictive, it is cleaner for ORAU and easier to manage. Their computer system prevents assignment of someone with a conflict, and the new system will feed into that. It is coordinated to work with the dose reconstruction and other key function assignments.

Ms. Kimpan discussed annotation and attribution. She announced it is now policy that proper footnotes, citations and references will be included and done to a scientific peer review level. All documents are rigorously reviewed by the ORAU team, by OCAS and many times by SC&A. **Ms. Kimpan** expressed her belief that ORAU documents are free of conflict of interest and are produced at the highest level of scientific quality.

Retrospective annotation and attribution will be conducted on six sites, each being slightly different. The first two are where there

actually was a conflicted document owner. Contrary to much said about a lot of people recently, **Ms. Kimpan** emphasized only the Idaho National Laboratory and Pantex Texas sites had a conflicted ORAU team document owner. New owners were immediately assigned, and the documents will, appropriately, receive the most thorough and complete level of annotation and attribution. Every scientific conclusion, finding, premise, table and exhibit will be identified, referenced and fully explained.

The next category, sites which never had a conflicted document owner but received a great deal of attention for one reason or another, includes Rocky Flats and Hanford. Because of that attention, very thorough annotation and attribution is the right thing to do. Last year OCAS received the annotated and attributed TBD for Rocky Flats. It has been shown to the COB officer, attorneys and the government, and ORAU has gotten no feedback to suggest it was anything less than thorough. It will ultimately become public.

Ms. Kimpan explained this category covered situations where the document owner was not conflicted, but a conflicted site expert wrote or substantially authored part of the document in a way now inconsistent with what will be NIOSH policy. It is complete for Rocky Flats and in process for Hanford. Every contribution by the conflicted individual is noted, identified, clearly sourced and explained.

The third category **Ms. Kimpan** identified as one in which there is no conflicted owner or expert contributing in an inappropriate way, but things have been alleged and there has been discussion and discomfort from various people about whether or not certain individuals' contribution may not have been appropriate. The two sites in that category are Los Alamos and Paducah. Actual analysis indicated nothing inappropriate occurred in either site in terms of who contributed. But because of the critical attention, the rigorous level of annotation and attribution will again be applied.

Ms. Kimpan explained how the examination of the documents is conducted, the reviews it undergoes and the scrutiny applied in each phase of its examination. She acknowledged the complexity of the program and the issues raised by members of the public. She expressed the importance ORAU placed on doing everything possible to assure credibility.

Addressing the ORAU web site, **Ms. Kimpan** remarked it is an artifact of a policy no longer in effect and includes workers no longer on the team. She indicated that was another reason she looked forward to having the new policy signed so that the web site can be made current.

She explained how ORAU will retain the old information, although it will no longer be available to the public.

* * *

Discussion Points:

- An inherent bias relates to the fact that documents are authored by scientists, health physicists and management types who may view things differently from folks doing the work;
- Are those concerns not only made visible, but impact on the final product;
- A lot of ORAU team members were workers in the rad protection program;
- Not everybody who worked for a contractor was anti-worker;
- The ORAU worker outreach program has expanded from its original more limited intent;
- Oftentimes individual experiences, while important to that individual's DR, do not affect the quality of a site profile if not included in it;
- The site profile, or TBD, is only one of many documents that are used;
- In instances where an individual's input affected a TBD, is it annotated;
- The worker outreach team has been working on a database of comments made at public meetings, with a category of what is done in response, and the Board will have access to it, but it does not appear in annotations;
- NIOSH is not happy with how worker input has been garnered;
- Changes are planned, though not yet in place;
- Going forward, the Board will want the ability to audit the effect public comment may or may not have on site profile documents;
- When will NIOSH sign the COB policy;
- Lack of signature is not delaying work on various sites;
- The Rocky Flats annotated document on the web site shows a large share is authored by a conflicted individual;
- Absence of a key site expert and its effect on the Hanford workgroup;
- Document owners as technical experts on the subject of the documents;
- TBDs too generalized and frequently incomplete or skewed to adequately address conditions at various sites;
- Additional worker input, especially for INEEL;
- Change sources are identified when the document is posted on the web;
- A given incident is almost always likely to affect more than one person;
- Conflicted experts have information that can be extremely valuable for claimants and for the government.

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LOS ALAMOS RECORDS ISSUE
Follow-up

Ms. Libby White,
Department of Energy

Ms. White discussed the Los Alamos Medical Center records, providing a chronology of their ownership. While it is unknown what records DOE or Los Alamos currently has, it is known that the Medical Center wants to destroy what it has. The records are mixed with community member records and stored on county property. The likelihood exists that the records may also bear Hantavirus contaminated mouse droppings, so there is a plan to decontaminate and review. DOE will bear the cost of this effort and the records will be sent to the Denver Federal Records Center to be used for EEOICPA purposes.

Discussion Points:

- Board participation/assistance in the project;
- Are the records catalogued and how are they stored;
- DOE is in the process of collecting information with respect to the Mound records;
- Document authored by Cheryl Kirkwood, records manager at Mound;
- Retrieval of Mound records may take longer than anticipated due to the nature of the storage area;
- Los Alamos records are likely to have water and animal damage, with a possibility of low-level alpha contamination;
- Alpha contamination in medical records may have resulted from mixing of patients in the medical facility;
- Will the county present an issue in retrieving the records;
- Plans for decontamination;
- Mound records storage caused the contamination of those records;
- While at Mound, any contaminated records were scanned to produce non-contaminated copies.

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SCIENCE AND OVERARCHING TECHNICAL ISSUES UPDATE

Dr. James Neton,
NIOSH/OCAS

As background, **Dr. Neton** explained two main topics are now being tracked. The first are issues determined by a 2005 Board workgroup on IREP and scientific issues. Working with NIOSH, the Board merged what each had determined relevant and arrived at seven specific issues, all related to risk model calculations.

Subsequently, SC&A's dose reconstruction and site profile reviews have revealed a number of overarching technical issues relative to dose reconstruction. Those issues comprise a second list.

Addressing each list separately, **Dr. Neton** listed the original IREP and scientific issues, emphasizing they are not new. They are:

- Incorporation of nuclear worker studies in the epidemiological analysis; how relevant are Hiroshima and Nagasaki studies compared to those done at DOE sites with respect to internal exposures.
- Smoking adjustment for lung cancer.
- Grouping of rare and miscellaneous cancers.
- Relevance of age at exposure; some studies suggest radiation exposure may compromise older workers more than younger.
- Interaction with workplace exposures; are there synergistic interactions between radiation and chemicals or other agents that increase the likelihood of cancer.
- Should chronic lymphocytic leukemia be added to the covered cancers.
- Dose and dose rate effectiveness factor adjustments.

Dr. Neton then discussed progress on each of the topics in turn, providing detail on their status.

Ten overarching dose reconstruction issues have been identified. **Dr. Neton**'s slide provided not only the issue, but the review or action prompting its addition to the list. They are:

- Oro-nasal breathing; Bethlehem Steel Company review.
- Workplace ingestion; Bethlehem Steel Company review.
- Doses from hot particles; Nevada Test Site review.
- Non-standard external exposures; Mallinckrodt Chemical Works review.
- Assumptions for unmonitored workers; Ames review.
- Cohort badging; Ames review.
- Interpretation of unworn badges; Hanford review.
- Tracking materials throughout the complex; Board recommendation.
- Internal dose from super S plutonium; Rocky Flats Plant review.
- Thoriated welding rods; Rocky Flats Plant review.

Again discussing details of each issue in turn, **Dr. Neton** indicated three areas of greatest progress are in oro-nasal breathing and workplace ingestion, and super S plutonium. Resolution is anticipated on the two issues from Bethlehem Steel by the end of February, 2007. The super S plutonium issue resulted in OTIB-0049, approved for use in plutonium dose reconstruction on a complex-wide basis.

Discussion Points:

- Whether the ingestion model takes into account resuspension;
- Transfer from hand to mouth;
- Grouping of cancers is a long-time issue;
- Whether BEIR VII has groupings to illuminate the issue;
- Relationship between CLL and radiation;
- Emphasis on occupational studies;
- Will SC&A review OTIB-49;
- Secondhand smoke and its effect on non-smokers;
- Modeling for people whose jobs require lead aprons;
- Factors affecting cancers in male genitalia may also apply to females;
- Non-standard exposures;
- Lumping of prostate and testicular cancer may be a misapplication in that one is prevalent among older men and the other largely affects younger.

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BOARD WORKING TIME

Dr. Ziemer called for comments, additions or deletions to the list of 28 cases recommended by the subcommittee for Board review.

With no modifications offered, **Dr. Ziemer** declared the recommendation from the subcommittee was a motion not requiring a second, and called for a vote.

The motion carried unanimously, accepting the recommended 28 cases for Board review.

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Dr. Ziemer recognized as a formal motion the recommendation by **Ms. Munn**'s workgroup of six additional procedures for SC&A review and called for a vote.

The motion carried unanimously, accepting the recommended six procedures for SC&A review.

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The proposed future meeting schedule was discussed. The call meeting of December 3, 2007 was changed to December 6, 2007. **Dr. Wade** proposed a call in mid-February and a face-to-face meeting in late March, 2008. Tentative dates will be sent to Board members. The July meeting place will be announced in the April call meeting.

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New Workgroups and Workgroup Changes

Linde Ceramics: Dr. Genevieve Roessler, Chair; members **Ms. Josie Beach**, **Dr. James Lockey**.

Los Alamos National Laboratory: Mr. Mark Griffon, Chair; members **Ms. Josie Beach**, **Ms. Wanda Munn**, **Dr. John Poston** and **Mr. Robert Presley**.

Fernald: Mr. Phillip Schofield was added as a member.

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A motion was made and seconded that a workgroup be formed to address the activities of the outreach program, with tasks to include:

1. Review all activities including NIOSH/ORAU organization of meetings;
2. Monitor the conduct of the meetings;
3. Monitor the impact of claimant/survivor input on the dose reconstruction program, site profiles and site-specific petitions.

After some discussion, **Dr. Ziemer** called for a vote.

The motion passed unanimously.

Outreach: Mr. Mike Gibson, Chair; members **Ms. Josie Beach**, **Ms. Wanda Munn** and **Mr. Phillip Schofield**.

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A motion was made and seconded to authorize SC&A to begin work on an initial focused review of the Hanford and Los

Alamos SEC petitions and associated information in the context of their ongoing reviews of those site profiles.

The motion passed unanimously.

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Dr. Poston raised the issue of an invitation extended to SC&A to attend a briefing in Senator Ken Salazar's office. **Dr. Ziemer** explained it was Board policy for a Board member to attend only if a specific invitation is received. **Dr. Wade** offered to attempt to arrange an invitation if a Board member wishes to attend. **Dr. Poston** took exception to the Board policy, noting that if Board business is the topic of the briefing, the Board should be represented. **Dr. Wade** agreed to put the issue on the agenda for the call meeting in April.

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Mr. Robert Presley raised the issue of limiting the time for individual speakers during public comment, noting some who would have spoken sometimes give up and leave due to the late hour. Those commenters with lengthy remarks are often people who have spoken many times before, and newcomers should be given an opportunity to express their views. **Dr. Ziemer** agreed to make that an agenda item for an upcoming meeting.

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With no further business to come before the Board, the meeting was adjourned at 10:00 a.m.

End of Summary Minutes

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I hereby confirm these Summary Minutes are accurate, to the best of my knowledge.

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Paul L. Ziemer, Ph.D., Chair

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Date