

SUMMARY OF MINUTES OF THE FOURTH PUBLIC MEETING OF THE VETERANS' ADVISORY BOARD ON DOSE RECONSTRUCTION

The fourth meeting of the Veterans' Advisory Board on Dose Reconstruction (VBDR or the Board) was held at the Hampton VA Medical Center, Hampton, Virginia on November 8-9, 2006.

In accordance with the provisions of the Federal Advisory Committee Act, *Public Law 92-463*, which sets forth standards for the formation and conduct of government advisory committees, the meeting was open to the public.

ATTENDANCE

Board Members Present: Dr. James Zimble (Chairman), Dr. Paul K. Blake, Mr. Harold L. Beck, Dr. Ronald R. Blanck, Dr. John D. Boice, Dr. Patricia A. Fleming, Mr. Kenneth L. Groves, Dr. David E. McCurdy, Dr. John F. Lathrop, Mr. Thomas J. Pamperin, Dr. Curt W. Reimann, Mr. George Edwin Taylor, and Dr. Gary H. Zeman.

Board Members Absent: Dr. Kristin Swenson, Dr. Elaine Vaughan, and Mr. Paul G. Voillequé.

Quorum present: Yes.

OPENING REMARKS

Dr. Zimble (Chairman) called the meeting to order and welcomed everyone to the fourth meeting of the Board. He also thanked the Department of Veterans Affairs (VA) Office in Hampton, Virginia for providing the facility.

Ms. Shari Durand (Designated Federal Officer) welcomed everyone to the fourth meeting of the Board, thanked the local VA, and pointed out the proximity of the date to Veterans Day and the Marine Corps birthday.

SUMMARY OF FOURTH PUBLIC MEETING OF THE BOARD

The primary topics of the two-day VBDR meeting included briefings on the recent activities and actions of the Advisory Board on Radiation and Worker Health (ABRWH) by **Dr. Paul Ziemer**, the recent activities and actions of the Veterans' Advisory Committee on Environmental Hazards (VACEH) by **Dr. Henry Royal**, the Radiation Exposure Compensation Act (RECA) by **Mrs. Dianne Spellberg**, and on how risk perceptions affect our understanding of radiation and risks by **Mr. David Ropeik**. Presentations were also given on the current status and activities of the Nuclear Test Personnel Review (NTPR) dose reconstruction program by **Dr. Paul Blake**, and the VA Compensation Program by **Mr. Thomas Pamperin**. The activities and accomplishments

of the four VBDR subcommittees (Dose Reconstruction, VA Claims, Quality Management, and Communications and Outreach) were also presented.

During the meeting, three veterans gave public testimony regarding cancers and expressed concerns about problems with the Defense Threat Reduction Agency's (DTRA) dose reconstruction procedures and some claims decisions made by the VA.

Verbatim transcripts of each presentation, session, and public comment are available on the VBDR Web site at <http://vbdr.org>.

SUMMARY OF PRESENTATIONS TO VBDR

Dr. Paul Ziemer's presentation:

The presentation started with reviewing the public law that established the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) for workers who suffered illnesses incurred in the performance of Department of Energy (DOE) activities or activities of DOE contractors.

The Advisory Board on Radiation Worker and Health (ABRWH) was established by Executive Order at the end of 2000 and reports to the Secretary of Health and Human Services (HHS).

The ABRWH can consist of no more than twenty members; its membership includes affected workers and their representatives, as well as members of the scientific community. ABRWH audits the dose reconstruction process for patterns of procedural, calculational and other deficiencies. All claims decisions are made by the Department of Labor (DOL) and those decisions are not audited by the board.

ABRWH has three responsibilities: 1) develop two sets of guidelines—to determine how to reconstruct ionizing radiation doses and to establish guidelines for determining probability of causation (PC), 2) audit and advise the Secretary of HHS on the validity and quality of dose reconstruction, and 3) determine if there is a class of employees for whom it is not feasible to estimate dose, but who may have been endangered due to exposure. Individuals in the third category are labeled a Special Exposure Cohort (SEC). Under the SEC rule, the claimant must have one of the 22 cancers covered by the EEOICPA.

The National Institute for Occupational Safety and Health (NIOSH) received 22,316 cases for dose reconstruction as of August 31st. Initially, the cases go to DOL to establish that the individual worked at the place of interest and to confirm the medical information. The case is then sent to the NIOSH for dose reconstruction. The NIOSH has completed dose reconstruction for approximately 75 percent of those cases. With regard to non-cancerous diseases, DOL does not send these cases to the NIOSH for dose reconstruction.

Approximately 27 percent of the cases have received compensation, based on a PC equal to or greater than 50 percent at the 95 percent confidence level. The NIOSH uses guidelines that minimize the possibility that claimants who have cancer that may have been caused by radiation are denied compensation. While this procedure, no doubt, provides compensation for many whose cancer was probably not related to their exposure, it minimizes the possibility of missing a fair claim.

Moving to the topic of SEC, Congress initially established this class for workers at Paducah, Portsmouth, and the Oak Ridge Gaseous Diffusion Plants (K-25 Site) and Amchitka Island Nuclear Explosion Site. Individuals must have at least one of the 22 specific types of cancer and must have worked for a specified period of time at a particular site to be eligible for compensation without dose reconstruction. The responsibility for adding classes to the SEC belongs to the Secretary of HHS and the procedure for doing so is controlled by 42 CFR 83.

The requirements for adding a class to SEC are: 1) the NIOSH determines that they cannot reconstruct doses with sufficient accuracy, and 2) there is a reasonable likelihood that such radiation doses may have endangered the health of the members of the class.

Presenting the status of SEC petitions, Dr. Ziemer explained why some petitions did not qualify and, therefore, were administratively closed by the NIOSH. He explained the various stages in the path of a petition as it moves through the process to the office of the Secretary of HHS and listed the number of petitions in each stage.

The presentation was concluded by highlighting the ABRWH accomplishments, the NIOSH dose reconstruction procedures and quality assurance program, audit process, site profile reviews, case tracking, individual case reviews, SEC petition evaluation reviews, the number of total potential claims, and the number of individuals covered by the various SEC petitions.

Dr. Henry Royal's presentation:

Beginning by lauding the VBDR for its acceptance and trust by the veterans, a brief explanation of the history, rationale, and composition of the Veterans' Advisory Committee on Environmental Hazards (VACEH) was provided.

The VACEH is charged with advising the VA on any new science that would affect the VA compensation program.

Noting that the PC tables were published in 1984 or 1985, VACEH was charged with tracking new scientific developments to determine if adjustments should be made to the tables.

The two groups in the presumptive category are: 1) approximately 195,000 participants in the occupation of Hiroshima and Nagasaki and 2) approximately 210,000, mostly

military members, confirmed participants in the U.S. atmospheric nuclear weapons tests between 1945 and 1962 in the United States and Pacific and Atlantic Oceans prior to the 1963 Limited Test Ban Treaty.

The list of presumptive diseases for these populations includes most of the common cancers except skin cancer and prostate cancer.

The difficulty of doing PC calculations with a disease such as skin cancer was discussed. Skin cancer is a very common cancer, mostly caused by exposure to the sun, and has a low mortality rate. The baseline of skin cancer incidence depends on how hard one looks for it. It also depends on complexion. So, there are a myriad of variables that make measuring the endpoint of skin cancer difficult.

The dose to the skin is not from penetrating gamma radiations, but it is from beta particles. Skin dose and cancer risk due to dermal contamination from betas can be spatially very heterogeneous, depending on where fallout might land on the skin and where a skin cancer occurs. While all this is frustrating in determining compensation, it actually benefits the veteran because the greater the uncertainty of the dose, the more likely that the veteran will be compensated.

With regard to prostate cancer, there is a radiation dose-response relationship, but it is not statistically significant. The number of prostate cancers among the atomic-bomb survivors is small, and the smaller the number of cancers in a population, the more difficult it is to demonstrate a statistical significance.

From a scientific point, prostate cancer is not generally considered a radiogenic disease, but in the context of compassionate compensation, it may very well be potentially considered to be radiogenic.

With regard to the group of people who are not in the presumptive disease group, the percentage of cases awarded compensation, based on PC, is small because radiation is a weak carcinogen. One must be exposed to a rather large dose of radiation for it to be the likely cause of cancer.

The presentation was concluded by highlighting issues important to the overall subject of radiation compensation.

- First, the issue of credibility in dose reconstructions. There is a gap between the credibility among stakeholders and the credibility among scientists. It is ameliorated largely by the desire of Congress to give benefit of the doubt to the claimant.
- Second, there is the question about how much is spent administering the program versus how much is paid out in claims. Some think that cutting out the administrative costs and paying all of the claimants might be a good action to take.
- Third, there are questions regarding guidelines for PC calculations and placing the medical radiation exposure in the calculations.

- Fourth, the issue of parity. Are all categories of claimants receiving comparable compensation?

Mrs. Dianne Spellberg's presentation:

Her presentation began with a brief history of worldwide nuclear testing and some of the negotiations attendant to that activity. She then discussed the class action lawsuit brought by uranium miners against the U.S. Though the lawsuit was unsuccessful, the court decreed that Congress should redress the claims brought in *Begay v. the United States*.

Congress then acted by apologizing and enacting a compensation program "Radiation Exposure Compensation Act (RECA)" that is administered by the Department of Justice. The program covered two types of claimants.

1. Occupational Exposure
 - Onsite participants
 - Ore Transporters
 - Uranium Miners
 - Uranium Millers
2. Innocent Exposure
Downwinders

Congress defined onsite participants as those who participated onsite in a test involving atmospheric detonation of a nuclear device. Onsite refers to the Nevada Test Site, the Pacific Proving Ground and the Trinity Test Site. Twenty one compensable diseases were defined by Congress, and the compensation was set at \$75,000.

The offset between the VA payments and the RECA compensation is required by law. For example, if a person is receiving VA payments and is approved for the RECA compensation, the \$75,000 is offset by the amount of money the individual has received in VA payments. Changes to the VA regulations allow the individual to continue to receive VA payments after he or she has been compensated by the RECA, but the VA payments are offset by the lump sum RECA payment.

In 2002, Congress established six health care facilities to do medical screening, education and to assist the RECA claimants. Workers who have a claim approved are also informed of the EEOICPA program from which they may obtain additional compensation.

The RECA office is in Washington D.C. with a small staff of claims examiners who review claims and assist claimants in obtaining the necessary documentation to file. The average processing time is about nine months.

The financial statistics show that about one billion dollars have been paid to various claimants. A recommendation was suggested to VA to do outreach to onsite participants to inform them of the possibility of the RECA compensation.

Regarding the list of the compensable diseases covered by the RECA and the level of compensation for other workers and downwinders, Congress added for uranium workers, lung cancer and five non-malignant respiratory diseases. For millers and ore transporters, Congress added chronic renal disease and renal cancer. Uranium workers receive a lump sum of \$100,000 and under the EEOICPA, they are entitled to an additional \$50,000 plus medical benefits.

A summary of the list of eligible individuals including spouses, children and grandchildren under the various compensation programs, i.e., RECA, VA, and EEOICPA, was also discussed.

Mr. David Ropeik's presentation:

His presentation was about why we feel the way we feel about risks. Human reactions to bioterrorism, as a serious threat to public health, pesticides and radiation were discussed through a series of pictures.

We never have all the facts and when we do, we do not have time to think them through. Even when we have the facts and the time, certain things are hard to understand. Those things limit our ability to be purely rational. Nevertheless, we must make decisions and get on with life.

The three organs of the brain involved in fear response: the cortex, the hypothalamus, and the amygdala. The amygdala is where fear recognition begins. The external message is sent to the amygdala which sends it to the hypothalamus, and from there it goes to the part of the brain that thinks and the part that fears. The signal reaches the fear part first. This part of the brain is the primitive part, where instinct resides. It prompts us to move or react before we think.

In about 40 milliseconds, the information reaches the cortex where we can think about the external stimulus. However, there are more circuits going from the amygdala to the cortex than from the cortex back to the amygdala. Consequently, we feel first and think second. We also feel more than we think. These are adaptive mechanisms which have contributed to our survival.

Illustrating how thinking changes when bounded by facts, circumstances and other limiting or delimiting factors, people are naturally more likely to choose a situation which will save a percentage of lives than one which will lose a percentage that produces identical results.

A diagram of an upside down brick pyramid without mortar was used to discuss the issue of trust in institution. When one brick is disturbed the entire pyramid tumbles. So, if an institution loses trust in one aspect of its operations, it often loses trust overall. Fear is reduced if there is confidence in the organization that creates the risk. The process is also important in building trust. Listening to people and acting sincerely on their concerns, i.e., openness, builds trust.

With regard to harm versus benefit, veterans may receive more radiation from hospital care than from military exposure, but the benefit of the x-ray or radiation treatment outweighs the fear of exposure. Benefit from military exposure is minimal at best so the fear is greater.

Talking on a cell phone while driving is an example of how benefit, control and choice affect our feelings of fear. We need to know who is calling; we think we have control; and we choose to do it. All these things ameliorate our fears. In the same vein, volunteering for a duty produces less fear than if one is ordered to do the job. This effect may very well be affecting, indirectly, some of the decisions of this Board.

Fear or the feeling of fear is enhanced by the proximity of a given incident, or the likelihood that the danger may affect your area of concern. Fear factor is also affected by whether the phenomenon is something we have lived with for a period of time or whether it is a new outbreak, discovery, event, or disease. We tend to become accepting of conditions such as common flu, suicide bombers in Israel and harmful air particles from fossil fuel, while an exotic flu virus, threats to domestic flights and airborne radiation produce greater feelings of fear.

Mr. Ropeik concluded by discussing the definition of Risk Communication: “Actions, words, and other interactions that incorporate and respect the perceptions of the information recipients, intended to help people make more informed decisions about threats to their health and safety.”

Dr. Paul Blake’s presentation:

The presentation addressed the impact of the VBDR recommendations on the NTPR program.

The following represents a summary of the NTPR actions that have been completed or will be completed to address the Board’s recommendations.

1. *The NTPR develop a screening procedure for skin cases that would allow for expedited processing.* Status: A screening procedure was developed and the VBDR Subcommittee 1 (SC1) has been briefed on its implementation. The recommendation for expedited skin cases will drop processing time from six months to one month, and this will have an immediate \$7,000,000 cost saving and a future saving of \$1,000,000.

2. *The NTPR develop a screening procedure for prostate cancer cases that would allow expedited processing of those cases for which doses are well below the level likely to result in a successful claim.* Status: A screening procedure has been developed and by the end of November, almost all the backlog prostate cases will be signed out. This has a positive impact on the veteran, reducing processing time from six months to four months. The procedure also provides an immediate saving of about \$2,500,000 and future savings of about \$1,000,000 per year.
3. *The NTPR undertake a comprehensive analysis of uncertainties for all beta dose scenarios.* Status: This is not as crucial as it was; there still are skin cases to evaluate in the future where beta dosimetry will be a factor. The NTPR will be issuing publications that can be cited by NTPR analysts and others in the field.
4. *The NTPR hire a consultant to write a quality assurance (QA) plan and that the NTPR develop and implement a QA program on a schedule that allows it to be integrated into the contracting process.* Status: Oak Ridge Associated University (ORAU) has been hired as a consultant. They have prepared a checklist, similar to one used for Energy workers to review dose reconstruction. Metrics and Standard Operating Procedures (SOPs) have been included in contract procedures. The NTPR has released a number of extensive SOPs on radiation dose assessments and QA through subcommittees for review and feedback.

Using a graph to show the impact of the VBDR recommendations, the backlog is now about 365 cases, the goal is to reduce that to about 165 cases and have no case pending in the agency for longer than six months.

Addressing skin cancer cases, there is a lot of uncertainty associated with this subject, but by giving the benefit of the doubt to the veterans, most of the cases in the Pacific Proving Ground and Nevada Test Site are appropriate for expedited processing, with one exception; the Hiroshima/Nagasaki veterans where the amount of radioactive fallout from the ground was very minimal and almost all of the occupying troops did not come in until two to three months later so the fallout in most cases had minimal impact on them.

The four factors that justify the expedited processing: 1) the difficulty in determining upper bound skin dose, to include effects of partial showering, 2) the uncertainty associated with particle size and skin retention factors, 3) the uncertainty associated with the mixed beta and gamma dose in many scenarios, and 4) the calculated upper bounds for many previous skin cancer claims exceeded the screening dose for compensation.

Discussing compensation decisions, the NTPR will soon publish some data based on the Interactive Radio-Epidemiological Program (IREP) that shows screening doses for three different types of skin dose, along with prostate cancer and a number of other effects. When the data are released to the VA, most of the veterans will qualify for compensation

for melanoma and basal cell skin cancer. In squamous cell cancer, however, the screening doses for compensation are much larger.

The VBDR recommendation to the VA regarding centralized processing has a major impact on DTRA. It reduced the administrative load of keeping over 50 separate VA offices informed of the status of cases. Other efficiencies gained from the centralization are all to the benefit of the deserving veteran.

It was reiterated that dose reconstructions cost about \$12,000 per case and they require many hours by the NTPR contract staff to complete. The VA sends DTRA cases of non-radiogenic diseases, not listed in the regulations, for dose reconstruction. Among the cases in this category are memory lapses, blindness, acute respiratory failure, and high cholesterol. None of these cases have been compensated. Two reasons to discontinue dose reconstruction for these types of cases are: 1) unsuitability of the veteran's evidence, and 2) lack of a causal relationship between the conditions and the radiation exposure.

To do a preliminary screening of non-radiogenic cases before they are sent to the NTPR for dose reconstruction VA should use data contained in a DTRA point paper, titled "Dose Reconstruction for Conditions Not Likely Induced by Exposure to Ionizing Radiation." While these cases now represent about two percent of the NTPR caseload, the doses required for such radiation-induced illness should be high. However, a veteran who received a dose high enough to cause the disease would, in fact, have died much earlier of radiation exposure.

Dr. Blake concluded by stating that the backlog of dose reconstruction cases is easing, but they still take too long; and the NTPR program remains focused on publishing the technical and quality assurance basis for their processes. He also asked the Board to endorse the recommendations in the DTRA Point Paper.

Mr. Thomas Pamperin's presentation:

The presentation addressed the responses from the VA to the VBDR recommendations from the last VBDR meeting in Austin, Texas. The VBDR made six recommendations affecting the VA. One has been implemented, three are in the process of implementation, one was not accepted, and one is in the process of clarification.

With regard to the recommendation for the VA to provide the NTPR with the outcomes of adjudicated claims, VA is willing to do that as an aggregate figure. The VA is working with the General Counsel to resolve this issue because providing information on individual claims may violate privacy laws.

The recommendation that the VA grant presumptive service connection for basal cell skin cancers and melanomas under 3.309 was not accepted. The decision was based on the latest Biological Effects of Ionizing Radiation report and Office of Management and Budget rules that state when you publish a regulation, you must look for inconsistencies

with other agency's rules. No other agency has skin cancer as a presumptive disability. However, based on Dr. Blake's presentation, this recommendation may have become unnecessary. Without objection, the Board could withdraw the recommendation. With regard to centralization of claims processing, and placing all veterans with validated radiation exposure in the Ionizing Radiation Registry, the VA accepted that recommendation. The VA is also working with the Veterans Health Administration to work out the technical details for implementing the recommendation.

The VBDR recommended that the VA award service connection retroactively to the date of initial claims for all current and future additions to the presumptive list. *Lundgren v. Kodak*, a Supreme Court decision held that regulations could not be retroactive unless specifically authorized by Congress.

The VBDR provided sample letters and a brochure to improve communication with atomic veterans. The letters and the brochure, with slight modifications, have been accepted by the VA. The letters will be transmitted to the regional office in Jackson, Mississippi as soon as the modifications are complete.

The Jackson, Mississippi regional VA office has been designated the single point of contact for handling radiation claims. This includes nuclear test claims, risk activity claims and occupational radiation exposure claims. Approximately 2,500 cases will be sent to Jackson. About 1,200 cases a year are expected and consolidating will result in greater consistency and efficiency in processing the claims. The Jackson office will have jurisdiction over all the radiation claims.

VBDR SUBCOMMITTEES

The Board was mandated by Congress to audit dose reconstruction and the VA claims decisions for service connection of radiogenic diseases and improve communication with veterans. The Board's mission is also to address veterans concerns about the possibility of an elevated risk of cancer and other illnesses in veterans who were exposed to radiation or fallout from nuclear weapons testing, and the validity of their dose reconstructions.

To accomplish its task, the Board approved the formation of four subcommittees (SCs), their scope of work and their membership. The work of these subcommittees will meet specific requirements of Public Law 108-183.

Subcommittee 1 report presented by Mr. Harold Beck, VBDR Subcommittee 1 Chairman

The task of SC1 is to assess the dose reconstruction procedures, and to audit a random sample of NTPR dose reconstructions. Thus, a third set of randomly selected cases had been chosen for assessment from an updated list of Radiation Dose Assessments (RDAs) that were completed between May 2003 and August 2006.

The NTPR generally provides benefit of the doubt in development of the Scenario of Participation and Radiation Exposures (SPAREs). Further, the benefit of the doubt is usually applied in the RDAs, but it is not always done consistently. Issues raised in the SPARE are not always addressed in the RDA.

Uncertainty for some skin doses is likely to be significantly underestimated. For some scenarios, the upper bound is improperly calculated. The NTPR contractor is preparing an updated review and assessment of the credible upper bound in dose from skin contamination. This assessment should be extended to reassess the current interim upper bound estimate for skin doses based on beta to gamma ratios.

Citing Dr. Blake's presentation, the information in DTRA's Point Paper adds significantly to the credibility and defensibility of the portion of reconstructed skin dose due to external exposure. However, the paper fails to consider a number of sources of dose uncertainty.

Skin dose audits are complicated and uncertain. New methods in use now have not been reviewed by the VBDR or documented in the SOPs. There is a lack of consistency between contractors and between analysts working for the same contractor. The first 18 audits also showed that the upper bound dose estimates due to ingestion of radionuclides are very conservative. In some cases the point upper bound dose estimates exceed the 95th percentile of the likely dose calculated by a reconstruction procedure.

The NTPR has not issued a formal technical analysis demonstrating that the interim upper bound factors always provide an upper bound dose that is at least at the 95th percentile level. For some internal dose scenarios, it appears that unreasonably high upper bounds are applied, while for some external dose scenarios, the upper bounds may be too low. The NTPR must complete this assessment if they are to redefine the interim upper bound factors.

The NTPR is not informed of claims outcomes after RDAs are provided to VA. Therefore, there are no statistics regarding the percentage of successful non-presumptive claims.

The need for uncertainty analysis in beta dosimetry was reiterated. An interim upper bound factor for all skin dose estimates should be applied to beta to gamma ratios until an updated assessment of the credible upper bound in uncertainty is completed. While this will not apply to the expedited cases, it will still be necessary for those that require a complete RDA.

The VBDR should review any proposed expedited skin cancer RDA methodology prior to its implementation. The Board also should consider whether upper bound factors adopted in response to the 2003 National Research Council report should be made permanent. The NTPR should document that these factors always provide upper bound estimates that attain or exceed the 95th percentile.

The NTPR should re-evaluate the methodology for estimating the upper bound for ingestion doses. NTPR also should develop a method for adjusting estimates of the upper bound to reflect the larger uncertainty for cohort film badges.

Mr. Beck discussed the RDA QA program and recognized the benefits of the ORAU audits. The QA program should be extended to include the performance of selected duplicate blind RDAs for comparison with the original. This process would require contractors to seek greater consistency.

Dr. Zimble pointed out that many of the recommendations have already been accepted by NTPR and suggested that the VBDR ask Dr. Blake to provide an update on the recommendations at the VBDR March 2007 meeting. Without objection, it was moved and accepted by the Board.

Subcommittee 2 report presented by Dr. Ronald Blanck, VBDR Subcommittee 2 Chairman

Subcommittee 2 (SC2) is required to provide audits of the procedures and policies used by the VA and the decisions made on claims.

Consistent with the June 2006 SC2 recommendations to the Board, a consultant, Ms. Jean York, was hired to review additional cases. Twenty VA cases were randomly selected by Ms. York, from six regional offices, for audit. These included cases that dealt with the most recent radiation claims handled by the VA involving the NTPR dose reconstruction. Her findings were similar to those reported by SC2 members at prior meetings. SC2 found that the additional reviews add validity and weight to the subcommittee's other recommendations. SC2 also believes that some of the recommendations of the Board adopted at the June 2006 meeting will address many of the issues found by the consultant as well as by the subcommittee members.

SC2 acknowledges the VA response to the Board's recommendation that all current and future presumptive conditions be retroactive to the date of the initial claim. They called SC2's attention to the rule that, when a presumption is created, if a veteran had previously claimed the presumptive condition, the VA can establish service connection from the date of the regulatory change or one year from the date of the reopened claim whichever is less. This process is the same one generally applied in all presumptive disabilities for all veterans.

SC2 also acknowledges that the NTPR is working on developing expedited dose estimates for certain skin cancers. SC2 recognizes that this would help the VA in processing skin cancer cases faster.

Recommendations from SC2 follow:

SC2 is encouraged by the fact that the VA is moving to consolidate radiation claims. SC2 recommends that the VA follow-up on this action by establishing a standard

operating procedure for the centralized processing of atomic veterans' claims from initial claim identification through adjudication.

SC2 is aware that the Department of Labor does not forward non-radiogenic disease claims to the National Institute for Occupational Safety and Hazards for dose reconstruction, and SC2 recommends that the VA explore the feasibility of developing a similar program.

Subcommittee 3 report presented by Dr. Curt Reimann, VBDR Subcommittee 3 Chairman

Subcommittee 3's (SC3) observations were discussed after an introduction covering SC3's approach, goals and activities.

The responses of both agencies have been positive. The various NTPR reports indicate progress in many aspects. The VBDR recommendations have been implemented, and this has enhanced the processing of claims and increased integrity of the system. However, the pace of progress could be improved. With the dose reconstruction contract in flux and some of the QA documentation pending, it will be a while before everything is in place. Once those actions are complete, every effort should be made to move toward a system of metrics and audits that would track all steps in the various processes and, further, create a basis for QA and performance assurance.

Dr. Reimann discussed the SC3 recommendations. The first is to complete a quality plan that creates an integrated program involving DTRA and the prime contractor and subcontractors. The second recommendation is that the QA plan must incorporate four dimensions: defensibility, consistency, objectivity, and appropriate documentation. The third is that SC3 be involved in the review of various documents and move toward a checklist that provides for a good auditing system. Fourth, SC3 should be involved as the documents for QA are produced and SC3 should review the quality metrics, the performance metrics, problem solving strategies and the plan for improvements. The last recommendation was for the VA to produce a standard operating procedure and metric scoreboard that provides a clear picture of the status of all facets of the radiation claims process.

One of the key elements for QA is validation of dose reconstruction methods used by the NTPR and its contractor organizations. SC1 is moving in that direction as they develop a basis document for all calculations. Up to this time, the focus has been on the performance aspect, i.e., getting case studies done to reduce the backlog, but now SC3 will be reviewing the QA plan, procedures and metrics. The hope is that things will move along more quickly.

Dr. Zimble noted that Dr. Blake has agreed to present a detailed report at the March 2007 VBDR meeting in Las Vegas that demonstrates significant progress in implementing the following concerns and recommendations from SC1 and SC3, and this recommendation be accepted without comment by the Board. Without objection, it was accepted.

1. The updated review and assessment of credible upper bound doses from skin contamination should be given a very high priority, and should include a substantial section containing guidance useful to the analysts carrying out dose reconstructions that will lead to greater coherence. This assessment should also reassess the upper bound for skin doses based on beta-to-gamma ratios. The VBDR recommends that an interim upper bound factor be applied to all skin dose estimates that are based on beta-to-gamma ratios until this assessment is completed.
2. The VBDR recommends that the NTPR document that the default upper bound factors currently applied for both external and internal doses always provide upper bound doses that reach or exceed the 95th percentile.
3. The VBDR recommends that the default upper bound factor currently applied to ingestion doses be re-evaluated, since the central estimate already appears to be sufficiently high-sided.
4. The VBDR recommends that the NTPR develop a method for adjusting film badge upper bounds to reflect the generally larger uncertainty in doses that are based on cohort film badges as opposed to individual personal dosimeters.
5. The VBDR recognizes that the independent QA audits contracted for by NTPR are very beneficial and should be continued. The VBDR recommends that the NTPR also extend the QA program to include double blind RDAs (See Recommendation 1 for DTRA).
6. The VBDR recommends that the QA Plan, Program and Procedures Manual should comprise an integrated enterprise QA system, spanning from the NTPR down through the prime contractor and any subcontractors. Within that system, the roles and responsibilities of all individuals involved in executing the QA system should be clearly specified.
7. The VBDR recommends that the QA Plan, Program and Procedures Manual be designed to explicitly achieve four fundamental goals, and to clearly demonstrate their achievement to outside observers. These four goals:
 - Defensibility: Any questions as to the validity of results can be resolved expeditiously and favorably.
 - Consistency: Any comparison of two RDAs will find that the two veterans were treated in a fair and consistent manner.
 - Objectivity: Any RDA can be recreated, based only on the application materials of the veteran, by any qualified analyst with essentially the same results.
 - Documentation: Any RDA will be documented well enough to support defensibility, so that any questions as to how it was performed can be answered expeditiously and without reference to the analyst who performed it.

8. The VBDR recommends that SC 3 continue to be involved in the evaluation of the QA Plan, Program and Procedures Manual as drafts are submitted. As the QA metrics, QA plans and SC 1 checklist items for case audits are being developed, SC 3 and SC 1 should be consulted for input and review.
9. The VBDR recommends that the QA documents have a clear, explicit and well documented division of scope to minimize overlap. *Primary division of scope:* The RDA Standard Operating Procedures (SOP) should list all relevant RDA calculation bases and assumptions (e.g., coefficients and multipliers) involved in performing RDAs. The QA Plan, Program and Procedures Manual should be designed to assure that all RDAs are performed in a manner consistent with the RDA SOP. *Key condition:* If an RDA uses a particular coefficient type, multiplier type or calculation assumption, it uses the value or applicable assumption specified in the RDA SOP.
10. The VBDR recommends that management reviews and QA audits provide an adequate basis for tracking QA, corrective actions and continuous improvement.
11. The VBDR recommends that case file records control be improved so that audits can be carried out expeditiously.

Subcommittee 4 (SC4) report presented by Mr. Kenneth Groves, VBDR SC 4 Chairman

The presentation included a description of the purposes of Subcommittee 4 (SC4) and a summary of its activities since the previous Board meeting, including joining SC3 in their meeting with the NTPR and attending the NAAV convention in St. Louis.

Mr. Groves described the Board's reception at the NAAV meeting and listed the members who participated. The experience was very positive and provided an excellent opportunity to communicate activities of the Board to a large number of veterans.

Actions proposed by SC4 follow:

1. Look for a number of ways to publicize that the Board has made substantial recommendations and that most of those recommendations have been accepted and are being implemented.
2. Continue to meet with the other subcommittees to identify issues related to communication that SC4 can help resolve or improve.
3. Work with the other subcommittees to ensure consistent messages get to the stakeholder community.
4. Continue public meetings with the stakeholders to assess and collect information needed by VA and DTRA to better serve the veteran community.
5. Continue to work with the VA and DTRA to implement the Board's recommunication-related recommendations.

Dr. Zimble highlighted three formal recommendations from the SC4 briefing.

1. The VA communicate (by letter) to all veterans who have had their claims forwarded to the Jackson, MS, VA Regional Office.
2. The VA assist the VBDR in communicating to veterans that atomic veterans are no longer held to any security/classification directives they may have received when they left the service.
3. SC4 meet in conjunction with both DTRA and the VA to review ways in which the VBDR could better communicate with the atomic veterans to increase their participation in the VBDR meetings and to avail themselves of the benefits available to them for their service.

Dr. Zimble noted that item 3 of the report is a recommendation from the Board to SC4 and recommended it be accepted without comment by the Board. Without objection, it was accepted.

Nominating Subcommittee report *presented by Mr. Kenneth Groves, Chairman*

The presentation included a description of the function of the Nominating Subcommittee in assisting with the selection of two candidates for VBDR membership. One candidate was selected to replace Dr. Elaine Vaughan, and another candidate was selected to represent the veterans.

The Nominating Subcommittee recommended as candidates for VBDR membership Mr. David Ropeik as Dr. Vaughan's replacement and Mr. Rudolph J. Ritter as an additional member of atomic veterans' organizations.

The VBDR formally approved their nominations for Board membership at the fourth VBDR public meeting on November 9, 2006.

BOARD'S RECOMMENDATIONS

See Addendum A for a full set of the Board's recommendations that was transmitted to VA and DTRA on December 11, 2006.

PUBLIC COMMENT PERIOD

Prior to opening the meeting for public comments, attendees were reminded that the Board had two objectives. The first is oversight of dose reconstruction and the filing and processing of veterans' claims dealing with ionizing radiation. The second is to assist DTRA, specifically NTPR, and the VA in communicating with veterans and keeping them informed.

The Board is not responsible for reviewing individual dose reconstructions nor does it serve as an appeals board. If the system is not working the Board needs to know, but the Board has no legislative power.

Input from the public was solicited on both days of the meeting and is reported in the meeting transcripts. The following is a list of the members of the public who addressed the Board at the meeting. Verbatim transcripts of the public comments are available on the VBDR Web site at <http://vbdr.org>.

Mr. Edwin Oyer, atomic veteran; **Mr. Robert Campbell** (via telephone), atomic veteran, **Mr. Clyde Want**, veteran.

FUTURE VBDR MEETINGS

Following discussion by the Board, it was agreed to hold the fifth meeting on March 7-8, 2007 and a sixth meeting during the week of September 17-21, 2007. Details about meeting locations will be announced in the federal register and on the VBDR Web site.

Dr. Zimble remarked that a reasonable amount of business had been carried out. He thanked the Board and the staff for their efforts, the public for their comments, and called for a motion to adjourn.

The motion was made, seconded and carried.

ADDENDUM A

BOARD'S RECOMMENDATIONS

The Board also offered the following recommendations:

For the Defense Threat Reduction Agency (DTRA):

Recommendation 1: VBDR recommends that, as an element of the NTPR Quality Assurance (QA) program NTPR include, at a defined frequency in terms of a percentage of cases processed, **the processing of a double blind radiation dose assessment (RDA) of the same case by at least two independent analysts, and the assessment of the respective generated results by pre-defined metrics. Key requirements that should be addressed in the assessment are the allowable relative differences between the respective reported point estimates of total external, internal and, if applicable, skin dose and the respective reported upper bound estimates for each of the reported doses. Pre-established actions to be taken if an allowable difference is exceeded should be defined and documented.**

Recommendation 2: After NTPR's implementation of the QA Plan, Program and Procedures Manual, **VBDR recommends that NTPR submit the following key QA tracking results to Subcommittee 3 on a quarterly basis: performance and QA metrics, QA corrective actions, and audit reports.**

For the Department of Veterans Affairs (VA):

Recommendation 1: VBDR is encouraged that VA is moving to consolidate radiation claims. **VBDR now recommends that VA follow-up on this action by establishing a standard operating procedure for the centralized processing of atomic veterans' claims from claim identification through adjudication. VBDR also requests that VA provide Subcommittee 3 with a timetable and status for the development of a QA plan and program, including metrics in the radiation claims adjudication process.**

Recommendation 2: VBDR is aware that the Department of Labor does not forward non-radiogenic disease claims to the National Institute for Occupational Safety and Hazards for dose reconstruction under the Energy Employees Occupational Illness Compensation Program. Accordingly, **VBDR recommends that VA explore the appropriateness of developing a similar policy. At the very least, VBDR recommends that VA review claims for non-radiogenic diseases to determine whether there is sufficient evidence and justification that the disease potentially resulted from radiation exposure, prior to requesting a dose reconstruction from DTRA.**

Recommendation 3: VBDR recommends that VA communicate (by letter) to all veterans who have had their claims forwarded to the Jackson, MS, Regional Office (RO). The letter should mention that the Jackson RO will now handle all radiation-

related claims and that their file will be returned to the original RO after adjudication.

Recommendation 4: VBDR recommends that VA assist the VBDR in communicating to veterans that “atomic veterans” are no longer held to any security/classification directives they may have received when they left the service. A letter signed by the Secretary of Defense in 1996 releases “atomic veterans” from any pledge that they made “to not discuss” their service related to the testing of atomic weapons. Information needed to file a claim is no longer restricted and may be disclosed and included for radiation-related claims.