

Executive Summary

The Twelfth Meeting of the Veterans' Advisory Board on Dose Reconstruction (VBDR or "the Board") was held at the Arlington Hilton Hotel in Arlington, VA on July 23, 2013. Members in attendance were Dr. Charles H. Roadman, II, MD, LtGen, USAF (Ret), Chair; Mr. Harold L. Beck, Dr. Paul K. Blake, Dr. John D. Boice, Dr. Robert Cherry, Dr. Patricia A. Fleming, Mr. Brad Flohr, Mr. Kenneth L. Groves, Dr. John Lathrop, Dr. Paul Locke, Dr. Curt R. Reimann, Mr. R. J. Ritter, Dr. Kristin Swenson, Mr. Paul L. Voillequé, and Dr. Gary H. Zeman; Mr. Stephen Polcheck was the Designated Federal Official. Other attendees included staff of various federal agencies, government contractors, Atomic Veterans and others.

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THE VETERANS' ADVISORY BOARD ON DOSE RECONSTRUCTION DEPARTMENT OF VETERANS AFFAIRS AND DEPARTMENT OF DEFENSE

Summary Minutes of the Twelve Meeting
Held July 23, 2013

These summary minutes along with the meeting presentations are available on the internet on the VBDR website, which can be located at <http://www.VBDR.org>. A verbatim transcript of the meeting is available upon request; contact AA@vbdr.org for more information. Those present at the meeting included:

VBDR Members in Attendance: Dr. Charles H. Roadman, II, MD, Lt. Gen., USAF (Ret) Chairman; Mr. Harold L. Beck, Dr. Paul K. Blake, Dr. John D. Boice, Dr. Robert Cherry, Dr. Patricia Fleming, Mr. Brad Flohr, Mr. Kenneth L. Groves, Dr. John Lathrop, Dr. Paul Locke, Dr. Curt R. Reimann, Mr. R. J. Ritter, Dr. Kristin Swenson, Mr. Paul L. Voillequé, and Dr. Gary H. Zeman.

Designated Federal Official: Mr. Stephen Polchek

Other attendees include:

Defense Threat Reduction Agency: LCDR Gerald Burke, LT Daniel Mannis, Ms. Sarah Burke and Mr. Mark Guidry

Department of Veterans Affairs: Mr. Danny McClung and Ms. Judy Wilson

Applied Research Associates, Inc.: Mr. Kyle Millage, Ms. Ciri Victoria, and Mr. Brian Sanchez

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July 23, 2013

Opening Remarks

Mr. Stephen Polchek from the Defense Threat Reduction Agency, in his role as the Designated Federal Officer for the Veterans' Advisory Board on Dose Reconstruction, called the meeting to order.

Dr. Roadman explained the history and purpose of the Board. He then recognized each member from the Board and proceeded onto the first presentation by Dr. John Boice on the ongoing Atomic Veterans' epidemiology study.

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Review of Atomic Veterans Epidemiology Study

Mr. John D. Boice, Ph.D.
International Epidemiology Institute
Rockville, MD

Dr. Boice gave a presentation overviewing an epidemiologic investigation of the Atomic Veterans. **Dr. Boice** noted that his research effort would take two more years, but wanted to provide preliminary results related to experiences that the veterans had during their service other than those related to radiation. **Dr. Boice** mentioned that they are also evaluating over a million workers from the United States nuclear industry to try and better understand potential health effects of radiation. **Dr. Boice's** team is currently studying the records for approximately 115,000 veterans; this part of the project is cost effective because these are veterans who had previous dose reconstructions performed and the prior work is being used as a starting point for the analysis. **Dr. Boice** and the team chose to initially perform case studies on the veterans who developed leukemia; however, the research will eventually encompass all causes of death and all cancers. Extensive follow-up is on-going; along with dose reconstruction and characterizing the radiation exposure during their military service, the team is seeking out the veterans' records, and recording their cause of death.

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Dr. Roadman asked **Dr. Steven Simon** to present.

Review of the Rongerik "Weatherman" An Atomic Veteran High Dose Cohort

Steven Simon Ph.D.
National Institute of Health
Bethesda, MD

Dr. Simon gave a presentation describing a project to better understand the effects associated with the radiation exposure that some of the Atomic Veterans received from above ground testing. He noted that the U.S. government has many efforts underway to develop means of mitigating potential radiation exposures of the American public, in particular with respect to a nuclear detonation on U.S. soil.

Dr. Simon stated that his goal is to involve veterans in a scientific study so the team can learn from the exposure that the veterans received. The goal of the study is to compare three different independent means of assessing doses to living Atomic Veterans. **Dr. Simon** described the groups he wants to study: the 9 living military weather observers stationed on Rongerik in the Pacific in 1954, and the 7 highest dose military personnel at both the Nevada Test Site and the Pacific Proving Grounds. The criterion to be included in this small study is that the subject should have received more than 250 mSv of exposure. DOD records and the Atomic Veterans studies that have been done confirmed these individuals meet the exposure level threshold. **Dr. Simon** stated that the study will be conducted by interviewing the 16 individuals and collecting blood samples from each. Then, 16 other veterans who had similar job duties, but were not exposed, will be used as control subjects. The Institutional Review Board (IRB) approval is partly underway and preliminary research has been performed. **Dr. Simon** is seeking additional funds and support to complete the project. **Dr. Simon** stated that the findings of the study will show the health outcomes and the frequency of cancer and heart disease among the most highly exposed Atomic Veterans, this study is not epidemiological in nature but instead a summary of findings.

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Dr. Roadman called for a break.

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Dr. Roadman asked **Dr. Paul Blake** to present.

Update on the Nuclear Test Personnel Review (NTPR) Dose Reconstruction Program

Paul Blake, Ph.D., CHP

Defense Threat Reduction Agency (DTRA)

Fort Belvoir, VA

Dr. Blake presented an annual update on the NTPR (Nuclear Test Personnel Review) Program.

Dr. Blake noted that over the life of the VBDR, DTRA has received 20 recommendations in total to DTRA itself, as well as one which was a joint recommendation between DTRA and the VA. The first recommendations were received from the 3rd meeting in June 2006 and have continued up until the last two meetings. **Dr. Blake** stated when the program first started out there was a tremendous backlog of cases that was continuing to grow. The initial recommendations from the board were a great success and led to the elimination of the four-year backlog of cases and now the average time to process a claim is, on average, about 45 days. DTRA was also able to work with the VA and led to an increase in service connection findings, which improved the overall processing time of the cases. In addition, they saved the DOD \$20 million and that money was put into other programs. Overall, the board's first efforts led to significant achievements for the program. **Dr. Blake** mentioned two other issues: the uncertainty

associated with beta dose reconstruction, especially Atomic Veterans, and suggestions from SC-3 on quality. SC-3 recommended that a stronger quality assurance plan be implemented and recommended that double blind studies be performed for radiation dose assessments. DTRA follows standardized procedures (which **Dr. Blake** noted was another Board recommendation) but there is interpretation in how some of the specific procedures are applied. So, performing the recommendation for double blind studies was very useful and is a practice that is continued on an annual basis. **Dr. Blake** also described the status of two, non-Atomic Veteran projects that the NTPR has been involved in; Operation Tomodachi and the McMurdo Station projects. **Dr. Blake** noted that both of these projects were coming to closure and will be further described in other briefings today; he noted that with the completion of these projects, the NTPR will be refocused back to the Atomic Veterans again.

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Dr. Roadman asked **Mr. Brad Flohr** and **Ms. Judy Wilson** to present.

Update on the VA Radiation Claims Compensation Program for Veterans—Current VA Radiation claims programs Overview and Post-Establishment of Jackson Improvement Data, Processing and Compensation

Mr. Bradley Flohr

Veterans Benefits Administration
Washington, DC

Ms. Judy Wilson

Veterans Benefits Administration
Jackson, MS

Mr. Flohr provided a summary of the Veterans Benefits Administration (VBA) Compensation Service. The VBA's role in the process is to expedite and to facilitate the dose reconstruction in a radiation claim to the Office of Public Health at the VA to increase the rate and the accuracy of claims processing.

Mr. Flohr stated from October 1, 2011 to the present, the VBA has completed 628 cases, of which 40 have been granted and 545 were denied. Many members of the Board and Board recommendations have helped in making the process of filing claims with the VA more efficient; one of the means by which the VBDR has helped this process was by recommending that radiation claims processing be consolidated to a single site in Jackson, Mississippi. In addition to claims processing, the VBA has been notifying veterans of the ionizing radiation registry and the DOJ's Radiation Exposure Compensation Act (RECA) programs on a regular basis. **Mr. Flohr** also touched upon quality reviews of claims decisions; the VBA has had a national System Technical Accuracy Review (STAR) staff in Nashville, where decisions that are made by the 57 regional offices are reviewed. **Mr. Flohr** stated that the VA is also rushing towards electronic processing of all claims. Ultimately, they hope that this will help speed up the claims processing.

Ms. Wilson provided an update on specific topics of interest related to the radiation process. She stated that in 2013, the Jackson office is projected to complete 1524 radiation claims, which is a 25% increase in output from prior years. **Ms. Wilson** touched upon the processes of dealing with claims filed more than

two years ago and set forth the strategic goal of processing 98% of outstanding radiation cases by 2015. **Ms. Wilson** stated the Jackson office has processed a total of 8,624 claims to date. Out of that total, 5,941 were denied; 2647 from atmospheric testing and 3157 from occupational claims. There were a total of 2683 claims granted and out of those, 2,352 are atmospheric and 273 are occupational. **Ms. Wilson** stated the average days of a given claim pending increased this fiscal year to 423 days. This is largely due to the media communications and outreach, which has resulted in more claims coming. The average days to complete radiation claims is 420.6 in July 2013. **Ms. Wilson** mentioned that as the efforts continue to finalize older inventory, this number is going to continue to increase for a short period of time.

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Dr. Roadman asked **Mr. Danny McClung** to present.

Overview of the Veterans Health Administration

Mr. Danny McClung, BS, RRPT

Veterans Affairs Office of Public Health
Washington, DC

Mr. McClung presented an overview of the Veterans Health Administration's (VHA) Post Deployment Health Office. **Mr. McClung** mentioned the Office of Public Health Epidemiology program is collaborating in the "One Million" U.S. Radiation and Veterans Study. He mentioned the VHA office is heavily involved in working with the VBDR's Subcommittee 4 in a lot of the outreach to veterans programs. His office published the Ionizing Radiation Registry (IRR) newsletter and brochures in an attempt to reach veterans who are not already identified as Atomic Veterans. **Mr. McClung** stated in the future, his office intends to create fact sheets for current issues of radiation exposure, such as for the veterans of McMurdo Station. Another form of outreach his office is providing is the public health website; it has been updated several times over the past few years. Most recently, pages were added to describe the potential exposure at Fukushima and the LORAN Coast Guard. **Mr. McClung** described the HAIG Survey of VHA's Environmental Registry Program as well. The IRR was unofficially started in 1977 before the passing of the public law. To date there have been 25,000 complimentary health exams to veterans who expect they have been exposed to ionizing radiation. Unfortunately, very few exams have been requested in recent years even with all of the outreach that has been done. In 2012, less than 250 people presented and took the exam. The Public Health office is responsible for providing medical opinions back to the VBA compensation service when the case involves a non-presumptive illness. Average non-presumptive claim processing time in OPH is 4 days. There were 1,492 claims processed from 2009 through 2012. Of those 574 of the claims were from Atomic Veterans, 62% occupational claims. There were also 89 favorable opinions, mostly skin cancer and Posterior Subcapular Cataract. **Mr. McClung** went on to talk about the new developments in provider education. There is a new app titled Environmental Exposure Medical. This app will provide "just-in-time" information to providers, patient care teams and veterans. The contents will include, taking an exposure history, the history of exposures during military service, potential and known health effects, preventive measures, and treatment. Developers of the app have planned for it to be offered for free to non-VA audience. The Veterans Health

Initiative on radiation will also be updated and put into a more interactive electronic format. There are also two workshops scheduled to “train the trainer” on how to better serve the health needs of veterans in the field.

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Dr. Roadman asked **Mr. Mike Grissom** to present.

NCRP Operation Tomodachi Radiation Dose Assessment Peer Review

Mr. Mike Grissom

National Council on Radiation Protection & Measurements
Riverside, CA

Mr. Grissom presented on the NCRP Operation Tomodachi Radiation Assessment Peer Review.

Mr. Grissom went on to describe Operation Tomodachi and the Operation Tomodachi Registry (OTR).

The registry was established for US forces in Japan taking part in “Operation Friendship” and affiliated individuals following the March 1, 2011 great Tohoku Earthquake and Tsunamis. The period of the event was March 12 to May 11, 2011, a 60 day period identified as the principal time for exposure to radiological releases. The population was made up of 70,000 DoD- affiliated individuals. **Mr. Grissom** described the eight memos /reports that were reviewed at the Scientific Committee 6-8 Peer Review: DAWG-TP-12-01, DTRA-TR-12-001, OTR Website, DTRA-TR-12-002, DTRA-TR-12-004, DARWG-TM-12-03, DTRA-TR-12-017, and DTRA-TR-12-41. He stated key aspects that SC 6-8 looked for during their review, comparison of dose estimates with those from other sources, such as the WHO 2012 report “Preliminary Dose Estimation from the Nuclear Accident after the 2011 Great East Japan Earthquake and Tsunami”, quality assurance and clear communication of methods and findings.

Mr. Grissom pointed out that the OTR website has an interactive map available and anyone can click on a location and the estimated dose an individual at that location would have received. He also stated that the NCRP review process was thorough, timely and met all contract deliverables within budget. Response of the DoD to SC 6-8 comments was exceptionally good based on the final reports published to date. In the future, the NCRP will publish a summary of the Operation Tomodachi reviews as an official document.

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Dr. Roadman called for a lunch break.

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Dr. Roadman asked **LCDR Greg Fairchild** to present.

McMurdo Sound Radiation Dose Assessment

LCDR Greg Fairchild
Naval Dosimetry Center
Bethesda, MD

LCDR Fairchild presented on the McMurdo Sound Radiation Dose Assessment. **LCDR Fairchild** gave some background information. He went on to state that the Secretary of Defense and the Secretary of the Navy committed the Navy, specifically the Naval Dosimetry Center, to work with DTRA, the VA and the VBDR to assess possible radiation doses associated with the PM-3A nuclear reactor. An interim briefing on the status of the dose assessment efforts was provided by the Navy at the VBDR meeting in San Antonio, TX on March 23, 2013. The brief included a call for additional veteran input. Several veterans and veteran groups provided information that was incorporated in this final report. **LCDR Fairchild** stated the main objectives of the task was to estimate upper-bound doses for non-reactor personnel (veterans who were not monitored for radiation exposure) and to develop procedures for individualized radiation dose assessments for non-monitored support personnel and monitored, PM-3A Nuclear Power Plant staff. **LCDR Fairchild** then discussed the upper bound dose assessment. He stated some parameters were updated to reflect more accurate values, often based on additional veteran input and research. For example, dose rates for packages of waste shipped at Department of Transportation Category Yellow III and Radioisotope Thermal Generator shipments reflect average dose rate measured at one meter for the respective packages shipped from McMurdo Station; activity concentrations of contaminated soil reflect the maximum contamination measured in all soil samples; the ratio of gaseous iodine to aerosol iodine matches NUREG-0017 and published data on particulate to non-particulate iodines in reactor effluents; and water intake estimates were increased to better reflect the consumption in the extreme cold and dry Antarctic environment. **LCDR Fairchild** discussed the uncertainty consideration for external doses. In addition to using high-sided values in the exposure parameters, all reconstructed doses for external exposure are multiplied by an uncertainty factor of 3. This factor accounts for uncertainties in measurements and calculations and is based on standard operating procedures methodologies of the DTRA NTPR program. External dose components from various pathways assumed to be uncorrelated and external doses uncertainties are combined in quadrature. Upper-bound doses were rounded up to one significant digit to ensure maximum benefit to veteran. He also discussed the uncertainty consideration for internal dose. In addition to using high-sided values in the exposure parameters, all reconstructed doses for internal exposure are multiplied by an uncertainty factor of 10. This factor accounts for uncertainties in measurements and calculations and is consistent with standard operating procedures of the DTRA NTPR program. Internal dose components from various pathways were assumed to be correlated and upper-bound dose uncertainties were determined by summing upper-bounds of each internal dose component. Upper-bound doses were rounded up to one significant digit. **LCDR Fairchild** proceeded to discuss the established process for individualized dose assessments, individualized dose assessment processing parameters and validations of process for individualized dose assessments. **LCDR Fairchild** stated that the upper-bound dose assessment for military personnel stationed at McMurdo Station, Antarctica, between 1962 and 1979 is complete. The report, entitled "DTRA-TR-12-003: Upper Bound Radiation Dose Assessment for Military Personnel at McMurdo Station, Antarctica, between 1962 and 1979" is available online on the DTRA website under the "Learn More" section of the page.

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Dr. Roadman asked **Dr. F. Owen Hoffman** to present.

Utility of NIOSH-IREP Probability of Causation Software for Evaluating Probability of Disease Causation for McMurdo Station Veterans

F. Owen Hoffman, Ph.D.

SENES Oak Ridge, Inc.

Oak Ridge, TN

Dr. Hoffman presented on the Utility of NIOSH-IREP for Evaluating Probability of Disease Causation for McMurdo Station Veterans. **Dr. Hoffman** mentioned that IREP stands for Interactive Radio Epidemiological Program. IREP is an online computer code primarily designed to calculate risk with uncertainty whereby the risk is the risk of radiogenic cancer in later life as a result of an individual's exposure. The goal of this computer code is to calculate risk with uncertainty; essentially, it's a mathematic transformation performed to convert excess relative risk to an estimate of probability of causation. There are two versions of the code. One was the original IREP developed by the National Institutes of Health for the Veterans Administration which is currently being used by the Veterans Administration; the second version is currently used to compensate claims among potentially exposed DOE workers. **Dr. Hoffman** stated the question being asked is; how applicable the IREP code is to the unique exposures that occurred at McMurdo Station? **Dr. Hoffman** claims that the code is applicable and that adjustment factors were included in the code so that the IREP program would be applicable to a wide variety of exposure situations. **Dr. Hoffman** listed the adjustments in IREP to estimate Excess Relative Risk (ERR) and Probability of Causation / Assigned Share (PC/AS) for Veteran's diagnoses with cancer. He then went on to detail how IREP is used in the compensation program. He stated that IREP should be updated to account for advances in the state of knowledge about radiogenic cancer since 2003 and interim adjustments to IREP estimates of PC/AS can be implemented via the "user-justifiable uncertainty factor". He explained to the audience that biases in the application of IREP are mostly due to administrative policies designed to give claimants the "benefit of the doubt". Consider IREP "user justifiable uncertainty factor" as an interim solution.

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Subcommittee 1 & 2's Questions & Comments on NIOSH-IREP's Utility for Evaluating Probability of Disease Causation for McMurdo Station Veterans

Dr. Lathrop asked questions regarding general applicability of the equation. His question pertained to over how many years the exposures occurred and why time isn't currently compensated for in the model. He expressed his concern that IREP is severely out of date and urged very expeditious IREP update. **Dr. Hoffman's** response was he agrees that it needs to be updated, but stated that the equations used are sound with regard to increased effective risk.

Dr. Boice stated that the model is well-clarified and presented, especially in light of complexities of the model. His concern is that 99% of the claims awards in cases with lesser-known cancers & lower threshold with known cancers is potentially unfair to veterans. **Dr. Hoffman's** response is that he agrees and stated that the benefit of the doubt should certainly be given to the veteran.

Dr. Roadman stated that altering standards for compensation would be less claimant-friendly even if it were more scientifically appropriate in light of new findings since the creation of the model.

Dr. Fleming raised a question regarding the user-justifiable uncertainty factor (based on correctional coefficients). What more recent information in particular could serve to change the IREP code? **Dr. Hoffman's** response was that more claimant-friendly leukemia findings suggest that we definitely incorporate this if data like this existed. However, some exposures are so low that he argues that it would be more time/effort to prove that the veteran's claim is perhaps negligible.

Subcommittee 1 & 2's Comments on McMurdo Station Dose Reconstruction

Dr. Swenson stated that SC-2 deems current thresholds applicable and appropriate for general dose reconstructions, as the benefit of the doubt is given to the veteran. The VA isn't required by law to solely use IREP, and IREP can be considered in conjunction with a number of other parameters.

Mr. Beck urges the use of IREP as a tool, a tool to be used with other tools. He claims that current IREP utilization is "tremendously conservative" in favor of the veteran.

Dr. Lathrop stated he is losing enthusiasm for updating IREP, as it may not benefit the veteran.

Dr. Roadman stated that updating IREP is a debate of "truth vs. relevance" and the "nexus of science, policy and expectations". He stated that the VBDR, as a board, seeks to help veterans but at the same time incorporate fact.

Dr. Boice cited NCRP 171 for any people concerned with uncertainties in risk estimation, as it highlights the increased level of scientific advancement and understanding.

The board voted that the review of the McMurdo Sound was found to be acceptable.

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Dr. Roadman called for a break.

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Subcommittee Reports

Dr. Roadman asked each chair to present their accomplishments and their recommendations.

Chairman of the Board

Dr. Charles Roadman

Dr. Roadman stated the primary objectives of the board have been met. One is the oversight of the scientific components of the dose reconstruction. The second is to look at the processes for procedure in adjudication and then to outreach to the Veteran community about the system.

Dr. Roadman presented a motion that the VBDR would terminate at the close of FY13. The board members seconded the motion, and the motion was carried.

Subcommittee on Dose Reconstruction (SC-1)

Mr. Harold L. Beck, Chair

SC-1 summarized some of the highlights of things that specifically arose as a result of recommendations made from SC-1 to the board and DTRA. The most important is the transition from full RDA's to expedite claims processing. The first expedited processes started out with skin, then included prostate and cataracts. The subcommittee was exploring multiple ideas to help processes and procedures in an effort to expedite the reconstruction process for the veterans and to get rid of the large backlogs. SC-1 is also proud of working with SC-3 in terms of improving the quality assurance programs, including the double-blind analyses and the documentation that goes with the dose assessments that ensures the dose assessments are done correctly. In the last 8 or 9 years, SC-1 has been instrumental in providing external peer review for many of the procedures for developing the standard operating procedures. SC-1 also had meetings twice a year; to review analysis, working informally on processes and hear updates from Dr. Blake on the NTPR program.

SC-1 recommends that NTPR maintain the existing QA programs implemented under the VBDR, including: the double-blind analyses, the periodic independent audits of a sampling of RDAs by the NTPR, the QA programs and double-blind analyses, and the abstaining of independent peer-reviews of technical documents and revisions or updates in SOPs by the NTPR.

Subcommittee on VA Claims Adjudication Procedures (SC-2)

Dr. Kristin N. Swenson, Chair

SC-2 summarized some of their accomplishments over the years of the VBDR. SC-2 recommended the centralization of claims early on after meeting at the VA looking at claims processes. With tiger teams and the Jackson consolidation to increase staff, they have gone through 8691 claims that have been processed and have shown a reduction in errors. Audits of eighty-seven Veteran's claims were conducted and included evaluating the procedure and decisions on claims for radiogenic and non-radiogenic diseases and resulted in providing detailed feedback on time-sync errors in processing. More recent audits have shown improvement and installation of the VPN between DTRA and Jackson was working very well. SC-2 met with Jackson VARA on several occasions which resulted in recommendations to streamline the process.

SC-2 recommends that 1) VA & NTPR provide the board with a formal plan to remove the backlog by the 15th of September, 2013; 2) VA corrects the problem which causes delays in transferring veterans claims from OOJ to Jackson VARO; 3) VBA conduct a focused System Technical Accuracy Review (STAR) of the radiation claims every three years. The outcome of these recommendations will be reviewed by the NTPR/VA/DOJ semi-annual meeting.

Subcommittee on Quality Management and VA Process Integration with DTRA Nuclear Test Personnel Review Program (SC-3)

Dr. Curt Reimann, Chair

SC-3 has tried to emphasize thorough quality system requirements based on documented standard operating procedures. Decision summary sheets were a focus and have been have become a formal process to document and demonstrate what decisions were made regarding a veterans' claim so that they become an effective tool or instrument in continuous improvement. By focusing on decisions rather than many different subparts or processes, SC-3 suggests that accuracy can be greatly improved and focused.

SC-3 recommends that semi-annual meetings of NTPR, VA and DOJ should include detailed reports demonstrating case accuracy and timely performance, including current performances, performance trends, corrective action, and related improvements.

Subcommittee on Communication and Outreach (SC-4)

Mr. Ken Groves, Chair

Mr. Groves stated the responsibility of SC-4 is to work with DTRA and the VA on trying to reach out to and identify atomic veterans to make them aware of the public law that can potentially offer them benefits. SC-4 worked with two contractors: NCRP for the first five or six years and currently ARA to build an excellent website portal for the atomic veterans to go to and get the information they need to file claims. SC-4 met regularly with the public affairs staff of both DTRA and the VA to work with them on their websites and their publications to ensure that there was coordination and clear communications channels to the veterans. SC-4 has also worked closely with VA Public Health office and has also had articles published in the AARP magazine and the AARP website. SC-4 developed a comprehensive, joint VA, DTRA, and VBDR communication plan. The plan was a matrix with many action items, all of which or almost all of which have been completed.

SC-4 recommends 1) by the 15th of September 2013, the VHA Office of Public Health should complete production and distribute the briefing package material to the "Big 6" Veterans organizations to inform veterans about the atomic veterans claims process and 2) DTRA and the VA ensure the semi-annual NTPR meetings include an agenda item to coordinate DTRA and VA Public Affairs outreach efforts, and a report is written and reported on the public websites of DTRA & VA.

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Dr. Roadman asked for comments on SC1's report. No comments.

Dr. Roadman asked for comments on SC2's report. **Dr. Boice** asked why VPN has been down for 18 months. **Dr. Blake** responded by stating that faulty processes of computer shipping to the VPN led to the delay, and therefore in the meantime the system was nonfunctional for one reason or another. He stated that it will be fixed within a month.

Dr. Roadman asked for comments on SC3's report. No comments.

Dr. Roadman asked for comments on SC4's report. No comments

All the subcommittee reports were accepted and all recommendations were carried.

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Public Comment Session

Dr. Roadman addressed the audience and established ground rules for the discussion. He requested the speakers use the microphone and clearly state and spell their names before addressing the board. He noted that the audience could address a specific member of the board, or make a general statement or question.

Dr. Roadman thanked the audience for attending and opened the floor for the public to ask any questions at this time.

Mr. Lincoln Grahlfs had kind words for the Veterans Administration. He also stated that he is an Atomic Vet who participated in Crossroads and an active member of the National Association of Atomic Veterans since its founding. He noted that about a year ago he filed a claim and things went smoothly. He received some questions from the dose reconstruction people that he answered and hasn't heard back from them. He had a concern regarding exposure claims. He has never seen a film badge before; therefore he questions how the exposure dosage is done without it.

Mr. Leroy Perry stated he witnessed atmospheric testing in 1955 in Nevada. After witnessing the test, he started experiencing pain throughout his body. Mr. Perry went to see his doctor and was told that he does not have cancer and therefore would not be able to make a claim. **Ms. Wilson** and **Mr. Flohr** gave him the information that he needed to get a radiation examination completed.

Mr. Jim Kelly began by detailing his involvement while he was stationed at McMurdo performing Antarctic support activities from 1972-1974. He first thanked the board for their hard work and then continued to detail the lack of circumspect exercised by the military in terms of safety and the nearby reactor on the McMurdo Sound. He continued by expressing his discomfort with the gaps of information missing from the report on McMurdo and resultant radiation received by veterans as published by the Navy. Mr. Kelly stated that the only way to ever ascertain the most exact exposure calculations possible would be to subpoena the operators of the reactor, put them under oath, and force them to testify to the events that took place at the reactor that put the veterans at risk. He closed by touching upon the politics that may be keeping the Atomic Veterans from getting the truth on the actual doses they received, and urging the board not to disband and instead continues to serve the veterans that depend on their advocacy.

Mr. Thomas Wilburn identified his role as a journalist, third class at Operation Deep Freeze at McMurdo Station from 1971 to 1972. Recently, he said, he retired from the Disabled American Veterans after 15 years of service and was therefore representing himself as an individual entity separate from the DAV. Mr. Wilburn then offered a number of kind words to both Commander Fairchild on the authoring of the dosage report and the VA for its support for the McMurdo veterans. He expressed great sadness when detailing the stories of the 12 men he interviewed who were all stationed at McMurdo and all died of various cancers before their claims were resolved by the VA. In light of these lives cut short, Mr. Wilburn urged the board to advocate on behalf of an independent study (preferably to be performed by the Institute of Medicine) of McMurdo that would provide unbiased perspective into the doses that the McMurdo veterans received and also give solace to those who continue to file claims.

General Vaught identified himself as the Senior Officer in Operation PlumbBob at the Nevada Test Site. He cited his frustrations with the VA, as his personal claim was denied. He then went on to detail the countless health crises he has suffered since 2010, from his heart attack to internal bleeding; therefore, he contended that his claim should be given further consideration, as he intends on living at least another five years and that he “ain’t going anywhere” until then. General Vaught was referred to **Mr. Blake** for further assistance.

Ms. Pamela Landy began by identifying herself as the widow of a now-deceased McMurdo veteran, who lost his long-fought battle with cancer just this past year. She, like a number of the other speakers, went on to address concerning gaps in the recently published dose assessment, as applicable to McMurdo veterans. She went on to detail the bias and other various faults of the report, and concluded by voicing her concerns with the procession of her claim within the VA. **Dr. Roadman** referenced her to a board member who expressed his ability to disseminate the VA claims process for her after the conclusion of the public comment session.

Mr. Steven Lucas began by identifying himself as a former Intelligence Specialist aboard the U.S.S. Whitney from 1987 to 1990, during which time he often occupied the signal bridge of the vessel to conduct intelligence collection on Soviet Aircraft. He went on to describe a number of medical issues he has experienced since that time, from tinnitus to mood disorders. Because he came to ascertain that many of his colleagues were suffering similar issues, Mr. Lucas told the board how he began his very own dose reconstruction for the particular series of events (from supposed ionizing radiation from signal jammers, directional IR systems, etc.) that he and his colleagues experienced. He informed the board that he would happily provide each of them with a thumb drive detailing his findings, which is a compilation of his years of research. Following the offering of his findings, Mr. Lucas urged the board to advocate on behalf of the performance of an epidemiological study on the signal bridge of the U.S.S. Whitney. **Dr. Roadman** responded by informing the plaintiff that his case was outside of the jurisdiction of the board, as it is not an atomic veteran issue, but he and **Mr. Flohr** provided Mr. Lucas with a contact at the VA to address his specific needs.

Ms. Liz Elliott Kimmel began by identifying herself as the daughter of a deceased Marine Corps veteran, who had served at Nagasaki. She expressed her confusion with the process of filing a claim with the VA, as her father has been deceased since 2007 and asked the board to direct her towards resources that would be relevant to her specific case. **Dr. Blake** and **Mr. Flohr** offered to give Ms. Kimmel the contact information that would allow her to resolve her case.

Ms. Jill Pilan began by citing her participation in Operation Paul Bunyan in 1976. She went on to explain that she and a number of colleagues who also participated in this particular operation are now battling a multitude of cancers. Ms. Pilan expressed her frustration with the way her case was being handled, as the operation is not wholly declassified and therefore she is receiving no compensation or even means to file for it. **Mr. McClung** and **Mr. Blake** provided Ms. Pilan with the information she needed after the session concluded.

