Department of Veterans Affairs
Environmental Hazards Committee

Minutes of the Meeting
August 1-2, 2005

Present:
Mary V. Stremlow, USMCR [Ret.], Full Chair
Henry D. Royal, M.D., Scientific Chair
Theodore Colton, Sc.D.
Edward R. Epp, Ph.D.
Nancy L. Oleinick, Ph.D.
Amir H. Soas, M.D., Ph.D.
Mary Ann Stevenson, M.D., Ph.D.
Ersie Farber-Collins, Committee Manager and Designated Federal Officer
Isabel Hicks, Alternate Committee Manager and Designated Federal Officer
Neil Otchin, M.D., VHA, Public Health and Environmental Hazards Office
Caryl Kazen, Chief, Library Service, Department of Veterans Affairs
Steve Rich, Library Service, Department of Veterans Affairs
Tom Pamperin, VBA, Assistant Director for Policy, Compensation and Pension Service

Not Present:
George N. Hunt
Roselyn J. Rice, M.D.

In attendance from the Public:
Vicki McLaughlin, Miller Reporting Services, (Court Reporter)
Sarah Comley, International Observers, President (Aug 2 0nly)
Melanie B. Heister, National Council on Radiation Protection (NCRP)
Dr. Thomas S. Tenforde, National Council on Radiation Protection and Measurements (NCRP), President
Dr. Isaf Al-Nabulsi, National Council on Radiation Protection (NCRP)
Dr. Ethel Gilbert, National Cancer Institute (NCI)
Dr. Rick Jostes, National Academy of Sciences (NAS)
Shannon Middleton, The American Legion
Hilda Maier, Titan Corporation

The meeting was held in Room C-7B, Department of Veterans Affairs (VA) Central Office, 810 Vermont Avenue, Washington, DC 20420.

The meeting was called to order on August 1, 2005, at 8:20 a.m.

Department of Veterans Affairs, Environmental Hazards Committee
Minutes of Meeting, August 1-2, 2005

Ms. Stremlow gave opening remarks and asked the Committee members and audience to introduce themselves to include their area of expertise. Members were asked if they received a copy of the transcript and the minutes for the last meeting. It was unanimous that all received the materials. Everyone was asked to please sign in with his or her names and agency (a sign-in sheet is always provided for each meeting). The agenda is full with a large number of speakers. Everyone is asked to speak up so that the court reporter can get what you are saying.

Ms. Stremlow also stated that she had read the charter very carefully and that it is very clear that the mandate before this Committee is "ionizing radiation only."

Dr. Royal mentioned that amplified microphones would be added at about 9:00. He restated that we have a full agenda and a review of the NAS report about potential exposure of soldiers was added. At our last meeting, the Committee agreed to review this document and maybe become a little more proactive-possibly prepare a letter to the Secretary of the VA advising him of our thoughts to include comments about potential future exposures. He stated that if the Committee was not prepared to discuss today, maybe it could be discussed tomorrow. It was agreed that it would be discussed tomorrow, however, there was continued discussion regarding the assignments relating to this document.

Dr. Royal briefly addressed the minutes stating that in the past we used the terms "valid" and "invalid" to categorize the review papers and the tradition was not carried on because it is more complicated than that, however, we should not make it too complicated. We would start categorizing the papers discussed as we had in the past. It was suggested and agreed upon that we would start categorizing the papers discussed as we had in the past and the following categories were suggested and agreed upon:

- "V "for valid
- "C" for change which means that there's data that should change the VA's policy related to veterans' benefits;
- "Q" for questionable validity which means that it is not invalid but can be considered questionable; and
- If one of the above letters is not shown then it is considered not valid (invalid).

Dr. Royal stated that one of the speakers on our agenda is Mr. Tom Pamperin and he will discuss issues facing the VA relating to the Committee so that will be a good time to clarify expanding the purview of the Committee in the future.

The prepared agenda was followed thereafter and Dr. Otchin was next on the agenda.

Dr. Otchin, a physician with VHA in the Office of Public Health and Environmental Hazards, stated that his office is responsible for providing medical opinions to assist in the adjudication of some compensation claims involving radiation and also in other activities relating to radiation, including VA's ionizing radiation registry examination program, the depleted uranium screening and surveillance programs and emergency preparedness.

Dr. Otchin, updated the Committee on several issues:

- During the previous VACEH meeting on April 22, 2005, a meeting was held with the VA Deputy Secretary, Gordon H. Mansfield, regarding a recommendation from the Committee. The VA accepted the recommendation from the Committee to use only the Interactive Radioepidemiological Program (IREP) and stop using screening doses from the Committee on Interagency Radiation Research and Policy Coordination (CIRRPC).

- Since the previous meeting, medical opinions have been provided in 97 radiation cases from April 2, 2005, through July 15, 2005. For claims involving multiple malignancies and/or other disorders, each disease was considered individually. For cases involving myelodysplastic syndrome, our office has continued to use the NIOSH IREP cancer models for leukemia as was done when CIRRPC screening doses were being utilized in addition to using the cancer model for lymphoma and myeloma in accordance with the NIOSH IREP guidance.

  As requested at the previous meeting of the VACEH, both the NIOSH- and NIH- versions of the IREP were used to evaluate four lung cancer cases. The NIH version resulted in a higher value for the probability of causation (PC)/assigned share in three cases while the NIOSH version resulted in a higher value in one case.

  Of the 97 cases reviewed, the CIRRPC screening doses supported a favorable medical opinion in one case prior to discontinuation of use of this methodology and the IREP supported a favorable opinion in three cases. Our office returned favorable medical opinions on five of the 97 cases (five percent). These included three cases of skin cancer, one case of leukemia, and one case of thyroid cancer.

- Regarding Ionizing Radiation Registry (IRR) examinations and Priority 6 enrollment for health care for Atomic Veterans: Atomic Veterans and some other groups of radiation-exposed veterans are eligible to participate in the VA's Ionizing Radiation Registry (IRR) Examination program. Also Atomic Veterans are eligible for Priority 6 enrollment for treatment of any disease that the VA recognizes as potentially radiation-related, including all cancers, without any co-payments.

  Our office has been discussing with the VHA Business Office and the Defense Threat Reduction Agency ways to make it easier for veterans to establish eligibility for these programs, such as clarifying that veterans' self-certification of participation in a "radiation-risk" activity is sufficient for IRR examinations

- In follow-up to the request at the previous committee meeting, arrangements have been made by the editor of this newsletter in our office to have copies of each issue sent to the committee members electronically.

- Regarding the Revised Veterans Health Initiative (VHI) module "Veterans and Radiation": an updated version of the Veterans Health Initiative (VHI) educational program, "Veterans and Radiation" was published in November 2004. Copies of the revised program were made available at the meeting. The module also is available to veterans and others if requested. The updated module now is available on the Internet at the following web address: http://www1.va.gov/vhi/docs/Radiationfinal.pdf

- Dr. Otchin invited feedback/open discussion and recommendations from the Committee regarding standard operating procedures for providing medical opinions.

- Dr. Royal commented on the issue of lung cancer [mentioned in Dr. Otchin's presentation] and reminded the Committee why the NIOSH version and the NIH version are different. There was a paper that was published suggesting that lung cancer was more of an additive risk with smoking as opposed to a multiplicative risk and the NIH version was changed accordingly, therefore, you have slightly different values. He continued with a comment related to Priority 6, asking what does Priority 6 do?

Dr. Otchin responded saying, the lowest number priority is that you are being treated for a service connected disorder and the higher number priority is a high income non-service connected veteran who electively receives medical care from the VA. Due to the increase in demand for medical care for the middle class non-service connected veteran population, the VA established categories 1-7. Priority 6 is for those diseases listed on the presumptive or non-presumptive list.

The possibility of an increase in co-pays was mentioned and that the VA has proposed several increases to try to bring the funding and demand into better balance and so far Congress has approved none.

There was continued discussion regarding specific cases with a favorable opinion. The issue of whether or not in occupational cases there is any notation on interval doses and exposures in the service medical records.

Dr. Otchin stated that in the best-case scenario, a DD 1141 and a query from the military service's dosimetry office. However, in many instances you have one or the other or nothing at all. It is a problem getting the service department to accommodate the request for dose estimates.

Dr. Royal presented Drs. Rick Jostes, National Academy of Sciences (NAS), and Ethel Gilbert, National Cancer Institute as next on the agenda.

Dr. Jostes thanked Dr. Royal for the invitation and started the discussion on BEIR VII. The charge to BEIR VII was to:

- develop the best possible risk estimate for human exposure to low dose and low LET radiation,
- conduct a comprehensive review of all relevant biological, physical and epidemiological data since BEIR V in 1990,
- define and establish principles on which quantitative analysis can be based,
- consider biological factors to develop etiologic models and estimate population detriment,
- assess risk models of biological data and carcinogenesis that might affect the shape of the dose response curve-shape of the response curve at low doses, and
- consider new evidence regarding genetic effects.

The BEIR VII report was released on June 29, 2005, and is over 700 pages. A bound copy will be available in the fall. It includes public and executive summaries. The bottom line is that the BEIR VII committee concludes that there's current scientific evidence that's consistent with the hypothesis that there's a linear no threshold dose response relationship between exposure to ionizing radiation and the development of cancer in humans but notes that at low doses that risk will be small. While adverse health effects have not been observed in children of exposed parents [we're talking about germ cell genetics] extensive data in mice suggests that there is no reason to believe that humans will be immune to this sort of harm but the risk is low and that the committee also determined that it is probably below what is detectable at Hiroshima and Nagasaki.

The floor was opened to questions and comments. It was mentioned that the Committee is waiting for the final version of the report and will it differ greatly from the current report. The belief is that the vast majority of the report will remain as is.

Dr. Gilbert discussed highlights of the epidemiologic data that appeared since the BEIR V report was published, the approach for estimating cancer risk, and risk estimates. A summary of the features of the BEIR VII risk estimates are as follows:

- Equal attention is given to cancer incidence and mortality,
- The estimates are based on data that have been greatly improved since the 1990 BEIR V report. Incidence data and updated mortality data as well as improved dosimetry is available for the A bomb survivors, and
- Explicit attention to transport of risk and finally a quantitative evaluation of major sources of uncertainty.

The floor was opened to questions and comments based on Dr. Gilbert's presentation. It was noted that maybe prostate cancer would be of interest to the Committee. In BEIR V prostate cancer was shown as not related to radiation. It is believed that in BEIR VII, a judgment is not made, however, the estimated confidence intervals are provided. The other issue of importance to the Committee is IREP [updating IREP based on new risk estimates]. The guess is that there would be some attempt to update IREP that would take account of BEIR VII but will probably also modify it in some ways.

Dr. Tenforde, National Council on Radiation Protection and Measurements (NCRP), President, presented on the Dose Reconstruction Advisory Committee Status update. A huge committee is in the making and will look at all sources of exposure. Ken Case, senior vice president of NCRP, will chair the committee. It is expected that in three years an updated report will be available. The annual 2006 NCRP meeting is planned for April 3-4, 2006 in Arlington, Virginia (Crystal City). The final agenda will be posted very soon on the website at NCRPonline.org. We will have many international speakers looking at all aspects of the lessons learned and conclusions of the Chernobyl accident and follow-up studies, both epidemiological, ecological, and radiobiological studies.

Dr. Tenforde introduced Dr. Isaf Al-Nabulsi, program administrator for the Veterans' Advisory Board on Dose Reconstruction (VBDR). He also stated that he would like to see a close interface (between VBDR, NCRP and VACEH) because everything the VACEH is doing, as well as its expertise is valuable and relevant to the work of the VBDR. The advisory board (VBDR) is a FACA (Federal Advisory Committee Act) board. A handout was provided that included the biographical sketches of the sixteen board members. The sixteen members have been appointed representing expertise in the following areas: Historical Dose Reconstruction, Radiation Health Effects, Risk Communication and Analysis, Radiation Epidemiology, Medicine, Quality management, Decision Analysis, Ethics, Atomic Veteran, DTRA Representative, and VA Representative.

Dr. Tenforde continued by stating that it is gratifying that Congress recognized the need for the board and recognized certain elements of expertise that were needed. Two training meetings were held in June that dealt with key privacy issues, standards of conduct, ethical issues, interaction with the public and press, compensation issues and so forth. Progress was also made in defining the initial task of the board. The upcoming meeting is August 17-18, 2005, in Tampa, Florida, which immediately follows the National Association of Atomic Veterans. We have also established four sub committees on dose reconstruction, claims adjudication procedures, quality management and VA-DOD integration of processes, and communication with atomic veterans. The board plans to meet four times a year and the subcommittees will be very active. The minutes as well as transcript and all presentations will be posted on the website.

For the remainder of the morning session, the Committee presented and discussed academic papers. After the discussion of each paper, an assessment was made as to its value to the Committee's mandate in some instances. A list of the papers reviewed, in the order of review may be found in the attachment to the minutes.

The meeting recessed at 11:57 am for lunch and reconvened at 1:09 pm.

The meeting reconvened and Dr. Royal called on Mr. Tom Pamperin, VBA, Assistant Director for Policy, Compensation and Pension Service to discuss issues facing the VA that relate to this Committee.

Tom Pamperin introduced himself and provided background information on his career with the VA. He continued by discussing the current state of the pending workload (250,000-disability rating claims only) and projected end of year status (approximately 345,000 disability pending claims only). The total incoming claims for the year are up about six percent over last year; in 2004 we were up six percent over 2003 and up 14 percent in original disability claims. We can attribute part of that to the war and some to our outreach program called Benefits Delivery at Discharge (BDD) where we permit separating servicemen to file disability claims up to six months prior to separating from service. The exception to the outreach program is that National Guardsmen and reserve personnel. Upon their release they are only at an active military installation for less than two weeks before being released back to their home stations and subsequently from active duty two to four weeks later. As a result it is difficult to deal with them in a benefits delivery at discharge environment because of the lack of sufficient time to coordinate efforts. The Secretary of VA has directed all regional offices to contact every returning guard and reserve unit and conduct briefings by the second assembly that they have after release from active duty.

Specifically with respect to radiation, as you know in 2003 the NRC did an analysis of the Defense Threat Reduction Agency and their findings were that generally the reconstructed dose methodology was okay with the exception of what's called the upper ingested dose for land based tests. And their criticism there rested principally on the failure to consider the re-suspension of radioactive material from previous bombs.

Based upon that study, former Secretary Principi directed us to review all of the cases that we could and between a couple of databases that VA has and databases that the Defense Threat Reduction Agency has, we identified and reviewed 11,351. Of that number, a total of 1,250 were determined to require re-adjudication. Of that number, 188 have been decided. Of the 188 that have been decided, 126 were granted presumptive service connection under 38 CFR 3.309, principally for lung cancer. Lung cancer use to be a CFR 3.311 condition that required a reconstructed dose, and when it went to CFR 3.309 there was no effective way for us to identify those people and it was only through this review that we were able to grant service connection either for the veteran or for their survivor. In addition to that, we have granted thus far nine cases under CFR 3.311 based upon reconstructed doses from DTRA and we have denied 62. The last count I had was 1,666 cases from VA at the Defense Threat Reduction Agency.

Currently the estimate is that unless it's a Hiroshima, Nagasaki case, it will take two-and-a-half years on average to get an answer to those claims. The cases range in excess of 1,000 days at the present time. We believe that this relatively small number of claims out of a pending inventory of 340,000 accounts for in and of themselves approximately two days of our average days pending for all pending rating cases. Obviously we expect very few of these to be granted but that's where we currently are.

Our normal experience is that we receive between four and 600 radiation related claims yearly. Now mostly these are test cases but in the radiation category we also include occupational exposures such as radiology technicians, people who work in power plants in submarines, things of that nature but it's between four and 600.

Other things that are affecting VA right now are the Benefits Commission that was established as part of the Defense Authorization Act of 2004 and some IG and GAO studies on consistency both in terms of rating and in terms of the distribution of average payments. I don't know if you're aware but there is in the 2004 annual report the difference between the state that had the lowest average payment, which was Illinois at about $6,500 per veteran who was on the rolls, to the highest, which was either Albuquerque or Togas--was almost $12,000. And as a consequence the Secretary asked the IG to investigate. They identified a couple of issues, post traumatic stress disorder and a program we have called individual unemployability as the primary drivers for the variance in the amount of benefit that's being paid across states.

Based upon that study, the Secretary has directed that beginning in September we will have five stations review 71,200 claims that have been processed in the last five years where the issue is 100 percent evaluation for post traumatic stress disorder or individual unemployability. Obviously we are currently dedicating about 55 FTE in the field at five stations to do this. It clearly cannot be done in a year. We may get the initial review done in '06 but to the extent to which reviewers find that decisions were inadequately documented and additional evidence would be required the review realistically could extend for an additional year or two.

The floor was opened to questions and comments.

Dr. Royal stated that he was scheduled to review a paper later about the DOE Employees Compensation Act and one of the things that's in that paper is the administrative cost in the benefits on a year-by-year basis, the projected ones from 2004 on out. Is there any way we could get some comparable data to know what the administrative cost is of processing all of these applications and what dollar value is paid out for the benefits? I think it's the committee's impression that the administrative cost of the program is much greater than the benefits that are paid out [maybe by a factor of 10:1 or 20:1].

Mr. Pamperin responded by agreeing to do a cost estimate. We would look at the population of exposed veterans, the 400,000 people at Hiroshima, Nagasaki, and at the test, age those people, apply mortality tables. I'm assuming that we'd only be doing prostate cancer and skin cancer. I don't know what the actual numbers are; however, we can certainly get those for you. We could give a ten-year estimate of the costs of administering the program for prostate and skin cancer, both administrative and benefit. We will not include DTRA’s cost of dose reconstruction. In order to include DTRA”S

dollar values in our paper, we would need to get a concurrence from DTRA. However, the Committee could ask Paul Blake to provide a dollar value of their contract and stuff.

There were ongoing comments and clarifications on specific issues. Specifically, it was mentioned that the VA is having this Benefits Commission. The Committee is curious as to whether or not they are discussing some fairly significant changes. For example, in England benefits are given on a proportional basis, you know, if you had a 10 percent chance that your cancer was caused by radiation exposure, you get 10 percent of the benefit. Are proposals like that being discussed in the Benefits Commission?

RESPONSE: The Benefits Commission is looking very, very broadly at the rating schedule, what kind of benefits we offer, whether or not some people we should just offer a buy out to, you know, for some relatively minor disabilities, things of that nature. The commission will have a capacity to make sweeping recommendations if they wish. But when you look at the legislative history of VA disability, it is not a workman's compensation program. It does utilize a whole man theory like workman's compensation does, but the title talks about loss of earning capacity. But when you look at the legislative history over the last 60 years Congress has intervened in the rating schedule a number of times and they have frequently talked about quality of life. When you look at the rating schedule itself one would, I think, assume that the basic rating schedule of disability from zero to 100 percent is intended to approximate loss of earning capacity. However, there's a whole other layer that's laid on top of the basic rating scheduled called special monthly compensation and it is all about, I think, quality of life. You get additional amounts of money for having an amputation, for having a loss of a creative organ. So as a consequence, if you take that all together, I think that the tradition/legal history of VA would not be quite so clear-cut as to just pay ten percent.

QUESTION: What about the difference in benefits to DOE employees and veterans?

RESPONSE: When DOE expanded their list to add five cancers, because there were some veterans involved, some service persons that participated in some of those activities, we modified our regulations to correspond with DOE so that service persons would not be placed at a disadvantage. Until this past year a RICA settlement was viewed as a complete settlement of any claim against the government and, therefore, if a veteran received a $75,000 RICA payment his or her compensation was terminated for that disability. Now if they died of that cancer or whatnot their surviving spouse could still come in for DIC but whoever got the payment it was seen as a complete satisfaction of the government's obligation. With the Benefit Improvement Act of 2004 that distinction was eliminated and what happens now is that if you get a RICA payment that is basically put into our system as an offset and that part of your compensation that can be attributable to that disability and is withheld until it's recouped. It's a dual compensation.

COMMENT: The other issue that I didn't know if you wanted to talk to the committee about, and that's fine if you don't, is the paper that was published in Health Physics by Hansen.

RESPONSE: Yes. I am not a scientist but I believe that Ms. Hansen is factually wrong in terms of the law in a couple of the assertions that she makes [on page 160, benefit of the doubt]. When service records neither confirm nor deny a veteran's presence the VA is expected to concede participation. That's not really true. You have to have verification of participation.

QUESTION: Was there anything that you wanted this committee to do in regards to this paper?

RESPONSE: As stated previously, I am not a scientist. I don't know what would be appropriate. I can't honestly speak for the Compensation and Pension Service. We get these kinds of articles all the time and we do the best we can with them but I don't have a recommendation of what to do with this one.

COMMENT: The Committee is planning to discuss this paper and if the VA thinks that there's some additional action that the committee could take then you can let us know.

OPEN FORUM:
There was discussion about active approaches within the VA [Tiger Team in Cleveland] and whether the VA looking at new approaches to manage workload, consistency, and improve communications. It was noted that DVA is changing and consolidation of various kinds of claims is continuing. The Benefit Delivery at Discharge decision-making part is being consolidated into the Winston-Salem and Salt Lake City regional offices.

Dr. Tenforde recommended to the Committee: Now that the new advisory board is established and working, I think it would be very helpful if this board were to identify areas of intersection with the work of the veterans advisory board in terms of exchange of ideas and information. This committee is very experienced in the entire dose reconstruction and claims adjudication process and could perhaps be valuable to the board in suggesting areas where there's a need for improved oversight and review of current methods and suggestion of improved methods. And, conversely, you may wish to have certain sets of information or ideas from the board. He volunteered to serve as an interface with Admiral Zimble and the other members of the board to try to facilitate some interactions and you might perhaps at your next meeting want to discuss areas of opportunity once you see the outcome of the first formal public meeting of the advisory board.

The Committee was encouraged to think about this, and hopefully, some clear interfaces for interaction will materialize.

The Committee continued with the discussion of review papers.

The meeting recessed at 12:02 pm for lunch and reconvened at 1:09 pm in room 230.

The meeting reconvened and the discussion of review papers continued.

The official meeting was recessed at 4:00 pm on August 1, 2005. However, they stayed an additional 10 or 15 minutes to discuss the upcoming meeting dates.

The meeting reconvened at 8:00 am on August 2, 2005. Dr. Royal stated that our next meeting dates are Wednesday, November 30 and Thursday, December 1, 2005, in Tampa, Florida. There is some interest in having the next meeting in conjunction with the NCRP (currently scheduled for April 3-4, 2006 in DC and the focus will be Chernobyl. We can look at Wednesday, April 5 and Thursday, April 6, 2006 in DC.

Dr. Royal continued opening comments, emphasizing the agenda items for today as, the NAS report on potential exposures, Dose reconstruction on soldiers whose skin was 409.7 rads, the Hansen Paper published in Health Physics, and continue the review articles.

The next item for discussion was the Hansen paper. The authors are, Deborah Hansen, a nurse practitioner, and Shira Schreiner, dean of a nursing school. This paper is an opinion paper written by advocates for veterans, and not a scientific paper. The agreement from the Committee was that unless asked by the VA for a response, no action is needed at this time.

A review of "Potential Radiation Exposure in Military Operations: Protecting the Soldier Before, During, and After" was next on the agenda. An explanation of why this paper was being reviewed was offered. In an effort/attempt for this Committee to be more proactive and make recommendations when it can that would try to prevent future exposures which occur, and to try to make sure that better documentation is maintained in an effort to support a veterans' claims and make it easier to resolve. Maybe the ultimate product of the Committee's review should be to send a letter to the Secretary giving our views on what we agree with and what we don't agree with, as well as find out how many of the recommendations have been implemented and how they've been implemented. It was also suggested that we have someone from DOD present in the November/December meeting to discuss actions already taken by DOD. After the Committee has heard from DOD, a letter to the Secretary will be initiated, possibly in the April 2006 meeting.

The Committee continued with the discussion of review papers.

The meeting was adjourned at 1:25 p.m.

Ersie Farber
Committee Manager and Designated Federal Officer

Mary V. Stremlow, USMCR [Ret.]
Full Chair

Henry D. Royal, M.D.
Scientific Chair

Attachment 1: Papers reviewed and discussed:

Number	Paper	Reviewer	Topic
08-05-01	Bhat, M. (2005). "EPR tooth dosimetry as a tool for validation of retrospective doses: an end-user perspective." Appl Radiat Isot 62(2): 155-61.	Epp	Biodosimetry
08-05-02	Szkanderova, S., J. Vavrova, et al. (2005). "Proteome alterations in gamma-irradiated human T-lymphocyte leukemia cells." Radiat Res 163(3): 307-15.	Oleinick	Biodosimetry
08-05-03	Voisin, P., L. Roy, et al. (2004). "Why can't we find a better biological indicator of dose?" Radiat Prot Dosimetry 112(4): 465-9.	Oleinick	Biodosimetry
08-05-04	Hill, M. A., J. R. Ford, et al. (2005). "Bound PCNA in nuclei of primary rat tracheal epithelial cells after exposure to very low doses of plutonium-238 alpha particles." Radiat Res 163(1): 36-44.	Oleinick	Bystander Effect
08-05-05	Maguire, P., C. Mothersill, et al. (2005). "Medium from irradiated cells induces dose-dependent mitochondrial changes and BCL2 responses in unirradiated human keratinocytes." Radiat Res 163(4): 384-90.	Oleinick	Bystander Effect
08-05-06	Miller, J. H., F. Zheng, et al. (2005). "A model of cytokine shedding induced by low doses of gamma radiation." Radiat Res 163(3): 337-42.	Oleinick	Bystander Effect
08-05-07	Yang, H., N. Asaad, et al. (2005). "Medium-mediated intercellular communication is involved in bystander responses of X-ray-irradiated normal human fibroblasts." Oncogene 24(12): 2096-103.	Oleinick	Bystander Effect
08-05-08	Mothersill, C., F. Lyng, et al. (2005). "Genetic factors influencing bystander signaling in murine bladder epithelium after low-dose irradiation in vivo." Radiat Res 163(4): 391-9.	Stevenson	Bystander Effect
08-05-09	Van der Meeren, A., P. Monti, et al. (2005). "Abdominal radiation exposure elicits inflammatory responses and abscopal effects in the lungs of mice." Radiat Res 163(2): 144-52.	Stevenson	Bystander Effect
08-05-10	Lambe, M., P. Hall, et al. (2005). "Coronary angioplasty and cancer risk: a population-based cohort study in Sweden." Cardiovasc Intervent Radiol 28(1): 36-8.	Colton	Carcinogenesis

Number	Paper	Reviewer	Topic
08-05-11	Ron, E., T. Ikeda, et al. (2005). "Male breast cancer incidence among atomic bomb survivors." J Natl Cancer Inst 97(8): 603-5.	Colton	Carcinogenesis
08-05-12	Sadetzki, S., A. Chetrit, et al. (2005). "Long-term follow-up for brain tumor development after childhood exposure to ionizing radiation for tinea capitis." Radiat Res 163(4): 424-32.	Colton	Carcinogenesis
08-05-13	Ivanov, V. K., A. I. Gorski, et al. (2004). "Solid cancer incidence among the Chernobyl emergency workers residing in Russia: estimation of radiation risks." Radiat Environ Biophys 43(1): 35-42.	Colton	Chernobyl
08-05-14	Tondel, M., P. Hjalmarsson, et al. (2004). "Increase of regional total cancer incidence in north Sweden due to the Chernobyl accident?" J Epidemiol Community Health 58(12): 1011-6.	Colton	Chernobyl
08-05-15	Edwards, A., P. Voisin, et al. (2004). "Biological estimates of dose to inhabitants of Belarus and Ukraine following the Chernobyl accident." Radiat Prot Dosimetry 111(2): 211-9.	Epp	Chernobyl
08-05-16	Ulanovsky, A., V. Drozdovitch, et al. (2004). "Influence of radionuclides distributed in the whole body on the thyroid dose estimates obtained from direct thyroid measurements made in Belarus after the Chernobyl accident." Radiat Prot Dosimetry 112(3): 405-18.	Epp	Chernobyl
08-05-17	Likhtarov, I., L. Kovgan, et al. (2005). "Post-Chornobyl thyroid cancers in Ukraine. Report 1: estimation of thyroid doses." Radiat Res 163(2): 125-36.	Royal	Chernobyl
08-05-18	Anderson, R. M., V. V. Tsepenko, et al. (2005). "mFISH analysis reveals complexity of chromosome aberrations in individuals occupationally exposed to internal plutonium: a pilot study to assess the relevance of complex aberrations as biomarkers of exposure to high-LET alpha particles." Radiat Res 163(1): 26-35.	Oleinick	Chromosome Aberrations
08-05-19	Milacic, S. (2005). "Frequency of chromosomal lesions and damaged lymphocytes of workers occupationally exposed to x rays." Health Phys 88(4): 334-9.	Oleinick	Chromosome Aberrations
08-05-20	Durakovic, A. (2005). "The quantitative analysis of uranium isotopes in the urine of the civilian population of eastern Afghanistan after Operation Enduring Freedom." Mil Med 170(4): 277-84.	Soas	Depleted Uranium
08-05-21	Karpas, Z., O. Paz-Tal, et al. (2005). "Urine, hair, and nails as indicators for ingestion of uranium in drinking water." Health Phys 88(3): 229-42.	Soas	Depleted Uranium

Number	Paper	Reviewer	Topic
08-05-22	Sasaki, S. and N. Fukuda (2005). "Temporal variation of excess mortality rate from solid tumors in mice irradiated at various ages with gamma rays." J Radiat Res (Tokyo) 46(1): 1-19.	Soas	Dose-Response
08-05-23	Nakamura, H., H. Fukami, et al. (2005). "Cytotoxic and mutagenic effects of chronic low-dose-rate irradiation on TERT-immortalized human cells." Radiat Res 163(3): 283-8.	Stevenson	Dose-Response
08-05-24	Ambrosi, P. (2004). "Measurement of photon energy and dose rate." Radiat Prot Dosimetry 112(4): 483-6.	Epp	Dosimetry
08-05-25	Hofmann, W., H. Fakir, et al. (2004). "Interaction of alpha particles at the cellular level--implications for the radiation weighting factor." Radiat Prot Dosimetry 112(4): 493-500.	Epp	Dosimetry
08-05-26	Howell, R. W. and P. V. Neti (2005). "Modeling multicellular response to nonuniform distributions of radioactivity: differences in cellular response to self-dose and cross-dose." Radiat Res 163(2): 216-21.	Royal	Dosimetry
08-05-27	Potter, C. A. (2005). "Internal dosimetry: a review." Health Phys 88(6): 565-78.	Soas	Dosimetry
08-05-28	Laurier, D. (2004). "Risk of leukaemia and malignant lymphoma in the vicinity of nuclear installations: the Japanese position." J Radiol Prot 24(4): 341-2. Yoshimoto, Y., S. Yoshinaga, et al. (2004). "Research on potential radiation risks in areas with nuclear power plants in Japan: leukaemia and malignant lymphoma mortality between 1972 and 1997 in 100 selected municipalities." J Radiol Prot 24(4): 343-68.	Colton	Environmental exposures
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08-05-30	Brent, R. L. (2005). "Commentary on JAMA article by Hujoel et al." Health Phys 88(4): 379-81.	Royal	Fetal Effects
08-05-31	Okazaki, R., A. Ootsuyama, et al. (2005). "Radioadaptive response for protection against radiation-induced teratogenesis." Radiat Res 163(3): 266-70.	Royal	Fetal Effects
08-05-32	Moore, S. R., S. Marsden, et al. (2005). "Genomic instability in human lymphocytes irradiated with individual charged particles: involvement of tumor necrosis factor alpha in irradiated cells but not bystander cells." Radiat Res 163(2): 183-90.	Oleinick	Genomic Instability
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Number	Paper	Reviewer	Topic
08-05-34	Martin, C. J. (2005). "The LNT model provides the best approach for practical implementation of radiation protection." Br J Radiol 78(925): 14-6.	Colton	Hormesis
08-05-35	Feinendegen, L. E. (2005). "Evidence for beneficial low level radiation effects and radiation hormesis." Br J Radiol 78(925): 3-7.	Soas	Hormesis
08-05-36	Ina, Y. and K. Sakai (2005). "Further study of prolongation of life span associated with immunological modification by chronic low-dose-rate irradiation in MRL-lpr/lpr mice: effects of whole-life irradiation." Radiat Res 163(4): 418-23.	Royal	Immune Effects
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08-05-38	(2005). "Performance of functions; claims for compensation under the Energy Employees Occupational Illness Compensation Program Act. Interim final rule; request for comments." Fed Regist 70(109): 33589-639.	Royal	Litigation
08-05-39	Sanova, S., S. Balentova, et al. (2005). "Effects of preconceptional gamma irradiation on the development of rat brain." Neurotoxicol Teratol 27(1): 145-51.	Soas	NonCancer Effects
08-05-40	Mabbott, D. J., B. J. Spiegler, et al. (2005). "Serial evaluation of academic and behavioral outcome after treatment with cranial radiation in childhood." J Clin Oncol 23(10): 2256-63.	Stevenson	NonCancer Effects
08-05-41	McGale, P. and S. C. Darby (2005). "Low doses of ionizing radiation and circulatory diseases: a systematic review of the published epidemiological evidence." Radiat Res 163(3): 247-57.	Stevenson	NonCancer Effects
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08-05-44	Daniels, R. D., T. L. Kubale, et al. (2005). Radiation exposure from work-related medical X-rays at the Portsmouth Naval Shipyard. Am J Ind Med 47(3): 206-16. Daniels, R. D., T. D. Taulbee, et al. (2004). "Radiation exposure assessment for portsmouth naval shipyard health studies." Radiat Prot Dosimetry 111(2): 139-50.	Colton	Occupational Exposures
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Number	Paper	Reviewer	Topic
08-05-46	Doll, R. (2005). "Mortality of british radiologists: a lecture note." J Radiat Res (Tokyo) 46(1): 123-9.	Soas	Occupational Exposures
08-05-47	Preston, R. J. (2005). "Radiation biology: concepts for radiation protection." Health Phys 88(6): 545-56.	Epp	Radiation Protection
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08-05-55	Nakamura, N. (2005). "A hypothesis: radiation-related leukemia is mainly attributable to the small number of people who carry pre-existing clonally expanded preleukemic cells." Radiat Res 163(3): 258-65.	Stevenson	Sensitive populations
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08-05-57	Zeitlin, C., T. Cleghorn, et al. (2004). "Overview of the Martian radiation environment experiment." Adv Space Res 33(12): 2204-10.	Epp	Space
08-05-58	Caudill, C. M., Z. Zhu, et al. (2005). "Dose-dependent generation of RET/PTC in human thyroid cells after in vitro exposure to gamma-radiation: a model of carcinogenic chromosomal rearrangement induced by ionizing radiation." J Clin Endocrinol Metab 90(4): 2364-9.	Royal	Thyroid Cancer

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