



**Rocky Flats Citizens Advisory Board  
Meeting Minutes  
November 1, 2001  
6 to 9:30 p.m.**

Jefferson County Airport Terminal Building,  
11755 Airport Way, Broomfield

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**FACILITATOR:** Reed Hodgins

Jerry DePoorter, the Board's chair, called the meeting to order at 6 p.m.

**BOARD / EX-OFFICIO MEMBERS PRESENT:** Suzanne Allen, Jerry DePoorter, Joe Downey, Jeff Eggleston, Tom Gallegos, Shirley Garcia, Victor Holm, Jim Kinsinger, Bill Kossack, Tom Marshall, Mary Mattson, LeRoy Moore, Nancy Peters, Earl Sorrels / Steve Gunderson, Joe Legare, Tim Rehder

**BOARD / EX-OFFICIO MEMBERS ABSENT:** Robin Byrnes, Maureen Eldredge / Jeremy Karpatkin

**PUBLIC / OBSERVERS PRESENT:** Don Owen (DNFSB); Dean Rundle (USFWS); Regina Wicks (CoPIRG); Alan Trenary (citizen); Joel Colvin (citizen); Melissa Anderson (RFCLoG); Anna Martinez (DOE); Carl Spreng (CDPHE); Mark Sattelberg (USFWS); Bob Nininger (KH); Kathleen Rutherford (CDPHE); John Corsi (KH); Susan Flack (citizen); Jerry Henderson (RFCAB staff); Ken Korkia (RFCAB staff); Michelle Kump (RFCAB staff); Deb Thompson (RFCAB staff)

**BOARD BUSINESS ITEMS:**

- LeRoy Moore reinstatement appeal. Board member LeRoy Moore had missed the maximum number of meetings over the course of this year and thus was removed from the Board. The Board considered his appeal to return, which was approved unanimously.
- Voting on member term renewals. Board members have staggered terms that expire every two years. The following members were subject to term renewals this year: Jeff Allen, Robin Byrnes, Jeff Eggleston, Tom Gallegos, Jim Kinsinger, Mary Mattson, and LeRoy Moore. Jeff Allen did not seek to be reappointed to the Board, but all other members did. The Board unanimously approved term renewals for those six members.
- Environmental Restoration Committee update. At last month's meeting, the Board agreed

to use RFCAB funds to review the spreadsheets used to perform the EPA risk calculations. The Environmental Restoration Committee has agreed on a contractor to perform the task. Staff will get final cost estimate from the contractor and proceed with work in the next week or so. In the future, the committee may also consider having someone review implementation of the spreadsheet using Crystal Ball.

### **PUBLIC COMMENT PERIOD:**

**Comment:** John Corsi: John asked for some time to report on an incident at the site that occurred on October 10. This involved a worker in Building 776 who inappropriately vented several gas canisters in the building. The worker thought there was an exhaust that went to the outside of the building, but instead the air was recirculated within the building. Five workers in the building reported feeling nauseous and were taken to the medical department for blood tests. John noted that after stepping outside into fresh air, the symptoms ceased for those workers. The building was evacuated and additional workers submitted blood tests. Because of this event, on October 12 Kaiser-Hill instituted a site-wide "pause" or temporary work stoppage. It has since been determined that the worker did not have the appropriate work authorization. Both Kaiser-Hill and DOE have launched an investigation into the event.

**Response:** After some questions, the Board asked that Kaiser-Hill provide an update on this incident at the December Board meeting. John Corsi agreed, and also agreed to provide to LeRoy Moore a chronology of events following the incident, specifically related to public notification of the incident and documentation of the incident.

**REGULATOR UPDATE — DNFSB:** Don Owen with the Defense Nuclear Facilities Safety Board gave his quarterly update on Rocky Flats issues:

- Plutonium processing: The main activity is the stabilization and packaging of metals and oxides with the Plutonium Stabilization and Packaging System (PuSPS). This work is closely monitored by DNFSB. Kaiser-Hill started up operations with the PuSPS in June. Some issues with welding continue to hamper operations. These are mostly outer can welding issues, which have produced a much higher rejection rate on the welds than anticipated.
- Residue processing: Since July, Kaiser-Hill has completed sand, slag, and crucible processing. All residue processing is now on track to meet a May 2002 milestone. Kaiser-Hill continues to make good progress. Removal of plutonium-bearing liquids in Building 771 has been completed.
- Electrical safety programs: Using the guidance referred to by DNFSB, a joint DOE and Kaiser-Hill electrical safety assessment has been prepared. A report on the assessment has recently been issued, but some problems have been identified in that report. Corrective actions are now being developed.
- Safety system management: Since July, plans for a Phase II assessment have been in

development, which include a detailed look at confinement ventilation systems. System engineers have now been designated as technical leads for specific systems, and qualification requirements have been developed although they have not yet been implemented.

- D&D issues: Regarding inner tent chambers a startup, third generation chamber has been installed in Buildings 771 and 776 for glove box and equipment size reduction. This new chamber incorporates remotely operated mechanical arms for waste handling. Recent experience with decontamination of glove boxes has been positive.
- Incident on October 10: Don Owen has reported the chemical release incident to the DNFSB, but there are no obvious nuclear issues. Most of the issues are with work control procedures. DNFSB will follow up on any corrective actions developed.

**ELECTION OF RFCAB OFFICERS**: The Board held its annual election of officers. New officers for the year 2002 are: Jeff Eggleston, Chair; Victor Holm, Vice Chair; Shirley Garcia, Secretary; and Suzanne Allen, Treasurer. These officers will begin their term of service at the December 6 Board meeting.

**RSAL REVIEW TASK 3 REPORT PRESENTATION**: Steve Gunderson with CDPHE gave a presentation to the Board on the recently released RSAL Review Task 3 Report. First he gave a background briefing on the role of RSALs, a brief history of the RSAL process back to 1996, and a review of the current RSALs. Then he discussed the independent review of the RSALs performed by Risk Assessment Corporation on behalf of the RSAL Oversight Panel. Following the recommendations by Risk Assessment Corporation, the RFCA agencies began the work of calculating a new RSAL. In this new calculation, RSAL values are determined using both the RESRAD model for dose and standard EPA risk equations for risk. A probabilistic analysis is employed. The two methods considered for calculating an RSAL were: (1) the dose method, in which annual exposure is calculated, and (2) the risk method, in which exposure is calculated over a period of years in terms of risk and then is compared to the acceptable risk range in the Superfund Law of anywhere from one in 10,000 (one excess cancer death in 10,000) to one in a million.

The Task 3 Report of the RSAL Review process describes the parameters used in calculating a risk range. Section 3 of that report describes the future use scenarios considered: wildlife refuge worker, rural resident, open space user, and officer worker. In addition, this section discusses the pathways of exposure, such as ingestion of soil or inhalation of dust. For the refuge worker scenario, the parameters considered were of a person who works full-time at Rocky Flats 50 weeks per year performing activities that involve physical labor (thus an increased breathing rate), and disturbing soil. The routes of exposure for this individual are considered to be soil ingestion, dust inhalation, and external gamma irradiation. In the rural resident scenario, the parameters are set for a person who spends up to 350 days on the site, 24 hours a day, lives on a five-acre site with no bluegrass lawn, and is a prolific gardener with a healthy appetite for homegrown produce. The routes of exposure for this individual are similar: soil ingestion, dust inhalation, external gamma exposure, but include ingestion of contaminated plants. The process

for selecting parameters included a sensitivity analysis, a discussion of sensitive parameters, an approach for developing distributions, and a rationale for the selection of each parameter. For the air mass loading distribution, Steve noted that there is quite a bit of site-specific and statewide data on dust levels. However, there is little data on how a prairie fire might affect levels of dust in the air. The working group developed a hypothetical distribution for dust levels using wind tunnel data collected at Rocky Flats, and applied their best professional judgment. The results of the calculations using these parameters ranged from 2 pCi/g for a rural resident at a risk level of one in a million, to 1047 pCi/g for an open space user at a risk level of one in 10,000.

Using the example of an RSAL at 100 pCi/g, Steve stated that if that number were the RSAL, it does not mean all contamination will be cleaned up to 100 pCi/g. Factors such as ALARA, stewardship, surface water protection, and the method of cleanup could cause the cleanup level to be lower than the RSAL. ALARA and stewardship considerations may force a departure from the RSAL when an area of contamination is on a steep slope near a creek, when the area is located well away from other areas of contamination, or when additional cleanup could reduce future operation and monitoring costs.

The future course of action for the working group are a peer review of the Task 3 report, revisions to the document in response to both public comment and the peer review, a formal public comment period of the entire RSAL report as well as related modifications to the RFCA document (for 60 days beginning approximately late December), with a final decision on the RSALs expected around late February or March 2002.

**QUESTIONS AND ANSWERS ON TASK 3 REPORT:** The Board spent some time asking questions and making comments on the Task 3 Report. Questions and comments on the report included:

- Question: Regarding mass loading, how did the agencies treat unusual events? Was the issue of climate change looked at, such as very dry or very wet years? Response: We looked at climate conditions including periods of very dry weather, within 37 years of data for the site. We did take into account dust loading and the control of the surface with vegetation. We also considered the lack of vegetation due to a fire.
- Question: Did you consider a number of years of drought? Response: We did not look at the absence of vegetation for a number of years. The native prairie grasses are adapted to that kind of climate, and you generally don't see denuding of adapted vegetation. Native grasses are adapted to long-term cycles of drought and precipitation.
- Question: Human activity coupled with a drought could result in the absence of vegetation. Response: We did not develop a scenario for a heavily farmed area, such as what happened in the 1930s with the Dust Bowl.
- Question: What is the reality of how the RSAL be determined, more conservative versus something more realistic? Response (DOE): We need to be sure that the decision is credible, and be able to defend a more conservative approach. (CDPHE): The work group's focus was to make it as technically defensible as possible.

- Question: Are there any situations where contamination above a certain level might be found and not be cleaned up? Response: The RSAL level, for surface soils at least, should be considered the guaranteed minimum level of contamination. There is a presumption toward removal. However, it may be different for subsurface soils.
- Question: Is it possible that an "action" triggered would only be administrative or an investigation or some other action than removal? Response: There are action levels for surface soils, subsurface soils, and water. What you are talking about is exceedances for water quality standards. With RSALs, there may be a greater level of cleanup required, for instance if there is an impact on surface water or some ALARA/stewardship issues are triggered.
- Comment: Disappointed that DOE may consider these numbers too conservative. There are so many uncertainties involved that conservatism is important.
- Question: How will you handle uranium? Response: We haven't had many discussions yet, and we have to address how much of the work done for plutonium can be transferred to uranium issues. The RSAL Working Group will start to address that issue soon, but we are just getting started on this issue. We do know that uranium contamination is generally more localized, and more of a subsurface issue.
- Comment: You are talking as if the site were thoroughly characterized. The site has been estimated but not well characterized. Some workers feel there are many hot spots. Response: That is an issue still to be addressed, how much more characterization needs to be done. We do think we have good knowledge with historical release reports and interviews with site workers. We need to work with state and EPA on characterization.
- Question: How do you measure to assure that you have achieved the appropriate risk level? Response: We are not measuring risk, we are measuring contamination. The model will associate the risk with a contamination level. When we begin a comprehensive risk assessment, we will make a collective assessment of all the areas and review the collective significance of those individual sites.

**PUBLIC COMMENT PERIOD**: No comments were received.

**BOARD DISCUSSION ON TASK 3 REPORT**: The Board discussed its own path forward for action related to this report. Board members generally agreed that it is important to submit comments on the Task 3 Report itself. However, realistically the Board did not feel it would be possible to develop a consensus recommendation on the report. It was suggested that RFCAB staff compile the Board's comments and questions to submit to the agencies. The process for submitting and compiling the comments will begin with the Environmental Restoration Committee, which meets on November 7, and follow up on CABlist, with a final compilation to be ready by the December Board meeting. Further, the Board will begin to discuss how the Board's recent recommendation on RSALs might apply to changes made in the Rocky Flats Cleanup Agreement document.

**NEW BOARD MEMBER**: The Membership Committee recommended, and the Board approved unanimously, the addition of a new Board member, Noelle Stenger. Prior to applying

for Board membership, Noelle was a member of the RFCAB staff, serving as the Program Coordinator for one year. Upon her resignation as a staff member, Noelle decided that she wanted to remain involved in Rocky Flats issues. She also has experience as a Project Scientist with Roy F. Weston, an environmental consulting firm, worked part-time as a Legislative Researcher in the Hawaii State House of Representatives, and has experience dealing with radioactive and hazardous waste remediation sites. Noelle has a law degree from the University of Oregon School of Law, where she specialized in Environmental Law, as well as a BA in English from the University of Hawaii. She lives in Lafayette, and will serve as a technical representative, replacing the vacancy left by Jeff Allen. Noelle's service as a Board member will begin in 2002.

### **PERSONNEL COMMITTEE RECOMMENDATIONS:**

- Jerry Henderson evaluation. The Board unanimously approved for Jerry Henderson a \$2,000 merit increase and a \$1,000 increase in scale, for a total \$3,000 per year increase in salary, which makes his salary \$34,000 per year effective November 1, 2001.
- Ken Korkia evaluation. The Board unanimously approved a 7.22% increase for Ken Korkia, which makes his salary \$53,000 per year, retroactive to July 1, 2001.

### **NEXT MEETING:**

**Date:** December 6, 2001, 6 to 9:30 p.m.

**Location:** Arvada Center for the Arts and Humanities, 6901 Wadsworth Boulevard, Arvada

**Agenda:** Update by CDPHE; presentation by the Rocky Flats History Project/Cold War Museum

**MEETING ADJOURNED AT 9:20 p.m. \***

(\* Taped transcript of full meeting is available in the RFCAB office.)

**RESPECTFULLY SUBMITTED:**

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Jeffrey Eggleston, Secretary  
Rocky Flats Citizens Advisory Board

The Rocky Flats Citizens Advisory Board is a community advisory group that reviews and provides recommendations on cleanup plans for Rocky Flats, a former nuclear weapons plant outside of Denver, Colorado.

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