

## ROCKY FLATS CITIZENS ADVISORY BOARD

### MINUTES OF WORK SESSION

November 7, 1996

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**FACILITATOR:** Reed Hodgins, AlphaTRAC

Tom Marshall called the meeting to order at 6:10 p.m.

**BOARD / EX-OFFICIO MEMBERS PRESENT:** Alan Aluisi, Jan Burda, Tom Clark, Tom Davidson, Eugene DeMayo, Paul Grogger, Mary Harlow, Susan Johnson, Sasa Jovic, Beverly Lyne, Tom Marshall, LeRoy Moore, David Navarro / Jeremy Karpatkin, Tim Rehder, Steve Tarlton

**BOARD / EX-OFFICIO MEMBERS ABSENT:** Tom Gallegos, Linda Murakami, Gary Thompson / Shirley Olinger

**PUBLIC / OBSERVERS PRESENT:** Kenneth Werth (citizen); Frank Smith (citizen); Ray and Eileen Guyer (citizens); Nicole Bozarth (citizen); John Bauer (Tenera); James Horan (citizen); Ralph Stephens (RF retiree); Tim O'Fallon (citizen); Bridget O'Fallon (citizen); Paul Hartmann (DOE); Rich Magill (RFFO); John Corsi (K-H); Jack Hoopes (K-H); Russell McCallister (RFFO); J. Anderson (citizen); Victor Holm (citizen); Jim Kinsinger (citizen); Hank Stovall (City of Broomfield); Ken Korkia (CAB staff); Erin Rogers (CAB staff); Deb Thompson (CAB staff)

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

**PRESENTATION BY DOE/KAISER-HILL ON RECENT PRICE-ANDERSON VIOLATIONS AND FINES:** Paul Hartmann and Rich Magill gave a short presentation on recent actions taken against Kaiser-Hill. In the 1950s, the Price Anderson Act was developed as an incentive to contractors so they would be insured against corporate liability resulting from work in the nuclear industry. In 1988, the Act was extended and amended to include a provision that DOE develop nuclear safety rules in conjunction with the Act. DOE then developed and implemented two nuclear safety rules, Quality Assurance and Occupational Radiation Protection. Violations can result in enforcement action, which is modeled after the NRC's enforcement program. At sites with nuclear reactors, fines can run up to \$100,000 per day per violation. Rocky Flats is subject to a \$75,000 per day per violation ceiling. To date three fines have been issued: at Hanford,

Sandia, and Rocky Flats. Kaiser-Hill and its subcontractor, Safe Sites of Colorado, received a fine of \$75,000. This fine was split between the two companies and must be paid from corporate funds, not government support funds. The two incidents for which they were fined occurred in Buildings 771 and 776.

- In Building 771, five workers received internal contamination during a waste bagging operation. Contrary to procedure, workers removed their respirators prior to placing a bag in a waste drum. In addition, the drum was located about 25 feet from the bagout area. A hole developed in the bag during transport to the waste drum. The workers transported the material to the drum without support of a radiological control technician. The individuals received a maximum uptake of 400 mrem CEDE (50-year dose). The dose the workers received was limited by the size of the hole, rather than proper work controls.
- At Building 776, a dry spill occurred during a drum venting operation being performed by two process specialists and a radiological control technician. Swipes indicated high counts (more than 1 million DPM alpha) on the radiation meter. The process specialists were wearing respirators; however, no air monitoring was performed during the event. There is a 2000 DPM suspension limit, and if that is reached workers are to suspend the operation and increase their protective clothing. This did not occur, and the personnel continued working. The workers did inform building management of the event, but management response was inadequate. Fortunately, the workers were not internally contaminated.

The two incidents did not pose a significant health impact to workers. The maximum dose received was equivalent to an average yearly background dose for someone living in Colorado. However, DOE is concerned about work controls. Although DOE believes Kaiser-Hill is improving site safety, these actions taken against the contractor are reflective of a more rigorous enforcement program.

### **Q&A Session:**

**Question:** Mary Harlow: On your preliminary notice of violation, you talk about a severity level two violation. Can you explain your ranking scale for violations?

**Answer:** Rich Magill: It was taken from the Nuclear Regulatory Commission severity level ratings, some adjustments were made. Severity level one would be something that had an actual significant health impact, and severity level two would be a lower-level health impact or the potential to have a significant health impact. It's based on health impacts to an individual.

**Question:** Mary Harlow: So \$75,000 is the set fine for a level two?

**Answer:** Rich Magill: This is under revision, we're trying to increase the amount we can fine our contractors. The revisions will have to go through public comment so it will take a while. Right now for any one incident of severity level two at Rocky Flats, you can fine \$37,500. That's what happened for these two incidents. Paul Hartmann: In the enforcement policy, there are also escalation and mitigation factors, where if a contractor takes prompt corrective action, we could lower the fine, or the enforcement officer could make a decision not to issue a fine. Through the process, there's an enforcement conference where we discuss with the contractor what their actions were and based on that, the enforcement officer makes a decision.

**Question:** Beverly Lyne: What health monitoring will take place for the workers who were exposed in 771?

**Answer:** Mark Spears: For the workers in 771 and 776, when somebody has an indication of either external contamination on the skin or in the case of the workers of 771 where we have a confirmed uptake, we do bio-assay monitoring where we collect excretes from the individuals, count and monitor it to determine if they had an intake. Once it's confirmed, we continue that monitoring on a periodic basis until we can definitively establish the dose they had.

**Question:** Beverly Lyne: Are you talking three weeks, ten years?

**Answer:** Mark Spears: Typically for a small uptake like this one, you could determine the dose pretty easily, generally one or two samples. You generally collect the first sample within a couple days of the event, and then you do one followup sample a couple of weeks later. That would be all.

**Question:** Beverly Lyne: Do you do the whole body analysis?

**Answer:** Mark Spears: A lung count? No, not in this particular case. It wouldn't tell you what you need to know. It's not sensitive enough to detect this low of an exposure. We do monitor them externally.

**Question:** Beverly Lyne: You're monitoring for the dose. Will there be health surveillance going on for them?

**Answer:** Mark Spears: Not as a result of this event. The highest exposure to any one worker was 400 mrem, which would be delivered over 50 years, that's about eight percent of the allowed exposure in any one year. Rich Magill: All the rad workers are in the routine monitoring program, so because of this they won't do any extra monitoring, but they will continue to get random urinalysis, lung counts, etc.

**Question:** Steve Tarlton: \$75,000 goes where?

**Answer:** Paul Hartmann: U.S. Treasury.

**Question:** Tom Marshall: I believe in the notice of violation it said that these fines were issued because there had been a series of similar accidents and that's why you decided to levy the fine. There must be some internal reporting mechanism for these kinds of violations. What is that, and can CAB obtain those notices?

**Answer:** Paul Hartmann: There are a lot of different reporting mechanisms required for the contractor. There are RDRs, radiological deficiency reports, and the ORPs orders which require reporting of events. The Price Anderson system also has a non-compliance tracking system, which has to be reported. There's some dialogue about access. Jeremy Karpatkin: Any document the public wants, we'll facilitate them getting. If there's some document where it's not clear if it's public or not, I'll try to find out and get back to you. I'm not sure what documents you're talking about.

**Question:** Mary Harlow: There's been a lot of discussion about the fact that we've lost so many experienced workers at Rocky Flats. Was there any attempt by DOE to find out if these workers were new hires or if they in fact were experienced in this type of work? It seems to me an experienced worker would have a lot better knowledge base.

**Answer:** Rich Magill: Some of the workers were very experienced. In the 776 case, there was a case where some of the workers had just recently been switched into the building, that could have had some impact. In the 771 case, some of those workers were process specialists with over four years experience. Mark Spears: The reason there were five is because we had experienced workers doing the job with other people under instruction. Paul Hartmann: Part of our analysis when we look at an event or series of events is the training and qualification of people involved.

**Question:** Frank Smith: How is it that workers lose caution?

**Answer:** Mark Spears: In the 771 event, the work planning was inadequate for the job. The pre-job briefing given to the workers by their supervisor did not address the radiological aspects of the job adequately. It was left up to the workers to make sure they understood what they are supposed to do, as opposed to being proactive from a management standpoint and ensuring that the workers understood what the requirements were before the work was authorized. It was a management failure, not a failure of the workers. In 776, the job happened on the mid-shift and the RCT who was supposed to monitor and control the work was a new individual assigned to the building. The foreman for that RCT was in another building and did not respond when notified that a problem had occurred. The RCT, as a junior person in the job, did the best he could. Fortunately,

there was not an uptake in that event. Again, it was a management failure, the supervisor should have gone to the scene and taken charge. Rich Magill: Part of it too could be a sense of complacency, they had vented about 1,000 of the drums without incident until this event occurred.

**Question:** James Horan: Concerning this 400 mrem, how much plutonium is 100 percent annual dose, in weight?

**Answer:** Mark Spears: It would be a microgram quantity, but it would depend on how the dose was received. If it was inhaled, it would still be in the microgram quantity, you can't give an exact number because the physiology of every person is different. If you had a puncture wound or injected into the bloodstream, it would take a much smaller amount.

**Question:** James Horan: Don't you have a list of quantity for body burden?

**Answer:** Mark Spears: No, what you're talking about is pre-1989. The way we used to control internal exposure was simply to give a body burden for individual organs and once you exceeded that body burden, you were removed from plutonium work. The way it is done today is more conservative and more effective. When an individual has an uptake of plutonium you model the dispersion of the material into the body. Eventually plutonium seeks the surface of the bones, you add that dose to the total dose the person receives in external radiation so we control the total dose to the person. It's done on historical knowledge of people with known uptakes, lung counts.

**Question:** James Horan: How did you estimate the eight percent? You made a comment that it was too low to monitor at less than ten percent, how did you get the eight percent.

**Answer:** Mark Spears: Fecal analysis in this particular case. It was too low to measure with a lung counter.

**Question:** Russell McCallister: In the 771 incident, it says the RCT left before the work was completed. Why did that individual leave?

**Answer:** Mark Spears: The RCT stayed. The work was done in one room, was bagged in one room, then the workers left that room and carried it to another room and put it in a drum. When the physical act of moving material from the glovebox, bagging it and preparing it for transport, at that point the RCT stayed in the room to do paperwork. The workers knowingly left the room without their RCT.

**Question:** Beverly Lyne: It's interesting to me, all along we've been told that low-level chronic doses are one thing, higher exposure is another thing. These people possibly received an annual dose all at once.

**Answer:** Rich Magill: What they received is like a typical annual dose that you get, just background dose. The annual dose limit is set at 5,000 mrem per year. They got eight percent of that federal limit. Mark Spears: Also, that dose was not received instantaneously. We account for it, we assume the dose was all received when the uptake occurred, but in actuality that dose will be delivered over a 50-year period.

**Question:** Mary Harlow: I would like to request that CAB get a copy of the corrective action that has been taken by Kaiser-Hill. Tom Marshall: Can we get that Jeremy?

**Answer:** Jeremy Karpatkin: I don't see why not.

### **FOLLOW-UP RECOMMENDATIONS AND DISCUSSION ON SOIL ACTION LEVELS**

(Tom Marshall): At the October Board meeting, CAB prepared a recommendation on Soil Action Levels. However, there was not time at the October meeting to review and discuss Attachments A, B and C to the recommendation. CAB discussed the content of a followup recommendation to be forwarded to DOE and the regulators as further comments on the Soil Action Levels. Following is a summary of the comments proposed:

- Attachment A, which lists CAB's recommendations for further study. For example: studies of spatial distribution, speciation, the dose-response model, the effects of low dose exposure; mapping erosional components and comparing to plutonium migration data; and calculating the soil action levels using upper bound levels. CAB also recommends that the public be involved in a debate regarding any proposed national standards.
- Attachment C contains very specific comments on Soil Action Level issues, concerns about specific parameters, ecological impacts, and effects on surface water. Also included are comments on EPA's draft Radiation Site Cleanup regulation.

A revision to the actual Soil Action Levels recommendation was proposed but no agreement was reached. Several CAB members also had concerns with the language in Attachment B (regarding institutional controls). The Site Wide Issues Committee will review and revise both the proposed change to CAB's recommendation and Attachment B and bring these items back to the Board for approval. In addition, some Board members expressed concerns about the agencies' action following CAB's recommendation. In the future, CAB will meet with DOE and the regulators as a followup to major CAB recommendations.

**Decision:** *Approve Attachments A and C, to be forwarded to DOE and the regulators as a*

*followup recommendation to CAB's recommendation no. 96-14. Minor changes to the wording were proposed. APPROVED BY CONSENSUS.*

### **HEALTH COMMITTEE (Beverly Lyne):**

- Update on Community Needs Assessment. The Health Committee will bring to the Board at its December meeting a recommendation which follows up on concerns expressed in the Community Needs Assessment. CAB members were asked to thoroughly review the Community Needs Assessment and get any comments and concerns to the committee as soon as possible. In addition, Beverly Lyne and Linda Campbell's (Health Committee intern) are working on narrative interviews with members of the public. The Health Committee asked CAB's approval to spend up to \$500 for a transcriber to transcribe the contents of the interviews.

***Decision:** Approve Health Committee spending up to \$500 for transcription services. APPROVED BY CONSENSUS.*

- Approval of Request for Proposal for Environmental Monitoring Contract Research. The Health Committee has developed a draft RFP for environmental monitoring research. This research contract is a part of CAB's recently-developed work plan. CAB sent out a solicitation asking for interested companies and/or individuals to develop a list of potential bidders - about 150 responses were received. The RFP's scope of work includes investigating the current environmental monitoring program at Rocky Flats, a critical analysis of that program, and recommended changes. A few Board members volunteered to be part of the review team working on this project. Since some concerns were expressed about the timelines and monetary value of the RFP, CAB decided to push back the timeline and set up a meeting with the review team as soon as possible to finalize the RFP.

### **SITE WIDE ISSUES COMMITTEE - TEN YEAR PLAN RECOMMENDATION**

(Susan Johnson): The Site Wide Issues Committee brought to the Board a proposed recommendation on the draft Ten Year Plan. Highlights include:

- Cleanup: CAB recommends DOE develop a continual improvement plan beyond the ten year planning process, including technology development which will improve the site condition in the future.
- Decision-Making Process: CAB requests to be involved in developing the public involvement portion of the decision-making process. CAB wishes to collaborate with the principals in developing a more effective process for consideration of the Board's recommendations. CAB also requested that the draft Plan not be used as

the basis for planning until adequate time has been allowed for public review and comment. In addition, CAB recommends an annual review process for the Ten Year Plan.

- Assumptions in the Ten Year Plan: CAB asks DOE to identify and analyze contingency plans to the Plan's assumptions, specifically: 1) uncertainties surrounding the opening of WIPP and its ability to accept the amount of waste Rocky Flats is planning to send to WIPP; and 2) preparing a storage contingency in the event offsite shipment as planned is not feasible due to cost or resistance at other sites.
- Soil Action Levels: CAB does not agree with the soil action level set by the agencies, and would like to see a commitment incorporated into the Plan which applies the concept of As Low As Reasonably Achievable (ALARA) to the Soil Action Levels.
- Plutonium and Other SNM: CAB requests plans for residues be clarified as the planning process continues, and that DOE assess the viability of a pilot scale facility at Rocky Flats for immobilization of Rocky Flats residues.
- Deactivation and Decommissioning: CAB requests DOE develop and submit for public review a comprehensive set of health and safety standards for D&D activities.
- Privatization: CAB asks DOE to present an analysis for each privatization proposal listed in the Plan, and demonstrate any cost savings. Also, the Board believes privatization must be structured to provide clear accountability and work force stability.
- Site Wide Environmental Impact Statement: CAB asks for information on the EIS, its schedule for completion, its public involvement plan, and its scope.

**Decision:** *Approve recommendation on Ten Year Plan, with minor changes to the text.*  
**APPROVED BY CONSENSUS.**

### **PUBLIC COMMENT PERIOD:**

**Comment:** Ray Guyer: I'm a retired Rocky Flats employee. In the Ten Year Plan, it says almost onsite facilities will be demolished, including all the former nuclear production facilities by the end of 2006. Demolished to me means that we're going to get a wrecking ball or dynamite or something. I don't know if the members of the Board know, that kind of thing can release a lot of plutonium into the atmosphere and we will have to worry

about air contamination in Denver. If we have a windstorm on the day they hit the wrecking ball into one of those buildings, it could be a real disaster. You won't have to worry about your budgets, because it will take all the budget that DOE can muster from Congress to clean it up. We had better take a real hard look at what we're doing. They're looking at privatization to cut costs. That's great if you can do it and get away with it. You've got to be very careful that you don't let something else get away while you're doing it. Bear in mind there's a lot of stuff at Rocky Flats that the current contractor don't know about, most of the people at DOE don't know what's there. They may know the major quantities of plutonium, but they don't know what's hidden in the cracks and buried underneath the parking lots. CAB should be aware of some of these things. Keep that in mind when you're approving a Ten Year Plan, be sure you don't overlook something that's going to come back and haunt you.

**Response:** Tom Marshall: We did recognize the danger of deactivation and decommissioning in our recommendation, but we need to do a lot more work to follow up on that.

**Comment:** Victor Holm: I've heard it many times about waste drums in corridors and nooks and crannies at Rocky Flats. I'm concerned in the Ten Year Plan they're talking about removing all of that waste to offsite locations. I really think onsite storage needs to be an assumption, we're going to have some onsite storage for some length of time. I would feel a lot better if a lot of these drums were in more controlled environments instead of in the halls. These are the kind of things that concern me.

**Response:** Jeremy Karpatkin: It will be consolidated at one place until it can be shipped. They're not going to be left scattered.

**BOARD MEMBER RESIGNATION:** LeRoy Moore resigned as a Board member, effective immediately.

### **EXECUTIVE SESSION:**

- Approval of 1997 CAB Budget. The Board approved a budget for calendar year 1997. Total grant funds requested for next year will be \$399,148.51.
- CAB travel. The National Issues Committee will review options for possible travel to other sites prior to the end of the year, and make a recommendation to the Board at its next meeting.
- Recommendation of new CAB members. The Board approved the following new Board members: Victor Holm, Jim Kinsinger and Todd Saliman. In addition, Kathleen Sullivan, an applicant for the Board, was approved. However, her tenure

on the Board will not begin until she returns in 1997 from an extended trip out of the country. The Membership Committee also recommended a realignment of Board member representational categories, which was approved.

- Hiring of Program Specialist. The Board agreed to extend an offer to Rachel Miller of Golden, to fill a vacancy in the Program Specialist staff position.
- Change December Board meeting date. The Board decided not to change its December meeting date.

**NEXT MEETING:**

Date: December 5, 1996, 6 - 9:30 p.m.

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

Agenda: *Kaiser-Hill performance measures; Rocky Flats FY97 budget; findings of Community Needs Assessment*

**ACTION ITEM SUMMARY: ASSIGNED TO:**

1. Revise and forward followup recommendations on Soil Action Levels - Staff
2. Review and revise proposed additional recommendations on SALs - Site Wide Issues Committee
3. Review Community Needs Assessment; provide comments to Health Committee - Board Members
4. Schedule meeting with RFP review team to finalize RFP - Beverly Lyne/Ken Korkia
5. Revise and forward recommendation on Ten Year Plan - Staff
6. Finalize budget and submit 1997 grant request - Staff
7. Review options for travel to other SSAB sites; recommend to Board - National Issues Committee
8. Offer Program Specialist position to Rachel Miller - Tom Marshall

**MEETING ADJOURNED AT 10:15 P.M. \***

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

**RESPECTFULLY SUBMITTED:**

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David Navarro, Secretary  
Rocky Flats Citizens Advisory Board

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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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