

**ROCKY FLATS CITIZENS ADVISORY BOARD
MINUTES OF WORK SESSION**

March 2, 2000

6 - 9:30 p.m.

**College Hill Library (Front Range Community College)
3705 West 112th Avenue, Westminster, Colorado**

FACILITATOR: Reed Hodgkin

Gerald DePoorter, the Board's chair, called the meeting to order at 6:10 p.m.

BOARD / EX-OFFICIO MEMBERS PRESENT: Ray Betts, Shawn Burke, Bruce Dahm, Jerry DePoorter, Joe Downey, Jeff Eggleston, Mary Harlow, Victor Holm, Jim Kinsinger, Bill Kossack, Tom Marshall, Mary Mattson, LeRoy Moore, David Navarro, Markuené Sumler, Bryan Taylor / Steve Gunderson, Anna Martinez, John Rampe, Tim Rehder

BOARD / EX-OFFICIO MEMBERS ABSENT: Eugene DeMayo, Tom Gallegos

PUBLIC / OBSERVERS PRESENT: Angela Medbery (Colorado Pesticide Network); Jim Stone (RFCC); Tom Stewart (CDPHE); Roman Kohler (RF retiree); David Grover (DNFSB); Kathleen Wahlberg (CDPHE); Monique Cornish (NCAR); Laurie Herrli (CU-Boulder); David DePenning (citizen); Rebecca Groen (citizen); John Marler (RFCOLG); Louise Janson (citizen); Ann Lockhart (CDPHE); Sheila Plunkett (citizen); Paula Elofson-Gardine (EIN); Paul Kilburn (JCNA); Warren Shelley (NFPD); Nathan Knell (UCB); Mike Fischer (UCB); Harvey Nichols (CU-Boulder); Steve Nesta (Kaiser-Hill); Danielle Frohlich (citizen); Greg Marsh (RFCC); Scott Bell (citizen); Joan Seeman (Sierra Club); Ken Bracken (Arvada); Ken Korkia (CAB staff); Erin Rogers (CAB staff); Deb Thompson (CAB staff)

PUBLIC COMMENT PERIOD: No comments were received.

REGULATOR UPDATE - EPA: Tim Rehder presented the EPA's status report on Rocky Flats issues.

- **NPDES Permit.** The new Clean Water Act permit that will regulate discharges from the site's sewer treatment plant will be issued for a 30-day public comment period beginning March 3.

- **903 Pad Planning.** EPA has contracted with an engineering firm, Portage, to develop a plan for the cleanup of the 903 Pad. An initial tour of the 903 Pad with Portage was held on February 24. Portage will also develop a detailed cost estimate for the project and a cost model that will allow EPA to estimate the costs associated with cleaning up different quantities of contamination. EPA expects all of this to be done before the end of June.
- **Building Rubble Samples.** On February 16, EPA collected samples from the Building 779 rubble pile. The samples will be analyzed by EPA's national radiological lab in Alabama. Results are expected within 4-5 weeks.
- **RAC Report Review.** The final report issued by Risk Assessment Corporation on the Soil Action Level project was sent to EPA's Office of Radiation and Indoor Air, as well as EPA's Las Vegas laboratory for review. Of particular interest is RAC's calculation that a 15 millirem/year dose over 30 years equates to a cancer risk of 2.3 in 10,000. This is a higher risk than EPA and CDPHE calculated when the RSALs were published in 1996.

DISCUSSION OF BOARD COMMENTS ON ROCKY FLATS CLOSURE

ASSUMPTIONS AND KAISER-HILL CONTRACT: At the Board's February meeting, CAB members received a presentation on the site's budget and the assumptions that were developed in relation to the closure plan for Rocky Flats. Board members put together a list of concerns with some of those assumptions. A group of members volunteered to meet as a focus group and review the 2006 closure assumptions, and to compare those assumptions with Board positions and the Board's vision. A survey was sent to all Board members asking for their thoughts on the assumptions. Based on the results of the completed surveys, the focus group thought there was demonstrated interest in the assumptions related to caps, surface water quality, and environmental restoration. The focus group returned to the Board with a recommended process for addressing those issues.

- **Soil Action Levels.** In the Board's 2000 Work Plan, this issue will be addressed through a focus group. Risk Assessment Corporation has produced its final report to the Soil Action Level Oversight Panel, and will release the results formally at a public meeting scheduled for March 23. Board members were encouraged to attend that public meeting. Hank Stovall (co-chair of the Oversight Panel), along with LeRoy Moore and Victor Holm (Board members and members of the Oversight Panel), will give a presentation to the Board about the Soil Action Level project at the Board's April meeting. The Board agreed to wait until after those presentations are completed to decide on a path forward, and whether it would be necessary to convene a focus group to further study the issue.
- **Caps.** This issue is noted in the Work Plan as one that should be studied by the Board as a whole. The Board agreed that further discussion on this issue is warranted, and a group of members agreed to serve on a focus group to study remediation strategies. The group will focus on remediation of the Industrial Area,

to include specific discussion about whether or not caps should be used as a part of that remediation, and whether or not there are any viable alternatives to caps. The focus group will lay out the issues, study the issue, then return to the Board with recommendations. Education of the full Board is part of the process and will be part of a future Board meeting agenda.

- **Surface Water Quality.** This issue is mentioned as a tracking issue in the Work Plan. The focus group recommends that the Board delay work on this issue until summer and have staff monitor and track the progress. This issue will be impacted by the work being done on the Actinide Migration Evaluation. The Board agreed to the delay for a few months.
- **Kaiser-Hill Contract.** Recently, DOE and Kaiser-Hill signed a new contract for remediation work and closure of the site. The new contract was suggested as a possible issue the Board might want to discuss. Board members agreed to continue discussions about the assumptions that are inherent in the contract, but not to specifically examine the contract, as many issues would be addressed during the upcoming review of the Rocky Flats Cleanup Agreement.

Finally, the Board agreed to send a letter to Paul Golan, acting manager at DOE-RFFO, noting that the Board is concerned about several of the working assumptions in the revised, draft 1999 *Path to Closure* document. The letter states that the Board is most interested in the assumptions relating to caps, surface water quality, and environmental remediation. The letter asks that DOE-RFFO work with the Board to identify decision processes for a number of the assumptions in order to: 1) determine how best the Board and the public can participate in those decisions; 2) prioritize which issues should be discussed first based on when the decisions will be made; and 3) ensure timely and meaningful public involvement in those decisions.

PRESENTATION AND DISCUSSION ON CONTROLLED BURNS AT ROCKY FLATS: The Board asked DOE and Kaiser-Hill to give a presentation at this meeting on their plans to do prescribed burns in the Buffer Zone at Rocky Flats. John Rampe with DOE first gave an overview of the site's plans, and a little history of its process involved in making the decision to do prescribed burns. Next, Steve Nesta with Kaiser-Hill presented some basic background information on the plans for a prescribed burn.

A controlled burn will be conducted on approximately 500 acres of the site's Buffer Zone. No burning will be done in areas of known contamination. This will be done in the southwest and northwest areas of the site. The prime window of opportunity is March 15 to April 15. The U.S. Forest Service will be the agency in charge of the burn, through an Interagency Cooperative Agreement between DOE and the Forest Service. The site feels it necessary to do the burn for two primary reasons. First, the burn serves as a method of natural resource management: to restore xeric tall grass prairie and mesic grasslands; to increase efficiency of herbicides for weed control; and to protect Preble's Meadow Jumping Mouse habitat. And second, the burn will help to reduce litter that could feed a

potential uncontrolled wildfire. The site has performed a number of activities and substantial research prior to making the decision to perform the controlled burn, through documents such as the Natural Resources Management Policy (1998), Vegetation Management Environmental Assessment and Finding of No Significant Impact (1999), and an Annual Vegetation Management Plan. Then the site applied for and received an open burn permit from CDPHE. The Forest Service prepared the actual burn plan. An actual date for the burn has not been selected. The date selected will depend on when optimal weather conditions are present, such as wind between 2 to 15 mph and relative humidity at 6 to 60 percent. The wind conditions and weather forecast will also determine which ignition patterns are used on the day of the burn. The burn will be conducted between 8 a.m. and 4 p.m., with a team of approximately 20 individuals. The Forest Service will be teamed with the site's Fire Department, as well as fire departments in neighboring communities.

These types of burns are usually done into the wind, and are relatively fast-burning to minimize hot spots. Any change in conditions, which are counter to the given prescription, will result in an immediate cessation of the burning. A contingency plan exists which calls for the site's Fire Department to assume command of the situation and implement the site's Wildland Fire Procedure. There will be patrols in the fire areas for several hours after the burn is complete to ensure no flare-ups or hot spots. The public will be notified when the burn is to be conducted, following procedures in the site's Communication Plan.

Next, Bob Nininger discussed the site's plans for air monitoring during the prescribed burn, and planned studies of soil resuspension. The site feels the burn will present an opportunity to collect valuable information about potential air quality impacts from wind-blown dust. The study will examine aspects of airborne soil both during and following a fire similar to the kind, which might occur at Rocky Flats after closure. Three aspects of the study: 1) to monitor the air during the burn, measuring radionuclide content for purposes of estimating any potential exposure; 2) monitoring the plume to characterize any soil content that may become airborne due to the fire or its consequences; and 3) quantify soil resuspension rates both before the burn and following.

OPEN PUBLIC DISCUSSION ON CONTROLLED BURNS: Approximately 35 members of the public attended the Board's meeting specifically to hear the presentation on the site's plan for controlled burns. Many were interested in giving their comments to DOE and stating their objections to the burn plan. In addition, the Board received several phone calls during the week prior to the Board meeting, and two individuals left their comments with Board staff. Those comments are included below. In addition, a few people submitted written comments. Those written documents were given to DOE at the meeting, and will also be attached to these minutes.

Comments received via telephone at the Board's office:

Comment: Bill Kemper: Mr. Kemper was unable to attend the meeting. However, he called in a comment to the RFCAB office a week prior to the meeting. Following is his comment: "Regarding the burn in the Rocky Flats Buffer Zone - I think the risk benefit ratio is far too great for this to make any sense. I am completely against it and would like to go on record as such."

Comment: Lynn Segal: Ms. Segal is a resident of Boulder. She called the day of the meeting to give her comments, as she would be unable to attend in person. Ms. Segal stated that she is completely opposed to the planned burns at Rocky Flats, and believes the site should never consider using controlled burns. The hazards of releasing plutonium are far too great. In addition, Ms. Segal said she believes the site should consider installing "sprinkler systems" to aid in stopping natural burns. (447-3216)

Verbatim transcript of comments made by the public at the meeting:

Comment: Greg Marsh: My name is Greg Marsh, I'm the last elected president of the Rocky Flats Cleanup Commission. I'm a professional environmental chemist, I'm a moral person, and I find this proposal totally appalling. The fact they label it as a controlled burn is a scam and a sham. On the 881 Hillside years ago, the Rocky Flats Cleanup Commission - before it was illegally defunded by the local EPA - screamed that the 881 Hillside french drain installation could not be conducted without a proper enclosed space in which to do the digging. We yelled at them for the better part of a year. After they found four unidentified and unexpected hotspots, they decided I guess we better change our way of doing things. We had a similar event with pondcrete. The pondcrete was supposed to have been done correctly, and it wasn't. When I sat through several days of the Rockwell vs. Stone trial in Judge Matsch's courtroom about a year ago, we heard unbelievable levels of total incompetence on the people who are paid big bucks and collected millions and millions of dollars in taxpayer money to do relatively simple jobs with competent people. What we found out was a bunch of GED people, technicians here and there, nobody could be held accountable at that time, and it still seems to be the same way. Now we have this fire that is supposed to be controlled. The only thing that's controlled is supposedly, if they can predict the weather and no one has been able to do that yet with any success - certainly not four days out - that this is going to not burn beyond the proposed boundaries that they claim this is going to go. I'd like to suggest an alternative. Why don't these promoters of this grand idea get a bunch of goats and cows and let them eat this vegetation down to whatever level it needs to be. If they don't get it down low enough, treat it with molasses - they will eat it then. And then these proponents should drink the milk from these animals. Thank you.

Comment: Scott Bell: I'm a resident of Louisville. In the proposal, *Prescribed Burns as a*

Management Option by Brady Wilson, it states down in the middle of the first page, "a good deal of information presented in this paper originated from an unused prescribed burn plan," and then it goes on to say "no burns were performed as a result of this burn plan." Based on that, since no burns were performed, this is an untested plan. As a contingency planner, I think that is appalling. We're going to test this on 200-300 acres, and we don't even know what the resuspension is? This is a possible danger and concern here, and we would be better if we would test this instead on a black line put down beforehand, or on a small scale to test the resuspension and to see what the plume is.

Comment: Paula Elofson-Gardine: I'm the Executive Director for Environmental Information Network. We have a number of concerns that we feel have not been taken into proper consideration regarding this burn plan. You've got a number of study plots that have been out there that you've had a number of Ph.D. students and people from CSU out there studying. I don't see why you can't get a larger group of CSU agriculture students out there in protective suits during more hand management to gather up that vegetation for another scientific study funded by DOE. You can turn it into another cash cow out there, if they treat it as a scientific study, who knows maybe they won't keep homogenizing results so it doesn't look like there is nothing out there. One of the concerns that we have is that this plan appears to ignore any contamination and looks only at plutonium. If you look at some of your own reports, it shows that there is a myriad of other contaminants out there. In the Church lawsuit in particular, some of the Steelworker Union transcripts indicate that they took a large quantity of contaminated sewer sludge out to the north Buffer Zone and spread it out to dry and forgot to go re-collect it. So that stayed out there permanently. In the actinide uptake in cattle research study that was already done out there in the mid-1970s, it showed that Rocky Flats cattle that grazed in the north Buffer Zone had more contamination in them after three months of grazing than the Nevada Test Site herds had for a whole year-round grazing plan. I think there's more out there than meets the eye, and I think you have not done sufficient investigation of characterizing not just the soils, but also vegetation out there. With respect to the application of pesticides with aerial spraying, in the spring of 1988 there was yet another accident where there was a helicopter called in to take an injured party out and they cancelled the call for the helicopter because they didn't want the resuspension and contamination stirred up and took the individual to the hospital by ground transportation. With that in mind, I'm surprised that you want to have more helicopters out there going down low to the ground and spraying Tordon all over the place. I feel that is a hazardous material that's banned in some counties, and quite frankly I don't think we're looking at the Botanic Gardens out there. I think you should be looking at more hand management. Let them rake up all that mat that you're concerned about and do it sector by sector if you have to. I think you have a lot better alternative than trying to do a burn. And your notification to the public has been abysmal in the past, and I don't believe you'll ever notify the public in time, much less have any real public meetings out in the public eye, instead of a controlled atmosphere behind closed doors. There is no public notification. People don't even have the chance to close their windows and get out of the plume's way. I think it's a very ill

conceived idea, and I hope that you'll go back to the drawing board.

Response: John Rampe: There have been a couple comments regarding other alternatives. Really there is nothing that accomplishes for the prairie on this large a scale, economically, something that the burning can do in terms of removing the thatch, in terms of recycling nutrients. I don't mean to be flippant, but prairies aren't adapted to cows and molasses, they're not adapted to people with rakes. Prairies are adapted and have evolved with fire as a defining mechanism to maintain the ecosystem. Both ecologically and economically, there really isn't a substitute that does what we think needs to be done out there. Relative to other contamination, I know that Paula you have raised some concern about cesium - quoting a 1989 or 1990 EG&G report. That report concluded that for cesium, the levels were really no different from fallout background. The conclusion of the report was that the activities at Rocky Flats did not contribute cesium to the environment, and that the levels they found were not different from fallout background.

Comment: Monique Cornish: I'm from the University of Oxford and National Center for Atmospheric Research. I really want to reiterate what the other members of the audience have already said. Are you not under any obligation to invoke the precautionary principle, to look at other ways, since you do seem to have conflicting data. Doing such a big burn, there doesn't seem to be confidence in the burn procedure itself. Is it not too late to go back to the drawing board, invoke the precautionary principle which is used across the globe in debates such as this, and try to find an alternative.

Response: John Rampe: The point of the Environmental Assessment process - which we went through last year and which a number of people participated in - was to do just that, to examine other alternatives for management of the prairie in order to accomplish the things we want to accomplish and to accomplish the things we really think are ultimately in the public interest. We looked at a number of alternatives, many of which had to do with hand removal of weeds and thatch, grazing animals, etc. Our analysis was that there really was not an alternative that accomplished on the scale we're looking at, what we need to accomplish in practical and economic terms, and what we need to do in terms of fire safety and vegetation management. The other thing that I'd point out - and obviously there is disagreement in the room - you mentioned conflicting data. I don't know of the data that show that there is any reasonable possibility of there being contamination in these areas. If I thought there was, we wouldn't be doing this. There is a presumption in this room that we don't share relative to the data. Relative to precautions, we think we know the area well, we think we know the data well, and we think we have the best people in the business doing this for us - using a technique that across the American west is used time after time.

Comment: Angela Medbery: I'm with the Colorado Pesticide Network. We tried to comment on your Management Plan last year, and I had the distinct pleasure of getting the final EA, which wasn't published until after the spraying was started. I got to come out to

Rocky Flats and pick up a copy of it because there were no copies available on the day the spraying was done. I can say that the plane I saw was more than 6-8 feet above the ground. This is a strategy, an excellent strategy. You're going to be doing the burning very shortly, and I would hope that you would have the plan at least a day ahead of time before you do the burn for the public. I am involved as a pesticide person with Rocky Mountain Arsenal, and we recently came across a collection of 815 acres that we were going to secede, or do something special with, give it to the public. We asked the question, how many samples were taken in that 815 acres? It was less than 10 samples, less than one sample per 80 acres. I hope you've done a little bit more sampling in that 500 acres you're looking at for this huge burn. Last summer, I had the opportunity to go on a tour of Rocky Flats in the vegetative areas. As a pesticide person, I get involved in the weed issue extensively because pesticides are significantly abused in the control of weeds. This isn't about pesticides and I understand that. But when I saw a weed all by itself in an area that was going into a gully, and I asked it if was okay to go over and pull it - because I was told I would be shot if I did anything that I wasn't supposed to be doing while in the Buffer Zone - I was told "no." As we were walking along the road, there were some rosettes of knapweed growing right in the road and on the side of the road. That was the only place the knapweed was in this particular area. It wasn't off away from the road. I asked, why aren't you doing something about those 3-4 rosettes that are there very close, rather than letting them just grow and spread, so that you can come in and spray and burn? I was told that "we only have the trucks out here once a month," which I found out was not true, you have your trucks on the roads more than that. That is obviously how a lot of weeds are being spread out there. I would hope if this is truly a vegetative management plan, you would look at some preventive approaches for weeds. When we went onto the southern part of the property, there was a lot of Canada thistle. I asked about pulling that because it's fairly easy to pull and get under control. I notice from your management plan for this year, it looks like you have about 50 acres that you will be mowing for Canada thistle. It seems like you could take a weed eater into that area and very simply do that as a weed-eating project as well, rather than burn and spray. However, I was told "no" - we won't be doing anything about that this year. That was last summer. I would love to see an overlay of what you sprayed last year, what you plan to burn this year, and what you plan to spray this year. Because it looks like you're planning to burn about 80% of the property this year.

Response: John Rampe: One thing I do want to respond to, you raised an excellent point on notification of the neighbors and the cities prior to doing the burn. We have asked the Forest Service to produce its burn plan one week prior to any prospective burn date, so that we have the opportunity to get it out to anyone who is interested. If you're interested in getting the burn plan, let Anna Martinez know and we'll get it to you.

Comment: Joan Seeman: I'm the Hazardous Waste Committee Chair for the Sierra Club. I'd like to reiterate something that Angela Medbery just mentioned. If DOE was interested in public input, we were concerned about the fact that not many of us were even notified

to respond, and also we had requested an extension period so that we could at least comment and bring in some scientists to evaluate this, and DOE denied us an extension for this evaluation. We also just recently asked the Air Quality Control Division about their open burn permit, because we'd like to have a public meeting on that as well. We were told tonight would be the questions we could ask the Air Quality Control Division. Protocol here tonight is uncomfortable for many of the citizens because DOE has taken an hour and a half, we now get two minutes to respond to this. This is not appropriate for public input. Again, it doesn't look like you are interested in public input. Sierra Club has a lot of concerns. It reminds us of the incinerator issue years ago when Greenpeace called the incinerator issue a "rush to burn." Could that be possibly what we're facing here is a rush to burn again? I was quite concerned about the overheads that were presented by Kaiser-Hill. Repeating what was said about "known contamination," from the maps DOE has presented to us in the past, it looks like there is no sampling in the areas that we're concerned about. If there is, the studies have not been made available to the public on the levels that you have asked us to believe. Dust certainly is a concern. How you test for your soil sampling, if you go down 10 centimeters and then you average your soil sample, that is certainly a concern. We know from past issues, even with Savannah River, we've had some great DOE teaching us about using a vacuum cleaner and how plutonium and radionuclides concentrate in dust, and there is more concentration in the dust than in the soil sampling that you mention. The Forest Service mentioned that they wouldn't be concerned because they were told that the contamination was a pinch above background. What is background? Background is being promoted at .04 picocuries per gram. I challenge DOE at this time to talk about background to the public. Even at Savannah River, .0015 is the 1975 background. Lafayette, Genessee, your remote areas were .015. We've got a problem. Air Quality Control Division does not look at toxics in their open-air permit. That's why we needed to get the division to talk to us. Is this going to be in violation of the State Implementation Plan? This is a non-attainment area for particulate pollution. We need to look at it. Should we trust DOE? You have a NPDES permit that has been expired for 10 years. We'd like to know why that continues to be expired. Has fuel load been tested? You said it's been there 25 years, that has not been tested. On page 29 of your own EA - 28.5 picocuries per gram in your uptake - we have seen no uptake studies. Where else has DOE done this nationwide? This is not the norm. Why are we doing it here? This is not the norm on Superfund sites. We need EPA to start talking about why burning in Colorado? You only did this at one site - Savannah River. We've been told by Kaiser-Hill you did 30,000 acres there. I'd like to talk to the public there. Maybe you have studies there you'd like to share with the public. Is this an experiment? This is viewed by many citizens as an incinerator without pollution control equipment.

Response: John Rampe: I'll respond to two things. First, I am unaware of any request to extend the time periods for either the Environmental Assessment or this proposed burn. I also must say this. I disagree with you very strongly relative to DOE doing this behind closed doors. We did not. We ran a public process on the Natural Resources Management Plan that I thought was very well advertised, and we had participation from many

stakeholders with a variety of interests, going through not only vegetation management but Buffer Zone management in general. We ran a number of meetings on the Vegetation Management Environmental Assessment. I don't know if Sierra Club was at the meetings. I do know that we took Sierra Club's comments, we considered them, we responded to them in the response to comments. I have to reject the notion that we've done this in some sort of clandestine manner, because we haven't.

Comment: Jim Stone: I'm the Technical Advisor for the Rocky Flats Cleanup Commission, and also the relater in the litigation against Rockwell for environmental crimes at Rocky Flats. It's my personal opinion that DOE does not know nearly the amount of contamination out there. There have been hundreds of thousands of pages spent on trying to determine that. I don't really think the characterization of the effort has been proper. There is a lot of good work that's been done on a project that isn't timely. Our main effort today and in the next five years is the safe cleanup of Rocky Flats. This project reminds me of the effort made in Pueblo a number of years ago to destroy some bombs to comply with the Russian treaty. Out of 50 monitoring stations, the wind came along and only gave us results from one or two. Mr. Looby, head of the Health Department, said we can extrapolate. That says to me that nobody gives a damn. A lot of us are involved in busy work instead of priorities that get the job done. We've got a serious problem out there, and from the parameters that I understand you need for your work, you're not going to get it out there. The fire is not going to be intense enough, and you're interfering with the cleanup of Rocky Flats. I'd like to know who is responsible for a mishap? On the Pueblo fiasco that the Health Department ran, nobody was. They just walked away from it. You won't walk away from this one if you screw it up. Save yourself a lot of headache and put it in the priority of what we know has to be done and get that done. I'm sure Bob Card will thank you too.

Response: John Rampe: We are moving ahead to our timeline of handing over the property at the end, and the lead time we need in order to do the ecological management out there in order to hand over a piece of property that really is the best it can be. That's also our goal. We have a responsibility to do that sort of management also.

Comment: Louise Janson: I think the way this man does. It's been a long time since these burns were utilized on the prairies. Of all the prairies in the United States, I can wait - I'd be happy to wait until after the closure and we have more knowledge about what's really in the ground and where. Where you say you want to burn is okay, but I think it's normal to have some fear that the fire might go where you don't want it, because it can get very windy out there. Weather predictions aren't always up to par. I'd rather just put it off.

Comment: Ken Bracken: With the 1994 burn that came off of Highway 128, and with the lightning strike that occurred in 1996, were there State of Colorado or site air monitors operating during those two burns, and what were the results of the data that was collected from the monitors?

Response: Bob Nininger: We had a number of monitors running during that period. The ones we analyzed did not show anything other than normal concentrations of plutonium. Steve Gunderson: I think the best thing to do is refer you to a report on the Health Department's internet site, it's called Buffer Zone Brush Fires Investigations, report dated 2/3/99. It's an assessment of the data we have on actinide releases on both brush fires. It concluded that we saw no indication either on the air monitors or the surface water samplers of an increase in actinides, or things like plutonium. The internet site is www.state.co.us, then go to Colorado Department of Public Health and Environment.

Comment: Harvey Nichols: University of Colorado Professor of Biology. A quarter century ago I was awarded by the ERDA, which became DOE, to examine wind-blown particulates at Rocky Flats. What I rightfully found out was that the low-volume and high-volume samplers were seriously deficient in picking up certain small, lightweight particles. So if you're planning to use high-volume samplers that are not isokinetic, these are not definitive, state-of-the-art instruments for this purpose. You're going to get deficiencies in what you record. That's not debatable really. I checked with Dr. Gale Biggs yesterday, a consultant meteorologist who has some experience about the Rocky Flats situation, and he agreed with me completely. You've got to instrument the burn area professionally. You've got to consider meteorological towers to get into the plume. You cannot just do this with surface samplers. They are not efficient with tiny submicrometer particles. The area to the west must be contaminated because of the officially-admitted commentary by Rockwell over a decade ago that small quantities of plutonium were routinely emitted from the stacks during their operation. So however small you think it is, there is contamination to the west above background. That again is not debatable. The weed control is a particular weak area. A colleague of mine, Dr. Tim Seastedt, in EPObiology at CU-Boulder, says that insect control and insect predation is far more effective, although it is slower, at stopping the knapweed and other exotics from getting across the site. That is highly recommended, and he does not recommend burning in a situation that may be contaminated. I have to ask about the warning situation. Which community, under these perfect meteorological conditions, will actually get dumped on? Because the debris will go somewhere, the gases will be inhaled by some people. Even if you plan it so a plume goes over to the west, some of that material will get into the Boulder water supply as it did in the 1980s when we had an extremely high plutonium level in the water supply, which we were not told about until weeks later. You've not really talked about real-time sampling. You've talked about sampling on the same day, but after the events. If you're going to assure people, it has to be real-time, better limited burning. There will be a psychological affect, even if there is no health affect. Just as at Three Mile Island, the psychological health affect is a real one because the site has a history of deception and being economical with the truth.

Response: Bob Nininger: Regarding the isokinetic issue, it is appropriate if you're

working in a condition of very high wind speeds. It is typically used in stack sampling where you do have to match your sampling velocity to the wind velocity. At very low speeds, it is not a normal procedure to use such sampling for ambient monitoring.

Comment: Harvey Nichols: I disagree. There are traces at the site all around the perimeter to the east of the plant in 1975-1976, pine pollen naturally released by the montane forest, and your samplers, low and high volume, did not pick up that pine pollen. My samplers did. You've got a problem. I've got the reports here.

Response: Bob Nininger: Our ambient samplers in the network around the site are not the style that was used in the 1970s. We have a size-fractionating sampler with an inlet that's designed to emit particles around 30 microns in size, and we use impaction to separate the coarse particles from the fine fraction in the filter. It's not the same sampler that you may have tested before.

Comment: Harvey Nichols: You mentioned 30 microns, that is two orders of magnitude apart from the size particles that I was trying to record in the case of the ones I talked about.

Response: Bob Nininger: All particles below 30 microns are sampled, that's what I'm saying.

Written comments submitted at the meeting: A letter from both Harvey Nichols and T. R. Seastedt are attached to these minutes.

DISCUSSION OF BOARD'S LETTER TO DOE REGARDING POSSIBLE NAS REVIEW OF RISK ASSESSMENT CORPORATION'S WORK: At last month's meeting, the Board discussed a draft letter to be sent to DOE-Headquarters, commenting on the site's request that Headquarters consider engaging the National Academy of Sciences to review reports being generated by Risk Assessment Corporation on its work regarding soil action levels. Over the past month, staff and the Board worked on developing a revised letter for the Board's review and approval this evening. However, this week the Board received a copy of a letter from DOE-Headquarters explaining that it was not seeking to work with NAS on such a review at this time. Thus, the letter from CAB was not necessary. This item was tabled.

EXECUTIVE COMMITTEE UPDATE: The Executive Committee wants to schedule a meeting with DOE Acting Manager Paul Golan in the near future. The Board was asked to give its comments and opinion on such a meeting. At issue was whether or not just one Board member could represent the Board in a meeting with Mr. Golan. The Executive Committee felt that it was proper for the group to meet as a whole so that all points of view could be represented. After discussion, the Board agreed to have staff schedule a

meeting with Mr. Golan, then announce it to the full Board so that any member interested could attend the meeting as well. On a related note, staff was asked to begin distributing the Executive Committee's agenda to the Board via email prior to the committee's regularly scheduled monthly meeting, as well as a summary of the topics discussed and decisions made following the meeting.

NEXT MEETING:

Date: April 6, 6 - 9:30 p.m.

Location: Westminster City Hall, lower-level Multi-Purpose Room, 4800 West 92nd Avenue, Westminster

Agenda: Presentation and discussion on results of Soil Action Level review by Risk Assessment Corporation; updates from Stewardship Committee, ad-hoc Remediation Focus Group, SSAB chairs meeting attendees, and Executive Committee

ACTION ITEM SUMMARY: ASSIGNED TO:

- 1) Give presentation on SAL project to Board at April 6 meeting -Victor Holm and LeRoy Moore
- 2) Revise letter of recommendation on closure assumptions and send to DOE - Erin Rogers
- 3) Schedule meeting with Paul Golan; notify Board of date - Executive Committee
- 4) Post Executive Committee agendas and minutes on CABlist for Board review - Ken Korkia

MEETING ADJOURNED AT 9:45 P.M. *

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

RESPECTFULLY SUBMITTED:

Mary Harlow, 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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