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MEETING SUMMARY
ROCKY FLATS ENVIRONMENTAL MONITORING COUNCIL

July 26, 1988

BACKGROUND

Meeting time, place, and attendance: July 26, 1988, 7:00 p.m., at the University of Colorado-Boulder, University Memorial Center. About 40 persons attended.

Council members present: Jim Wilson, Chair; and members Melinda Kassen, Niels Schonbeck, Ted Borst, George Federonko, Beverly Honey, Ted Tegeler, Phil Bailey, and David Getches.

Agency representatives: Rich Lathrop, Nat Miullo (U.S. Environmental Protection Agency); Allen Schubert, D. Lundberg, L.J.O. Frick, Ed Naimon, D. Hurtt, and J. Hurtt (Rockwell); R. Schassburger, K.J. Schneider, and S. Ross (Department of Energy); and Dick Gamewell and Patricia Corbetta (Colorado Department of Health).

Meeting notification: The meeting was announced by a general mailing to Council members and to members of the public whose names appear on the mailing list. The meeting was also announced in the events calendars of several local newspapers, and in the Colorado Calendar, published by the Colorado State government.

SUMMARY OF ACTIVITIES

1. Meeting summary: The summary of the June 28th meeting was distributed.
2. Introduction: Council Chairman Jim Wilson reviewed the agenda and summarized the July 16-17 retreat. He described the frustration with accomplishments to date that Council members had felt and gave an overview of the four areas the Council has decided to pursue. These areas are cleanup, monitoring, plant operations, and health effects. The Council identified short-term and long-term objectives for each subcommittee. Short-term are defined as actions to be completed by or before June 30, 1989; long-term objectives are targeted for beyond June 30, 1989.

The Chairman introduced David Getches, the new member appointed to replace Walter Jessel, who resigned in June. Mr. Getches is on the faculty of the University of Colorado Law School and is a former director of the Colorado Department of Natural Resources.

3. Subcommittee Presentations: Council members presented an overview of each of the areas the Council had decided to pursue: cleanup, plant operation, monitoring, and health effects. These presentations are summarized below.

ADMIN RECORD

SW-A-003478

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o Melinda Kassen, Cleanup Subcommittee Chair

Ms. Kassen identified key short-term components of her subcommittee's effort:

- Calendar. The subcommittee will develop a calendar to show in one place the schedule of all study and cleanup dates established by the U.S. Environmental Protection Agency (EPA), Colorado Department of Health (CDH), and Department of Energy (DOE). She noted that this information is not generally available, especially in a single place, making it difficult to know whether any work is behind schedule.
- Budget. The subcommittee will seek to obtain a clear picture of Rocky Flats' cleanup budget and how it will be used.
- Regulatory process. The subcommittee will develop clear definitions of all Rocky Flats cleanup programs, including those conducted under the auspices of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and Comprehensive Environmental Assessment and Restoration Program (CEARP, now called the ER program). Members will identify the range of concerns these programs cover, and what citizens can expect from each in terms of permanent and temporary cleanup.

Ms. Kassen also identified key long-term activities the subcommittee will undertake:

- Evaluate cleanup alternatives in light of population downwind and downstream from the plant.
- Evaluate how well the agencies are meeting their cleanup goals.
- Develop a clear understanding of the agencies' definitions of cleanup. One question the subcommittee will address is whether some areas must be "sacrifice zones" that will never be cleaned up fully.

The subcommittee will collect information from the agencies, compile it, and disseminate it to the public, perhaps through a newsletter.

Nat Miullo, EPA project manager for the Rocky Flats site, expressed some concern about the calendar, noting that it is difficult to project schedules with certainty. Many factors affect the schedule, including negotiations, and review and revision of documents.

o Phil Bailey, Plant Operations Subcommittee Chair

Mr. Bailey identified the goal of the plant operation subcommittee: to keep the public and elected officials informed of current operation and work, and to ensure outside oversight and plant accountability for cleanup. Short-term and long-term objectives for accomplishing this goal are reproduced verbatim below from Mr. Bailey's handout.

Short Term

- Define current status of emergency preparedness plan for Rocky Flats.
 - Metro population has grown since last review.
- Understand Rocky Flats environmental response organization.
 - Obtain organizational charts, list of responsible personnel, records of timeliness.
 - Inform public about how Rocky Flats does respond.
- Ask DOE for updated worst-case analysis of catastrophic event at plant, including changes since 1980.
 - Rise in metro population and related factors require current information.
- Determine if HEPA filters are adequate.
 - Overlapping issue with monitoring. Would require technical assistance to verify adequacy of current system.
- Follow up on remedy to "pond-crete" incident.
 - Obtain status of other boxes.
 - Find out where boxes are stored and how they are shipped.
 - Obtain remedy and implementation schedule.
 - Why did the spill happen? Was there a plan and oversight?

Long Term

- Improve effectiveness and accountability of DOE, contractors, CDH, and EPA
 - Expand and speed up communication and information sharing.
 - Make funding available for independent assessment and technical advisory groups.

- Convince DOE, contractors, and regulators to make cleanup a co-equal priority with other missions.
 - Current efforts are minimal at best and underfunded.
 - Public trust could be gained with greater efforts.
 - State-of-the-art cleanup does not appear to be the current priority.
- Ensure outside oversight. Ensure plant accountability and responsibility for cleanup.

o Niels Schonbeck, Health Studies Subcommittee Chair

Mr. Schonbeck reviewed the subcommittee's short- and long-term objectives, reproduced below from his handout.

Short Term

- Understand potential role of risk assessment
 - Review Dr. Ellen Mangione's reports on risk assessment to the Council at our May and June meetings.
 - Consult with Dr. Mangione in greater depth.
 - Consider the risk assessment analysis of the incinerator done by CDH and CDC last summer (1987).
- Identify releases and potential releases
 - Using information from Rocky Flats and other sources, construct clear lists of both ongoing releases (include pathways, amounts, and associated risks) and potential releases (accidents).
- Seek information on Rocky Flats under the "right to know" provisions of SARA (Superfund Amendment and Reauthorization Act).

In anticipation of complying with SARA, Rocky Flats has already prepared a list of hazardous substances and amounts used at Rocky Flats.

- Acquire, interpret, and make this list available to the public.
- Encourage additional health studies funding.
 - Analyze existing studies. The profusion of studies which claim to bear on the health risks of Rocky Flats and their contradictory predictions have created pivotal confusions which need clarification.

- * Solicit help from the scientific and public communities to review and make sense of existing studies.
- Design additional birth/cancer registries.
- * Evaluate establishment of a birth defects registry in the State of Colorado.
- * Look into increased funding of existing State cancer registry.
- Outline and evaluate costs of useful environmental assessments which might be implemented.
- Submit question: Can epidemiological studies on Denver population be done? What is the cost? What will they show?
 - Write up carefully worded question and submit to scientific experts and relevant agencies for responses. Consult with Drs. Mangione and Lichtenstein.

Long Term

- Encourage implementation of additional studies for which funding was sought under short-term objectives; include study of existing tissue samples.
 - Investigate status and possible utility of existing human tissue samples from past autopsies.
- Answer question: Can epidemiological studies on Denver population be done?
 - Interpret, write up, and distribute information obtained from asking the question above.

Mr. Tegeler suggested that the subcommittee also look at the studies that have been done by the Los Alamos scientists to begin to develop an understanding of differences of opinions about procedures, protocols, and equipment.

o George Fedoronko, Monitoring Subcommittee Chair

Mr. Fedoronko outlined the monitoring objectives reproduced below.

Short Term

- Respond to loss of state funds to monitor Rocky Flats. (What are the total monitoring costs?)

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- Contact State Representatives, Senators, and the Governor to restore state funding.
- Contact appropriate Federal elected officials and request assistance.
- Contact appropriate Federal agencies to seek additional funds.
- Collect, analyze, and evaluate monitoring data
- Monitor by category
 - Airborne effluent
 - Radioactive ambient air
 - Nonradioactive ambient air
 - Water effluent
 - Ground water
 - Regional water
 - Soil sampling and analysis
 - External gamma radiation
- Determine the adequacy of the monitoring program
 - Are resources adequate?
- Citizen support for monitoring program
 - Gathering of information
 - Evaluation of information
 - Pointing out inconsistencies
- Request that Representative Skaggs obtain information from the Office of Technology Assessment for studies of the monitoring system.
 - How soon can we expect such assistance?

Long Term

- Is the present monitoring system adequate to protect workers and the general public?
- Assure that the monitoring process is flexible enough to adapt to changes that may occur from cleanup activities.
- Gather information for health studies.
- Coordinate monitoring with health study requirements.

- If cleanup and closure occur, what type of monitoring would be necessary?
 - How long will this monitoring be necessary?
- Costs

Responding to questions from Mr. Getches, CDH staff said that the radiation division has suffered a net loss of \$21,000 due to departmental budget cuts.

4. **Agency Presentations:** CDH reported on-going monitoring efforts, and Rocky Flats Plant personnel presented information about the pond-crete spill.

- o **Dick Gamewell, Colorado Department of Health**

Mr. Gamewell reported that no anomalies in analytical results had been found with regard to the monitoring program in the past month. Three monitoring stations have been dropped from the monitoring program: those located in Arvada, Golden, and Table Mountain. None of these stations showed elevated radiation readings in the past year. Responding to a question from Mr. Schonbeck, Mr. Gamewell said the problem reported earlier of erratic readings on the beta counters has stopped. CDH sent the data out for independent analysis and has concluded the erratic readings resulted from CDH procedures, though the reason is not known.

- o **Ed Naimon, Manager of Waste Operations for Rockwell**

Mr. Naimon reported on the May 1988 "pond-crete" spill in which concrete forms used to immobilize radioactive wastes deteriorated. A copy of Rockwell's viewgraphs that Mr. Naimon showed during his report were provided to Council members and the public at the meeting. Key points made during the presentation follow.

- Pond-crete is a mixture of cement and (radioactive) pond sludge containing the solvents acetone, methylene chloride, and tetrachloroethylene. The Rocky Flats pond-crete was packaged in 17,000 boxes of triwall cardboard.
- Early on May 23, 1988, deformed boxes were observed. When plant personnel unstacked the deformed boxes, one box fell from the forklift, causing a spill of approximately 1/4 cubic foot.
- During the spill, 600-1,000 counts per minute of gamma radiation were recorded.

- Boxes were deformed because of exposure to rain (2.7 inches of rain had preceded the accident), inadequate process control, and inadequate inspection procedures.
- Plant personnel immediately removed the spilled material, decontaminated the spill area with water, and inspected other stacks of boxes. They also returned the deformed boxes to the Pond Process Building and collected samples of soil, water, and air. No environmental impact was observed, nor was any actual or potential threat perceived. Pond-crete processing has been discontinued, however.
- Rockwell recommends the following actions:
 - Prepare performance criteria for processing, packaging, storage, shipping, and disposal of pond-crete;
 - Define acceptable process control limits;
 - Revise operating procedures;
 - Assure proper training;
 - Revise inspection procedures;
 - Reinspect any previously packaged boxes;
 - Reprocess unacceptable boxes; and
 - Maintain surveillance over the storage pads.
- The pond-crete spill has had two effects on Rockwell's program: the schedule for sludge removal has been affected, and waste packages will be stored longer than originally planned. There has been no significant impact on plant production.
- The pond-crete will be tested, certified, and repacked in plywood containers. Packages must meet shipping and disposal criteria from the Nevada Test Site, the Department of Transportation, the Nuclear Regulatory Commission, EPA/RCRA, and the Rocky Flats Plant itself. The acceptance criteria are listed below:
 - 100% of the blocks must pass a drill test and inspection for free liquids.
 - Particulates must be collected and measured.
 - Packages must be plywood boxes.
 - Disposal methods must conform to the Toxic Characteristics Leaching Protocol (TCLP).
 - Box voids must be filled with new pond-crete to meet Nevada Test Site trench stability standards.
 - Compressive strength of the boxes must exceed 1000 pounds per square foot.

The first load will be sent to the Nevada Test Site within the next four to six weeks for a test run, after which they will be returned

and inspected. Regular shipments will begin in two months. Rocky Flats will send the Council a schedule of the shipping/repackaging to be done.

Ms. Kassen asked whether the spill would have occurred if the boxes had been stored inside. Mr. Naimon said that the spill would not have been as great, but that the drying temperature of the concrete was an important factor in the deterioration of the pond-crete. Responding to a question by Mr. Getches, Mr. Naimon said the boxes, although waterproof, do "wick," or soak up moisture if left standing in water, as happened during the heavy rains at the time.

Mr. Naimon concluded that the criteria for packaging, processing, and disposal of the wastes were inadequate.

4. Comments from the public: Several audience members spoke at the meeting.

- Susan Hurst of Networking Colorado provided the Council with copies of newsletters from the Rocky Flats Monitoring Committee of the late 1970s. She said that Colorado is the only state with plutonium standards for soil, and expressed the hope it would not be the first to have air standards as well.
- Kim Grice of Committee Against Radiotoxic Pollution recommended replacing two Council members who have not attended Council meetings regularly with people who were "more committed to the Council's activities." He also said the plant should be moved from its present location.
- Paula Elofsen-Gardine of Concerned Health Technicians for a Cleaner Colorado listed requests she has made of DOE through the Freedom of Information Act for documentation of unusual occurrences at the plant and reports on studies of dogs exposed to radiation.
- Greg Marsh, a consulting chemist, said the resume of the Director of CDH radiation programs reveals inadequate education and training to perform the duties of his job. According to Marsh, a Boulder scientist has volunteered to oversee replacement of the current director.
- Jim Stone, an engineer from Arvada, commented that he had anticipated the pond-crete spill back in 1972 but Rocky Flats went ahead with its plans anyway.
- Joan Seeman sought recognition to speak, but the Chair ruled that time did not allow for further comments from the public. Several members of the audience protested the ruling.

5. **Adjournment:** The meeting adjourned at 9:30 p.m. and was followed by a Council business meeting at 9:40.

Council Business Meeting

Meeting Structure

After some discussion, Council members decided that each meeting will open with 30 minutes of public comments, followed by 45 minutes of subcommittee reports and discussions, 30 minutes of agency presentations, and 15 minutes of questions from the public. Members expressed the intention of providing the public with opportunities to make general comments at the beginning of each meeting and to ask followup questions after the presentations. The remaining hour can be used for additional issues or subcommittee work.

Executive Committee

Mr. Wilson recommended the establishment of an executive committee composed of himself, plus the four subcommittee Chairs, to which the other Council members agreed.

Staff Assistant

Requirements for the position of Staff Assistant to the Council have been sent to the Governor's office. It was not specified, however, what level of expertise was expected.