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COLORADO DEPARTMENT OF HEALTH
Radiation Control Division

Minutes of Exchange of Information Meeting
Colorado Department of Health
September 25, 1990 1:30 p.m.

Attendees:

Robert W. Terry	Colorado Department of Health/RCD
Kathryn Schnoor	City of Broomfield
Hallie Mahan	City of Broomfield
Tony Harrison	Colorado Department of Health/RCD
Steve Ramer	City of Westminster
Al Hazle	Colorado Department of Health/RFPD
Nancy M. Daugherty	EG&G
Cathy Alstatt	Colorado Department of Health
Jeff Schwartz	EG&G
Caren Johannes	Colorado Department of Health/HMWMD
Jeb Love	Colorado Department of Health/RFPD
George H. Setlock	EG&G
Mark A. Peters	EG&G/H&S
Conrad Trice	EG&G/H&S
Mark B. Johnson	Jefferson County Health Department
Judy Bruch	Colorado Department of Health/RFPD
Gail Hill	City of Thornton

Nancy Daugherty reported that there have been no changes to the list of radioactive materials used at the Rocky Flats Plant since the last quarterly update (July 31, 1990).

Kathryn Schnoor presented the City of Broomfield Radiometric Monitoring Report for August. All routine radiometric and organic chemistry measurements were consistent with measurements that have been made in the past. Mrs. Schnoor also provided a report of inorganic analysis of treated water samples that were collected from A-4 and B-5 Ponds on August 2nd, prior to discharge to Walnut Creek. The information was presented together with results of analysis of samples that were collected from A-4, B-5 and C-2 Ponds several months ago and reported previously. There was some discussion of the variability in measured concentrations of several constituents.

Steve Ramer presented the City of Westminster Radiation Data Monthly Report for the month of August. All monitoring data were consistent with measurements that have been made in the past.

Nancy Daugherty presented the August Rocky Flats Plant Environmental Monitoring Report. Data from the plant operator's (EG&G) surveillance program that were presented in the report were within the ranges that have been historically measured for their respective parameters and locations, with the following exceptions:

- 1) A total long-lived alpha radioactivity measurement from air effluent monitoring location no. 15, in Building 771, indicated a concentration of 0.03 pCi/cu.M. in the effluent air from the stack during the sampling period from July 30th to August 2nd. Later analysis indicated an average concentration of 0.0078 pCi Pu-239+240/cu.M. at location no. 15

ADMIN RECORD

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for the period from July 30th to August 2nd; a total release of 0.05542 microcuries of Pu-239+240 was released from that sampling location during that period. [NOTE: Page iv of the EG&G report erroneously stated that the average concentration of 0.0078 pCi Pu-239+240/cu.M. occurred from July 30th to August 30th, rather than from July 30th to August 2nd; this error will be corrected at the next Exchange of Information meeting on October 30th.]

According to plant personnel, a person who inhaled air containing 0.0078 pCi/cu.M. of plutonium at the effluent release point, continuously for 4 days from July 30th to August 2nd, would receive an effective dose equivalent of 0.6 millirem.

The preliminary total release of Pu-239+240 from continuously monitored effluent points at the plant during the month of August was 0.13 microcuries; that total will be revised after the monthly analysis from three other air effluent monitoring locations is complete. [EDITORIAL NOTE: This is the second largest monthly release of plutonium from the plant in 1990. The largest plutonium release from the plant so far in 1990 was in January, when 0.29 microcuries was released.]

Plant personnel believe that the release from the exhaust plenums in Building 771 through effluent monitoring location no. 15 may have been caused by damage to some HEPA filters in the exhaust plenum. Additional information about HEPA filter damage was provided in a special report at the end of the meeting.

- 2) Prior to the publication of the August report, the laboratory at the plant experienced some difficulty with analysis for plutonium in samples that were collected from Ponds A-3, A-4 and B-5, Walnut Creek at Indiana Street and Dillon Reservoir. However, all analytical problems were resolved and all results that were reported were not affected by the disruption in the laboratory.
- 3) The plant obtained a high measurement of fecal coliform in the sewage treatment plant effluent and continues to obtain high measurements of fecal coliform in Pond B-3. Plant personnel have not determined whether the high results are due to a problem in the laboratory or to a problem in the operation of the sewage treatment plant. However, they do believe that, because the fecal coliform assay for the sewage treatment plant effluent is generally very low, the high concentration of fecal coliform in Pond B-3 is not the result of upset conditions at the STP.

The 30-day geometric mean fecal coliform concentration of 285 fecal coliforms per 100 milliliters of water for discharge location 001 (Pond B-3) exceeded the Plant's NPDES permitted 30-day limit of 200 fecal coliforms per 100 mL.

Robert Terry presented the Colorado Department of Health Monthly Environmental Surveillance Report on the Rocky Flats Plant for the month of June. All results were consistent with those that have been reported in the past, except that a high gross alpha radioactivity concentration was measured in a PM-10 sample that was collected in Adams City. A positive measurement of 168 ± 63 pCi tritium/L was made in a sample that was collected in the continuous water sampler on Walnut Creek that is operated by the City of Broomfield. Although the concentration was not unusually high, the Radiation Control Division has not

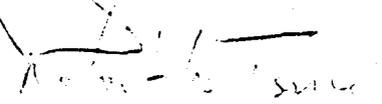
obtained any positive measurements of tritium in water from the vicinity of the Rocky Flats plant in several months. Analysis of raw water that was collected from A-4 and B-5 Ponds on August 14th yielded small amounts of dichloromethane; however, the field blank for that sample collection day was also positive for dichloromethane; therefore, the positive result is suspect.

Measurements of plutonium in soil samples collected in the 1989 surface soil survey are complete and the final plutonium results were reported. Positive measurements of plutonium were obtained for soil sample composites collected in the vicinity of Crook, Burlington, Limon, Walsenburg and Penrose.

The City of Broomfield, the City of Westminster and the plant operator (EG&G) announced no changes to the monitoring program. The Colorado Department of Health announced that operation of the TSP air samplers at 3730 N. Meadowland in Colorado Springs and at the Durango Court House has been discontinued. The Colorado Department of Health will not perform a surface soil survey in 1990. The Department will definitely perform a surface soil survey in 1991.

In a special agenda item, Nancy Daugherty answered questions about the release of plutonium through air effluent monitoring location no. 15 in building 771 and showed a videotape of damaged HEPA filters in the plenum. According to EG&G staff, the dose at the plant boundary for the July 30th-August 2nd release, under adverse meteorological conditions, would be less than 0.005 mrem. Under current applicable regulations, the maximum permissible dose to non-occupationally exposed persons from all pathways is 100 mrem/yr; the maximum permissible dose from the air pathway only is 10 mrem/yr.

The next monthly Environmental Information Exchange Meeting will be held at 1:30 p.m., Tuesday, October 30, 1990, at the Broomfield City Council Chambers, #6 Garden Office Center, Broomfield, Colorado.


Robert W. Terry
Senior Health Physicist
Colorado Department of Health