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INTEROFFICE CORRESPONDENCE

DATE March 18, 1991
TO J. L. Rhoades, Planning and Communications, Bldg. 111, X4072
FROM S. Miya, ^{JA}Program Planning and Budgets, Bldg. 130C, X7335
SUBJECT ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT (ER&WM)
ACCOMPLISHMENTS DURING CALENDAR YEAR 1990

The following list contains ER&WM accomplishments that occurred during the 1990 calendar year. The list is divided into four categories:

- Environmental Restoration
- Waste Management
- Environmental Monitoring
- Corrective Actions

In addition, the list is also divided into Duffy and Barr funded accomplishments. All of the Environmental Restoration and a majority of the Waste Management accomplishments are Duffy funded. The rest of the Waste Management, Environmental Monitoring and Corrective Actions accomplishments are Barr funded.

If there are any questions or comments, please contact me.

SM:lek

Attachment:
As Stated

cc:
J. A. Detamore
A. J. Kallas

ADMIN RECCRD

SW-A -002879

**ENVIRONMENTAL RESTORATION
Accomplishments Funded by Duffy**

1. Shipped All Repacked Pondcrete to NTS

An accelerated Pondcrete repacking effort began in December 1989 in Building 778, with the goal of moving the maximum number of the 14,000 plus triwalls of Pondcrete to the Nevada Test Site (NTS) prior to the May 8, 1990 deadline. Tents were constructed in which to reprocess and repackage the Pondcrete. The last shipment of repackaged Pondcrete was made on May 3, 1990. To date, a total of 6,200 triwalls or 3,100 half crates have been shipped to the Nevada Test Site (NTS).

2. Restructured the 881 Hillside Cleanup Project

The final "Interim Measures/Interim Remedial Action Plan and Decision Document" for the 881 Hillside was completed in January 1990. Construction activities began on January 15, 1990, but were suspended temporarily in March 1990 by EG&G Rocky Flats, Inc. (EG&G) Management because of concerns regarding procedures for the supervision and documentation of construction activities. Documentation procedures were modified to address these concerns.

The Rocky Flats Plant (RFP) Environmental Restoration Department now manages the total 881 Hillside Cleanup project through matrixed personnel. Documentation and controls were put in place to continually assess and improve project management and control. The First phase of the project has been completed and the second phase started September 28 and will be completed in March 1991. The Environmental Protection Agency (EPA) and Colorado Department of Health (CDH) approved restart, and have been very pleased with the project management and progress to date.

3. Negotiated Inter-Agency Agreement

The Inter-Agency Agreement (IAG), along with the associated schedule, were tentatively negotiated between the EPA, CDH, and the U. S. Department of Energy (DOE) in January 1990. The original January 1990 IAG schedule funding requirement for Fiscal Year (FY) 1991 was \$75.9 million. The renegotiation process has been completed between the involved parties. The resulting changes are most evident in three areas: 1) Reprioritization of the work sequence for each of the Operable Units, 2) Enhancements of the schedules with a greater level of detail and the latest technical information, 3) Establishment of a Scope of Work (SOW) that can be achieved with available EG&G resources. The final negotiated IAG schedule reduced FY 1991 requirements to \$65 million. The IAG has been submitted to the DOE, EPA and CDH for approval.

4. Completed Pondcrete Remix Development

Waste Operations completed multiple development operations in support of remixing failed Pondcrete to achieve a satisfactory waste form for disposal. At the end of the year a remix ratio of 1.3

to 1 had been achieved which coincides with industry standards. The remix process now awaits the finalization of Quality Assurance Program documentation to ensure all process controls and certification requirements are met.

WASTE MANAGEMENT ACCOMPLISHMENTS

Accomplishments Funded by Duffy

1. Developed Five-Year Plan with Master Plan and Interconnected Logic Networks

A system has been implemented to issue a Summary Master Plan (SMP) which tracks progress against milestones for high priority ER/WM activities, shows the logic associated with each project, identifies critical path actions and key decisions points, and clearly shows the impacts resulting from decisions. The SMP is updated and issued bi-monthly. A project control system for ER/WM will provide more detailed schedule and cost information for project managers, and be a tool to help update the Five-Year Plan in an efficient and timely manner.

The Site-Specific Plan (SSP) for RFP was completed in February 1990. The SSP describes plans for implementing activities in the RFP Five-Year Plan (FYP) with emphasis on near-term activities, primarily those to be accomplished in FY 1990. The FYP encompasses total program activities and costs for DOE corrective activities, environmental restoration, waste management, and applied research and development. The FYP was issued in April 1990.

2. Implemented Resource Conservation Recovery Act (RCRA) Inspection Program

The Waste Surveillance group was created by EG&G to perform inspections of waste management activities. To date, over 800 inspections have been performed. Furthermore, this group has developed a standard operating procedure which clearly delineates the scope of their activities, i.e., inspection goals, follow-up of noncompliance, root cause analysis, etc. The group also supports a database which tracks inspection activities as well as being able to support the group's goal of performing (on average) 100 inspections per month.

3. Revised Transuranic (TRU) Mixed RCRA Part B Application

The TRU-Mixed Waste RCRA Part B Application underwent a significant revision. The application, originally submitted to the CDH in July 1988, was changed to include updated engineering information on TSD units, a revised waste analysis plan, a revised contingency plan, and a revised training program. The application is now more reflective of current and planned Waste Management activities involving TRU-mixed waste.

4. Implemented Spill Reporting Response

A system has been implemented to provide timely notification of hazardous substance releases, to evaluate the releases for determination of reporting requirements under RCRA, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and Superfund Amendment and Reauthorization Act (SARA) Title III, and to advise DOE/CDH/EPA when such reporting is required. The newly created Reporting and Response Group manages this system. To date, this group has established an "on call" list of individuals to ensure 24-hour coverage for addressing

releases. They have implemented a database for tracing releases, formalized procedures for evaluating spills to determine root causes, and published a bi-monthly report to supervision on the numbers, types and causes of releases in order to assist supervision in preventing recurrence.

5. Have Met All Federal Compliance Agreement (FFCA) Requirements on Time

Three Agreements were in place that required action in the Waste Management Area.

a) Agreement in Principle between DOE and the State of Colorado, signed on June 28, 1989.

- Identified by CDH to accelerate existing waste management or cleanup programs and to initiate new commitments by DOE.
- Required solar pond cleanup, a waste minimization audit, waste characterization, a low level mixed waste disposal plan, and expedited Supercompactor implementation.

b) Federal Facility Compliance Agreement (LDR) among DOE, EPA and CDH, signed on September 19, 1989.

- Identified by DOE and EPA to provide one year to achieve compliance with land disposal restrictions or take all feasible steps to resolve alleged LDR violations.
- Required identification of LDR Wastes, waste minimization assessments, treatment technology identification and plans, and waste characterization.

c) Residue Compliance Agreement (RCA) between DOE and CDH, signed November 3, 1989.

- Identified by CDH to resolve disputes on regulation of residues.
- Required inventory, characterization, classification and compliance plan for regulated residues.

All deliverables have been met. EG&G has provided DOE with a proposed new FFCA.

6. Published Toxic Substance Control Act (TSCA) Standard Operating Procedures (SOP)

The Permitting and Compliance group published TSCA SOPs in March 1990. The purpose of the SOPs is to address compliance with 40 CFR 761 managing polychlorinated biphenyls (PCBs) and asbestos material at RFP. A program manager was established for implementation of the TSCA SOPs.

7. Developed a Waste Minimization Plan

A waste minimization program is required by DOE orders and RCRA. An integrated program has been developed and implemented and a strategic program plan was provided to DOE in May 1990. A draft work plan with reduction goals was completed in September 1990. The working plan identifies specific building or process quantitative waste minimization goals with waste generator buy-in. Specific projects that support the program plan and specific goals are being pursued, and

improved generator training is being developed and implemented, to improve awareness of waste minimization benefits and requirements. A 25 percent reduction in TRU waste volume was achieved through improved assay and a doubled quantity of paper collected for recycle was accomplished.

8. Instituted Research and Development (R&D) Activities to Ensure Technical Self Sufficiency

Under Rockwell, waste-related research and development work existed as isolated functions imbedded among various organizations within Production Operations. Numerous assessments by independent oversight panels as well as DOE-directed review teams had noted deficiencies resulting from fragmented and unclear lines of authority and communication, and lack of single-point accountability for coordination of vital waste management and environmental restoration functions. As a result, a new Technology Development directorate has been established within ER/WM to better focus and control waste and environmental-related research and development. The organization is designed to provide better management control, be more responsive to DOE needs and requirements, improve coordination with ER/WM activities and priorities, and address a more comprehensive scope of services needed for the full spectrum of ER/WM issues.

9. Processed Liquid Waste

Liquid Waste Treatment processed over 14 million gallons of process liquid waste, pond water and potentially contaminated storm runoff, turning the brine residue into several hundred tons of Saltcrete.

10. Developed a Plan for Waste Storage Management Systems

An integrated storage plan has been developed which identifies all on-site and off-site options for waste storage and disposal. This is based on logic diagrams that identify options, decision points, actions and schedules. Options include on-site facilities and processing, possible reclassification, maximizing current storage spaces, and off-site waste facilities. These areas include:

- New Centralized Storage Facility
- Supercompactor
- Shipment to WIPP (TRU/TRU-Mixed)
- Shipment to NTS (LLW/LLM)
- Shipment to commercial facilities (haz)
- Baling of low level mixed

11. Relocated Waste Drums

Hazardous Waste Operations successfully relocated over 700 full waste drums to temporary storage and back to permanent storage in support of Environmental Assessment repairs to the facility.

Accomplishments Funded by Barr

12. Started TRUPACT II Facility Construction

Construction started on TRUPACT II Loading facilities and progressed smoothly. The loading facility will be used to support the planned bin test shipments to the Waste Isolation Pilot Plant (WIPP). Completion of the TRUPACT II facility is scheduled to finish in early 1991.

13. Submitted Hazardous Chemical Inventory Report

For compliance with the Emergency Planning and Community Right-to-Know Act (EPCRA), RFP submitted the "Tier II Emergency and Hazardous Chemical Inventory Forms" report to the Colorado Emergency Planning Commission, Jefferson County Emergency Planning Committee, Boulder County Emergency Planning Committee, and the Rocky Flats Fire Department in March 1990. The report lists quantities and locations of hazardous chemicals at RFP.

14. Secretary of Energy Approved "Tiger Team" Action Plan

Between June 6 and July 21, 1989, and Environmental Assessment was conducted at the Rocky Flats Plant. This assessment was directed by Secretary Watkins immediately following the Federal Bureau of Investigations (FBI) investigation. EG&G completed its review of Rockwell's plan and submitted EG&G's plan to RFO on March 2, 1990. RFO completed its review on May 11 and EG&G incorporated their comments and resubmitted the final plan to RFO on May 14. Secretary Watkins, following plan and prioritization changes at DOE, HQ, approved the plan on July 20. EG&G has reevaluated and approved the individual plans based on DOE, HQ changes, resumption impacts, and potential FY91 budget levels. At this time 37 of the 93 action plans have been completed by EG&G operational elements, 16 have been submitted to RFO, and 21 are receiving EG&G internal verification.

15. Developed a Real-Time Chemical Control System

Environmental and Waste Programs designed and is implementing a Material Safety Data Sheet (MSDS) database and a real-time chemical inventory database system. The MSDS system is scheduled for plant-wide implementation in early 1991, while the real-time chemical inventory system is scheduled for implementation in mid-1991. The information contained in the two systems will allow Rocky Flats to meet the requirements of a multitude of environmental and occupational health and safety regulations, including the OSHA Hazard Communication Act and the Emergency Planning and Community Right-to-Know Act.

ENVIRONMENTAL MONITORING Accomplishments Funded by Barr

1. Submitted National Environmental Policy Act (NEPA) Documentation on 40 Projects

Secretary of Energy Notice (SEN) 15-90 was issued on February 5, 1990 which charted a new course for the DOE in the area of NEPA compliance. The additional resources required by this action are significant, and guidance other than policy has not been generated by DOE. Approximately 40 additional Action Description Memorandums (ADMs) have been submitted, and 34 determinations

received. NEPA Division Staff have been vital in eliciting DOE decisions by providing tracking and follow-up, timely revisions, answers to additional questions, and briefings for headquarters personnel.

2. Initiated Sitewide Geologic and Geophysical Characterization

The Geologic Characterization is an ongoing investigation of the Rocky Flats (RFP) and the immediate surrounding area that began in 1989 and has entered a second phase in 1990. Both geologic and geophysical data have been synthesized during the geologic characterization to geologic model contained is the cornerstone for all of the subsurface remedial investigations incorporated in the Inter-Agency Agreement.

The Phase II 1990 Geologic Characterization was designed to fine tune the geologic model where there is already information and to fill data gaps where there is no information. In addition, Phase II addresses the possibility of a seismic event in the area of RFP. A west-to-east seismic line 12 miles long was acquired in order to characterize the faulting along the Front Range. Information from this seismic line will be used to help date the faulting identified and to determine if any of the faults are active and pose a hazard to RFP.

3. Met Reservoir Level Quality Standards for Plant Water Discharge

The State of Colorado established temporary restrictive organic and inorganic limits for Rocky Flats discharges in July 1989. The Agreement in Principle (AIP) then required that samples be provided to CDH to allow assessment of water quality before discharges could be initiated. That assessment detected two herbicides: Atrazine and sumazine at trace levels. Granular activated carbon treatment was required for removal of the herbicides before release of the water. The State of Colorado adopted previous limits for radionuclides in a permanent rule making process on March 30, 1990. The addition of radionuclides required filtration of water prior to discharge, although that treatment ultimately was found not to significantly reduce radioisotopic content, which was already at acceptable levels. Following a hiatus of approximately six months, RFP had begun to discharge water from surface water control Ponds A4, B5 and C2 in March 1990. About 150 million gallons of water were successfully treated and discharged from the terminal ponds in CY 1990.

4. Completed Air Emissions Annual Report

The "Air Emissions Annual Report for 1989 - 40 CFR 61.96" was completed April 30, 1990 and was submitted to the Environmental Protection Agency. The report provides information on radioactive air emissions and projected radiation doses to the maximally exposed member of the public resulting from the RFP during 1989.

5. Established Contract for Beryllium Emission Testing

RFP contracted with Martin Marietta Energy Systems, Inc., in March 1990 to conduct compliance testing for beryllium emissions. A plan for sampling emissions was prepared by the contractor, and Colorado Department of Health approved the plan in April 1990. Testing will determine the maximum emissions during 24-hour sample periods in accordance with EPA methods from Buildings 444, 447 and 865. The beryllium effluent monitoring has been postponed with State concurrence in June 1990, for an undetermined period of time because Buildings 444 and 447 are at less than 40% production.

CORRECTIVE ACTIONS
Accomplishment Funded by Barr

1. Negotiated Settlement Agreement to Meet Air Emissions Reporting Requirements

An Agreement in Principle was entered into on June 28, 1989 between DOE and CDH which specified certain technical deliverables. Due to a Notice of Violation issue by CDH an agreement was deemed necessary to clarify regulatory requirements and to protect against enforcement actions during the one-year prioritized implementation period.

A settlement Agreement has been negotiated and is in the final stages of refinement prior to execution. The Settlement Agreement formalizes a schedule for 104 Rocky Flats buildings, allows additional time for quality assurance in technical deliverables and clarifies technical issues on identification of certain chemical pollutants which are not defined in the existing regulations. Currently, weekly technical meetings are being held with CDH personnel to expedite completion of this project. The engineering vents survey was completed and submitted on schedule to CDH in August 1990. Completion of APEN packages for the Rocky Flats buildings is also on schedule.