

PROPOSAL FOR IMPLEMENTING
RFP OPERATION IMPROVEMENTS

ENVIRONMENTAL RESTORATION AND PROTECTION

Approved:



W. F. Weston



R. J. Erfurdt

ADMIN RECORD

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REVIEWED FOR CLASSIFICATION/LICNI
BY <u>G. T. Ostdiek</u> <u>870</u>
DATE <u>6-9-93</u>

"REVIEWED FOR CLASSIFICATION
By C. W. Jacoby
Date 8-4-89"

Proposal for Implementing
RFP Operation Improvements

Revision No.: 0

Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

RESPONSIBLE DIRECTOR: W. F. Weston, Pu Operations, and
R. J. Erfurdt, HS&E

OFFICE OF PRIME RESPONSIBILITY: Kirk McKinley/L. J. Smith

DESCRIPTION

The implementation of this plan will accelerate the planned RFP environmental restoration and increase Rocky Flats capability to maintain compliance with environmental laws and regulations including RCRA, CERCLA, Clear Air Act, and DOE Orders. This plan is based upon the draft 5-year Environmental Restoration/Waste Management Plan submitted to DOE in February 1989, and also takes into account and is believed to be responsive to the Agreement in Principle between the State of Colorado and DOE, and the New Initiatives defined by Admiral Watkins. The draft 5-year Plan was revised in August 1989 to include the Agreement in Principle and the New Initiatives. The major elements of the plan include:

- Accelerated cleanup of 881 Hillside. This includes performing an Interim Response Action (IRA) on groundwater cleanup.
- Accelerated cleanup of 903 Pad, Mound and East trenches. This includes an interim response action (IRA) on groundwater cleanup.
- Accelerated cleanup of other sites. This includes accelerating (1) cleaning out the solar ponds and shipping pondcrete for disposal, and (2) the initial remedial investigation of the A, B, and C series ponds.

Environmental protection at the Rocky Flats Plant covers all environmental surveillance media and is very comprehensive in scope (i.e., over 40,000 samples per year). Air, water and soil monitoring data are used to demonstrate compliance with all applicable federal, state and local regulations. Monthly public meetings have now been ongoing for the past seventeen years to make Rocky Flats Environmental monitoring data available to all interested citizens.

Implementation of the projects included in this plan will satisfy the June 1989 "Agreement in Principle" between the State of Colorado and the Department of Energy in the area of environmental monitoring and is intended to ensure that Rocky Flats will maintain compliance with both DOE and EPA requirements and regulations for environmental monitoring.

The Agreement in Principle provides an emphasis to bringing all environmental programs to achievable state-of-the-art. The Colorado Department of Health has recently added water quality parameters that must be met before the water can be discharged from RFP.

Extensive efforts to characterize nonradiological effluents and ambient concentrations also are in process. These efforts are requiring enhancements to meteorological monitoring to meet requirements for modeling ambient levels of pollutants for use in placement of new ambient stations. National Environmental Policy Act (NEPA) considerations are also being impacted by critical review of the existing Environmental Impact Statement (EIS) and existing NEPA documentation of major projects. Included in this proposal are:

1. Air monitoring and Control Program Upgrades

The Environmental Monitoring Program at Rocky Flats is divided into two categories -- effluent air monitoring and ambient air monitoring. Particulate and tritium sampling of building exhaust ducts is conducted continuously as part of the effluent air monitoring program. The particulate samples are analyzed for specific radionuclides of interest and beryllium. Recent emissions data have been in the ranges projected in the Plant Environmental Impact Statement (EIS) and represent negligible impact. The effluent air monitoring projects in this plan will provide additional data to verify Rocky Flats' continuing compliance with EPA regulations and procedures, the Clean Air Act and DOE Orders. Upgrades include monitoring for nonradioactive toxic substances, installation of state-of-the-art air flow measurement devices in all effluent vents and enhancements to the ductwork to allow isokinetic sampling.

As part of the Ambient Air Monitoring Program, particulate samples are collected by continuously operating samplers near the plant building areas, at the plant perimeter, and at selected community locations. Analysis of these samples indicate that the concentration of airborne plutonium at all locations is far below applicable derived concentration guides. Monitoring for nonradioactive parameters currently consists only of total suspended particulates. As part of the ambient monitoring upgrades, a network will be established for screening and monitoring of ambient air for nonradioactive toxic substances. Also, the current ambient air sampling network will be upgraded and an enhanced radio-iodine network implemented.

2. Water Monitoring and Control Program

Surface water samples are collected from onsite discharge points for analysis of National Pollutant Discharge Elimination System (NPDES) permitted parameters. Onsite and offsite waters also are extensively sampled and analyzed for radionuclides of interest. Routine water monitoring from two downstream reservoirs and drinking water sources in nine communities indicate plutonium, uranium, americium and tritium to be a very small fraction of the DCGs for those radionuclides.

Upgrades included in this program are aimed at continuing compliance with NPDES permit requirements, enhanced sampling and flow measurement capabilities, removal of sediment buildup in surface water control ponds, improved inlet/drainage structure for Ponds A-4 and C-2 and installation of Dam Piezometers.

3. Soil Monitoring Upgrades

Currently, soil samples are collected each year at 40 sites at distances of one and two miles. The data from this program indicate that recent plutonium concentrations are similar to historical concentrations. Enhancements for the soil monitoring program are necessary to verify soil baseline characterization, for onsite preparation for contamination removal and for expedited remediation.

4. General Environmental Program Upgrades

These upgrades will enhance the general operational efficiency and effectiveness of the Environmental Management Program. Improved computer and data management capabilities, increased support services from onsite and offsite analytical laboratories, and increased quality assurance activities are among the planned improvements.

Rockwell International, in January 1989, implemented an integrated plantwide procedure to assist DOE in its compliance with the National Environmental Policy Act (NEPA). This included establishing a dedicated NEPA compliance organization. Project reviews, consequence analysis, and attendant documentation are included in this plan to assure that potential environmental impacts become part of the early decision-making process associated with RFP actions.

Proposal for Implementing
RFP Operation Improvements

Revision No.: 0

Date: August 15, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: 881 Hillside Groundwater Cleanup

ACTIVITY DESCRIPTION:

Initiation for Interim Remedial Action (IRA) for the 881 Hillside will be expedited under this activity. The IRA will consist of collection of contaminated alluvial groundwater and water discharged from the Building 881 footing drain, treatment of this water to remove organic and inorganic contaminants, and reinjection of the treated effluent in the Valley Fill Alluvium of Woman Creek. Construction will be initiated by 9/30/89.

ACTIVITY JUSTIFICATION:

In order to initiate construction by 9/30/89, the design package will be separated into several parts to facilitate construction start-up. The initial construction will be the foundation, floor utilities, and building for the treatment system. The original design will be revised to include the removal of metals and uranium from the groundwater. The IRA plan will also be revised to include the metal and uranium treatment. A plan for final investigation of sources will be prepared by 9/30/89.

The construction will be initiated if the requirement for the Environmental Assessment is waived by DOE, or a "Finding Of No Significant Impact" (FONSI) is issued. Contractual arrangements (Integrated Contractor Order) with UNC in Grand Junction need to be finalized.

This action is required by the CDH/DOE Agreement in Principle.

ACTIVITY MILESTONES:

Issue Interim Remedial Action Plan	8/18/89
Issue FONSI	9/25/89
Start IRA Construction	9/30/89
Complete IRA Design	10/13/89
Complete IRA Construction	10/1/90
Complete S. O. Testing & Training	12/31/90
Start Groundwater Pumping & Treating	1/15/91

PROPOSAL : Environmental Restoration & Protection

ACTIVITY SCHEDULE

PROPOSAL FOR IMPLEMENTING
RFP OPERATION IMPROVEMENTS

ACTIVITY : 881 Hillside

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES	FY89				FY90				FY91				FY92				FY93				FY94			
	1Q	2Q	3Q	4Q																				
INTERNAL REMEDIAL ACTION PLAN																								
ISSUE "FINDING OF NO SIGNIFICANT IMPACT"																								
REMEDIAL ACTION DESIGN																								
REMEDIAL ACTION CONSTRUCTION																								
REMEDIAL ACTION SYSTEM OPERATION TESTING																								
GROUNDWATER TREATMENT PROGRAM																								

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Proposal for Implementing
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Revision No.: 0
Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Medium Priority Site Cleanup

ACTIVITY DESCRIPTION: A draft final Remedial Investigation (RI) Report will be prepared by 9/90 as presented in the DOE/CDH Agreement. The RI report will provide complete evaluation on the nature and extent of contamination in soils, surface water, and groundwater. An Interim Remedial Action (IRA) plan and Environmental Assessment (EA) for contaminated groundwater source control will be prepared. The design of the preferred IRA will be prepared subsequently, and in sufficient time, to allow contaminated groundwater extraction to begin in January 1990.

ACTIVITY JUSTIFICATION: Additional wells need to be installed, and once installed, at least 9 months will be required for sampling, analysis, data interpretation, and report preparation. The date agreed upon during negotiations with CDH was 9/90. If DOE issues a FONSI by 12/89 or DOE waives the requirement for the EA, the IRA plan and EA will be submitted and construction will be initiated by January 1990

ACTIVITY MILESTONES:

Complete Interim Remedial Action Plan	9/15/89
Complete IRA Design	11/15/89
Complete IRA Construction Package	1/15/90
Start IRA Construction - Phase I	1/31/90
Complete Construction - Phase I	4/30/90
Complete Construction - Phase II	1/31/91
Complete S. O. Testing	3/31/91
Start Pumping & Treating Groundwater	4/15/91

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PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: New Landfill - Accelerated Cleanup of Other Identified Sites

ACTIVITY DESCRIPTION: The present landfill closure (a RCRA regulated unit now receiving non-hazardous waste) will be delayed until a new onsite sanitary landfill can be constructed. It is estimated to take about two years to bring a new landfill on line. In order to minimize the total length of operating time of the present landfill, work on the new landfill must begin as soon as practical.

ACTIVITY JUSTIFICATION: Acceleration of these activities is a DOE/CDH Agreement item and is principally limited by availability of funds and sufficient personnel to oversee and support the technical work. Other limitations could include delays in regulatory responses and changes in regulatory requirements.

ACTIVITY MILESTONES:

Start New Landfill Siting and Design	9/1/89
Begin New Landfill Environmental Assessment	1/2/90
Complete New Landfill EA	7/30/90
Complete New Landfill Siting and Design	8/7/90
Start New Landfill Construction	8/8/90
Complete New Landfill Construction	9/30/91

ACTIVITY SCHEDULE

ACTIVITY : New Landfill

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES

- SITTING & DESIGN
- CDH PERMIT
- ENVIRONMENTAL ASSESMENT (NEPA)
- CONSTRUCTION

	FY89				FY90				FY91				FY92				FY93				FY94			
	1Q	2Q	3Q	4Q																				
SITTING & DESIGN																								
CDH PERMIT																								
ENVIRONMENTAL ASSESMENT (NEPA)																								
CONSTRUCTION																								

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ACTIVITY PLAN

ACTIVITY: Background Characterization Studies

ACTIVITY DESCRIPTION: A Background Characterization Study designed to determine contaminant releases at CERCLA sites and RCRA units will be completed as part of this activity. The Study will determine background concentrations of chemicals in soils, groundwater, and surface water.

ACTIVITY JUSTIFICATION: At this time, all soils have been collected and are being analyzed. Groundwater sampling is nearly completed. The background soil report and the background water report will be issued this year.

Complying with the deadlines as presented in the CDH/DOE Agreement in Principle assumes no significant additional work requested to take priority over work currently planned. Significant additional work could overwhelm the practical limits of manpower and laboratory support necessary to comply with these deadlines.

This activity is an item of the CDH/DOE Agreement in Principle.

ACTIVITY MILESTONES:

Issue Background Water Report	11/1/89
Issue Background Soil Report	12/30/89

ACTIVITY SCHEDULE

PROPOSAL : Environmental Restoration & Protection

ACTIVITY : Background Characterization Studies

REV. NO. : 0 DATE : 8/4/89

EVENTS/MILESTONES	FY89				FY90				FY91				FY92				FY93				FY94				
	1Q	2Q	3Q	4Q																					
WATER REPORT				■																					
SOIL REPORT				■																					
HYDROLOGICAL CHARACTERIZATION																									

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PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Accelerated Cleanup of Other Identified Sites - Low Priority Sites

ACTIVITY DESCRIPTION: Remedial Investigations and Feasibility Studies for the Low Priority Sites can be accelerated by initiating field investigations of more groups sooner. It is likely that the completions of the Phase I RI/FS Investigations for all of the Low Priority Sites could be accelerated by one to two years.

ACTIVITY JUSTIFICATION: Acceleration of this activity is a DOE/CDH Agreement item and principally limited by availability of funds and sufficient personnel to oversee and support the technical work. Other limitations could include delays in regulatory responses and changes in regulatory requirements. Another assumption is that sufficient laboratory capacity exists for all the analytical work that will be required to support the investigations and feasibility designs.

ACTIVITY MILESTONES:

Start LPS Groups A, B, C, D & I Phase I RI	12/4/89
Start LPS Groups A, B, C, D & I Phase II RI	6/13/91
Complete LPS Groups A, B, C, D & I Phase I RI	6/9/92
Start LPS Groups A, B, C, D & I FS	10/15/92
Start LPS Groups A, B, C, D & I Nepa Documentation	10/15/92
Complete LPS Groups A, B, C, D & I Phase II RI	12/13/93
Complete LPS Groups A, B, C, D & I FS	9/20/94
Complete LPS Groups A, B, C, D & I Nepa Documentation	12/15/94

ACTIVITY Low Priority Sites, A, B, C, D & I

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES

REMEDIAL INVESTIGATION PLAN
GROUP A, B, C, D & I
R.I. PHASE 1. (QUALITY)
R.I. PHASE II (QUANTIFY)
FEASIBILITY STUDY
N.E.P.A DOCUMENTATION (ADM & EA)

FY89				FY90				FY91				FY92				FY93				FY94					
1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q		
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PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Solar Pond Closure

ACTIVITY DESCRIPTION: Solar pond closure acceleration is dependent on three factors: (1) pond sludge removal and treatment and pondcrete shipment; (2) water storage from the interceptor french drains system; and (3) groundwater treatment. The first will be completed by the end of FY91. Pond liner and contaminated soils removal cannot be initiated unless alternate water handling and treatment facilities are available. The installation of a one-million gallon water tank will divert water from the ponds. Evaporation and/or removal of existing water from the ponds will be accelerated thereby allowing remediation to occur sooner. Treatment of the intercepted groundwater can be accelerated by enlarging the 374 evaporator unit or installing a solar pond groundwater treatment system.

ACTIVITY JUSTIFICATION: Acceleration of this cleanup activity is a DOE/CDH Agreement item and principally limited by availability of funds and sufficient personnel to oversee and support the technical work. Other limitations could include delays in regulatory responses and changes in regulatory requirements.

ACTIVITY MILESTONES:

Start Solar Ponds EA	4/2/90
Complete Solar Ponds EA	4/5/91
Begin Solar Ponds RI	8/1/90
Complete RI Field Work - A,B&C Ponds	3/28/91
Complete Solar Ponds RI	9/30/91
Complete Pond B-Center Sludge Removal/Shipment	6/29/90
Complete Pond B-South Sludge Removal/Shipment	10/30/90
Solar Ponds Million-gallon Surge Tank Installed	3/28/91
Complete Solar Pond-C Sludge Removal/Shipment	6/28/91
Complete Solar Pond-B North Sludge Removal/Shipment	9/30/91

PROPOSAL : Environmental Restoration & Protection **ACTIVITY SCHEDULE**

**PROPOSAL FOR IMPLEMENTING
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ACTIVITY : Solar Pond Closure

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES	FY89				FY90				FY91				FY92				FY93				FY94			
	1Q	2Q	3Q	4Q																				
ENVIRONMENTAL ASSESSMENT (NEPA)																								
REMEDIAL INVESTIGATION (RF)																								
R.I. FIELD WORK PONDS A, B, & C COMPLETE																								
POND B CENTER SLUDGE REMOVAL/SHIP COMPLETE																								
POND B SOUTH SLUDGE REMOVAL SHIP COMPLETE																								
ONE-MILLION-GALLON SURGE TANK COMPLETE																								
POND C SLUDGE REMOVAL/SHIP COMPLETE																								
POND B NORTH SLUDGE REMOVAL/SHIP COMPLETE																								
BACKLOG PONDCRETE WORKED OFF																								
BACKLOG PONDCRETE REPROCESSED																								
SLUDGE SOLIDIFICATION PACKAGING AND SHIPMENT																								

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ACTIVITY PLAN

ACTIVITY: Improved Groundwater Monitoring

ACTIVITY DESCRIPTION: In addition to the current wells, a minimum of 50 wells will be installed before 12/89 to better characterize groundwater flow and chemistry at the Original Process Waste Lines, the Present Landfill, and the property line at Indiana Street.

ACTIVITY JUSTIFICATION: The current program of installing background wells and upgrading the monitoring systems at the regulated units will be expanded to implement this activity by the required deadline. Planning is in place to satisfy this requirement provided proper funding is forthcoming.

This activity is required by the CDH/DOE Agreement in Principle.

ACTIVITY MILESTONES:

Complete Installation of Additional Wells	12/31/89
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PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: 443 Tank Closure

ACTIVITY DESCRIPTION: A major obstacle to closure of the 443 Fuel Oil Tank is the need to upgrade the steam plant as necessary to remove the tank. Closure of this unit cannot begin until construction of new tanks as part of the steam plant facility upgrade is funded. Funding of the Steam Plant could accelerate closure by one year.

ACTIVITY JUSTIFICATION: Acceleration of this activity is a DOE/CDH Agreement item and is principally limited by availability of funds and sufficient personnel to oversee and support the work. Other limitations could include delays in regulatory responses and changes in regulatory requirements.

ACTIVITY MILESTONES:

Start 443 Tank Remedial Design	7/3/89
Start 443 Tank Pre-remediation Characterization	10/2/89
Complete 443 Tank Remedial Design	8/6/90
Complete 443 Tank Pre-remedial Characterization	8/6/90
Start 443 Tank Closure	8/7/90
Complete 443 Tank Closure	1/7/92

ACTIVITY SCHEDULE

PROPOSAL : Environmental Restoration & Protection

ACTIVITY : 443 Tank Closure

REV. NO. : 0 DATE : 8/4/89

EVENTS/MILESTONES	FY89				FY90				FY91				FY92				FY93				FY94			
	1Q	2Q	3Q	4Q																				
443 TANK PREREMEDIATION CHARACTERIZATION																								
TANK REMEDIAL DESIGN																								
TANK REMEDIAL ACTION																								

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ACTIVITY PLAN

ACTIVITY: Pondcrete Disposal

ACTIVITY DESCRIPTION: Sludges from solar evaporation ponds have been immobilized by mixing with Portland cement for disposal as LL-mixed waste. Since September, 1986, the immobilized waste (known as pondcrete) is being stored outdoors under canvas tarps. Waste currently packaged in cardboard boxes is being repackaged into plywood boxes and is being shipped to the Nevada Test Site (NTS) for Disposal. Currently 15,000 cardboard boxes (13,000 yd³) are stored on plantsite. All currently stored pondcrete should be shipped to NTS for disposal.

ACTIVITY JUSTIFICATION: The pondcrete boxes are deteriorating. Rocky Flats Plant must expedite repackaging and shipment of this waste to NTS by the end of FY1991 per the DOE/CDH Compliance Agreement. This activity generates a major cost impact (\$26.7 million in FY90 and \$22.7 million in FY91).

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Shipment Schedule	
a. Begin shipments	1/89
b. End shipments	10/90

ACTIVITY SCHEDULE

ACTIVITY : Pondcrete Disposal

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES

PONDCRETE SHIPMENTS TO NTS

FY89				FY90				FY91				FY92				FY93				FY94			
1Q	2Q	3Q	4Q																				

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ACTIVITY PLAN

ACTIVITY: Documents and Reviews

ACTIVITY DESCRIPTION: This activity ensures that all documents addressing environmental compliance will be made available to the Colorado Department of Health (CDH), Rocky Flats Environmental Monitoring Council (RFEMC) and other organizations, through the CDH and the RFEMC.

ACTIVITY JUSTIFICATION: Documents are defined as internal or published reports that provide information on compliance with RCRA. Specifically excluded are uninterpreted data, or documents pertaining to compliance with the Clean Water Act (CWA), or the Clean Air Act (CAA). CWA and CAA documents are the responsibility of HS&E.

This is an item of the CDH/DOE Agreement in Principle. This activity will be performed by the RCRA/CERCLA Program Office as part of RCRA Compliance Program Management. It is assumed that required funding and personnel will be available to perform this activity.

ACTIVITY MILESTONES:

Provide Documents

As Required

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ACTIVITY PLAN

ACTIVITY: 104E EPA Notice

ACTIVITY DESCRIPTION: Rockwell has been issued a 104E Notice by the EPA identifying Rockwell as a Potentially Responsible Party under CERCLA for contamination at the Rocky Flats Plant. It will be necessary, pursuant to this notice, to provide details on historical and current handling of all hazardous materials, wastes, and substances.

ACTIVITY JUSTIFICATION: This is an item of the June 30 Letter from D.J Sanchini to E.S. Goldberg. This activity will be performed by the RCRA/CERCLA Program Office as a part of the program management activities.

ACTIVITY MILESTONES:

Complete 104E EPA Notice

9/30/90

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ACTIVITY PLAN

ACTIVITY: Audit Activities

ACTIVITY DESCRIPTION: This activity includes ongoing internal audits for purposes of escorting State RCRA personnel during inspection trips, and to monitor on-site tanks, storage areas, and accumulation areas.

ACTIVITY JUSTIFICATION: This activity is an item of the CDH/DOE Agreement in Principle and will be performed by the RCRA/CERCLA Program Office as par of its program management activities.

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ACTIVITY PLAN

ACTIVITY: Program Control

ACTIVITY DESCRIPTION: This addition of 18 FTEs is to enhance the program management capabilities of the RCRA/CERCLA Program Office. These resources are required to satisfy the additional budgeting, scheduling, and reporting requirements that result from the activities to satisfy the CDH/DOE Agreement in Principle.

ACTIVITY JUSTIFICATION: This Activity is an item of the CDH/DOE Agreement in Principle.

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ACTIVITY: Water Sample Analysis

ACTIVITY DESCRIPTION: Additional increased emphasis has been placed on providing the required sampling and analysis to assure the equality of waters discharged from RFP. Samples will be split between Rockwell/DOE contract laboratories and regulatory agencies for analysis. The analysis will encompass a broad suite of organics, inorganics, radionuclides, and biomonitoring parameters.

ACTIVITY JUSTIFICATION: The "Agreement in Principle" between the DOE and the Colorado Department of Health provides the CDH an assessment of water quality prior to discharge from RFP holding ponds. The Colorado Water Quality Control Commission passed water quality standards to classify Walnut Creek and Woman Creek drainages from RFP to be protected as water supply sources. New strict standards were established on radionuclides, organic chemicals, metals, certain inorganic parameters. These standards will be the basis of split sampling and analysis between CDH and Rockwell/DOE contractors before the assessments of water quality are completed. The ponds cannot be discharged without these analyses. Additional analyses will be required by a Federal Facility Compliance Agreement between DOE and EPA.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Analyze Waters for Offsite Discharge.	
a. Establish analytical contracts.	10/1/89
b. Perform split sampling and analysis.	Ongoing

PROPOSAL : Environmental Restoration & Protection **ACTIVITY SCHEDULE**

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ACTIVITY : Water Sample Analysis

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES

ANALYZE WATER FOR OFFSITE DISCHARGE

Establish contracts

Perform Analysis

FY89				FY90				FY91				FY92				FY93				FY94			
1Q	2Q	3Q	4Q																				
			△																				

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ACTIVITY PLAN

ACTIVITY: Air Emissions Inventory

ACTIVITY DESCRIPTION: A comprehensive survey will be performed of all vents from all buildings to identify processes tied to the vents. Material balance studies will be required to estimate the types and quantities of contaminants included in emissions to each release point. Reconfirmation of the quarterly List of Radioactive Materials that is also will be required. Screening analyses for gross alpha, beta, and gamma emitters will be contracted.

ACTIVITY JUSTIFICATION: The "Agreement of Principle" requires a complete inventory of all radioactive and toxic materials that have the potential to be included in effluents. The pending revisions to the Clean Air Act under National Emissions Standards for Hazardous Air Pollutants will also require the same activity.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Vent Characterization.	
a. Issue BOA for vent study support.	9/30/89
b. Initiate vent surveys.	9/1/90
2. Contaminant Screening.	
a. Issue contract for beryllium confirmation.	12/1/89
b. Issue contract for radionuclide screening.	1/1/90
c. Report completion..	3/31/90

ACTIVITY : Air Emissions Inventory

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES

VENT CHARACTERIZATION

Issue BOA

Vent Studies

CONTAMINATION SCREENING

Contact For Be Confirmation

Contract For Radionuclides Screening

2-29 Report

FY89				FY90				FY91				FY92				FY93				FY94				
1Q	2Q	3Q	4Q																					
			△																					
			▬																					
			△																					
			□																					
						□																		

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ACTIVITY PLAN

ACTIVITY: Identify Plant Emissions

ACTIVITY DESCRIPTION: Model the levels of radioactive and nonradioactive materials in the ambient air at and near RFP to assist CDH in placement of their ambient air monitoring network. The modeling will be based on existing data and general meteorological conditions. Stack sampling results, effluent rates, and meteorological data will be used to develop a more sophisticated model.

ACTIVITY JUSTIFICATION: The "Agreement in Principle" requires that CDH perform ambient air sampling to confirm that RFP operations do not have a negative impact or health threat. This requires detailed estimates of ambient containment distributions to assist in proper monitoring network design.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Emissions Modeling.	
a. Complete initial modeling efforts.	10/1/89
b. Provide initial emission inventory prioritization.	10/1/89
2. Modeling Confirmation.	
a. Define emission inventory.	9/1/90*
b. Submit final modeling data.	9/1/90*

*Dependant upon results of initial efforts.

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Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Air Monitoring and Control Enhancements

ACTIVITY DESCRIPTION: There are a number of activities required to bring air monitoring to current state-of-the-art. One is to evaluate, select, purchase, and install flow totalizers in effluent air vents. Another project is to construct ductwork to allow isokinetic sampling and to procure and install isokinetic sampling equipment. Contracts are required to sample and analyze to determine particle sizes in effluents and to determine beryllium levels in a 24-hour sample. Additional work has been scoped to site new state-of-the-art ambient air samplers. This work also will include installation of selective inlets on ambient air samplers to allow characterization of respirable particles in the 10 micron and smaller size range (commonly referred to as PM-10 inlets). The ambient monitoring network also will be expanded to allow for sampling and analysis of nonradioactive air toxics by EPA protocols. Control of solvent emissions has been proposed through installation of absorptive or condensation equipment. The remote radioiodine sampling network will be upgraded. This network can be remotely activated to support emergency response efforts in the event of a release of either radioactive particulates or fission products.

ACTIVITY JUSTIFICATION: The "Agreement in Principle" requires installation of state-of-the-art monitoring and control equipment to give assurances of minimized environmental impacts. New DOE orders and the Clean Air Act, National Emissions Standards for Hazardous Air Pollutants, also require enhancements to monitoring and control programs. Additionally, the recent DOE audit reiterated the need for improvements in both the effluent air and ambient air monitoring networks. Examples are listed below:

- Conduct measurement of enhanced air by installation of multipoint velocity profile equipment.
- Install sampling equipment that provides for continuous records of sampler flow rate for continuous records of sampler flow rate and integrated flow measurement over the sampling period.

- Increase effluent exhaust duct lengths to allow proper sample probe placement.
- Perform EPA reference method measurements to characterize effluents.
- Perform beryllium sampling and analysis to comply with CDH requirements.
- Install new ambient samplers to correct problems created by an aging network of existing samplers.
- Improve ambient air sampler design to assure proper collection of particulates.
- Conduct ambient air monitor siting studies.
- Expand parameters analyzed by the ambient air monitoring network (to include specifically americium and uranium).
- Scope methods to reduce or otherwise control solvent emissions.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Procure and install flow totalizers in all effluent air vents/stacks.	
a. Scope and estimate.	12/31/89
b. Submit bid package.	2/1/90
c. Procure equipment.	7/1/90
d. Design/install totalizers.	8/30/92
2. Procure and install isokinetic stack sampling equipment at all effluent locations.	
a. Scope and estimate.	3/31/90
b. Submit bid package.	5/31/90
c. Procure equipment.	12/31/91
d. Complete installation.	9/30/92
3. Reconstruct ductwork to allow isokinetic sampling.	
a. Scope and estimate.	11/30/90
b. Initiate design and installation.	3/31/91
c. Complete installation.	10/1/94

4. Measure particulates in all effluent vents by EPA Method 5 methodology.
 - a. Scope and estimate. 1/31/90
 - b. Solicit bids. 2/28/90
 - c. Select contractor. 3/31/90
 - d. Complete measurements. 10/1/90

5. Retrofit existing ambient radiological ambient air samplers with EPA-type PM-10 selective inlets.
 - a. Scope and estimate. 1/30/90
 - b. Solicit bids. 2/28/90
 - c. Procure instruments. 8/1/90
 - d. Install instruments. 10/1/90

6. Implement an ongoing ambient sampling network for routine sampling of air toxics as listed by EPA and CDH.
 - a. Siting study. 1/31/90
 - b. Purchase equipment. 3/31/90
 - c. Hire contractor. 6/31/90
 - d. Install and start up. 1/31/91

7. Scope solvent control equipment.
 - a. Evaluate results of vent surveys. 6/30/90
 - b. Evaluate control options. 1/31/91
 - c. Scope installation. 1/31/92

8. Remote Radioiodine Sampling Network.
 - a. Prepare Engineering Job Order. 11/30/89
 - b. Scope and estimate. 2/28/90
 - c. Solicit bids. 3/31/90
 - d. Procure equipment. 5/30/90
 - e. Install equipment/implement system. 9/30/90

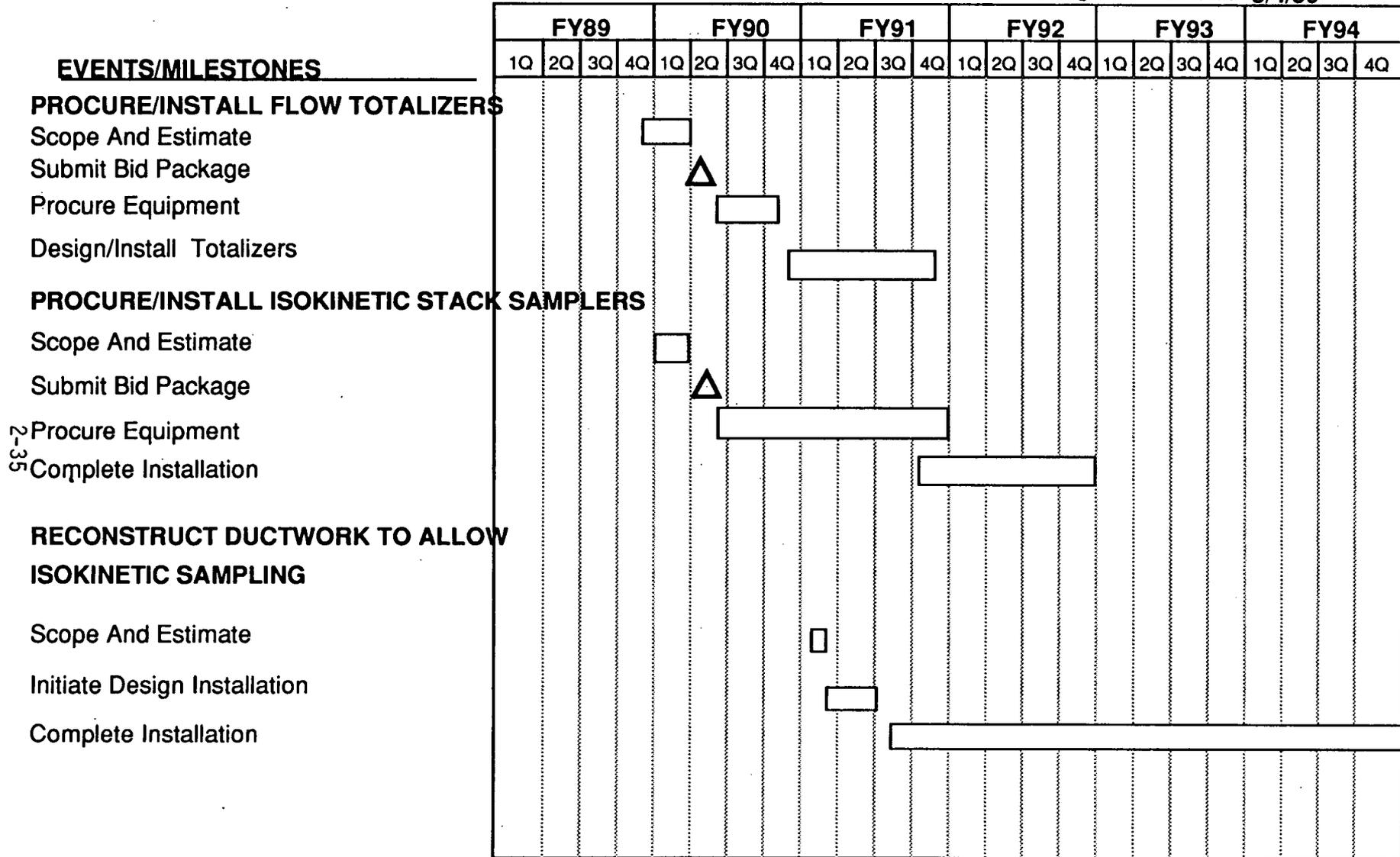
PROPOSAL : Environmental Restoration & Protection **ACTIVITY SCHEDULE**

PROPOSAL FOR IMPLEMENTING
RFP OPERATION IMPROVEMENTS

ACTIVITY : Air Monitoring & Control

REV. NO. : 0

DATE : 8/4/89



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PROPOSAL : Environmental Restoration & Protection **ACTIVITY SCHEDULE**

PROPOSAL FOR IMPLEMENTING
RFP OPERATION IMPROVEMENTS

ACTIVITY : Air Monitoring & Control

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES

PARTICULATE MEASUREMENTS

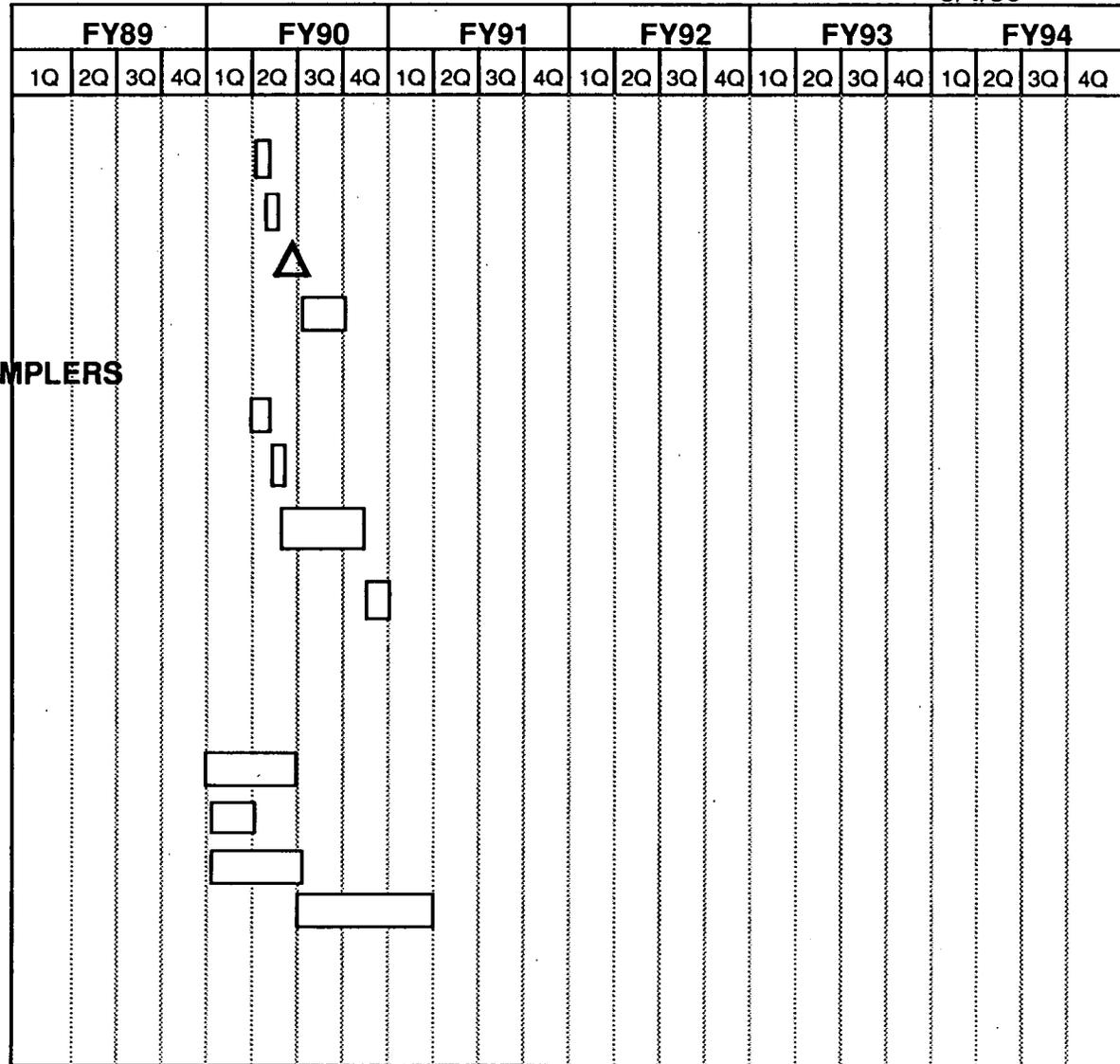
- Scope And Estimate
- Solicit Bids
- Select Contractor
- Complete Measurements

RETROFIT EXISTING AMBIENT AIR SAMPLERS

- Scope And Estimate
- Solicit Bids
- Procure Instruments
- Install Instruments

NON RADIOACTIVE AMBIENT AIR SAMPLING NETWORK

- Purchase Equipment
- Siting Study
- Hire Contractor
- Install/Start up



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Proposal for Implementing
RFP Operation Improvements

Revision No.: 0
Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Emergency Preparedness

ACTIVITY DESCRIPTION: These are activities required to enhance meteorological monitoring capabilities in support of emergency preparedness planning and operations. One is to acquire hardware and software to provide real time forecasting capabilities throughout the region through a Program for Regional Observing and Forecasting Services (PROFS) workstation. Another activity is to provide real time data acquisition and control of meteorological work station with telemetry. Other upgrades include activation of the Woman Creek Tower and providing lightening protection for all three towers.

ACTIVITY JUSTIFICATION: The modeling of releases from RFP in response to the "Agreement in Principle" with the Colorado Department of Health requires that the meteorological program be upgraded. Modeling requires cost and present meteorological data be upgraded. Emergency Response requires the real time availability.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Meteorological Program Enhancements.	
a. Acquire and install PROFS workstation.	4/1/90
b. Telemetry transmittal system.	6/1/90
c. Woman Creek Tower.	8/1/90
d. Lightening protection of towers.	8/1/90

ACTIVITY : Emergency Preparedness

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES

FY89				FY90				FY91				FY92				FY93				FY94			
1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
METEOROLOGICAL PROGRAM ENHANCEMENTS																							
Professional Work Stations																							
Telemetry Transmittal System																							
Women Creek Tower																							
Lighting Protection																							

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Proposal for Implementing
RFP Operation Improvements

Revision No.: 0
Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Water Monitoring and Control Enhancements

ACTIVITY DESCRIPTION: Several activities are required to enhance surface water monitoring and control. One is to add sampling capabilities and automated level monitoring capabilities at the final discharge ponds. Another is to install piezometers in all dams to enhance monitoring for dam integrity. Another project is to remove sediments from the ponds to prevent discharges of sediments and associated pollutants. This final project also requires installation of improved inlet drainage structures.

ACTIVITY JUSTIFICATION: The "Agreement in Principle," a new Federal Facilities Compliance Agreement between EPA and DOE, and a new National Pollutant Discharge Elimination System (NPDES) permit all require enhanced monitoring and control of surface water discharges. These agreements and the NPDES permit carry significant legal implications if activity does not result in compliance. The proposed activity presents a cost effective alternative to the civil penalties that could be incurred if discharge waters do not meet standards. There are no viable alternatives to the control of surface water quality until complete elimination of offsite discharges can be accomplished.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Added sampling capabilities and automated level monitoring capability at final discharge ponds.	
a. Prepare new EJO, Parts II and III.	10/31/89
b. Prepare scope and estimate.	Complete
c. Prepare design package; solicit bids.	1/1/90
d. Install/implement.	6/1/91

- 2. Installation of piezometers in dams A-3, A-4, B-5, C-1, C-2, and Sanitary Landfill to enhance monitoring for dam integrity.
 - a. Prepare scope and estimate. Complete
 - b. Prepare design package, solicit bids. 1/31/90
 - c. Install piezometers. 10/1/90

- 3. Sediment removal from ponds to prevent discharge of associated pollutants.
 - a. Prepare scope and estimate. Complete
 - b. Prepare design package. 11/1/90
 - c. Removal of sediment complete. 10/1/92

- 4. Installation of improved inlet/drainage structures for Ponds A-4 and C-2 preventing the bottom flow of sediments during pond discharge. Also install upstream control of outlet piping on A-4, B-5 and C-2.
 - a. Prepare scope and estimate. Complete
 - b. Prepare design package; solicit bids. 11/31/90
 - c. Installation complete. 10/1/92

ACTIVITY : Water Monitoring & Control

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DATE : 8/4/89

EVENTS/MILESTONES	FY89				FY90				FY91				FY92				FY93				FY94			
	1Q	2Q	3Q	4Q																				
SAMPLING CAPABILITY/LEVEL MONITORING																								
AT FINAL DISCHARGE PONDS																								
Scope And Estimate																								
Prepare EJO				▬																				
Design Package/Bid Solicitation					▬																			
Install/Implement Equipment								▬																
DAM PIEZOMETERS																								
Scope And Estimate																								
Design Package/Bid Solicitation				▬																				
Install Piezometers								▬																
SEDIMENT REMOVAL																								
Scope And Estimate																								
Design Package/Bid Solicitation								▬																
Removal Of Sediment																								
IMPROVED INLET/DRAINAGE STRUCTURE																								
Scope And Estimate																								
Design Package/Bid Solicitation								▬																
Installation																								

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Proposal for Implementing
RFP Operation Improvements

Revision No.: 0

Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Install Continuous Emission Monitors (CEMs) in all appropriate sources

ACTIVITY DESCRIPTION: The survey of all vents to identify emission sources and material balance studies will be followed by analytical testing to confirm the survey results. Major emission sources will then be considered for the installation of continuous monitors. Initial work in this area will be review of technology available for the specific compounds to be tested. Acquisition and installation of the equipment would occur after completion of that survey.

ACTIVITY JUSTIFICATION: The "Agreement in Principle" requires that CDH perform ambient air sampling to confirm that RFP operations do not have a negative impact on health. The survey of emission sources and modeling of ambient levels may require that continuous emissions monitors be installed in appropriate sources to provide real time results for emissions. The recent DOE audit findings mention a specific area of impact that must be addressed in preparing a supplemental environmental impact statement is the emissions of hazardous nonradiological air emissions. Work to characterize those emissions will first utilize process knowledge and material balance calculations to determine total emissions. These calculations will yield total emission estimates but will not produce instantaneous rates for use in calculations of maximum ambient concentrations. The next approach will be to use EPA sampling technology to characterize emission rates over a set time period. These results will be used to evaluate the need for real-time continuous emission monitoring (CEMs). It is expected that CEMs will be required on vents from production areas where large amounts of halogenated solvents are used and emitted.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Survey Emission Sources.	
a. Identify appropriate emission sources.	3/1/90
b. Survey available monitoring equipment.	6/1/90

2. Equipment Acquisition.

- a. Acquire appropriate equipment.
- b. Install equipment.

6/1/91

6/1/92

PROPOSAL : Environmental Restoration & Protection **ACTIVITY SCHEDULE**

PROPOSAL FOR IMPLEMENTING
RFP OPERATION IMPROVEMENTS

ACTIVITY : Continous Emission Monitors

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES	FY89				FY90				FY91				FY92				FY93				FY94			
	1Q	2Q	3Q	4Q																				
SURVEY EMISSION SOURCES																								
Identify Sources																								
Survey Available Monitor Equipment																								
EQUIPMENT ACQUISITION																								
Procure Equipment																								
Install Equipment																								

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Proposal for Implementing
RFP Operation Improvements

Revision No.: 0
Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Soil Monitoring/Remediation Program

ACTIVITY DESCRIPTION: A number of activities are required to resolve issues associated with soils on and near Rocky Flats Plant (RFP) that are contaminated with low levels of plutonium. The first is a project to evaluate and compare all of the existing soil sampling protocols to better understand the contamination patterns. Some sampling methods consider primarily surficial contaminants while others define a total inventory by collecting deeper samples. Correlations between plutonium and americium should be studied. The second activity is intended to provide a site clean from radioactivity for staging construction activities that are required onsite. The final activity is the remediation activity offsite needed to reduce surface levels of plutonium by plowing followed by restoration of the vegetation to native grasses. Intermediate activities involve eliminating noxious weeds and preventing soil erosion and particulate resuspension. Weather will play a significant role in the specific activities required to successfully complete the project.

ACTIVITY JUSTIFICATION: DOE orders require that offsite impact from RFP operations must be fully assessed through dose assessments calculated from exposure pathways of RFP-related radionuclides. The DOE audit team recently found that improvements are required which necessitate better definition of soil contamination levels. The proposed project will give the required characterizations through the soil baseline characterization. The other activities will assist in preventing spread of additional contaminants by providing a radioactivity-free construction staging area at the 904 pad and by remediating offsite contamination above the State of Colorado construction standards or that already exist. This latter activity is in response to an out-of-court settlement requiring the remediation activities to reduce surface levels of plutonium that resulted from resuspension from the 903 pad area. The settlement outlines required activities and specific plowing, resuspension control, and vegetation restoration methods.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Soil Baseline Characterization.	
a. Site survey, procure equipment.	10/1/89
b. Train technicians.	10/1/89
c. Sample collection.	12/1/89
d. Sample analysis.	3/1/90
2. Site preparation to provide a radioactivity clean construction site for centralized waste storage facility adjacent to the 904 storage pad.	
a. Rocky Flats Operational Safety Analysis 1 approved.	7/31/89
b. Project start.	1/1/90
c. Project completion.	1/1/91
3. Expedited soil remediation.	
a. Plowing/soil preparation	10/31/89
b. Hydroseeding/hydromulching.	11/31/89
c. Interseeding.	11/31/89
d. Spray to control noxious weeds.	5/31/90
e. Mowing.	6/30/90
f. Plowing alternating strips.	6/1/90

PROPOSAL : Environmental Restoration & Protection **ACTIVITY SCHEDULE**

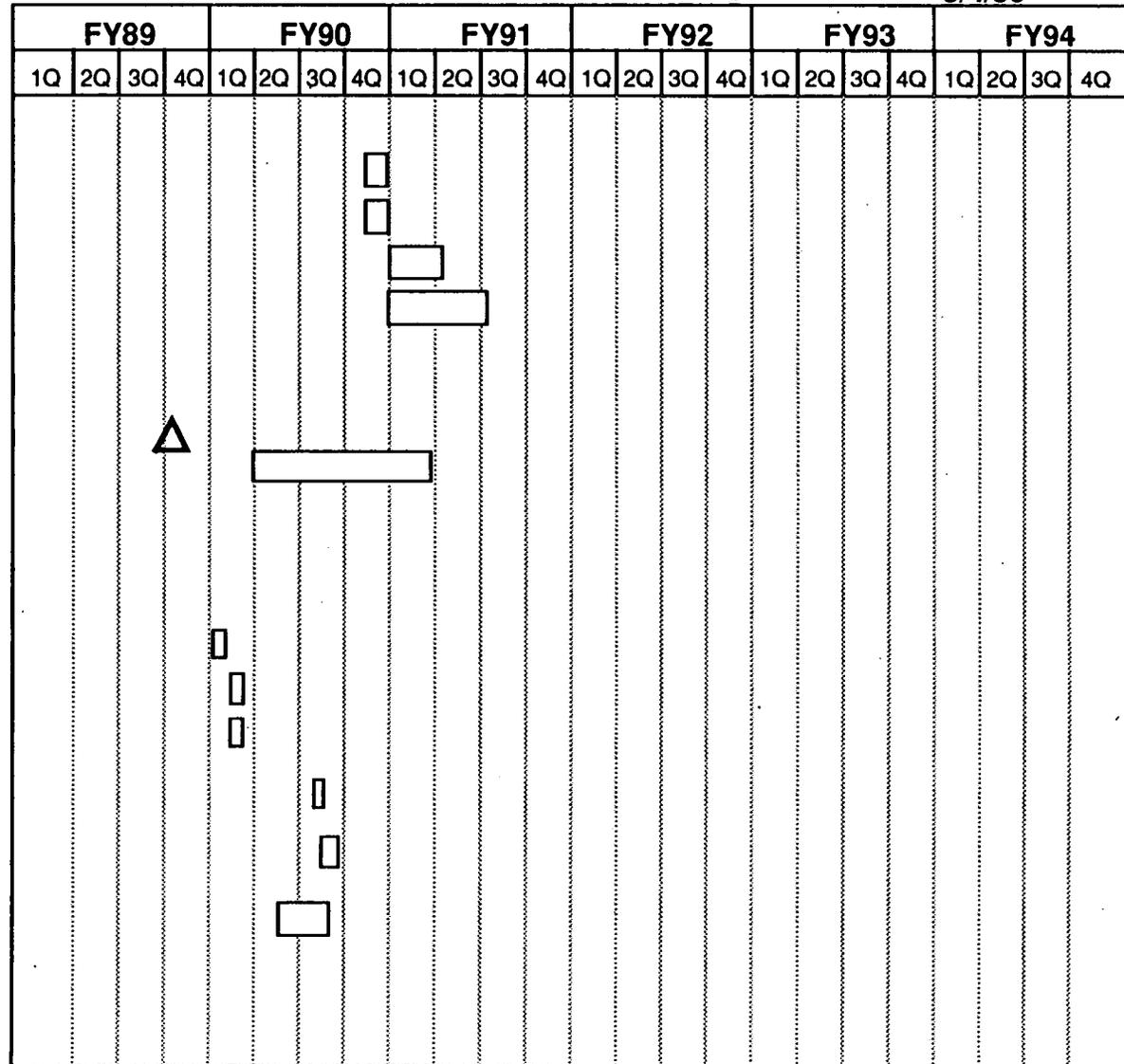
**PROPOSAL FOR IMPLEMENTING
RFP OPERATION IMPROVEMENTS**

ACTIVITY : Soil Monitoring /Remediation

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DATE : 8/4/89

EVENTS/MILESTONES



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Proposal for Implementing
RFP Operation Improvements

Revision No.: 0
Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: General Environmental Upgrades

ACTIVITY DESCRIPTION: There are several projects that support the general environmental efforts and are not specific to any individual program. These include installation of a field release monitoring station. Upgrades to environmental data processing and data management systems, issue contracts to evaluate buffer zone range monitoring to include surveys for endangered species, establishing contracts to analyze all environmental samples at contract laboratories for legal defensibility, included elsewhere and issue contracts for quality assurance auditing of programs to include random QA/QC checks of laboratory performance included under training.

ACTIVITY JUSTIFICATION: The enactment of new restrictive environmental laws and the "Agreement in Principle" requires that the entire environmental program be enhanced. This general upgrade effort will provide the support to accomplish this requirement.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Install Field Monitoring Release Station	
a. Scope station requirements.	1/31/90
b. Engineer system.	3/31/90
c. Install system.	10/31/90
2. Acquire data processing systems.	3/1/89
a. Scope data processing requirements.	11/30/89
b. Solicit bids.	1/31/90
c. Acquire and install.	3/31/90

- 3. Contract Range Management/Endangered Species Survey. 1/1/90
 - a. Prepare scope. 11/30/89
 - b. Solicit contract. 1/31/90
 - c. Initiate surveys. 3/31/90

- 4. Contracts to analyze all environmental samples. 8/31/90
 - a. Scope analytical requirements. 1/31/90
 - b. Solicit bid. 3/31/90
 - c. Evaluate proposals. 6/30/90
 - d. Initiate contracts. 8/31/90

- 5. Contract quality assurance support. 10/90
 - a. Scope QA contract. 2/28/90
 - b. Solicit bids. 4/30/90
 - c. Evaluate proposals. 7/31/90
 - d. Initiate contract. 10/31/90

ACTIVITY SCHEDULE

PROPOSAL : Environmental Restoration & Protection

ACTIVITY : General Environmental

REV. NO. : 0 DATE : 8/4/89

EVENTS/MILESTONES	FY89				FY90				FY91				FY92				FY93				FY94			
	1Q	2Q	3Q	4Q																				
INSTALL FIELD MONITORING RELEASE STATIONS																								
ACQUIRE DATA PROCESSING SYSTEMS																								
RANGE MANAGEMENT																								
ANALYZE ENVR SAMPLES																								
QUALITY ASSURANCE SUPPORT																								

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Elimination of Rocky Flats Plant Surface and Ground Water Discharges

ACTIVITY DESCRIPTION: To effectively consider all elements impacting a successful move to a zero discharge of surface and ground water from Rocky Flats Plant; a series of subordinate studies and programs need to be completed. Some of these are currently active at moderate levels, other were previously proposed, but not supported with resources, and the rest are new proposals. The necessary studies and programs are as follows:

1. Sanitary Waste System Minimization Program.
2. Sewage Treatment Plant (STP) Treatment Evaluations.
3. Hazardous Influent to STP (building floor drain study).
4. Influent to Sanitary Waste System Study.
5. Domestic Water Use Minimization.
6. Product Water Reuse/Recycle Study.
7. Blowdown Reuse/Recycle Study.
8. Secondary Containment of Non-RCRA Tanks and Other Facilities Study.
9. Surface Water Evaporation Study.
10. Greenhouse/Outdoor Wetlands Evaluation.
11. Surface Water Division Study.
12. Internal Water Reuse/Recycle Study.

These studies and programs will provide the data to develop a plan for zero discharge of surface and ground water from STP. The plan to be developed in FY92 will provide a description of the major facility modifications required and an estimate of the capital funding to complete them. Most of these studies will require technical expertise not currently available at RFP and all will require additional manpower beyond current staffing. There would be minimal impact of other plant operations to conduct these studies and the results of some of these studies could be rapidly applied to small modification projects to improve operations and move toward the zero discharge goal.

ACTIVITY JUSTIFICATION: This project is required to fulfill the "Agreement in Principle" between the State of Colorado and DOE.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Studies and Programs complete	6/90
2. Develop Zero Discharge Plan.	6/91

ACTIVITY SCHEDULE

ACTIVITY : Elimination of Plant Discharge

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EVENTS/MILESTONES

STUDIES AND PROGRAMS

ZERO DISCHARGE PLAN

FY89				FY90				FY91				FY92				FY93				FY94							
1Q	2Q	3Q	4Q																								

Proposal for Implementing
RFP Operation Improvements

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PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: National Environmental Protection Act (NEPA) Technical Documentation

ACTIVITY DESCRIPTION: The RFP Site Environmental Impact Statement (EIS) was issued in 1980. The recent DOE audit of that EIS found deficiencies which must be corrected with a Supplemental EIS (SEIS). Areas requiring detailed analysis in the SEIS include:

- Analysis of potential impacts associated with earthquakes.
- Quantitative analysis of impact to groundwater from either radiological or hazardous chemical contamination.
- Analysis of hazardous nonradiological air emissions.
- RCRA waste characterization, storage and processing.
- Transuranic waste processing, storage, and processing.
- Impacts to RFP workers.
- Environmental Restoration Program impacts.
- Safety analysis and risk assessment considerations.
- Wetlands.
- The Plutonium Recovery Modification Project (PRMP).
- The Plutonium Recovery Option Verification Exercise (PROVE).

ACTIVITY JUSTIFICATION: The Council on Environmental Quality (CEQ) regulation for implementing NEPA specify the circumstance for which preparation of a SEIS is

required. The DOE audit team concluded that the net effect of areas not covered in the EIS is sufficient to require an SEIS. There appear to be no justifiable alternative to resolving this issue without the proposed activity. The possibility of meeting requirements in scoping preparation NEPA documentation for separate projects or combining the considerations is recommended to select the best approach for meeting the requirements of the regulations with the most cost effective approach.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Prepare Baseline Environmental Impact Statement.	
a. Scope technical support document.	10/1/90
b. Begin Baseline studies.	10/1/91
c. Draft SEIS.	10/1/93
d. Publish Final SEIS.	10/1/94

ACTIVITY : NEPA Technical Documentation

REV. NO. : 0

DATE : 8/4/89

EVENTS/MILESTONES	FY89				FY90				FY91				FY92				FY93				FY94			
	1Q	2Q	3Q	4Q																				
PREPARE BASELINE ENVIRONMENTAL IMPACT STATEMENT																								
Technical Baseline Environmental Impact Statement																								
Baseline Studies																								
Draft SEIS																								
Final SEIS																								

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Proposal for Implementing
RFP Operation Improvements

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Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Prepare Comprehensive Material balance of VOCs

ACTIVITY DESCRIPTION: Provide a material balance of volatile organic chemicals emitted from the RFP processes. This material balance shall contain emissions from all media (air, water, and soil).

ACTIVITY JUSTIFICATION: The activity is required as part of CERCLA regulations, SARA Title III Community Right-to-Know reporting. The activity has been performed by the Hazardous Materials Section Personnel.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. SARA Title III Reporting.	
a. Accumulate raw data.	5/1/90
b. Complete reporting.	6/1/90

Proposal for Implementing
RFP Operation Improvements

Revision No.: 0

Date: August 4, 1989

PROPOSAL: ENVIRONMENTAL RESTORATION AND PROTECTION

ACTIVITY PLAN

ACTIVITY: Support to State of Colorado

ACTIVITY DESCRIPTION: This plan provides financial support to the State of Colorado so that they can enhance their current surveillance program to verify Rocky Flats compliance with applicable environmental requirements and assure public safety. These monies will be an increase over the current funding agreement.

ACTIVITY JUSTIFICATION: These monies provided in this plan will be used to hire personnel, procure equipment, and other resources as required to expand their current monitoring and surveillance program per the "Agreement in Principle" between the State of Colorado and the Department of Energy.

ACTIVITY MILESTONES:

<u>Event</u>	<u>Date</u>
1. Provide agreed upon funds to the State of Colorado.	Ongoing

Proposal for Implementing
RFP Operation Improvements

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PROPOSAL: Environmental Restoration & Protection

RESOURCE SUMMARY

Manpower

<u>ACTIVITY</u>	<u>END-OF-YEAR MANPOWER</u>				
	<u>FY90</u>	<u>FY91</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
<u>RESTORATION ACTIVITIES</u>					
881 Hillside Groundwater Cleanup	6	0	0	0	0
Medium Priority Site Cleanup	8	0	0	0	0
New Landfill	2	2	0	0	0
Background Characterization Studies	2	0	0	0	0
Accelerated Cleanup Low Priority Sites	8	0	0	0	0
Solar Pond Closure	1	0	0	0	0
Improved Groundwater Monitoring	1	1	1	1	1
443 Tank Closure	1	0	0	0	0
Pondcrete Disposal	36	51	0	0	0
Document & Reviews Availability	3	3	3	3	3
- EPA Notice					
- Audit Activities	<u>15</u>	<u>15</u>	<u>12</u>	<u>7</u>	<u>7</u>
- Program Control					
SUBTOTAL	83	72	16	11	11

Proposal for Implementing
RFP Operation Improvements

Revision No.: 0
Date: August 4, 1989

PROPOSAL: Environmental Restoration & Protection (continued)

RESOURCE SUMMARY

Manpower

ACTIVITY	END-OF-YEAR MANPOWER				
	FY90	FY91	FY92	FY93	FY94
ENVIRONMENTAL PROTECTION					
Full Set of Water Samples for Analysis	1	1	1	1	1
Air Emissions Inventory	2	0	0	0	0
Identify Plant Emissions	10	10	10	10	10
Air Monitoring Control Enhancement	0	0	0	0	0
Emergency Preparedness	-	-	-	-	-
Water Monitoring & Control Enhancement	-	-	-	-	-
Continuous Emissions Monitors	2	2	2	2	2
Soil Monitoring/Remediation Program	0	0	0	0	0
Environmental Programs Upgrade	-	-	-	-	-
Elimination of Plant Water Discharge	13	20	20	20	20
NEPA Technical Documentation	0	0	0	0	0
Material Balance of V.O.C.s	0	0	0	0	0
SUBTOTAL	29	33	33	33	33
TOTAL	112	105	49	44	44

Proposal for Implementing
RFP Operation Improvements

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PROPOSAL: Environmental Restoration & Protection

RESOURCE SUMMARY

Total Cost

ACTIVITY	DOLLARS IN MILLIONS				
	FY90	FY91	FY92	FY93	FY94
<u>RESTORATION ACTIVITIES</u>					
881 Hillside Groundwater Cleanup	2.6	.0	.0	.0	.0
Medium Priority Site Cleanup	.4	.0	.0	.0	.0
New Landfill	.7	3.4	.0	.0	.0
Background Characterization Studies	.1	.0	.0	.0	.0
Accelerated Cleanup Low Priority Sites	.2	.0	.0	.0	.0
Solar Pond Closure	.3	.0	.0	.0	.0
Improved Groundwater Monitoring	.5	.2	.2	.3	.3
443 Tank Closure	3.3	.0	.0	.0	.0
Pondcrete Disposal	26.7	22.7	.0	.0	.0
Document & Reviews Availability	.2	.2	.2	.2	.2
- 104E EPA Notice					
- Audit Activities	<u>1.4</u>	<u>.8</u>	<u>.6</u>	<u>.4</u>	<u>.4</u>
- Program Control					
SUBTOTAL	36.4	27.3	1.0	.9	.9

Proposal for Implementing
RFP Operation Improvements

Revision No.: 0
Date: August 4, 1989

PROPOSAL: Environmental Restoration & Protection

RESOURCE SUMMARY

Total Cost

ACTIVITY	DOLLARS IN MILLIONS				
	FY90	FY91	FY92	FY93	FY94
ENVIRONMENTAL PROTECTION					
Full Set of Water Samples for Analysis	.3	.4	.4	.4	.4
Air Emissions Inventory	5.3	.0	.0	.0	.0
Identify Plant Emissions	1.0	1.0	.0	.0	.0
Air Monitoring & Control Enhancement	7.9	13.2	13.2	13.2	.0
Emergency Preparedness	1.1	.3	.0	.0	.0
Water Monitoring & Control Enhancement	4.4	2.0	.0	.0	.0
Continuous Emission Monitors	3.4	.5	.1	.1	.1
Soil Monitoring/Remediation Program	9.2	.0	.0	.0	.0
Environmental Programs Upgrade	4.9	3.7	1.7	1.7	1.7
Elimination of Plant Water Discharge	2.8	3.1	.0	.0	.0
NEPA Technical Documentation	1.0	1.0	1.0	1.0	1.0
Support to State of Colorado	<u>3.3</u>	<u>2.8</u>	<u>3.3</u>	<u>3.3</u>	<u>3.3</u>
SUB TOTAL	44.6	28.0	19.7	19.7	6.5
TOTAL	81.0	55.3	20.7	20.6	7.4