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1801-11

Mr Gary Anderson
Environmental Restoration Programs
Building T130B
EG&G Rocky Flats, Inc
Rocky Flats Plant
P O Box 464
Golden, Colorado 80402-0464

Subject Hillside 881 Phase IA Construction Activities

Dear Mr Anderson

As you requested, I have reviewed the various written documents concerning the 881 Hillside Phase IA construction

There are a number of documents pertinent to the 881 Hillside construction activity I believe that I have reviewed them all Some of the documents were obtained from Facilities Project Management, and some were obtained from the Environmental Restorations Group The purpose of this review was to identify the various commitments made regarding the minimization of dust, and regarding health and safety requirements The following references to OSHA training are meant to imply the OSHA training required for hazardous waste site investigations and remedial actions

Site of Construction Activities

The proposed Phase IA construction site was moved a number of times in the recent past in order to ensure that construction would not take place in a Solid Waste Management Unit (SWMU) or in a location suspected of being contaminated I have found references in documents (fall of 1989) to soil sampling that was to be done in the proposed construction site The intended purpose of these samples was verification of actual conditions at the proposed construction site I have been unable to confirm whether or not those samples were taken

Requirements for Construction

The Engineering Department (I am considering Facilities Project Management a part of the Engineering Department for this discussion) and the Environmental Restoration Group had very different outlooks regarding the Phase IA construction activities

ADMIN RECORD

A-OU01-000743

The Engineering Department viewed the job as a normal excavation and concrete slab pour project in a non-contaminated area This was a reasonable assessment since pains had been taken to remove the construction site from SWMUs All of the documentation from engineering has been consistent with the above approach Normal Rocky Flats review procedures were used in preparation of the documents that I reviewed Parties involved in the review process included HS&E and the RCRA/CERCLA group The types of health and safety requirements were consistent with engineering's view of the project In particular, there was no special mention made of OSHA health and safety training requirements in the Plans and Specifications, nor in the Job Safety Analysis (JSA) written for the project The documents obtained from engineering included the Plans and Specifications (August 1989), the Solicitation and Contract Award Documents (September 1989), and the JSA for the project (January 1990)

The Environmental Restoration Program (previously the RCRA/CERCLA Group) viewed the job as construction in a potentially contaminated site This was also a reasonable assessment since the construction site is near a CERCLA area and is a part of the remedial actions for that area All of the documentation from the Environmental Restoration Programs Group has been consistent with the above approach The types of health and safety requirements identified in these documents were consistent with this view of the project In particular, there was specific mention made of the need for a JSA, an Operational Safety Analysis (OSA), and a Health and Safety Plan specific to this project Although a JSA was prepared by Engineering, it did not address dust suppression or OSHA training No OSA was prepared for this project (the OSA was to have some wind monitoring/shutdown requirements in it), nor was a health and safety plan specific to this project prepared The documents obtained from the ERP office included the Environmental Assessment for the project (January 1990), and the Public Comment Responsiveness Summary (January 1990)

Summary

The two main groups working on this project simply had different views with respect to the Phase IA construction project The review opportunities passed without this basic difference in philosophies being identified by the involved parties

I include a brief summary of the health and safety and excavation requirements from the various documents pertinent to this project I also include a brief summary of the requirements identified in the offsite land litigation documents This latter information may prove useful, although

it is not directly related to the 881 Hillside construction activities

I trust that this is adequate for your purposes Please call if you have any questions or comments

Sincerely,

Frank J. Blaha

DOTY & ASSOCIATES
Frank J Blaha, P E

cc
Bill Bruninga, EG&G
Jim Koffer, EG&G
Bob Morris, UNC Geotech
Loren Zweig, EG&G

DOCUMENTS PERTINENT TO 881 HILLSIDE CONSTRUCTION

Health and Safety Plan, Environmental Restoration Program, Rocky Flats Plant (January 1989)

This document was created primarily to support the drilling and sampling activities of the Environmental Restoration Program Therefore, this document is not specific regarding excavation requirements or health and safety requirements during excavation

Remedial Action, 881 Hillside Phase I Construction (Building 891 Foundation), Specifications and Drawings (Dated August 1989)

This document should explicitly state any special requirements for the project These special requirements would include any health and safety and special excavation requirements The specifications document was reviewed by normal Rocky Flats procedures The health and safety requirements identified in Section 1106 of the specifications document consisted of various sections of the HS&E manual Referenced sections were

2 00 Operational Requirements
- 2 04 Employees Working Alone
- 2 06 Red Tag Procedures
- 2 08 Lockout and Tagging

6 00 Permits
- 6 01 Excavation Permit

7 00 Protection Equipment
- 7 01 Eye Protection
- 7 02 Safety Shoes
- 7 03 Visitor Respiratory Requirements

8 00 Clothing Requirements
- 8 01 Safe Work Apparel

9 00 Material Handling and Storage
- 9 05 Handling and Storage of Flammable and Combustible Liquids for Fire Safety

12 00 Industrial Safety
- 12 06 Accident Prevention Signs and Tags

14 00 Fire Safety
- 14 02 Spray Painting Using Toxic, Flammable, and Combustible Materials

15 00 Electric Equipment
- 15 02 Electrical Equipment

24 00 Contractor Analysis
- 24 01 Safety Responsibilities for Contractors

The HS&E manual largely predates the applicability of RCRA/CERCLA requirements at the Rocky Flats Plant, and also predates Admiral Watkins commitment to meet OSHA requirements Therefore, it is reasonable that the HS&E Manual does not have health and safety requirements typical of a RCRA/CERCLA-type action The specifications document also lacked RCRA/CERCLA-type requirements because it relied upon the HS&E Manual to provide nearly all health and safety requirements

With regard to dust control, the only applicable reference was in Section 01500 in which it is required that places where construction creates dust should be sprinkled at frequent intervals and not less than twice per day However, prior to construction activities, the dust control specification had been modified to discuss wetting the soils to be excavated for three days prior to excavation and to continue wetting as required

Solicitation, Offer and Award Documents for Remedial Action 881 Hillside Area (Dated September 1989)

This document should have stated any special requirements regarding the training of worker personnel for health and safety requirements No such requirements were made The references to OSHA were with respect to accident prevention

Draft Inter-Agency Agreement (December 1989)

The Draft Inter-Agency Agreement has no specific requirements for health and safety nor for excavation procedures

Environmental Assessment for 881 Hillside (High Priority Sites) Interim Remedial Action (January 1990)

A number of references are made in this document to conditions or expected conditions regarding dust suppression and health and safety at the 881 Hillside It appears that the excavation and concrete pad pouring activities related to the treatment building were not even evaluated in this document since they are outside the 881 Hillside project area

The first important reference is made in Section 5 5 Personnel Exposures - Routine Operations The statement is made that excavation of the French Drain was planned for areas believed to

be uncontaminated with respect to VOC's This section makes reference to the JSA, OSA and special dust prevention measures that will be made In particular, reference is made to air monitoring and soil wetting (three days prior to excavation and continued during construction activities) to prevent the creation of dust from construction activities

Hillside 881 Responsiveness Summary (Dated January 1990)

Response to Comment 6
In the response to comment 6, which is a comment largely regarding health and safety and prevention of contaminant dispersal requirements, a commitment is made to prepare a Job Safety Analysis (JSA) for construction activities prior to their initiation A commitment is also made for these documents to address dust control measures Further,

> "These measures include the premoistening of the excavation area with a sprinkler system for three days prior to start-up, and the continued moistening of the site throughout the excavation Ambient air high volume air samplers will be used to measure radiation and wind velocity These will be installed before commencement of construction Operations will be suspended by requirements in the Operational Safety Analysis (OSA) if wind velocity exceeds 15 mph or alpha radiation exceeds 0 03 pCi/m^3 as measured by a high volume sampler located immediately downgradient of the construction activities (The OSA addresses health and safety concerns originating from routine site operations, and is similar to the JSA) A Health and Safety Plan will also be prepared for construction activities that will supplement the JSA

The response continues with statements that vacuuming off the upper portion of loose soil, dust suppressants, and portable buildings would all be investigated for use at other more contaminated sites

Response to Comment 71
In the response to comment 71, a commitment is made for the construction activities to fully comply with OSHA regulations

Job Safety Analysis (JSA) (Dated January 15, 1990)

The JSA had no requirements regarding soil wetting, prevention of the creation of dust, or for special health and safety requirements

Offsite Land Litigation Requirements

In May of 1975, a suit was filed against Rockwell International, Dow Chemical, and the United States of America The complaint alleged that contamination on private lands offsite had caused loss of land values and loss of full use of the land The case was settled by the plaintiffs in December of 1984 and dismissed in July of 1985

The Settlement Agreement, as amended in July, 1985, requires very specific remedial actions on plaintiffs' lands offsite Rocky Flats is required to conduct " soil sampling, mixing, reseeding (or other processes) and testing as are necessary to reduce any such concentrations of plutonium in soil on such lands to or below the state standard "

The July 1985 amendment to the Settlement Agreement requires

1 spring ground preparation (plowing and disking)
"2 drilling grass seed "
"3 supplemental mulch "
"4 timely irrigation "
"5 weed control

Precautions required in the Agreement include the use of portable air samplers downwind with a control level of 0 02 pCi/m3, wind velocities must be less than 15 miles per hour, soil moisture greater than 15%, and a fugitive dust control permit must be obtained from CDH