

File

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October 8, 1990
1801-11

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Clean Water Act Division
Building T130B
EG&G Rocky Flats, Inc.
Rocky Flats Plant
P.O. Box 464
Golden, Colorado 80402-0464



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Subject: Review of Draft Environmental Evaluation Plan

Dear Mr. Hobbs:

As per your request, I have reviewed the Draft Environmental Evaluation Work Plan for the Solar Evaporation Ponds.

My comments can be found in two places: in the report, and below. The majority of my comments are in the margin of the report which was returned to Mr. Rick Roberts of the EG&G NEPA Division. The more important of these comments I have photocopied and attached to this letter. The comments below are those which pertain to the overall mechanics, concept or presentation of the report. These comments are not applicable to only one or two pages, and are therefore provided below.

- The tables and figures in the Phase I RFI/RI Work Plan that are discussed in this Environmental Evaluation Work Plan should be included in this report.
- There is no discussion in this report of the overall short and long-term plans for the Solar Ponds. Surely the expected activities, and how these NEPA activities may influence the expected activities, are of importance and bear discussion in this Work Plan. For instance, the Environmental Restoration (ER) characterization of soils and wastes will be conducted first, followed at a later time by characterization of groundwater. This phasing of characterizations will surely have an impact on the ability to perform the NEPA activities described in this work plan. A discussion of how these phased activities will be accommodated by NEPA activities is never presented.

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- More recent data, when available, should be used in the discussions rather than relying on older data which has been superceded. This activity may require interpretation of more recent data. Alternatively, if the newer data can only be used after the EG&G people have interpreted it, then the existence of the newer data and the anticipated date of incorporation into the NEPA activities should be addressed. Likewise, it appears that the existence of considerable amounts of data related to NPDES permit compliance is ignored.
- The 1988 evaluation of surface water contamination did not, of course, include the new Colorado Water Quality Control Commission Standards on discharges from the Rocky Flats Plant. This may have a large impact on the data analysis presented in this report, and should be discussed. The definition of "contaminated" may be entirely different when these new standards are used as a yardstick.
- This work plan would be very difficult to implement as currently written. There are a considerable number of specifics, such as specific sampling locations, that are not identified. If later versions of this report will provide the missing information, then the report should state that. If these details will be provided following some of the ER characterization activities, then that should also be stated. It is difficult to evaluate potential impacts on (or from) a sample to be taken somewhere on Walnut Creek downstream of the solar ponds, whereas a sample at Rocky Flats Coordinates EEE, NNN can be evaluated.
- No mention is made of how the effects of the numerous other sources of contamination will be separated out from the effects truly due to the solar ponds. This is a concern because a large number of solid waste management units (SWMUs) are present near the solar ponds.
- Section 5.4.8 of this work plan discusses biotoxicity testing related to these NEPA activities. The relationship and interpretation of these biotoxicity tests as related to the NPDES-required biotoxicity tests should be discussed.
- Chapters 1, 2 and 3 are unfocused. There is a lot of extraneous information presented in these sections. Likewise, there is repetition of some of the information

Mr. Farrel Hobbs

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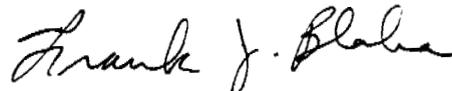
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contained in these sections later in the report. I think that these sections could use a good edit.

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

Sincerely,
DOTY & ASSOCIATES



Frank J. Blaha

cc: R. Roberts, w/o copies

2.1.2 Surface Water Hydrology

Three ephemeral streams drain the Rocky Flats Plant and flow, generally, from west to east. Rock Creek, in the northwestern corner of the buffer zone, flows to the northeast, to its offsite confluence with Coal Creek.

Surface water flow from the Solar Evaporation Ponds area is toward North Walnut and South Walnut Creeks. A series of retention ponds known as the A-series ponds are located on North Walnut Creek, and a series of retention ponds known as the B-series ponds are located on South Walnut Creek, as shown in. South Walnut Creek joins North Walnut Creek and an unnamed tributary coming from the landfill area, approximately 0.7 mile downstream of the eastern edge of the Plant security area, within the buffer zone. Walnut Creek then flows eastward approximately one mile into Great Western Reservoir.

2.1.2.1 North Walnut Creek

North Walnut Creek is an eastward flowing stream located north of the Solar Evaporation Ponds area. Surface runoff patterns indicate flow entering the drainage from the Solar Evaporation Ponds area, the 700 Building Complex, the 300 Building Complex, and general surface runoff from the north and west sides of the Plant (Rockwell International, 1988b, Vol. II, p. 6-6). Due to the surface drainage pattern, any releases from the 700 and 300 areas would flow into North Walnut Creek above the retention ponds in the drainage located north of Pond 207-C (Rockwell International, 1988b, Vol. II, p. 6-6).

This description should include some of the ponds in the area. These ponds are for surface water control.

Pond 207-A was, generally, more contaminated than Pond 207-C, except for plutonium and americium, which are approximately ten times higher in Pond 207-C. Plutonium and americium were not detected in Pond 207-B North.

3.5.1.1 Background Soil/Vadose Zone Characterization

The first evaluation of background soil/vadose zone characteristics was performed in 1986. This evaluation involved the collection of nine composite samples from the top 12 inches of soil from a plot in the Buffer Zone, west of the West Spray Field (Rockwell International, 1988b, Vol. II, p. 4-9). The exact locations of these samples could not be determined from available information; however, the results of that sampling event are presented in Table 2-11 of the Phase I Work Plan. As shown in Table 2-11, aluminum, total chromium, iron, lead, manganese, and zinc occur above detection limits. Also, uranium 233 + 234, uranium 238, and americium were found in levels above their respective counting uncertainty values. Although statistically limited, this background information was used as a comparative tool in interpreting the soil/vadose zone data collected in the 1986 to 1987 field investigation conducted in the vicinity of the Solar Evaporation Ponds. The results of that investigation are presented in Subsection 3.5.1.2 and all references to "background" in the discussion and data tables in that subsection are drawn on the background values established from the 1986 Buffer Zone samples.

The second evaluation of background soil/vadose zone characteristics was performed in 1989, and involved a comprehensive collection of stream sediments, surficial alluvial and colluvial sediments, and bedrock material (Rockwell International, 1989). This collection of samples includes nine stream sediment samples from nine locations, 70 alluvial sediment samples from nine locations,

More recent Background Character Data Available. This new data is also more applicable to the Solar Ponds. See Pete Folger Re: Most recent analysis + planar activity

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→ This discussion ³⁰ (§ 3.5.1.1) Must use this ~~the~~ newer data - as must § 3.5.1.2
I do not understand your reliance on the 1986 data. 1989 is more statistically

5/16

REVISE summary based on 1101 data
Also, ensure that Jim (Chairman) reviews this section due to the significance of his work to these interpretations
concentrations of VOCs also occur infrequently in the groundwater at the Solar Evaporation Ponds area. Consequently, organic contamination is not of major significance in the Solar Evaporation Ponds area (Rockwell International, 1988b, Vol. II, p. 4-33).

3.5.1.3 North Walnut Creek

The A-series ponds on North Walnut Creek are designated A-1, A-2, A-3, and A-4, from west to east. Currently, Ponds A-1 and A-2 are used only for spill control, and North Walnut Creek stream flow is diverted around them through an underground pipe. Previously (until 1980), Ponds A-1 and A-2 were used for storage and evaporation of laundry water. Pond A-3 receives the North Walnut Creek stream flow and runoff from the northern portion of the Plant. Pond A-4 is designed for surface water control and for additional storage capacity for overflow from Pond A-3.

The discharges from the ponds are regularly monitored to document compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements. In addition to NPDES monitoring requirements, all discharges are monitored for plutonium, americium, uranium, and tritium concentrations.

Surface water samples collected in August 1986 and in July and November 1987 were analyzed for the Hazardous Substance List (HSL) volatile organics, semivolatiles, pesticides/PCBs, major inorganic ions, metals, and radionuclides (Rockwell International, 1988b, Vol. II, p. 6-9). Those analytes exceeding detection limits are presented in Tables 2-1 through 2-5 of the Phase I Work Plan.

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EMAD has analyzed
NPDES
analyses

More recent Colorado Water Quality Control Commission compliance numbers; also more recent & extensive surface water analyses by EMAD. See Pete Folger