0027004

Concerned Health Technicians For A Cleaner Colorado

8470 West 52nd Place, Suite 9. Arvada, CO 80002-3447/(303) 420-2967

October 23, 1990

EXHIBIT #7
10/23/90 SF
Received by stipulation

USDOE c/o Ms. Beth Brainard
P.O.BOX 928
Golden, CO 80402-0928

000025304

RE: IM/IRA for 903 Pad, Mound, and East Trenches

I am Paula Elofson-Gardine, Director and spokesperson for Concerned Health Technicians For A Cleaner Colorado, member of the Rocky Flats Alliance, and serve as an Officer on the Board of Directors of the Rocky Flats Cleanup Commission. My address is: 8470 W. 52nd Pl., Suite 9, Arvada, CO 80002-3447.

We have serious concerns regarding encroachment on the 881 Hillside area from these radioactive seeps, leachate, and/or resuspension, etc. The workers currently working on remediation efforts at the 881 area need respiratory protection for the plutonium dust problems in this area especially.

The executive summary implies that the water meets the NPDES permit requirements, so are no threat to the public. However the NPDES permit requirements currently do not include radionuclides, and the new NPDES permit is not out yet. Therefore, the implication that the water is no threat to the public is not justified.

It appears that field and laboratory studies have not been done to confirm isotopic identity of the seeps, dissolved fractions, particle sizes, and/or solutility or nature of insolubles in this area. The radioactive removal unit assumes ionic radioactive species. This is not an appropriate assumption. I would cite the following reports:

RFP 2901 Soil Decontamination at Rocky Flats
RFP 3914 Dust Transport-Wind Blown and Mechanical Resuspension
RFP 3130 Decontamination of Soil Containing Plutonium & Americium
RFP 3226 Removal of Plutonium Contaminated soil from 903 Lip Area During 1976 and 1978.

These reports indicate that greater than 50% of the contamination at the 903 area is suspected to be in the less than .01 micron size, colloidal and/or insoluble particles. If this study says that it is unable to quantify colloidal materials between 0.1 to .45 microns in size, this is a significant failing considering the earlier studies. It is important to identify solubles versus insolubles. If much of the contamination is soluble, it may be amenable to precipitation and floculation. But if much of the contamination is in the insoluble form, and less than 0.01 microns in size, just how do you propose to deal with these extremely fine particles?

Old demographic data is still in use. There is far greater population surrounding the plant 10 years later. Please correct this.

ADMIN RECORD

A-OU02-001572

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There is a lack of hydrogeology and plume dispersion information. This could hamper appropriate interception attempts. For example: sandstone lenses have been notated in the past to be of questionable integrity, with some technicians questioning migration between the alluvia. There are further questions regarding the swiss-cheese approach to ground-water monitoring. Do you know the extent of any alluvia cross-contamination caused by drilling and disturbance of this area?

Plutonium transport by wind is notated as a significant and primary source of contaminant spread, but plutonium and americium resuspension hazard is not addressed for safety measures for workers with respect to remediation.

Section 2.3.6, air contamination: There are several discrepancies noted. Ambient air concentration is stated to be approximately at or within 20.0×10^{-6} pCi/l. Do you mean pCi/m^3? You have used an aqueous quantity where an air quantity measure should be used. Please correct this and proofread the document for similar errors elsewhere. The Gerhardt Langer resuspension report indicated much greater levels of plutonium and americium, as well as the reports from the DOE's Environmental Measurements Lab from New York, in excess of 5,000 pCi/m^3 for quite some time historically in fact.

Table 4-1 lists dissolved gross alpha radiation at 17.70 pCi/l versus 632 pCi/l total gross alpha radiation. Is this difference indicative of dissolved fractions versus insoluble fractions and/or colloidal particulates?

A complete isotopic characterization and identification has not been done. This is a significant deficit that should be corrected. Plutonium 238 and uranium 235 has been found in this area. Coors should be participating in the cleanup and expense of the assessments and cleanup as a Potentially Responsible Party for dumping of wastes from Project Pluto at the RFP. Dr. Whicker from CSU is currently studying the isotope fractions found at this area. Please provide this report for review. Quantifications of all isotopes, Pu, Am, U, and others should aid in determining relative risk to workers and the public as well in regards to spread and migration of the contaminants in the environment due to activities at these areas.

The REVERSE OSMOSIS PILOT PLANT (R-O) has not been listed as an alternative water treatment. Why not? This could save much effort and money, along with possibly being able to pull out the more minute particles from the seeps.

The averaging of flow rates and contaminants is disburbing, as it obscures highs and lows. Please correct this. It is unfortunate that this plan does not address leaching of water through the 903 PAD. There is deep concern that this is <u>too temporary</u> and an insufficient measure to deal with the problems in this area. Thank you.

Paula Elofson-Gardine
Director, CHTFACC

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