0028056

OUTGOING LTR NO
87 RF 1523

DIST	LTR	ENCL
ANCHINI D J	X	X
BENJAMIN A		
ADAMS M L		
BADER C P		
CAMPBELL G W	X	X
HOOD R C	X	
KINZER J E		
LANGHEIM G R		
McNETT J F		
PETERSON R G		
SHANNON W M		
SMITH R E		
VEJVODA E		
WEIDNER C W		
WESTON W F		
WILSON G L		
WOZNIAK B D		
YODER R E		
YOUNG E R		
BETCHER D H		
CHANDA R N		
FREIBERG K J		
HARMAN L K		
HEBERT J L		
HOEY J B		
HOFFMAN R B		
KRIEG D M		
M B W		
JDENBURG G E		
AIMON E R		
NEWBY R L		
TURNER H L		
VELASQUEZ R N		
CORRES CONTROL	X	X
G. L. Parker	X	X
G H Sollock	X	X
C T Illsley	X	X
CLASSIFICATION		
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		
AUTH CLASSIFIER SIG		
DATE 2-16-87		
IN REPLY TO LTR NO		
APPROVALS		
ORIG. & TYPIST INITIALS GHS/dlb		

RF 46468 (6/86)

Rocky Flats Plant
North American Space Operations
Rockwell International Corporation
P O Box 464
Golden Colorado 80402-0464
(303) 966-7000
Contractor to U S Department of Energy

Rockwell International

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FEB 19 1987

87-RF-1523

Albert E. Whiteman
Area Manager
DOE, RFAO

RISK ASSESSMENT STUDY

This information is for the attention of P. Currier.

On February 10, 1987, a meeting was held by RFAO/RI personnel to discuss a recent EPA meeting (2/2/87) and several land litigation related issues. The main focus of this meeting was the recent letter from Broomfield to EPA-Region VIII regarding their reservoir expansion. EPA-Region VIII personnel subsequently met with Broomfield on this letter on 1/26/87. The purpose of the previously cited EPA/RFAO/RI meeting (2/2/87) was to discuss the background and outcome of this Broomfield/EPA meeting. Basically, EPA-Region VIII will inform Broomfield that their concerns regarding plutonium soil contamination have been reviewed by EPA and are not considered problem areas at this time. However, EPA will honor Broomfield's last request (i.e. ATSDR (Agency for Toxic Substances and Disease Registry) be brought in for a health assessment of Great Western Reservoir expansion options). Since Rocky Flats is presently not on the National Priorities List (NPL) ATSDR will be requested to conduct a "health consultation" instead of a "health assessment" by EPA-Region VIII.

Per P. Currier's request, a scope of work outline for an independent risk assessment on Great Western Reservoir has been prepared. It is estimated that such a study would fall in the $40,000-$60,000 price range and require 4-6 months for completion. Please contact me if you require additional information or have questions on this topic.

George W. Campbell, Director
Health, Safety and Environment

Best Available Copy

Enc. (I)

Orig and 1 cc - A E. Whiteman

ADMIN RECORD

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PLUTONIUM RISK ASSESSMENT RESERVOIR

I.) General Framework

- A.) Assess plutonium toxicity
- B.) Estimate quantity of plutonium currently in reservoir
- C.) Estimate quantity of plutonium in expanded reservoir
- D.) Project likely plutonium movement with uncertainty factors
- E.) Address chance and degree of human exposure

II.) Contaminant Source Assessment

- A.) Define Source Term
  1. Assess quantity of plutonium contaminated soil likely to wash into reservoir or stream
  2. Assess quantity of plutonium in stream sediment leading to reservoir
  3. Characterize quantity of plutonium in current reservoir - field work essentially complete
  4. Characterize quantity of plutonium in soil of reservoir watershed
  5. Define chemical differences in plutonium sources
- B.) Define Mobility Term
  1. Release of soil plutonium to reservoir water - dissolved/suspended
  2. Release of stream sediment plutonium to reservoir water - dissolved/suspended
  3. Release of reservoir sediment plutonium to reservoir water dissolved/suspended

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III.) Plutonium Exposure Pathway Assessment

A.) Drinking water evaluation

1.) Assess probability of plutonium intake

2.) Assess possible plutonium removal in water treatment system

3.) Assess possible drinking water concentration range

4.) Assess possible incidental plutonium exposure from potable water

B.) Recreational Water Use Exposure Evaluation - if appropriate

1.) Swimming

2.) Boating

3.) Fishing

4.) Miscellaneous

C.) Evaluation of potential groundwater/surface water release - upstream and downstream of expanded reservoir

D.) Identify and evaluate at-risk population affects

IV.) Plutonium Remedial Action Evaluation

A.) Feasibility and cost of alternatives

1.) Decrease suspended soil flow into streams

2.) Decrease concentration in soil washed into stream

3.) Remove or further immobilize contaminated sediment

4.) Decrease concentrations in soil to be flooded in expansion

5.) Alternate water treatment options

B.) Alternate water supply feasibility and cost

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