



EG&G ROCKY FLATS, INC.
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

JUL 11 1990

Mr. Joe Tempel
President
Rocky Flats Cleanup Commission
1738 Wynkoop, Suite 302
Denver, CO 80202

Dear Mr. Tempel:

Thank you for your participation in the 881 Hillside Remedial Action Project briefing on Thursday, June 14, 1990. Your comments and those of your colleagues on the Rocky Flats Cleanup Commission are important to our environmental restoration program. In an effort to be responsive to concerns expressed at the briefing, we have summarized action items as follows:

1. **Ms. Paula Elofson-Gardine requested documentation supporting the plutonium concentration in air calculation that assumes all Pu particles to be respirable.**

The calculation is enclosed. I reiterate that our risk model suspends the highest level of contamination found on the 881 Hillside (samples from the top 1/8" of soil) and considers 100 percent of it to be respirable. This model is conservative for several reasons. Just as all of the soil particulates are likely not to be respirable, the plutonium particulates are likely not to be 100 percent respirable. An acceptable risk analysis practice would assume a small fraction to be respirable. Also, the plutonium contamination is known to be surficial: the greatest concentration is in the top 3.5", beneath which it decreases. The activities on the Hillside will involve soils beyond the 3.5" depth, but reduction in the concentration of plutonium was not factored into the calculations.

2. **Dr. Gale Biggs suggested that the calculation be compared to the national ambient air quality standards (NAAQS).**

Ambient respirable dust measurements taken at the 881 Hillside site during remedial actions indicate concentrations well below the 24 hour NAAQS for respirable particulates (PM₁₀). The detected daily average concentration for PM₁₀ is .024 mg/m³. This is approximately 16 percent of the NAAQS of .150 mg/m³, the level which was of concern to Dr. Biggs.

REVIEWED FOR CLASSIFICATION/UCM

By W. T. Galligan (JNAB)

Date 7/20/92

ADMIN RECORD

A-DU01-000290

3. **The Rocky Flats Cleanup Commission requested copies of the Health and Safety Plan for the 881 Hillside Interim Remedial Action.**

Mr. Terry Smith mailed six copies of the plan to you on June 15, 1990.

4. **Dr. Biggs asked Environmental Restoration (ER) personnel to examine U.S. Geological Survey data regarding the resuspension of soil.**

The ER personnel requested Dr. Biggs to provide the U.S.G.S. information or the specific reference so that they can review and consider its applicability.

5. **Dr. Biggs noted that a Beta monitor has been developed and suggested that its use be incorporated into the Rocky Flats environmental monitoring program.**

The ER personnel requested Dr. Biggs to provide them with additional information on the newly-developed technology so that they might examine the practicability of its use at remediation sites.

6. **Mr. Joe Goldfield referenced a technology in which scattered light measures number of particles per cubic foot.**

ER personnel will investigate the technology and its potential application at Rocky Flats.

7. **Mr. Goldfield expressed concern that the workers involved in remedial activities will not wear respirators and protective clothing.**

Our conservative risk calculations show that respirators and protective clothing are not warranted. EG&G Health and Safety has concurred with this conclusion.

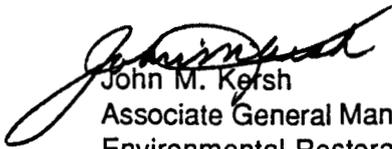
In addition, Dr. Biggs requested information on wind speeds at the site, which we are sending to him directly.

Mr. Joe Tempel
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As I noted during the 881 Hillside briefing, Mr. Erich Evered replaces Mr. Kirk McKinley as Environmental Restoration Director. Mr. Evered fully supports public review of the environmental restoration process, and I know you will find him very receptive to the Cleanup Commission's contributions to the restoration effort.

We appreciate and look forward to receiving the information offered by members of the Commission. Meantime, if you have additional comments or questions regarding our activities at Rocky Flats, please contact Mr. Terry Smith at 966-2986.

Sincerely,



John M. Kefsh
Associate General Manager
Environmental Restoration and Waste Management

JMK/jp

cc:

B.	Brainard	DOE, RFO	w/Enc.
W.G.	Biggs	Rocky Flats Cleanup Commission	w/Enc.
P.	Elofson-Gardine	Rocky Flats Cleanup Commission	w/Enc.
J.	Goldfield	Rocky Flats Cleanup Commission	w/Enc.
K.R.	Grice	Rocky Flats Cleanup Commission	w/Enc.
C.	Kish	Rocky Flats Cleanup Commission	w/Enc.
G.	Marsh	Rocky Flats Cleanup Commission	w/Enc.
B.	Moore	Rocky Flats Cleanup Commission	w/Enc.
P.	Pegis	Rocky Flats Cleanup Commission	w/Enc.
J.H.	Breen	EG&G Rocky Flats	w/Enc.
W.S.	Busby	EG&G Rocky Flats	w/Enc.
J.E.	Evered	EG&G Rocky Flats	w/Enc.
L.J.	Frick	EG&G Rocky Flats	w/Enc.
R.	Goodwin	EG&G Rocky Flats	w/Enc.
T.C.	Greengard	EG&G Rocky Flats	w/Enc.
J.G.	Paukert	EG&G Rocky Flats	w/Enc.
J.K.	Schwartz	EG&G Rocky Flats	w/Enc.
T.A.	Smith	EG&G Rocky Flats	w/Enc.
J.M.	Wilson	EG&G Rocky Flats	w/Enc.
S.	Pennock	EPA, Region VIII	w/Enc.

CALCULATION FOR DEVELOPING SHUTDOWN CRITERIA FOR 881 HILLSIDE

$$(4.8 \text{ pCi/g})(6.25 \text{ mg/m}^3)(10^{-3} \text{ g/mg}) = 0.03 \text{ pCi/m}^3$$

4.8 pCi/g = Maximum Pu level in any one surficial soil sample

6.25 mg/m³ = Assumes all soil suspended is contaminated at 4.8 pCi/g and that all of the Pu is respirable

10⁻³ g/mg = Units conversion factor

0.03 pCi/m³ = Derived Concentration Guide for public exposure, DOE/EH-0071

Assuming that all of the Pu is respirable is conservative. It is likely that in its mixing with soil in-situ and during resuspension the Pu will adhere to larger soil particulates yielding a non-respirable size fraction.

Shutdown criteria of 6.0 mg/m³ at the worksite was chosen.