



Department of Energy

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**Ohio Field Office
Fernald Area Office**

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JUL 16 2001

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0730-01

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

CONTRACT NUMBER DE-AC24-01OH20115, PIT 2 TEST PROCEDURE

Per our conversation on Tuesday, July 3, 2001, we are providing the test procedure detailing the steps we will take to evaluate the background levels of Pit 2 waste material at the Waste Pits Remedial Action Project (WPRAP). This test will identify the proper alarm set point that will allow for proper monitoring of the High-Efficiency Particulate Air (HEPA) filters without the complication of nuisance alarms. It is our intent to run this test the next time adequate Pit 2 material is available.

If you have any questions or require further information, please contact John Hall at (513) 648-3118.

Sincerely,

FEMP:Hall

Johnny W. Reising
Fernald Remedial Action
Project Manager

Enclosure: As Stated

Mr. James A. Saric
Mr. Tom Schneider

-2-

DOE-0730-01

cc w/enclosure:

K. Chaney, EM-31/CLOV
N. Hallein, EM-31/CLOV
T. Schneider, OEPA-Dayton (three copies of enclosure)
G. Jablonowski, USEPA-V, SRF-5J
F. Bell, ATSDR
M. Schupe, HSI GeoTrans
R. Vandegrift, ODH
F. Hodge, Tetra-Tech
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosure:

A. Tanner, OH/FEMP
D. Carr, Fluor Fernald, Inc./MS2
T. Hagen, Fluor Fernald, Inc./MS65-2
T. Walsh, Fluor Fernald, Inc./MS46
ECDC, Fluor Fernald, Inc./MS52-7

DRAFT

INTERIM STACK MONITORING ADDENDUM

Effective on approval for a specified period only

Background: Waste material from the pits is processed through a rotary kiln dryer to evaporate excess water in preparation for disposal offsite. The dryer stack is monitored for gross beta countrate on an isokinetically sampled filter, and is also monitored for total radon with an ionization chamber (high level) and an with alpha monitor (low level). The ionization chamber provides instantaneous readings; the alpha monitor provides radon readings hourly, and discriminates between Rn-220 and Rn-222. Rn-222 concentrations relates directly to the Ra-226 concentration in the waste feed.

The current alarm setpoint for the beta countrate monitor is 400 cpm, 1 minute rolling average. This value was determined during a two- month test period following commencement of operations. The alarm setpoint for the high level radon monitor is 13,000 microCi/ hr release (15 minute rolling average) and is a function of stack flow and concentration. This alarm value was determined from a mathematical evaluation based on pit sampling data.

Situation: Effective June 20, 2001, Pit 2 material feed through the dryers commenced. Pit 2 has high Ra-226 concentrations that have led to elevated Rn-222 levels in the stack effluent. The Rn-222 progeny have been collected on the isokinetic filter, and caused elevated beta countrate readings. Alarm procedures are documented in OPS 50-225 Rev 4. Radon releases in the stack effluent did not exceed 13,000 microCi/hr.

Proposal: Establish a new beta countrate alarm level for processing Pit 2 material. Reset the beta alarm setpoint to 400 cpm when Pit 1 and/or 3 materials are processed.

Procedure:**Operations**

Process Pit 2 materials through both dryers for 48 hours. A blend with Pits 1 and/or 3 may be used if necessary.

Control Room Operators

Monitor HEPA pressure; record hourly in the logbook. If pressures exceed established criteria, switch filter banks. Monitor beta alarm levels. Notify IT Rad Manager at work or home if beta countrate (1 minute rolling average) exceeds 1500 cpm. Continue to monitor radon levels and respond to alarm conditions in accordance with current procedure.

RCTs

Reset the local beta alarm (instantaneous) to 5000 cpm in the CEM Bldg. Do not change or check the beta filter during the test period. If beta countrate exceeds 1500 cpm notify IT Rad Manager at work or home. Return alarm to original setpoint upon completion of the test.

IT Rad Mgr

At the completion of the test, evaluate the radon and beta readings. Consider feed rates and material concentrations. Recommend a beta alarm setpoint for Pit 2 materials.

Fluor Fernald

Review and approve beta alarm proposal and provide to DOE for submittal to EPA.