

M-642

Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for the Maywood Site, New Jersey



**US Army Corps
of Engineers®**

United States Government

Department of Energy

Oak Ridge Operations Office

memorandum

M-642

DATE: September 5, 1997

REPLY TO:
ATTN OF: EW-93:Hartman

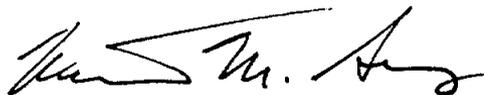
SUBJECT: **EXCAVATION OF SOILS FOR TREATABILITY TESTING AT THE MAYWOOD INTERIM STORAGE SITE - HAZARD CATEGORIZATION**

TO: Albert S. Johnson, EM-421, HQ-CL

Your approval of an "other industrial" activity hazard category designation for this activity is requested. This request is submitted in accordance with DOE-EM-STD-5502-94, *Hazard Baseline Documentation*, paragraph 4.1.

The anticipated inventories of potentially releasable radionuclides are below the levels defined in Table A.1 of DOE-STD-1027-92, and below the reportable quantity (RQ) value listed in Appendix B to Title 40 Code of Federal Regulations (CFR) Part 302.4. Potentially releasable quantities of hazardous chemicals are also below all appropriate threshold values for this activity. The "EM Facility Hazard Categorization for the Excavation of Soils for Treatability Testing at the Maywood Interim Storage Site" has been prepared which defines the safety envelope within which this activity will operate. Attached is Table 3 from the EM Facility Hazard Categorization, which supports the recommendation for "other industrial" activity categorization. Please provide your approval of this recommendation by signing below.

If you require additional information on the process for determining this activity categorization for proposed activities at the Maywood Site, please contact me at (423) 576-1830.



William M. Seay, Leader
FUSRAP Group

Attachment:
Table 3, FUSRAP Facility Classification for Hazard Baseline Documentation for the Excavation of Soils at MISS

cc w/attachment:
R. R. Nelson, EW-90, ORO
T. B. Olberding, SE-333, ORO

APPROVED: 
Albert S. Johnson, FUSRAP Program Manager

5 Sept 1997
Date

**Table 3 FUSRAP Facility Classification for Hazard Baseline Documentation
for the Excavation of Soils at MISS**

Radionuclide	Potentially Releasable Activity			Category 3 Threshold Quantity (Ci)	Fraction of Cat. 3 TQ	40 CFR 302.4 RQ (Ci)	Fraction of RQ
	HMI (Ci)	MAR ¹ (Ci)	MARxR _{HC} (Ci)				
Uranium-238	7.66x10 ⁻²	7.66x10 ⁻²	3.83x10 ⁻¹	4.2	9.11x10 ⁻³	0.1	3.83x10 ⁻³
Thorium-232	1.98x10 ⁻¹	1.98x10 ⁻¹	9.91x10 ⁻²	0.1	9.91x10 ⁻³	0.001	9.91x10 ⁻¹
Radium-226	6.95x10 ⁻²	6.95x10 ⁻²	3.48x10 ⁻²	12	2.90x10 ⁻³	0.1	3.48x10 ⁻³
Sum ² =					1.00x10 ⁻²	Sum ² =	9.99x10 ⁻¹

Chemical ³	HMI (kg)	MAR ¹ (kg)	MARxR _{HC} (kg)	40 CFR 302.4 RQ (kg)	Fraction of RQ	40 CFR 355 Threshold (kg)	29 CFR 1910.119 Threshold (kg)
Arsenic	5.92	5.92	0.030	0.454	6.52x10 ⁻²	NA	NA
Lead	63.1	63.1	0.315	0.454	6.95x10 ⁻¹	NA	NA
Mercury	5.35	5.35	0.027	0.454	5.90x10 ⁻²	NA	NA
Sodium	18.6	18.6	0.930	4.54	2.05x10 ⁻¹	NA	NA
Benzo(a)pyrene	0.367	0.367	0.002	0.454	4.05x10 ⁻³	NA	NA
Benzo(b)fluoranthene	0.248	0.248	0.001	0.454	3.13x10 ⁻³	NA	NA
Di-n-butylphthalate	2.74	2.74	0.014	4.54	3.02x10 ⁻³	NA	NA
Dibenz(a,h)anthracene	0.363	0.363	0.002	0.454	3.99x10 ⁻³	NA	NA
Sum =					1.04		

EM Facility Hazard Categorization: Other Industrial Facility for Soil Excavations Less Than 715 m³

- ¹ The MAR Values are based on 715 m³ of excavated soil.
- ² Facility hazard categorization is based on the sum of the ratios of each major radionuclide present at the site compared to its respective criteria.
- ³ Only Chemicals for which the MAR exceeds 0.1% of the reportable quantity are shown.