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**RE: RESPONSE TO REQUEST FOR A SANITARY LANDFILL SITE
INVESTIGATION AT THE DOE FEED MATERIALS PRODUCTION
CENTER**

12/04/84

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LETTER

DOE-ORO

Ohio EPA

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DOCUMENT FILE NO. 3913

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Ms. Susan LeStrange
Environmental Protection Branch
Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37831

December 4, 1984

Dear Ms. LeStrange:

This letter is in response to your request for a sanitary landfill site investigation at the DOE Feed Materials Production Center, in Fernald, Ohio. The proposed sanitary landfill site has been evaluated by our office.

The proposed landfill will cover an area of less than five acres, and will be located within the north central portion of the 1,050 acre DOE Feed Material Production Center. The DOE property is centered approximately 6,500 feet west of the Great Miami River; 1.1 miles north of the small town of Fernald, more than 2 miles northwest of New Baltimore, Ohio and 2.5 to 3 miles southwest of Ross, Ohio the three closest population centers.

The landfill is for non-hazardous solid waste such as non-burnable refuse, construction rubble, and dewatered lime sludge.

Having considered the subsurface soil data submitted regarding this site, the sites geographic isolation, and the type of waste to be disposed, this office feels the site has the potential to be satisfactorily developed as a sanitary landfill.

The formal site submittal shall include all pertinent information as required by Section 3745-27-06 of the Ohio Administrative Code. Application forms and data sheets have been provided to facilitate the formal submittal. These data sheets should be completed by your design engineer or someone with knowledge and experience in sanitary landfill design and operation.

Specific design criteria to be considered for this site are as follows:

1. Final closure plans for the existing landfill shall be included.

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2. The drainage ditch which runs between the old landfill and the proposed site is being classified as a site drainage feature, not as a natural stream. Thus, it is not necessary to maintain a 200 feet isolation distance from this ditch. However, detailed plans shall show how this drainage channel will be protected from the old landfill and the proposed new site.
3. For maximum attenuation of leachate, the depth of the landfill trenches should be limited to 10 feet or less. This will allow 5-10 feet separation of fine to coarse grain material between the waste material and the water table of the shallower aquifers.
4. The subsurface data, upon which this favorable recommendation is based, needs to be verified by the four proposed test borings in the immediate area of the proposed landfill. These borings should be drilled to a minimum depth of 30 feet and split spoon samples taken at a minimum interval of 5' or a change in lithology. Laboratory analyses of the soil samples should include grain-size distribution to the clay/silt line of the gradation curve, and the determination of atterburg limits of the fine-grained cohesive materials. The soils can then be properly classified according to the Unified Soils Classification System.
5. A ground water quality monitoring program need not be developed in the immediate vicinity of the landfill.

The detail plans, specifications, and other information should be submitted to this office. If it can be determined from your submittal that establishment and operation of this disposal facility will not create a nuisance, cause pollution, or violate other regulations a favorable recommendation will be given to the Director of the Ohio Environmental Protection Agency for formal approval.

Please call me or Mr. Joe Moore of our Solid Waste Group if you have questions or need additional assistance.

Sincerely yours,

David C. Strayer /dkp

David C. Strayer
Supervisor, Solid & Hazardous
Waste Management Unit

DCS/dkp/MJM

cc: Hamilton County Health Department, Attention: Dr. Irvin Bollinger
cc: Dan Redman, DSHWM, CO
cc: Joe Moore, SHUMW, SWDO