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REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) - USE OF BLAST FURNACE SLAG IN OPERABLE UNITS 1 AND 4 (OU4)

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LETTER

Department of Energy
Fernald Environmental Management Project
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JUL 29 1992

DOE-2245-92

Mr. James A. Saric, Remedial Project Director
U.S. Environmental Protection Agency
Region V - 5HR-12
230 South Dearborn Street
Chicago, Illinois 60604

Mr. Graham E. Mitchell, DOE Coordinator
Ohio Environmental Protection Agency
40 South Main Street
Dayton, Ohio 45402

Dear Mr. Saric and Mr. Mitchell:

REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) - USE OF BLAST FURNACE SLAG IN OPERABLE UNITS 1 AND 4 FORMULATIONS

This letter is to notify you of a modification to the Operable Units 1 and 4 Treatability Study Work Plan. In order to improve the quality of cement-based stabilized waste forms, blast furnace slag is being tested in stabilized waste formulations as part of the Operable Units 1 and 4 treatability studies. This letter serves as information only, as the use of this material was not originally specified in the approved work plans.

Although the Treatability Study Work Plans for Operable Units 1 and 4 did not specify blast furnace slag as a constituent of the cement formulations, its use is permitted "if the preliminary phase is unsuccessful in producing adequate waste forms, or it will refine the mixtures of those successful experiments run in the preliminary phase" (Operable Unit 4 Treatability Study Work Plan). Blast furnace slag, which can be substituted in total, or in part, for flyash, provides flexibility to cement-based waste stabilization mixtures by offering the following enhanced properties:

- High Strength Potential
- High Resistance to Chlorides
- High Resistance to Alkali-Silica Reactions
- Resistance to Sulfate & Seawater Attack
- Low Permeability
- Slower Rate of Heat Release
- Improved Workability

Initial tests indicate the use of the blast furnace slag has eliminated problems such as chromium leaching.

If you or your staff have any questions, please contact Rod Warner at FTS/Commercial 513-738-8916.

Sincerely,

Johnny Reising

for Jack R. Craig
Fernald Remedial Action
Project Manager

FN:Warner

cc:

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