

N62604.AR.000159
NCBC GULFPORT
5090.3a

LETTER REGARDING REQUEST FOR PERMISSION TO CONDUCT FIELD
DEMONSTRATIONS FOR IN SITU CHEMICAL DESTRUCTION OF DIOXIN NCBC
GULFPORT MS
7/6/1984
U S AIR FORCE



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE ENGINEERING AND SERVICES CENTER
TYNDALL AIR FORCE BASE, FL 32403

6 JUL 1984

REPLY TO
ATTN OF: RDVW

SUBJECT: Request Permission to Conduct Field Demonstration at NCBC

TO: Mr. Jim Cluff
Naval Construction Battalion Center
Public Works Dept., Code 470
Gulfport, MS 39501

1. HQ AFESC/RDVW requests permission to conduct a project to field demonstrate in situ chemical destruction of dioxin in soil at NCBC. This is a joint project between AFESC and U.S. Environmental Protection Agency - Industrial Environmental Research Laboratory. The actual work will be conducted by a contractor.

2. Planned Activities. This field demonstration will consist of applying the reagent K-PEG to the dioxin contaminated soil. A concurrent demonstration of this reagent is planned for the EPA site at Times Beach, MO.

a. The K-PEG reagent consists of potassium hydroxide (KOH) and polyethylene-glycol (PEG). K-PEG reacts with dioxin by replacing one or more chlorine atoms from the dioxin molecule with a glycol chain. The product of this reaction is less toxic and more biodegradable than the original dioxin. Laboratory and toxicology studies will be completed by EPA before any reagent is applied to the soil at NCBC. EPA will prepare an Environmental Impact Statement if needed. Environmental permitting requirements will be closely coordinated with NCBC.

b. This small scale field demonstration will take place on three square plots, each 2-meters on a side. The total land area to be dedicated to this project will be approximately 130 square feet. These plots will be clearly marked.

c. On site activity for this demonstration will be minimal. Soil samples will be collected before, during, and after application of the reagent. Since this is a small scale demonstration, the use of heavy equipment is not anticipated. The reagent will be applied to the soil up to three times. The plots will be covered with black plastic sheets to protect the soil from rain and to keep in heat.

3. Schedule. Sampling for site characterization and laboratory studies will begin in September 1984. The actual field application of the reagent is planned for summer 1985. All field activity for this project should be complete by October 1985.

4. Required Support. Request that NCBC allow the contractor easy access to the site. Also, request the contractor be given access to NCBC water supply.

5. The AFESC project officer for this project is 1st Lt Edward Heyse, AUTOVON970-4628. Please direct any questions regarding this project, and the reply to this request, to Lt Heyse.

A handwritten signature in cursive script, appearing to read "Robert E. Brandon".

ROBERT E. BRANDON
Dep Dir, Engineering and Services
Laboratory

cc: U.S. EPA (IERL) (Mr. Rogers)