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TITLE: Superfund Innovative Technology Evaluation (SITE)
Program Requirements

APPROVAL DATE: 3/22/88

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ORIGINATING OFFICE: Office of Solid Waste

☒ **FINAL**

☐ **DRAFT**

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| [] | A- Pending OMB approval |
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| [] | C- For review &/or comment |
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headquarters |

REFERENCE (other documents):

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2. Originator Information			
Name of Contact Person John Kingscott	Mail Code WH562 A	Office OSWER/OPMT/CERR	Telephone Code 382- 4362
3. Title Superfund Innovative Technology Evaluation (SITE) Program Requirements			
4. Summary of Directive (include brief statement of purpose) The SITE program was established under SARA to evaluate technologies for the treatment of hazardous waste by conducting demonstration projects. This document describes the regulatory requirements and procedures -- permitting, ARARs, community relations, and cost recovery -- for implementing technology demonstration projects in the SITE program.			
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8. Document to be distributed to States by Headquarters?
 ☐ Yes
 ☒ No

This Request Meets OSWER Directives System Format Standards.	
9. Signature of Lead Office Directives Coordinator Dick Hyde, OERR	Date 3/22/88
10. Name and Title of Approving Official Peter Hubbard, OSWER Directives Officer	Date 3/22/88

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 22 1988

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE
OSWER Directive No. 9380.2-06

MEMORANDUM

SUBJECT: Superfund Innovative Technology Evaluation (SITE)
Program Requirements

FROM: *J. Winston Porter*
J. Winston Porter
Assistant Administrator

TO: Addressees

PURPOSE

The purpose of this memorandum is to describe the regulatory requirements and procedures for implementing treatment technology demonstration projects in the SITE program.

BACKGROUND

The SITE program was established under section 209(b) of the Superfund Amendments and Reauthorization Act (SARA) (section 311(b) of CERCLA, as amended) to evaluate technologies for the treatment of hazardous waste. The purpose of the program is to expedite the development and commercialization of technologies to fulfill the cleanup requirements under section 121 of SARA. This is primarily accomplished by conducting technology demonstrations. These demonstrations provide performance, cost and reliability data so that potential future users have sufficient information to make sound judgments as to the applicability of the technology for a specific site or to compare it to other alternatives. Demonstrations will take place under conditions that either duplicate or closely simulate actual wastes and conditions found at Superfund sites. The demonstrations will simulate a commercial scale application and will be of sufficient size to generate data applicable to full-scale operation. The results of these demonstrations will be broadly applicable to all hazardous waste cleanup efforts.

The program is focused on conducting technology evaluations as partnerships between EPA and developers. After acceptance into the program, the technology developers are responsible for providing and operating their equipment, while the Agency is responsible for monitoring and evaluating performance. New technologies are accepted into the program based on responses to a Request for Proposal (RFP), which is distributed annually.

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Once a developer is accepted, a Superfund waste is chosen for treatment demonstration based on site nominations provided by the Regions. At the present time, there are 20 developers participating in the program with projects at various stages of completion. Several field demonstrations are taking place for the first group of technologies; Regions are considering Superfund site nominations for the second group; and a third RFP will be distributed in January.

In the course of implementing these projects, several issues have arisen concerning the relationship to Superfund and RCRA requirements. Specifically, issues concerning permitting, ARARs (applicable or relevant and appropriate requirements), community relations, and cost recovery are addressed below.

DISCUSSION

Section 311 of CERCLA authorizes EPA to carry out the SITE program and sets forth detailed standards governing the program. Projects taken under the SITE program are not remedial actions and are not governed by the provisions of section 121 of CERCLA. Rather, section 311(b)(4) requires that SITE projects be carried out:

under such terms and conditions as the Administrator shall require to assure the protection of human health and the environment and to assure adequate control by the Administrator of the research, testing, evaluation, development, and demonstration activities at the site.

In addition, section 311(b)(7) provides that in selecting technologies to be demonstrated, EPA "shall, consistent with the protection of human health and the environment, consider..." several enumerated criteria.

EPA believes that section 311 gives the Agency authority to determine what is necessary to protect human health and the environment, and that SITE program activities are not subject to environmental permitting requirements under other Federal and State laws. However, in order to assure protection of human health and the environment, SITE demonstration projects taking place at Superfund sites should comply with the substantive requirements of all applicable or relevant and appropriate State and Federal environmental laws, except where a waiver similar to one of those provided in section 121(d)(4) is appropriate. For the same reason, off-site demonstration projects should be limited to facilities having all appropriate State and Federal permits.

Occasionally, it will be necessary to conduct laboratory bench-scale treatability tests prior to the actual technology demonstration. Bench-scale tests are primarily required to assess the effectiveness of and establish operating parameters for biological and solidification technologies. In order to assure protection of human health and the environment, EPA will prefer to use permitted facilities to conduct bench-scale treatability tests. However, if this is not practicable, the tests may be performed at non-permitted off-site facilities. It is anticipated that unpermitted facilities would only be used in a limited number of circumstances. Any

use of off-site facilities should be restricted to wastes in limited quantities necessary to perform the tests (e.g., 50 kg). Laboratories conducting treatability tests should be required to submit a test plan and to have a health and safety plan. No public comment period is necessary for the small-scale laboratory testing. Unused samples, treated residues, and by-products should be returned to the original site or disposed of at permitted facilities. Manifests should be used for shipment of waste to Subtitle C facilities. However, shipments from a Superfund site to a laboratory for study and then back to the Superfund site need not be manifested. Materials should be transported in accordance with relevant DOT or postal service regulations and all shipping receipts should be kept in the project files. In addition, sample handling requirements in 40 CFR 261.4(d) should be met.

With respect to community relations, CERCLA section 311(b)(5)(e) requires that the Agency give notice and opportunity for public comment on SITE demonstrations. The primary purpose of this provision is to solicit comments on the proposed matching of technologies with sites for the purpose of conducting field demonstrations. The SITE program will use the community relations procedures established for CERCLA remedial actions when carrying out demonstrations at Superfund sites. Off-site demonstrations should comply with relevant permit requirements, and the associated public comment process will satisfy the SITE program requirements.

Finally, since the SITE demonstrations are not part of the Superfund response action, the costs are not recoverable from responsible parties.

Attachment

Addressees:

Director, Office of Emergency & Remedial Response, Region II
Director, Hazardous Waste Management Division, Regions III & VI
Director, Air and Waste Management Division, Region II
Director, Waste Management Division, Regions I, IV, V, VII & VIII
Director, Toxics and Waste Management Division, Region IX
Director, Hazardous Waste Division, Region X
Director, Environmental Services Division, Region I-X

cc: Director, ORD/OEETD
Director, ORD/HWERL
Director, OERR
Regional SITE Coordinators