

PROMPT INTERIM ANALYSIS OF ALTERNATIVES WITH PROPOSED RESPONSE

Mahoning Street Milton Site
Turbot Township, Northumberland County
DEP Northcentral Region

ANALYSIS OF ALTERNATIVES AND PROPOSED RESPONSE

The purpose of this Analysis of Alternatives and Proposed Response document is to outline the decision-making process involved in the selection of the proposed prompt interim response and to provide a description of the proposed response. This document will be included in the Administrative Record which will be compiled for this response pursuant to Section 506 of the Pennsylvania Hazardous Sites Cleanup Act (HSCA), Act of October 18, 1988, P.L. 756 No. 108, 35 P.S. Section 6020.506.

The prompt interim response under HSCA allows for immediate mitigation to be provided prior to a final response action being determined. This prompt interim response is intended to address objects contaminated by radioactive materials currently stored in a residential occupied building. This proposed response will constitute PA DEP's Final Response.

I. SITE INFORMATION

A. Site Location and Description

The Site is a private, residential property currently occupied and located at 1010 Mahoning Street in Milton (Turbot Township), PA.

The Site consists of a residential building, yard, and detached garage.

The Site is located in a residential neighborhood within 1000 feet of a school.

The Site contained radioactive materials used by a private resident, who is deceased, and radioactive impacts to the structure and appurtenances of the house.

In addition to moveable items, initial scans of the interior of the home resulted in identification of impacts to some permanent structural features in the home such as floorboards and countertops. There was no indication of impacts in the yard or detached garage during these initial scans.

B. Site History

In April 2025 the radiation detector at the Lycoming County municipal landfill was triggered by a load of household waste causing landfill personnel to sort the load to isolate and remove the source. This occurred during three consecutive weeks of collection from the same collection route leading to the identification of the home from where the bags in question were collected and the Site where this response is being conducted.

The Site is currently occupied by a resident who was clearing out items belonging to a recently deceased relative. Objects placed in the household trash triggered the radiation detector alarm at the landfill. Initial scans by DEP's Bureau of Radiation Protection resulted in the identification of numerous items containing radioactive materials. Further scanning also indicated that some permanent structures within the home are impacted such as floorboards.

The full extent of contaminated building materials is not yet known and is one objective of the Prompt-Interim Response. Further identification, isolation, removal and disposal of discrete objects containing radioactive materials is also in the scope of work.

The presence of radioactive materials poses a hazard to the occupant of the home. Actions to scan the home and remove any objects or features containing these materials need to be completed as quickly as possible for the safety and wellbeing of that resident as well as any visitors to the home. The potential for transfer of radioactive material on clothing or objects removed from the home is present as well. There has been no hazards identified for the community at large.

While the volume of radioactive materials present in the home has not yet been fully quantified, elements identified during initial site assessment include material impacted by americium 241, radium 226, thorium 232, and uranium 238.

II. RESPONSE CATEGORY

Due to the presence of an unknown volume of multiple radioactive materials in this occupied residential building, this is a Prompt-Interim Response.

The Prompt-Interim Response is anticipated to cost less than \$2 million and to be fully implemented in less than 1 year.

The selected remedy was initiated prior to the development of the Administrative Record due to ongoing probable exposure of the resident living in the home to the radioactive materials.

III. CLEANUP STANDARDS

Section 504 of HSCA requires that final remedial responses must meet all Applicable or Relevant and Appropriate, Requirements (ARARs), and be cost effective. The primary ARAR, for this remedial response is the Radiation Protection Act of July 10, 1984, P.L. 688, 35 P.S. §§7110.101 *et. seq.* The proposed response will constitute the final response and will eliminate human health risks posed by the potential for exposure to radioactive contamination.

IV. APPLICABLE, OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

The following standards, requirements, criteria or limitations are legally applicable, or relevant and appropriate under the circumstances presented by the site.

Statutory Authority governing transportation and disposal of residual and hazardous waste is granted under the Solid Waste Management Act, Act of July 7, 1980, P.L. 380, No. 97, as amended, 35 P.S. § 6018.101 *et seq.* ("Solid Waste Act"). Applicable regulations under the Solid Waste Management Act are as follows:

1. Chapter 287 (25 Pa. Code §§287.1 – 287.666) This chapter specifies general procedures, definitions and rules for the generation, management and handling of residual waste.
2. Chapter 299 (25 Pa. Code §§299.101 – 299.232) This chapter provides standards for the storage of residual waste (Subchapter A), and standards for collecting and transporting of residual waste (Subchapter B).

Regulations governing the use, possession, exposure limits, safety requirements, transportation, and disposal of radioactive materials are established under the Radiation Protection Act of July 10, 1984,

P.L. 688, 35 P.S. §§7110.101 et. seq. The applicable regulations under the Radiation Protection Act are as follows:

1. Chapter 215 (25 Pa. Code §§215.1 et. seq.) - This chapter sets forth general provisions for all persons who use, manufacture, produce, transport, transfer, receive, acquire, possess, own or dispose of any radiation source.
2. Chapter 217 (25 Pa. Code §§217.1 et. seq.) - This chapter sets forth provisions for application and licensing requirements for persons who manufacture, produce, transport, transfer, receive, own, acquire, possess or dispose of any radioactive material.
3. Chapter 219 (25 Pa. Code §§219.1 et. seq.) - This chapter sets forth provisions designed to control the receipt, possession, use, transfer and disposal of radioactive material. It specifies individual exposure limits, emission standards, and safety requirements.
4. Chapter 230 (25 Pa. Code §§230.1 et. seq.) - This chapter establishes requirements for packaging, preparation for shipment and transportation of radioactive material. This chapter applies to a person who transports radioactive material or delivers radioactive material to a carrier for transport.

Additional Requirements:

1. Radioactive material may not be incinerated without prior approval from the Bureau of Radiation Protection (25 Pa Code 219.5 incorporation by reference of 10 CFR 20.2004).
2. The Nuclear Regulatory Commission, Governor and DEP must be notified if high level wastes are involved (25 Pa Code 230.47).

V. ANALYSIS OF ALTERNATIVES

Alternative 1. No Action

This alternative would be to conduct no remedial or mitigation action at the impacted homes.

Compliance with ARARs

This alternative would not be in compliance with ARARs and would provide no protection to the residents.

Cost Effectiveness

This alternative would incur no cost to the Department.

Alternative 2. Identify, remove and dispose of items in the home contaminated with radioactive materials and restore any structural elements needed to maintain safe occupancy.

Compliance with ARARs

This alternative would be in compliance with ARARs as contaminated objects causing exposure to radioactive materials will be removed from the home and disposed in a permitted waste facility.

Cost Effectiveness

While this alternative incurs costs to the Department, the response ensures permanent removal of contaminated objects from this private residence.

PROPOSED RESPONSE

Alternative 2 is proposed as the response as it eliminates the risk of exposure to the radioactive materials present in the home to current or future occupants or trespassers.

FINDINGS AND AUTHORITY TO ACT

Section 501(a) of HSCA grants the Department the authority to conduct response actions when there has been a release of a hazardous substance or a release of a contaminant which presents substantial danger to public health or safety or the environment.