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Chapter 20

HAZARDOUS MATERIALS/WASTE

20.1 HAZARDOUS MATERIALS/WASTE ASSESSMENT PROCEDURES

Identify properties with recognized environmental conditions (REC) early in the project development process. Early identification of the environmental conditions allows the NDOT to minimize or avoid the problem site(s). If avoidance is not possible, further investigation and potential remediation of the environmental conditions can be addressed in a logical, timely manner. Actions will be designed and implemented to:

- protect the health and safety of the general public, NDOT personnel and contractors;
- protect the environment; and
- minimize the NDOT's legal and financial liabilities related to the hazardous materials/waste.

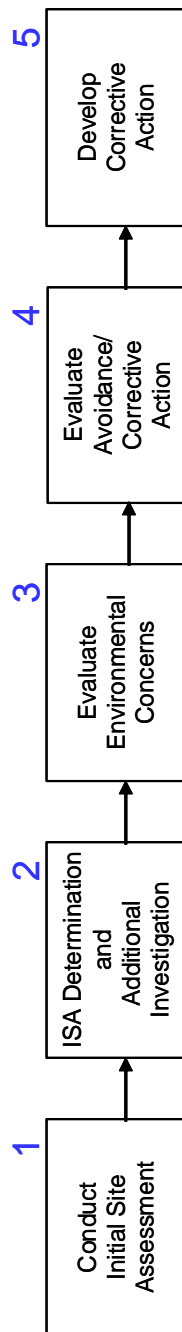


Figure 20.1–A — HAZARDOUS MATERIALS/WASTE ASSESSMENT

PROJECT ACTIVITY

Activity Title: Conduct Initial Site Assessment

Activity No.: 1

Activity Description:

The Hazardous Materials/Waste Engineers will work with the Project Management Team to conduct an initial site assessment (ISA) for determining the environmental conditions with a potential to impact the project. The ISA will be modeled after the American Society for Testing and Materials (ASTM) standards and regulations. At a minimum, the following tasks will be performed:

- determine the extent of property needed and the area of potential effect (e.g., using alignment/grade information, right-of-way map, aerial photographs);
- conduct a site visit to look for indicators of the presence of environmental conditions (e.g., odors, surface staining, vegetation damage, oil sheen, old gas stations, auto shops, dry cleaners, other signs of industrial or commercial activities, current or historical, that indicate the potential to impact the project);
- conduct environmental database review ; and
- interview local officials, property owners and/or occupants to obtain further information for specific properties.

If entry upon other than highway rights-of-way is necessary for conducting the ISA, permission or special use permits will be obtained prior to entering upon the property.

Regulations and Guidance

ASTM Standard E 1527 or E 1528

40 CFR Part 312 "Standards and Practices for All Appropriate Inquiries"

Hazardous Waste Sites Affecting Highway Project Development, FHWA Interim Guidance,
August 1988

Supplemental Hazardous Waste Guidance, FHWA, January 1997

Guidance for Performing Preliminary Assessments Under CERCLA, USEPA .September 1991

PROJECT ACTIVITY

Activity Title: ISA Determination and Additional Investigation

Activity No.: 2

Activity Description:

If the ISA determined that no known environmental concerns are located in the project area that would warrant additional investigation, this finding, along with supporting materials, will be included in the project file and will be reflected in the environmental documentation for the project.

If the ISA determines that further investigations are warranted, the Hazardous Materials/Waste Engineers will document this finding in the project file, along with supporting materials, and will proceed with the appropriate investigations.

The Hazardous Materials/Waste Engineers will provide information regarding the ISA results to the Nevada Division of Environmental Protection (NDEP).

Regulations and Guidance

40 CFR Part 312 “Standards and Practices for All Appropriate Inquiries”
Hazardous Waste Sites Affecting Highway Project Development, FHWA Interim Guidance,
August 1988
Supplemental Hazardous Waste Guidance, FHWA, January 1997
FHWA Environmental Guidebook
[FHWA Technical Advisory T6640.8A](#)

PROJECT ACTIVITY

Activity Title: Evaluate Environmental Concerns

Activity No.: 3

Activity Description:

The Hazardous Materials/Waste Engineers will initiate actions to accomplish additional investigations. (If entry upon other than highway rights-of-way is necessary for conducting the site investigations, permission or special use permits will be obtained prior to entering the property.) The tasks for further investigation may include the following:

- determining property ownership (historic and current) and potentially responsible parties (e.g., searching NDEP records, working with NDOT Right-of-Way Division on deed or title searches);
- conducting interviews with past and present owners, operators and occupants;
- reviewing historical sources of information (e.g., aerial photographs, fire insurance maps, building department records, chain of title documents, land use records);
- conducting searches for recorded environmental cleanup liens;
- reviewing Federal, State, Tribal and local government records (e.g., CERCLIS records, public health records, Emergency Response Notification System records);
- conducting further visual inspections of the properties; and
- performing site sampling/testing (e.g., materials/wastes, soil, surface water, groundwater) to reveal the nature and extent of contamination and provide information for a rough design and/or cost estimate for corrective action.

Prior to conducting site sampling/testing, the Hazardous Materials/Waste Engineers will prepare a sampling/testing plan that will include a quality assurance/quality control component to ensure proper and adequate handling, sampling, chain-of-custody of samples and testing protocols. A "Site Safety and Health Plan" (SSHP) will also be prepared to address worker and public safety. The Hazardous Materials/Waste Engineers will provide the sampling plan to NDEP for comment and concurrence.

Right-of-way acquisition may require demolishing structures. Prior to activities that disturb building materials, a survey for asbestos containing materials (ACM) and subsequent removal of ACM is accomplished.

Regulations and Guidance

40 CFR Part 312 "Standards and Practices for All Appropriate Inquiries"
Hazardous Waste Sites Affecting Highway Project Development. FHWA Interim Guidance,
August 1988
Supplemental Hazardous Waste Guidance, FHWA, January 1997
Guidance for Performing Site Inspections Under CERCLA, USEPA, September 1992

PROJECT ACTIVITY

Activity Title: Evaluate Avoidance/Corrective Action

Activity No.: 4

Activity Description:

The Hazardous Materials/Waste Engineers will work with the project manager and/or engineer to determine which identified properties should be avoided and those for which avoidance options (e.g., moving the road) are practical.

For properties that will impact the project, the Hazardous Materials/Waste Engineers will investigate options for addressing the environmental concerns in a manner that will satisfy Federal, State and local laws and regulations. These options may include:

- have the owner (or other potentially responsible party) satisfy the regulatory requirements prior to acquisition;
- evaluate risk-based alternatives and corresponding corrective action; and/or
- develop a corrective action plan, including costs, to satisfy the regulatory requirements (the cost of which would be factored into the determination of the purchase price for the affected property).

Regulations and Guidance

Hazardous Waste Sites Affecting Highway Project Development, FHWA Interim Guidance, August 1988

Supplemental Hazardous Waste Guidance, FHWA, January 1997

FHWA Environmental Guidebook

[FHWA Technical Advisory T6640.8A](#)

PROJECT ACTIVITY

Activity Title: Develop Corrective Action

Activity No.: 5

Activity Description:

The Hazardous Materials/Waste Engineers will develop a corrective action plan that will evaluate alternatives for addressing the environmental concerns and will recommend an alternative solution. Alternatives for dealing with the environmental concerns may include pre-construction action (e.g., tank pulls, waste disposal) or actions to be implemented during construction (e.g., excess excavation). The plan will include provisions to address the following:

- qualification of parties;
- implementation of quality assurance/quality control procedures, documentation and reporting requirements; and
- recommendations to be included in the Special Provisions, and special considerations to be implemented during construction.

The Hazardous Materials/Waste Engineers will submit the proposed corrective action plan to NDEP for comment and concurrence.

See [Section 2.3 “Preparing An Administrative Record”](#).

Regulations and Guidance

29 CFR Part 1910 “Occupational Safety and Health Standards”
Hazardous Waste Sites Affecting Highway Project Development, FHWA Interim Guidance,
August 1988
Supplemental Hazardous Waste Guidance, FHWA, January 1997
FHWA Environmental Guidebook
[FHWA Technical Advisory T6640.8A](#)

20.2 DISTRICT SUPPORT

The Hazardous Materials/Waste Engineers provide support to the NDOT District Offices in the following ways:

1. Maintenance Facility and Laboratory Inspections. Inspection of large maintenance facilities (i.e., Reno, Las Vegas) occurs approximately every 18 months, while smaller maintenance facilities are inspected every three years. The purpose of these periodic inspections is to help the facilities:
 - identify compliance with Best Management Practices (BMP);
 - ensure hazardous material/waste is managed and disposed of properly; and
 - follow-up, as necessary, with NDOT offices to accomplish steps necessary to address identified problems (e.g. Equipment Division for Underground Storage Tank issues/removals).
2. Response to Regulatory Agency Inspections. Maintenance facilities are inspected by regulatory agencies (e.g., NDEP, State Fire Marshal, local government). The Hazardous Materials/Waste Engineers will assist with the interpretation of and response to the results of these inspections.
3. Assisting with the Underground Injection Control (UIC) Program. The Hazardous Materials/Waste Engineers are responsible for applying to the NDEP for the UIC permits for NDOT facilities and for submitting a yearly report. The Hazardous Materials/Waste Engineers conduct annual reviews of a sample of NDOT UIC permit holders to ensure compliance with permit and reporting requirements.
4. Facilities Asbestos Management. The Hazardous Materials/Waste Engineers assist the District Offices and the Architectural Division in asbestos identification and disposition and compliance with OSHA worker safety standards related to asbestos.
5. Emergency Response. In the event of a hazardous material/waste emergency (e.g., reportable quantity spill), the following regulatory agencies will be notified by the District Office:
 - Nevada Highway Patrol (NHP), and
 - Nevada Division of Environmental Protection (NDEP).

The Hazardous Materials/Waste Engineers assist the Districts in determining the type and quantity of the material/waste release/spill and ensure that the release/spill is reported to the NDEP. The Hazardous Materials/Waste Engineers conduct follow-up monitoring of the release/spill clean-up to verify that it was completed.

6. Contamination Discovered During Construction. When unknown materials are exposed during construction, the Hazardous Materials/Waste Engineers assist in cordoning off the area to protect the public and in determining the response and ultimate disposition of the materials.

