

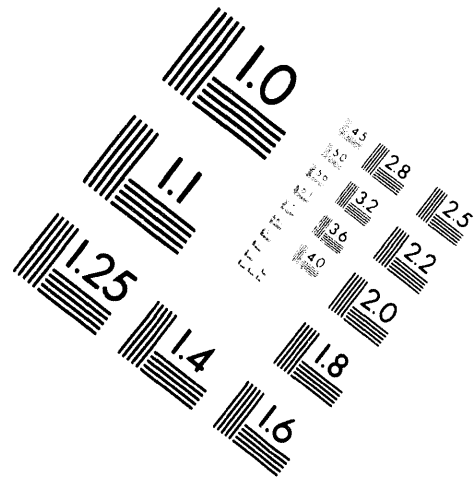
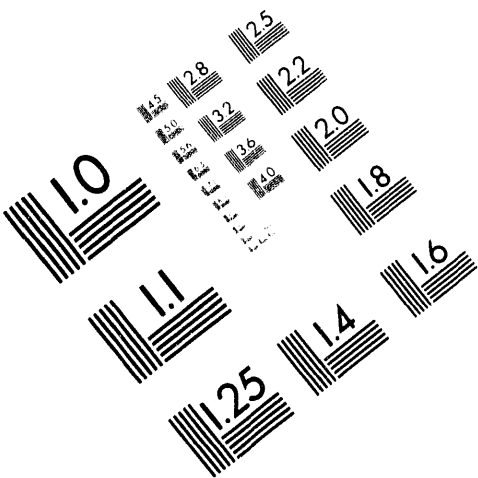


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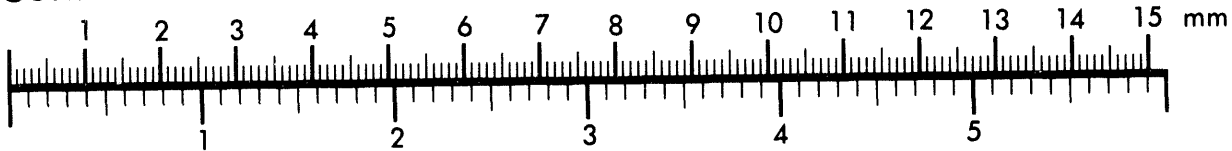
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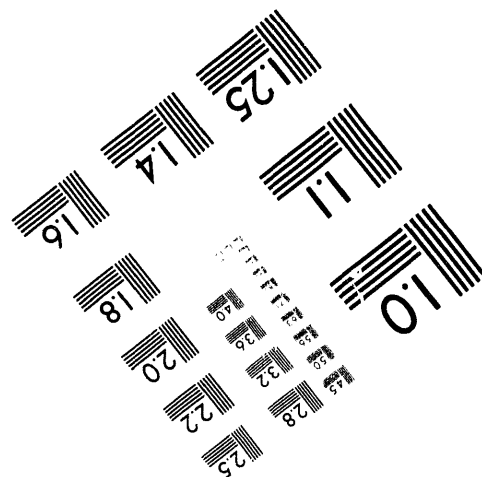
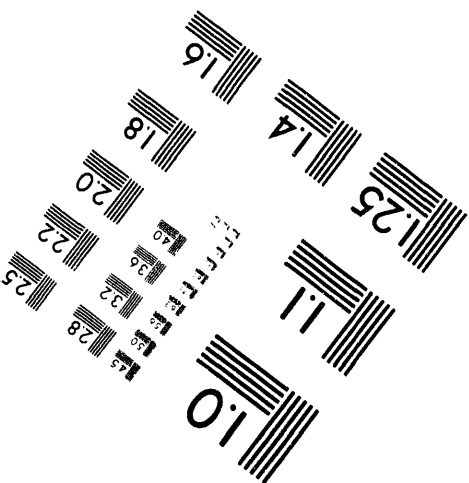
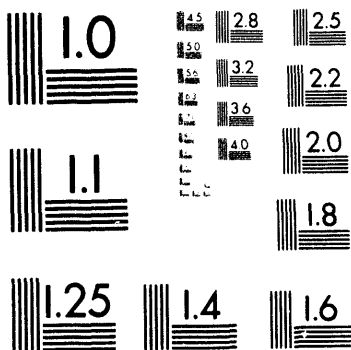
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Module 13--Bulk Packaging Shipments by Highway

Prepared for the U.S. Department of Energy
Office of Environmental Restoration and
Waste Management



Westinghouse
Hanford Company Richland, Washington

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Module 13--Bulk Packaging Shipments by Highway

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MODULE 13 - BULK PACKAGING SHIPMENTS BY HIGHWAY
TRANSPORTATION MANAGEMENT WORKSHOP

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SUMMARY

The Hazardous Materials Modular Training Program provides participating United States Department of Energy (DOE) sites with a basic, yet comprehensive, hazardous materials transportation training program for use onsite. This program may be used to assist individual program entities to satisfy the general awareness, safety training, and function specific training requirements addressed in Code of Federal Regulation (CFR), Title 49, Part 172, Subpart H - "Training".

Module 13 - Bulk Packaging Shipments by Highway is a supplement to the Basic Hazardous Materials Workshop. Module 13 - Bulk Packaging Shipments by Highway focuses on bulk shipments of hazardous materials by highway mode, which have additional or unique requirements beyond those addressed in the ten module core program. Attendance in this course of instruction should be limited to those individuals with work experience in transporting hazardous materials utilizing bulk packagings and who have completed the Basic Hazardous Materials Workshop or an equivalent.

Participants will become familiar with the rules and regulations governing the transportation by highway of hazardous materials in bulk packagings and will demonstrate the application of these requirements through work projects and examination.

I. INTRODUCTION

The Transportation Management Division, Office of Environmental Restoration and Waste Management (TMD/EM-261), United States Department of Energy (DOE), Training Program Manager chartered the development of the Hazardous Materials Modular Training Program. This training program provides the United States Department of Energy (DOE) transportation community with a fundamental hazardous materials transportation training program. Proper implementation of the training materials will assist Department of Energy (DOE) elements in fulfilling the general awareness, safety training, and function specific training requirements addressed in Code of Federal Regulation (CFR), Title 49, Part 172, Subpart H - "Training".

Module 13 - Bulk Packaging Shipments by Highway is an extension of the core hazardous material training program. Module 13 - Bulk Packaging Shipments by Highway integrates the various regulations on bulk highway shipments of hazardous materials, which entails attention to additional or unique requirements beyond those addressed in the basic workshop.

Attendance in this class must be restricted to those with work experience in transporting or arranging for transportation of hazardous materials utilizing bulk packagings. Those individuals should have completed the Basic Hazardous Materials Workshop or an equivalent.

Participants will become familiar with the rules and regulations governing the transportation by highway of hazardous materials in bulk packagings. Established training protocols require that students demonstrate the application of these requirements through work projects and written examination.

II. BACKGROUND

The Transportation Management Division, Office of Environmental Restoration and Waste Management (TMD/EM-261), United States Department of Energy (DOE) Training Program assists in fulfilling Department of Energy (DOE) policy to ensure that traffic and transportation management be accomplished in a safe, secure, and cost-effective manner and in compliance with Federal, State, local, and international transportation regulations.

The Transportation Management Division, Office of Environmental Restoration and Waste Management (TMD/EM-261), United States Department of Energy (DOE) sponsors initial and recurrent training to ensure a uniform understanding and application of Federal regulations governing packaging and transportation safety.

The Transportation Management Division, Office of Environmental Restoration and Waste Management (TMD/EM-261), United States Department of Energy (DOE), Training Program Manager contracted with Westinghouse Hanford Company to design, develop, and deliver a broad range of transportation training courses provided for the Department of Energy (DOE) and Department of Energy (DOE) contractor employees. Many of these courses have been endorsed by such entities as the United States Department of Transportation (DOT) and the National Safety Council (NSC).

III. DESCRIPTION

Module 13 - Bulk Packaging Shipments by Highway has been developed to model the format established by the Hazardous Materials Modular Training Program. Module 13 is itself divided into modules.

Each module is directly linked to a main, General Module. The modular design enables the instructor to tailor the presentation to each particular Department of Energy (DOE) site's activities and needs.

A. General Module

The General Module is the central element of this training program. The objectives addressed by the General Module include:

- the definitions of bulk packaging for solids, liquids, and gases;
- the general packaging requirements for bulk packages;
- the process for selecting an authorized bulk package;
- the safety concerns likely to be encountered during the loading and unloading of hazardous materials to and from bulk packagings;
- the appropriate hazard communication requirements for bulk packagings used in the transportation of hazardous materials by highway;
- the hazards associated with marine pollutants and elevated temperature materials as applied to bulk shipments by highway.

Contained within the General Module are refresher-level references to material contained in the basic ten module core program.

Successful completion of an examination covering the General Module material is required before proceeding to the subsequent modules.

B. Cylinder Module

The prerequisite to the Cylinder Module is the successful completion of the General Module. The objectives addressed by the Cylinder Module include:

- identification of the cylinders authorized for bulk shipments;
- the Department of Transportation (DOT) specification and identification markings of bulk cylinders;
- the inspection and re-test markings of bulk cylinders;
- the unique marking requirements of cylinders appropriate for bulk shipments by highway;
- the unique labeling requirements of cylinders appropriate for bulk shipments by highway;
- the unique loading, handling, and unloading requirements for bulk shipments utilizing cylinders;
- the conditions that render a bulk cylinder unacceptable for use.

A written examination is administered at the conclusion of instruction.

C. Portable Tank Module

The prerequisite to the Portable Tank Module is the successful completion of the General Module. The objectives addressed by the Portable Tank Module include:

- the identification of the portable tanks, intermodal portable tanks, and marine portable tanks authorized for bulk shipments;
- the United States Department of Transportation (DOT) specification and identification markings of portable tanks, intermodal portable tanks, and marine portable tanks;
- the inspection and re-test markings of portable tanks, intermodal portable tanks, and marine portable tanks;
- the unique marking requirements of portable tanks, intermodal portable tanks, and marine portable tanks;
- the unique labeling requirements of portable tanks, intermodal portable tanks, and marine portable tanks appropriate for bulk shipments by highway;
- the unique placarding requirements of portable tanks, intermodal portable tanks, and marine portable tanks appropriate for bulk shipments by highway;
- the unique shipping paper entries appropriate for bulk shipments utilizing portable tanks, intermodal portable tanks, and marine portable tanks;
- the unique loading, handling, unloading requirements for bulk shipments utilizing portable tanks, intermodal portable tanks, and marine portable tanks;
- the conditions that render a portable tank, intermodal portable tank, or marine portable tank unacceptable for use.

Note: Multi-unit tank car tanks are addressed by the Portable Tank Module.

A written examination is administered at the conclusion of instruction.

D. Cargo Tank Module

The Cargo Tank Module is itself further divided to address low pressure, moderate pressure, high pressure, and cryogenic cargo tanks.

The prerequisite to the Cargo Tank Module is the successful completion of the General Module. The objectives addressed by the Cargo Tank Module include:

- the identification of the cargo tanks authorized for bulk shipments;
- the United States Department of Transportation (DOT) specification and identification markings of cargo tanks;
- the inspection and re-test markings of cargo tanks;
- the unique marking requirements of cargo tanks appropriate for bulk shipments by highway;
- the unique placarding requirements of cargo tanks appropriate for bulk shipments by highway;
- the unique shipping paper entries appropriate for bulk shipments utilizing cargo tanks by highway;
- the unique loading and unloading requirements for bulk shipments utilizing cargo tanks;
- the conditions that render a cargo tank unacceptable for use.

A written examination is administered at the conclusion of instruction.

E. Intermediate Bulk Containers

The United States Department of Transportation has yet to issue a Final Rule regarding this new category of packaging. Module 13 - Bulk Packaging Shipments by Highway will be revised to include this form of packaging following issuance of the Final Rule in the Federal Register.

IV. CONCLUSIONS

As part of the ongoing effort to provide the Transportation Management Division, Office of Environmental Restoration and Waste Management (TMD/EM-261), United States Department of Energy (DOE), Training Program Manager and members of the Department of Energy (DOE) complex with the highest quality training materials available, the development of Module 13 completes the initial generation of the fifteen (15) part Hazardous Material Modular Training Program.

ACKNOWLEDGEMENTS

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REFERENCES

1. Code of Federal Regulations, Title 49, Parts 100-199.

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