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# Hazmat Training Program

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## Introduction

The United States Department of Transportation (USDOT) has established requirements for training of all personnel involved in the transportation of *Hazardous Materials* (Hazmat). The intent of the training is to provide knowledge of completion of paperwork, packaging and labeling requirements, and safe handling and emergency procedures.

You are responsible for the development of a Hazmat compliance program for your organization. The following program, to the best of our knowledge, meets the USDOT requirements related to Seaman Nuclear Corporation density moisture meters, but does not address other hazardous materials (solvents, etc.) that your organization may transport.

This training program is not a substitute for training requirements by your state radiation control agency or the NRC. Also the procedures required by the USDOT do not supersede any requirements by your state or the NRC.

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## Program Requirements

### Employer's Responsibility

1. Insure that untrained employees do not perform any duties requiring training. Note, a 90 day grace period applies, if they work under supervision of trained employees.
2. Insure that training is adequate and employees are tested.
3. Insure that records are maintained.

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## Identify which employees need to be trained.

Hazmat Employee: Any employee who performs any function subject to Hazmat regulations, i.e., one who handles meters, packs, labels, prepares shipping orders, works with meters, or supervises those who do.

While the regulations specify "function specific training", the knowledge needed to deal with all the functions related to Seaman products can be easily combined into one training program.

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## How to conduct training

1. The training can be in any form, such as lecture or self-directed (that is, the employee reads the training outline and the referenced documents).

2. If an employee has attended one of our seminars or received other training in the last 3 years no additional training is required if they still recall our basic safe handling procedures, procedures to complete paperwork, what to do in the event of an emergency and what checklists they should refer to. However, the date of training needs to be recorded. See the Hazmat files section below.

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### How to conduct testing

1. The test can be oral or written. It is pass / fail. Retention of a written test is not required.
2. A recommended oral test should include:
  - A. Naming the checklists and when they should be referred to. Answer: "Private Transportation of Meters" when going to a job, "Shipping Checklist" when offering a meter to a carrier and "Emergency Response Information" and "What to do in the event of an Accident".
  - B. A description of the paperwork they carry when transporting the meter or when offering a meter to a carrier for shipment.
3. Written certification of training is required. See the Hazmat files section below.
4. Training may be done by employer or outside source.

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### Training Outline

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#### General awareness of potential hazard

Issues such as health effects related to the use of nuclear meters should be addressed. Use the example of a full time meter operator receiving equivalent dose of one routine chest x-ray. Another example; the meter is always emitting radiation, whether or not it is turned on. This is normal. Refer to the radiological information supplied with your meter for additional information.

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#### Safe handling principles (to minimize exposure)

1. Minimize the *Time* near the meter.
2. Maximize the *Distance* from the meter. The Rule of thumb is 3 feet when not handling the meter, 20 feet from a work area when in storage.
3. Lock the meter in the *Shielded* position when not in use.

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#### Shipping by air freight or truck

Review with Hazmat employees the current version of the transportation instructions and instructions to complete the paperwork.

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**Transportation by  
your employees**

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Review with Hazmat employees the current version of the instructions entitled "Private Transportation of Meters" and instructions to complete shipping papers.

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**Security Awareness**

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Training is required in 1)awareness of security risks associated with hazardous materials transportation and 2)methods designed to enhance transportation security. This training must also include a component covering how to recognize and respond to possible security threats.

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**Emergency  
Procedures: What to  
do if the meter or  
package is damaged.**

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Review with Hazmat employees the instructions regarding "accidents" from your gauge manuals and "Emergency Response Information" form.

Due to the robust design of the sealed source capsule(s) and the source holder in your meter, no accident has ever caused a release of radioactive material into the environment. From an engineering standpoint, it is difficult to imagine a plausible circumstance that would result in penetration of the source capsule. Therefore, if an accident occurs one should not assume the worst case, but one should verify the extent of damage.

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**Appropriate  
notifications**

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As can be seen from the Emergency Procedures section, the likelihood of a release of radioactive material into the environment or a related injury to a person is virtually zero. However, for completeness, the notification requirements are listed below:

Notification by phone is required immediately if any of the following occur, only as a "direct result of hazardous materials" ref. CFR 171.15(a): Death or serious injury; Damage greater than \$50,000; Release of radioactive material; Closure of major artery or transportation facility for more than one hour. Verbal notification should be made to National Response Center, 1-800-424-8802.

If immediate phone notification was required, a written report should be made within 30 days using form 5800.1 to:

Information Systems Manager, DHM-63  
Research and Special Programs Administration  
US Department of Transportation  
Washington, DC 20590-0001

As a reminder, the above procedures pertain to USDOT regulations. Your state radiation control agency and the NRC may have separate reporting requirements, that would be listed on your license.

Our recommendation is to "call Seaman first". 24 hours (414) 762-5100. We can do the best job of helping you assess the condition of your meter and recommend a course of action.

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### **Hazmat files (record keeping)**

Set up a Hazmat file. This file should group together the documentation for all Hazmat employees and should be separate from other employee records. This file contains:

1. Training certificate showing: date of training, signatures of employer and employee. Employee need not carry certification of training. This is kept in the Hazmat file. Certification test is pass / fail. Retention of test is not required.
2. Show when each employee is due for recurrent training (3 years)
3. Retain records on each employee for previous 3 years and 90 days after termination.
4. Training documents, copy of course, instructor notations, etc. Instructors do not require certification, but note name and address of trainer.

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### **Enforcement / Inspection**

USDOT inspection personnel may visit your premises. A compliance inspector may ask an employee "What information do you need to know to perform your job?" If the employee isn't able to answer, a citation could be issued. Employees should be able to describe what they do. If they carry meters in vehicles to job sites they should make sure they have all the information with them as listed on the checklist for "Private Transportation of Meters". If they complete the paperwork for shipment by carrier, they should describe that the forms are completed per Seaman Nuclear's instructions and are checked to make sure they are accurate.