Hazardous Materials: Methamphetamine Lab Waste

Teacher’s Edition

Produced by:
Blue Ridge Services, Inc.
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**Instructions**

This teacher’s edition is organized into a simple format. It includes a complete copy of the training booklets you’ll give to your crew, along with some tips for helping your crew get the most out of this training program. Please take a few minutes to look over the notes and icons that are explained below:

This icon indicates that some type of written input is required by your crew.

This icon indicates a point where you may want to ask a question or look for comments from your crew.

Text boxes contain tips or ideas on how to engage the crew or explain something.

This icon indicates a point where you might want to use an example to show how this training applies to your transfer station.
Make sure that everyone has a booklet entitled: “Hazardous Materials: Methamphetamine Lab Waste.”

The video script follows the booklet. Participants can follow along if they like.

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Name
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Hazardous Materials: Methamphetamine Lab Waste

Introduction
Transfer station’s can receive a variety of hazardous materials. In this video, we are going to discuss a very specific type of hazardous material -- waste from illegal methamphetamine labs.

Methamphetamine is a powerful drug that affects the central nervous system. It is also known as “speed”, “ice”, or “meth”. Meth is prepared or “cooked” in illegal labs. The drug is made from combining an inactive compound (ephedrine or pseudo-ephedrine) with various other chemicals.

Each year federal authorities seize over thousand pounds of methamphetamine. This equates to over 100,000,000 doses.

For every pound of methamphetamine that a drug dealer produces, six pounds of toxic waste are left behind. Much of that toxic waste is illegally dumped into roadside ditches.

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or “remote” areas, but an ever increasing amount of it is showing up at transfer station’s across the country.

These potent chemicals used to produce meth can enter the central nervous system and cause neural damage, effect the liver and kidneys, and burn or irritate the skin, eyes and nose.

Although there are certain states where methamphetamine production is higher, this is a growing problem throughout the United States. It’s important for you to know how to identify this waste and what to do if you come into contact with it.

**What Is It Made From?**

Of the 32 chemicals used to make meth, one-third are toxic and most, when mixed, are explosive.

Methamphetamine producers use several different types of chemicals in their process, including iodine, butane, acetone, muriatic acid, cleaning fluids, rubbing alcohol, drain cleaner, engine starters and gasoline additives, lye, the tips of matches, salt, paint thinner, campfire fuel, farm fertilizer, lithium batteries and cold tablets.

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Exposure Side Effects

There are many side-effects to exposure to these chemicals. Headaches, burning eyes and skin, and nausea are only a few of the health hazards. More serious side effects include lung and brain damage, immune and respiratory system problems, and cancer. Some of the chemicals are extremely toxic to the point that even small amounts can be lethal.

The potential health effects depend on the specific chemicals, the amount of chemicals, and the length of your exposure. Your general health condition also affects how you might react to the exposure.

How to Identify Methamphetamine Lab Waste

As an equipment operator or spotter, you have the potential to come into contact with any meth waste that enters the transfer station. You must be constantly aware of the materials you are working with, and watch for the indications of meth waste.
The most common methamphetamine waste container you are likely to see is a propane cylinder. Often, the cylinders will be discolored and may be fitted with a garden faucet. In addition to containers of various wastes, other chemical-soaked materials from labs can enter the waste stream. These materials include carpet, furniture, sheetrock, wood, etc.

Be aware of any unusual, strong odors similar to that of fingernail polish remover or cat urine. Also, watch for large amounts of products such as cold medicines, anti-freeze, drain cleaner, lantern fuel, coffee filters, batteries, duct tape, clear glass beakers and containers.

Meth-labs also use lots of red phosphorus which they get from matchbooks. Once they are done with the phosphorus, they throw the matches away. One sign of methamphetamine waste is large garbage bags filled with matches.
Other signs of meth-lab waste are empty containers of household chemicals and empty blister packets of cold medication (illegal drug makers use over-the-counter ephedrine).

**What to Do if You Are Exposed**

If you are exposed to methamphetamine lab waste, you must take immediate medical action. Get to a hospital or doctor’s office immediately for an evaluation.

**Emergency Response Plan**

Your transfer station should have an emergency response plan to deal with any of these emergency situations. The plan should include:

- A list of phone numbers of contacts to call if there is an emergency;
- An evacuation plan (for both employees and customers);
- A primary and secondary meeting area (if the first is unsafe, go the second);
- A response plan listing who does what.

If an emergency occurs, customers and all employees should be immediately evacuated.

Most of the discarded chemicals are extremely flammable and explosive, especially if they are crushed or moved. If

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you identify methamphetamine waste, it’s best to leave it alone, evacuate the area, and call in a professional hazardous materials team to handle the situation.

It’s important that you review your state’s standards and regulations in regard to methamphetamine waste. In some cases you may be required to call in a hazardous materials team.

For many transfer stations, the cost of hiring a haz-mat team can become a serious economic burden. Depending on the situation, you may be able to handle the toxic waste with your own staff. Some chemicals may be carefully bagged and recycled into your household hazardous waste program. Other materials, like match books or medication packets, may be carefully bagged and included in the rest of the waste stream.
Personal Protective Equipment

If you are at risk for exposure to meth-related chemicals, you need to have access to personal protective equipment (PPE) that will provide temporary protection for you.

One option may be to keep a respirator in the cab of each machine so that if meth-lab chemicals are encountered, the operator can be protected while leaving or evacuating the area.

When choosing a respirator, it's very important that you choose one appropriate to the type and level of toxin present.

All employees who may have to wear a respirator must have a medical examination to determine if they are healthy. They must also be properly trained to select and fit the respirator.

If the transfer station crew is expected to deal with these potentially toxic materials, they may need additional PPE such as:

- Disposable gloves (e.g. latex or nitrile)
- Rubber boots
- Goggles

If methamphetamine waste came into our transfer station, what type of personal protective equipment would we need?

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- Face shield
- Or even a protective jumpsuit

After handling meth-lab waste, be sure to properly clean or dispose of any potentially contaminated tools or equipment.

Any other wastes, scraps, debris, bags, containers, equipment, or clothing contaminated with methamphetamine waste must be collected and properly disposed of to prevent injury or contamination.

Training

Training is a vital part of ensuring the safety of all transfer station workers who may be exposed to meth-lab waste. Be sure that everyone on the transfer station crew knows how to identify meth-lab waste, what to do in the case of exposure, and how to prevent fires.

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Employers may also want to provide Material Safety Data Sheets (MSDS) for some of the more common meth-lab waste materials.

An MSDS provides information such as physical data (melting point, boiling point, flash point, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, and spill/leak procedures.

Do we have Material Safety Data Sheets for methamphetamine at our transfer station?

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Are You Safety Savvy?

Today we’re going to take a test. It’s an easy test. There’s no penalty for wrong answers. If you make a mistake here, nobody gets hurt, nobody gets killed. But please take it seriously. Because hopefully, it can help prepare you for the real test you take everyday …at the transfer station.

Take a look at these photographs. Do you see anything that might pose some kind of safety risk? Remember, every situation has potential risk.

**Question 1**
List some potential indicators of meth-lab waste.
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Question 2
You see a rusty propane cylinder fitted with a garden faucet ... what should you do?

Question 3
While pushing trash you notice the strong odor of Acetone (smells like nail polish remover). What should you do?

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You may want to stop the video after each question to allow time for discussion.
Question 4
You detect what appears to be several containers of meth-lab waste. What should you do?
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Summary
Meth-lab waste is an increasing problem for many transfer stations. Learn how to identify it and what to do if you find it. Keep this booklet as future reference.

But remember, safety isn’t a plan, it’s an attitude. Use common sense and judgment … and be safe.

It’s never too soon to start thinking about safety.

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Take time to review and discuss the answers to the “Safety Savvy” questions.

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Answers

No. 1
- Garbage bags filled with matches
- Empty containers of household chemicals
- Empty blister packets of cold medication
- Propane cylinders that are discolored and may be fitted with a garden faucet
- Anything else?

No. 2
- Don’t touch it
- Clear people from immediate area
- Contact your supervisor
- Anything else?

No. 3
- Move upwind
- Put on a respirator
- Clear people from immediate area
- Contact your supervisor
- Anything else?
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No. 4
- Clear people from the immediate area
- Leave it alone
- Call a professional Haz-mat team
- Anything else?

Note:
These are only some of the more obvious issues. You may find more.

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Are there any safety issues that require immediate attention?

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This is Your Book.

It is a valuable reference.

Keep it handy and refer to it often.

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Take time to write down any important comments or ideas that came up during the class. You might want to include them the next time you teach this topic.

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To order more safety training supplies contact us at:

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Office: 209-742-2398
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What is Blue Ridge Services, Inc.?

Blue Ridge Services, Inc. (BRS) is an engineering consulting company that was founded in 1988 to provide operational consulting services to waste facilities of all types. Since that time, we’ve helped hundreds of facility owners and operators work safer, smarter and more profitably.

Neal Bolton, founder and president of BRS, is a registered engineer, a licensed contractor and an experienced equipment operator. He is the author of “The Handbook of Landfill Operations,” and “The Handbook of Landfill Safety,” and has written over 100 magazine articles. You may already be familiar with Mr. Bolton if you’ve read: MSW Management, World Waste, Waste Age, Solid Waste Technology or Solid Waste Online. Why not put his 34 years of experience to work for your waste facility?

What can we do for you?

**Comprehensive Operational Review (CORE)** We can perform a CORE for your landfill, MRF, recycling facility, green waste processing center, or transfer station. This is a comprehensive, technical review of your facility. It provides you with a practical evaluation of what’s working …and what’s not. We evaluate your operation from top to bottom, looking at equipment, labor, airspace utilization, soil utilization, materials processing, environmental issues, surface water control, safety, etc. If it’s part of your operation …it’s covered.

**Training** BRS has conducted onsite training for scores of waste facilities. Choose from among our many standard training programs or let us customize one for your facility.

**BRS Webinar** Join the scores of other waste professionals who have attended one of our online, interactive webinars. Check our website for dates and upcoming topics.

**Online Training** We offer a variety of online training products, including safety, operations, and more. Visit our website for more information.

Want more information?

To find out more about the other training and consulting services we offer, please contact us at:

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Or visit our website at:
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Watching for Methamphetamine Lab Waste

Methamphetamine lab waste can come into your transfer station at any time. Watch for it to avoid injury.

Some things to watch for are:

1. Propane cylinders may be retro-fitted with another type of valve and then filled with meth lab waste products.
2. Large amounts of chemicals and products like cold medicines, anti-freeze, drain cleaner, or lantern fuel.
3. Matchbooks, empty medicine blister packs, coffee filters, or glass beakers.

Can you think of any other methamphetamine lab waste products that might come into your transfer station?

(Notes)

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Are there any areas or issues that require immediate attention in regard to safety?

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Weekly Tailgate Update - No. 1

I have participated in and understood this weekly tailgate update, “Watching for Methamphetamine Lab Waste.”

Presented by: __________________________ Date: __________________________

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Attended by:

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Personal Protective Equipment

If you are at risk for exposure to methamphetamine waste products, you need to have access to appropriate personal protective equipment (PPE). However, remember that PPE has limitations.

Some examples of appropriate personal protective equipment include:

1. A respirator. These must have the right kind of filter for specific chemicals. Also, you must be fitted and medically examined to make sure the respirator is being used correctly.
2. Disposable gloves, rubber boots, goggles, face shields, or even a protective jumpsuit may be required for some types of waste.
3. Remember that all personal protective equipment must be properly cleaned or disposed of after it has been exposed to chemicals or contaminated equipment.

Can you think of any other personal protective equipment that may be important to protect you against methamphetamine waste?

(Notes)

Are there any areas or issues that require immediate attention in regard to safety?
Weekly Tailgate Update - No. 2

I have participated in and understood this weekly tailgate update, “Personal Protective Equipment.”

Presented by: __________________________ Date: __________________________

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Responding to Methamphetamine Lab Waste

As a transfer station employee who could potentially come into contact with dangerous meth lab waste, you must know how to deal with and respond to these materials.

You should know:
1. How to identify methamphetamine lab waste.
2. What to do in the case of exposure.
3. How to prevent fires from flammable chemicals and products.

What are some other important things to know about methamphetamine lab waste?

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Are there any areas or issues that require immediate attention in regard to safety?

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I have participated in and understood this weekly tailgate update, “Responding to Methamphetamine Lab Waste.”

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“Hazardous Materials: Methamphetamine Lab Waste”

I have watched and understood the training video for the topic listed above and have received a copy of the corresponding training booklet for that topic.

Presented by: __________________________  Date: __________________________

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“Hazardous Materials: Methamphetamine Lab Waste”

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Are there any areas or issues that require immediate attention in regard to safety?

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