

# Fireworks and/or Road Flare Processing for Household Hazardous Waste Facilities

Land Policy Forum Program Management Decision  
Fireworks Class B and C

## Background

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Fireworks or road flares may be brought into a Household Hazardous Waste (HHW) Facility and may present a safety hazard to staff due to their reactive and flammable characteristics.

Minnesota Pollution Control Agency (MPCA) and HHW Programs, by means of a Memorandum of Understanding, developed best practices for managing fireworks or road flares criteria for properly processing this waste type. These current treatment standards meet the requirements of Minn. R. 7034.0310, subp. 7.

## Processing

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The MPCA's best professional judgment is that the safest HHW Program method for accepting and treating fireworks or road flares is as follows:

1. Draft a site specific Standard Operating Procedure for this treatment process.
2. Notify the MPCA in advance of performing this treatment activity in accordance with the notification requirements in Minn. R. 7045.0310 and the requirements of Exhibit B of the Contract between the State and County HHW Programs.
3. Soak the waste in water prior to shipment.
4. Dispose as a hazardous waste.

DEPARTMENT: POLLUTION CONTROL AGENCY

STATE OF MINNESOTA

## Office Memorandum

DATE: June 10, 2009

TO: Paul Eger  
Commissioner

THRU: Tim Scherkenbach  
Deputy Commissioner

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SUBJECT: Approval of On Site Treatment for Fireworks and Road Flares to Reduce Reactivity Hazards

In accordance with Minn. Rules pt. 7034.0310, subp. 7, the State is requesting, on behalf of the State's Household Hazardous Waste (HHW) County Programs, approval to treat waste fireworks (Class B and C) and/or road flares by soaking in water prior to shipment and disposal as a hazardous waste. Please review the information below which is submitted to meet the requirement of the rule.

This approval shall apply to any HHW Program which has an Operational Contract (Contract) with Minnesota Pollution Control Agency (MPCA) and has in place site specific Standard Operating Procedures (SOPs) for soaking waste fireworks and/or road flares that comply with the conditions of this approval.

The Program is required to notify the MPCA in advance of performing this treatment activity in accordance with the notification requirements in Minn. Rules Chapter 7045.0310; and the requirements of Exhibit B of the Contract between the State and County HHW Program.

The HHW Program's site specific SOP for this treatment process shall include:

1. The name of the person(s) who will direct, oversee or perform the treatment process.
2. A detailed description of the treatment method for fireworks including the associated procedures for receiving, storing, processing, transportation, and disposal which shall incorporate the following minimum criteria:

All fireworks or road flares received:

- shall be immediately placed in a container of water; soaking fireworks or road flares changes the Department of Transportation (DOT) shipping class from 1.4 - Explosives with no significant blast hazard to 4.1 - Flammable solid;
- shall be stored in approved, marked packages and in designated facility areas;
- may be co-mingled with other like wastes and packaged following the hazardous waste disposal company guidelines;
- shall be transported off site using a hazardous waste disposal company following DOT shipping standards; and
- shall be properly disposed using an authorized hazardous waste disposal transporter and facility.

3. The wetting process will eliminate the flammable hazard of the materials. This treatment process will not generate a new or unknown hazard for HHW facility staff that is not already covered under existing site specific Standard Operating Procedures (SOPs).

**Chemical hazards:**

Chemicals of concern in fireworks include sulfur, charcoal and potassium nitrate (saltpeter). Combined, these chemicals burn rapidly and may produce hot solids and gases. All fireworks will be handled using proper personal protective equipment (PPE) as described in the facility's existing site specific SOP for PPE, to minimize physical contact with fireworks chemicals.

**Physical hazards:**

Fireworks and road flares have potential to cause burns or injury from fire or explosive reactions. Fireworks will be handled only in areas where there will be no exposure to ignition sources and shall be wetted immediately to eliminate this hazard.

**Ergonomic precautions:**

Fireworks and road flares are lighter than most household hazardous wastes received, so there is no specific related ergonomic precaution. Each Program will follow its site specific Ergonomic SOP when handling fireworks and flares.

**Biological hazards:**

None are identified for this waste stream or process.

**Other health hazards:**

No hazards of concern have been identified in addition to those listed above.

4. The facility shall follow all established site specific SOPs that describe best management practices for proper ventilation, protective equipment and processing methods.
5. Existing HHW Emergency Contingency Plans shall describe spill containment and emergency response plans to accommodate hazards related to this treatment activity.
6. No additional approvals are required by MPCA or local waste water treatment plants, since there will be no additional emissions or discharges to the air, land or water from this treatment process.
7. The facility shall comply with all Occupational Safety and Health Act (OSHA) requirements, and local fire and zoning ordinances.

**APPROVAL**

For Household Hazardous Waste facilities to treat waste fireworks and road flares on site.

Signed: Paul Eger  
Paul Eger  
Commissioner

TG:bjw