

GUIDELINE TITLE: BURNING SOLID WASTE AT A WASTE MANAGEMENT FACILITY

BRANCH/DIVISION: Environmental Approvals / Environmental Stewardship

Date Revised: December 14, 2016

WHY IS BURNING SOLID WASTE A CONCERN?

- Manitoba Sustainable Development (SD) is concerned with open burning of solid waste and garbage due to the potential effects on human health and the environment. Items that should not be burned include: plastics, metals, styrofoam, PVC, tires, electronic wastes and many other materials that can produce dangerous or toxic air emissions and particulate matter (PM) when burned. Smoke and ash are also major sources of air pollution and can directly affect quality of life.
- The *Waste Management Facilities Regulation 37/2016*, Section 16 states that the operator of a waste management facility must not burn waste at the facility unless authorized to do so under the licence or permit issued for the facility.
- SD encourages recycling, composting, and reuse of the wood and cellulose based materials. **Only separated and readily combustible materials are allowed to be burned at approved waste management facilities in Manitoba, such as boughs, loose straw, leaves, paper products, cardboard, non-salvageable untreated wood and packing materials made from wood.** SD has authorized a number of landfills and transfer stations to burn select wood or cellulose materials under specific conditions. Controlled burning is to occur only within the confines of a bermed area, cage, or pit at the approved facility. Siting, design and operating criteria are specified in the regulation and the facility must adhere to these conditions, if they choose to burn. SD intends on phasing out most burning at waste management facilities.

CONTAMINANTS RELEASED FROM BURNING SOLID WASTE

- Some of the contaminants from burning solid waste can include:
 - Dioxins
 - Furans
 - Arsenic
 - Mercury
 - Lead
 - PCBs
 - PAHs
 - VOCs
 - Heavy Metals
 - Carcinogens
 - Particulate matter
 - Carbon monoxide
 - Nitrogen oxides
 - Sulphur oxides
 - Hydrochloric acid

- This material typically burns at lower temperatures and in oxygen starved conditions which can result in inefficient combustion. This releases significant amounts of air pollution, ash, and dense white or black smoke.
- During calm weather conditions, the levels of the pollutants are higher because of reduced dispersion in the atmosphere.

HEALTH EFFECTS OF BURNING OF GARBAGE

- The greatest health risks are to individuals closest to the fire who may inhale the smoke. Other individuals on-site and off-site may also be affected, depending on the factors such as distance to the fire, exposure duration, amount and type of material burned, individual sensitivity, etc.
- The pollutants may be toxic to humans and depending on the concentration, can potentially increase occurrences of asthma, lung and heart disease, cancer, and other cardiovascular problems.
- The people most at risk are elders, children, pregnant women and people with heart and respiratory diseases. Some of the symptoms include irritation to eyes, nose, and throat, headache, coughing or wheezing, chest pain and shortness of breath.

ENVIRONMENTAL EFFECTS OF BURNING GARBAGE

- The smoke from burning may be a major source of complaints from the public because of the odour and effects on visibility. The smoke may also reduce visibility on local roads which can potentially cause traffic accidents.
- The ash may be dispersed by the wind or leached by water, where toxic contaminants may pollute surface water or groundwater.
- There is always a risk of fires burning out of control.

ALTERNATIVES TO BURNING

- **Reduce:** Find ways in your community to reduce the volume of waste.
- **Reuse:** Put unused items to an alternative use or make them available to others. Chip or mulch wood and use in community gardens.
- **Recycle:** Set up recycling programs to prevent materials from entering the waste stream.
- **Compost:** Leaf and Yard waste can be turned into nutrient rich compost. Have a backyard composter for organic material, or start a composting program in your community.

IF YOU MUST BURN:

- All approved waste management facilities must ensure only separated and readily combustible materials are burned and follow the requirements in the permit.
- Ensure the combustible material is dry to prevent excessive smoke.
- Only burn when atmospheric conditions are suitable and only an amount of material that can be extinguished by the end of operating hours.
- Supervision of the fire must be provided until the burning activity is complete.
- During the wildfire season (April 1 – November 15) a burn permit must be obtained from the Fire Program or any District Office of SD in accordance with *The Wildfires Act*.
- Contact SD for more information on burning at waste management facilities.

FUNDING INFORMATION

For information on composting or funding incentives to reduce the amount of waste being burned or reusing a product in a sustainable manner, you may contact:

Green Manitoba

Waste Reduction and Recycling Support (WRARS) Program
123 Main Street, Winnipeg, MB R3C 1A5
Phone: (204) 945-7042 Fax: (204) 945-1211
<http://greenmanitoba.ca/splash/>

FOR MORE INFORMATION

Manitoba Sustainable Development

Environmental Compliance and Enforcement Branch
Regional Office Contact Information
www.gov.mb.ca/conservation/ece/contact.html

Manitoba Sustainable Development

Environmental Approvals Branch
2nd Floor, 123 Main Street (Box 80) Winnipeg, MB R3C 1A5
General Inquiry: (204) 945-8321
<http://www.gov.mb.ca/conservation/eal/index.html>

Manitoba Sustainable Development

Solid Waste Management Program
1007 Century Street Winnipeg, MB R3H 0W4
<http://www.gov.mb.ca/conservation/envprograms/swm/index.html>