

Report

INDUSTRIAL SOLID WASTE MANAGEMENT PLAN (ISWMP)

Construction and Demolition Debris
Landfill, SW-440

Crow Wing County, Minnesota



July 2013
Revised January 2014



CROW WING COUNTY, MINNESOTA
CROW WING COUNTY DEMOLITION DEBRIS LANDFILL, SW-440
INDUSTRIAL SOLID WASTE MANAGEMENT PLAN

CERTIFICATE OF ENGINEER

The engineering material and data contained in this study were prepared under the supervision and direction of the undersigned, whose seal as Licensed Professional Engineers are affixed below.

PROFESSIONAL ENGINEER

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Cami Van Abel

Signature: 

Date: 1/9/14 License #46187

Cami Van Abel, P.E.
Environmental Engineer

Industrial Solid Waste Management Plan

Crow Wing County

Table of Contents

Letter of Transmittal

Table of Contents

Appendices

Section 1. Introduction

1.1 Plan Objectives	1-1
1.2 Facility Classification	1-1

Section 2. Specific Acceptable and Unacceptable Wastes

2.1 Acceptable Wastes	2-1
2.2 Unacceptable Wastes	2-2

Section 3. Waste Screening Procedures

3.1 Screening Procedures	3-1
--------------------------------	-----

Section 4. Industrial Solid Waste Management Procedures

4.1 Notification	4-1
4.2 Evaluation of Industrial Wastes	4-1
4.3 Acceptable Standards	4-2
4.4 Rejection of Waste	4-2

Section 5. Asbestos Waste

5.1 Asbestos Waste	5-1
5.1.1 General	5-1
5.1.2 Analysis Required	5-1
5.1.3 Disposal Requirements	5-1
5.1.4 Special Operating Considerations	5-2

Section 6. Record Keeping Procedures

6.1 Records	6-1
-------------------	-----

Appendices

Appendix A - National Emission Standard for Asbestos

This report has been prepared for the use of the client for the specific purposes identified in the report. The conclusions, observations and recommendations contained herein attributed to Leidos Engineering, LLC. (Leidos) constitute the opinions of Leidos. To the extent that statements, information and opinions provided by the client or others have been used in the preparation of this report, Leidos has relied upon the same to be accurate, and for which no assurances are intended and no representations or warranties are made. Leidos makes no certification and gives no assurances except as explicitly set forth in this report.

Copyright 2014, Leidos Engineering, LLC.
All rights reserved.

Section 1

INTRODUCTION

This Industrial Solid Waste Management Plan (ISWMP) was developed to address wastes that will be considered for disposal at Crow Wing County Demolition Debris Landfill, SW-440 (the Landfill). This ISWMP was developed to comply with Minnesota Administrative Rule 7001.3300; stating that a permit application must contain an industrial waste management plan in accordance with part 7035.2535, subpart 5, to include a description of the waste types to be handled at the facility and the procedures for determining analyses necessary to dispose of the waste properly in accordance with parts 7035.2525 to 7035.2885.

The Landfill is permitted as a Minnesota Pollution Control Agency (MPCA) a Class II demolition debris landfill and is able to accept demolition debris and new construction demo-like waste as identified in the acceptable waste list, as presented in Section 2.1 of this plan. The Landfill will not handle or dispose of waste from an industrial process beyond the waste listed in this plan.

1.1 Plan Objectives

The basic objectives of this ISWMP are:

- Generally, to protect public health and the environment by ensuring that wastes are properly evaluated and managed.
- Identify wastes for acceptance at the Landfill.
- To address waste screening and evaluation of specific wastes to be accepted.

This Plan requires approval by the MPCA. Any future amendments or changes in management practices or other policies will be submitted for approval prior to implementation.

1.2 Facility Classification

The MPCA has established three classes of demolition debris landfills based on the types of wastes accepted at the facility. The Landfill will be classified as a Class II Demolition Landfill as outlined in the Demolition Landfill Guidance Document dated August 2005 (Guidance). Section 2 will describe the wastes that will be accepted as well as the wastes prohibited from the Landfill.

Section 2

SPECIFIC ACCEPTABLE AND UNACCEPTABLE WASTES

2.1 Acceptable Wastes

The Landfill will accept waste listed in the Acceptable C&D Waste List per the Guidance. The facility will accept the following wastes:

- Bituminous concrete (includes asphalt pavement and blacktop);
- Concrete (including rebar)
- Stone
- Uncontaminated soil
- Masonry (bricks, stucco, and plaster)
- Untreated wood (including painted, stained and/or varnished dimensional lumber, pallets, particle board, plywood, fencing and dock materials)
- Siding (includes vinyl, masonite, untreated wood, aluminum and steel)
- Wall coverings
- Electrical wiring and components
- Roofing materials
- Duct work
- Wall board, dry-wall (Sheetrock®)
- Built-in cabinetry
- Plumbing fixtures
- Affixed carpet and padding
- Ceramic items
- Conduit and pipes
- Glass (limited to window and door glass from buildings and structures)
- Insulation (includes fiberglass, mineral wool, cellulose, polystyrene and newspaper)
- Plastic building parts
- Sheathing
- Molded fiberglass
- Rubber

- Drain tile
- Recognizable portions of burned structures
- Metal
- Ceiling tile
- Wood and vinyl flooring
- Asbestos Containing Materials (ACM), pursuant to the Landfill Industrial Solid Waste Management Plan
- Incidental packing consisting of paper, cardboard, and plastic
- Demo-like industrial waste, limited to (pursuant to the Landfill Industrial Solid Waste Management Plan):
 - Wood
 - Concrete
 - Porcelain fixtures
 - Shingles
 - Window glass

2.2 Unacceptable Wastes

The following wastes will NOT be accepted into the Landfill:

- Agricultural chemicals or pesticide containers (including empty pesticides, herbicides, and insecticide containers)
- Animal carcasses, parts, or rendering and slaughterhouse wastes
- Appliances (including white goods and brown goods)
- Ashes or hot wastes that could spontaneously combust or ignite other wastes due to high temperatures
- Ash from incinerators, resource recover facilities and power plants
- Batteries
- Carbon filters – spent
- Cardboard – recyclable
- Chemical containers
- Fiberglass resin waste
- Fluorescent tubes and ballasts containing PCB's
- Food waste
- Foundry wastes

SPECIFIC ACCEPTABLE AND UNACCEPTABLE WASTES

- Furniture and mattresses
- Hazardous waste
- High-intensity discharge lamps
- Household refuse or garbage
- Infectious waste
- Liquids (any type)
- Liquid non-hazardous materials -- spilled
- Machinery or engine parts
- Medical waste
- Mercury containing wastes (thermostats, switches)
- Paints, thinners, solvents, or varnishes -- undried residue (including undried applicators, brushes, cans, containers, paint filters, or dust collectors)
- PCB contaminated wastes
- Pesticide and ag-chemical containers
- Petroleum products, containers, or filters (including oil, grease, or fuel)
- Radioactive waste (unless natural materials at normal background levels)
- Rendering and slaughterhouse wastes
- Uncured sealants (including undried applicators, containers, or tubes)
- Urethane, polyurethane, and epoxy resin waste
- Septic tank pumpings
- Sludges, including ink sludges, lime sludge, wood sludge, and paper sludge
- Spent activated carbon filters
- Spilled non-hazardous materials
- Live coal tar (including applicators, containers, or tubes)
- Tires
- Vehicles
- Wastes that could spontaneously combust or could ignite other waste because of high temperatures
- Yard waste (not accepted for disposal)

These wastes may be accepted for disposal in the MSW Landfill, SW-376 as outlined in the permit reissuance report and the ISWMP for SW-376.

Section 3

WASTE SCREENING PROCEDURES

The waste screening process begins at the point of waste generation. The Solid Waste Office has published and continually updates the Crow Wing County Demolition Manual in an effort to educate waste generator and haulers of the definition of acceptable demolition waste for the Landfill. Therefore, waste screening begins at the point of waste generation where it should be properly screened for acceptance by and disposal in the Landfill.

Upon entering the site and stopping at the Landfill Office, the attendant will ask hauler the contents of the waste they are carrying. In addition, the Landfill Office attendant or County Solid Waste Coordinator may visually inspect loads. Haulers with demolition debris are directed to the Landfill and the appropriate place to dump their load. The tipping area (waste screening area) is generally located in front of the working face and is defined as that area where haulers may dump their loads and the Contract Landfill Operator screens waste before pushing and compacting it into the working face. The Contract Landfill Operator inspects the tipping area and Landfill a minimum two-times daily; and dumped loads are also screened at the tipping area before being pushed into the working face.

The Contract Landfill Operator does not accept "dirty" demolition waste. Waste loads that contain unacceptable waste as defined in the facility permit and/or the ISWMP are direct to the MSW landfill. Haulers/customers that dump dirty demolition waste at the tipping area of the demolition landfill will be given the opportunity to remove the waste load from the demolition landfill and dispose of the waste within the MSW landfill. If the Contract Landfill Operator must complete the removal of the unacceptable waste, the hauler/customer will incur charges from the Landfill for completing this action.

To help ensure that special wastes are handled correctly and that prohibited wastes are eliminated from the waste stream, Crow Wing County and the Contract Landfill Operator will follow a multi-tiered waste screening program. The program consists of:

- The Solid Waste Office has published and continually updates the *Crow Wing County Demolition Manual* in an effort to educate waste generator and haulers of the definition of acceptable demolition waste for the Landfill. Therefore, waste screening begins at the point of waste generation where it should be properly screened for acceptance by and disposal in the Landfill
- The Manual is prepared to assist customers in meeting all state statutes and Demolition Debris Landfill permit requirements. This includes accepted wastes, prohibited wastes, and waste screening procedures.
- Informing generators of prohibited wastes and their options for disposal.
- Proper screening of waste at the point of generation by the demolition contractor.

- Screening waste loads by haulers during pickup by asking questions and by visually inspecting loads. Items that do not belong in the Demolition Landfill should be removed and properly disposed by the generator/contractor and/or hauler.
- The Landfill Office attendant will query the driver of each vehicle entering the Site what materials are being carried for disposal or recycling. Commercial haulers and members of the general public carrying only demolition debris will be directed to the Demolition Debris Landfill.
- Providing customer instructions relative to separating out certain prohibited and/or special wastes for recycling or disposal.
- Visually inspecting/screening the load by the hauler and Contract Landfill Operator once it is dumped at the tipping area prior to being pushed into the Landfill working face. Waste materials considered unacceptable waste for disposal in the Landfill will be removed from the tipping area. Waste materials deemed unacceptable for disposal in the Demolition Debris Landfill may be disposed of in the MMSW Landfill (SW-376).

Demolition Debris generators and haulers are provided the most current version of the Crow Wing County Demolition Manual (Manual), available from the Landfill Office or the County website: <http://crowwing.us/DocumentCenter/Home/View/2236>.

Additional details on the screening procedures are provided in the following sections.

Special Wastes

In addition to the prohibited wastes listed in Section 2.2, disposal of certain other wastes will also be prohibited at the Demolition Debris Landfill. Instead, these special wastes may be recycled or disposed of at designated special waste management areas on the Site. These special wastes include:

- Household hazardous waste (HHW);
- Waste oil, used oil filters and antifreeze;
- Lead acid batteries;
- MMSW or demolition debris mixed with MMSW;
- Waste tires;
- White goods (household appliances) and scrap metal;
- Yard waste/brush;
- Used electronics; and
- Recyclable mattresses.

Any vehicle suspected of carrying hazardous waste, septic waste, radioactive waste, or infectious waste will be prevented from continuing onto the site.

Section 4

INDUSTRIAL SOLID WASTE MANAGEMENT PROCEDURES

4.1 Notification

The Landfill accepts demolition debris and new construction demo-like waste as identified in the acceptable waste list, as presented in Section 2.1 of this plan. The Landfill will not handle or dispose of waste from an industrial process beyond the waste listed in this plan.

The lists of acceptable wastes are provided in this plan, the SW-440 permit and the Crow Wing County Demolition Manual. It is the responsibility of the generator and hauler to know what waste are acceptable for disposal within the Landfill and the Landfill may reject any load for disposal that is not in compliance with its permit or plan. These documents are available from the Crow Wing County Solid Waste Office or the county website.

This Plan was prepared pursuant to Minnesota Administrative Rule 7001.3300, B: *an industrial waste management plan in accordance with part 7035.2535, subpart 5, to include a description of the waste types to be handled at the facility and the quantities of each waste type including a procedure for determining the analyses necessary to treat, store, or dispose of the waste properly in accordance with parts 7035.2525 to 7035.2885*. Industrial waste is defined by Minnesota Administrative Rule 0035.0300 Subp. 45: *"Industrial solid waste" means all solid waste generated from an industrial or manufacturing process and solid waste generated from nonmanufacturing activities such as service and commercial establishments. Industrial solid waste does not include office materials, restaurant and food preparation waste, discarded machinery, demolition debris, municipal solid waste combustor ash, or household refuse.*

Industrial waste, beyond those listed in this Plan, accepted for disposal by the Demolition Landfill must be approved by the Crow Wing County Solid Waste Office.

4.2 Evaluation of Industrial Wastes

Wastes that are not listed on the Acceptable Waste List listed in Section 2.1 may not be considered for disposal in the Landfill.

For wastes not on the acceptable waste lists, a generator may apply for waste disposal under the Crow Wing County MSW Landfill (SW-376) Industrial Solid Waste Management Plan.

4.3 Acceptance Standards

All incoming waste will be screened at the tipping area(waste screening area). Only waste specified in the Acceptable Waste List (Section 2.1) will be accepted. Any industrial wastes which have not been approved through the process established in this Plan will not be accepted.

4.4 Rejection of Waste

Wastes that are not listed in Section 2.1 do not meet the acceptance criteria established in this ISWMP will be immediately rejected and either routed to the MSW Landfill, SW-376, or sent back with the hauler. There will be no partial rejects of loads contaminated with MSW. If a load is rejected because of MSW, the entire load will be rejected.

Section 5

ASBESTOS WASTE

5.1 Asbestos

5.1.1 General

The Landfill may accept ACM for disposal; however, it is the objective of the County that ACM be handled through the Crow Wing County MMSW Landfill, SW-376. Disposal of ACM in the Landfill, SW-440 is only a contingency in the event that ACM waste disposal cannot take place in the MMSW Landfill.

The primary objecting in handling ACM waste is to prevent the release of asbestos-containing dust. The County will comply with the NESHAP regulations (40 CFR Part 61, Subpart M- National Emission Standard for Asbestos) regarding the reporting and record keeping requirements for asbestos disposal. A copy of 40 CFR Part 61, Subpart M, Section 61.154 is attached to this report in Appendix A and incorporated herein by reference.

Asbestos will be accepted at the Landfill provided it is delivered in a manner that will not allow the asbestos to become airborne. Friable asbestos, typically used as pipe insulation, must be wetted and placed into bags at least 6-mil thick. The bags must also contain a warning label that identifies the contents as asbestos and that breathing asbestos is a health hazard. Asbestos containing construction materials (non-friable asbestos) will also be accepted at the facility including ceiling tiles, floor tiles, wall board, and house siding shakes. This material will be accepted in bulk form if it is wetted and covered.

5.1.2 Analysis Required

No additional testing of asbestos will be required

5.1.3 Disposal Requirements

Asbestos containing materials will be accepted during normal facility operating hours when the wind velocity is less than ten miles per hour, on a sustained basis. All persons wishing to dispose of ACM must call the Landfill office at (218) 828-4392 at least 24-hours prior to delivery to inform the office of the type and amount of ACM. The Landfill manager will determine the delivery schedule. Scheduled deliveries may be cancelled if the wind velocity exceeds ten miles per hour, dependent on wind direction. Disposal of ACM or cancellation of deliveries is at the discretion of the Contract Landfill Operator.

Once these wastes are delivered to the Landfill, they will be directed to a separate area away from non-essential personnel. The disposal area will be in an excavation or

trench that is large enough to contain the entire load and required cover material. Immediately after the customer's vehicle is moved away from the disposal area, the waste will be covered.

5.1.4 Special Operating Considerations

The inhalation of asbestos fibers can cause serious health concerns. Care should be taken when inspecting the bags or bulk form that they are properly wetted so that loose fibers may not cause harm. When disposing of the asbestos into the Landfill, the area must be covered immediately.

Section 6

RECORD KEEPING PROCEDURES

6.1 Records

The Landfill's inspection and record keeping program is defined to ensure that waste loads are consistent with approval documents and are acceptable for disposal.

Records of ACM will be maintained at the landfill office. The file will consist of:

- Waste Manifest;
- Waste Profile (if applicable);
- Material Safety Data Sheets (if applicable);
- Other pertinent information.

These records are necessary for completing routine reviews for the site and other permit compliance requirements. Files for record-keeping purposes will not be kept for Acceptable Wastes (Section 2.1).

Appendix A

NATIONAL EMISSION STANDARD FOR ASBESTOS

Title 40: Protection of Environment

PART 61—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

[Browse Previous](#) | [Browse Next](#)

Subpart M—National Emission Standard for Asbestos

Authority: 42 U.S.C. 7401, 7412, 7414, 7416, 7601.

Source: 49 FR 13661, Apr. 5, 1984, unless otherwise noted.

§ 61.154 Standard for active waste disposal sites.

Each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source covered under §61.149, 61.150, or 61.155 shall meet the requirements of this section:

(a) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of paragraph (c) or (d) of this section must be met.

(b) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of paragraph (c)(1) of this section must be met.

(1) Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must:

(i) Be posted in such a manner and location that a person can easily read the legend; and

(ii) Conform to the requirements of 51 cm × 36 cm (20&inch;×14&inch;) upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Notation
Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block.
Do Not Create Dust	1.9 cm (3/4 inch) Sans Serif, Gothic or Block.
Breathing Asbestos is Hazardous to Your Health	14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.

(3) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.

(c) Rather than meet the no visible emission requirement of paragraph (a) of this section, at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:

(1) Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or

(2) Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

(d) Rather than meet the no visible emission requirement of paragraph (a) of this section, use an alternative emissions control method that has received prior written approval by the Administrator according to the procedures described in §61.149(c)(2).

(e) For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall:

(1) Maintain waste shipment records, using a form similar to that shown in Figure 4, and include the following information:

(i) The name, address, and telephone number of the waste generator.

(ii) The name, address, and telephone number of the transporter(s).

(iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).

(iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.

(v) The date of the receipt.

(2) As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.

(3) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

(4) Retain a copy of all records and reports required by this paragraph for at least 2 years.

(f) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.

(g) Upon closure, comply with all the provisions of §61.151.

(h) Submit to the Administrator, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.

(i) Furnish upon request, and make available during normal business hours for inspection by the Administrator, all records required under this section.

(j) Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

(1) Scheduled starting and completion dates.

(2) Reason for disturbing the waste.

(3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.

(4) Location of any temporary storage site and the final disposal site.

(Secs. 112 and 301(a) of the Clean Air Act as amended (42 U.S.C. 7412, 7601(a))

[49 FR 13661, Apr. 5, 1990. Redesignated and amended at 55 FR 48431, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991]