

# City of St. Marys Yard Waste Composting Facility Operations Plan

References: (a) K.S.R 28-29-25b, Yard Waste Composting Facilities  
(b) City Code  
(c) City of St. Marys Personnel Policies and Guidelines  
(d) KDHE Solid Waste Permit Number 708

Enclosures: (1) Position description for Composting Facility Operator  
(2) Map of Composting Facility

1. PURPOSE. The purpose of this plan is in accordance with Kansas Solid Waste Statutes and regulations (reference a) and City of St. Marys Policies (references b and c) to provide for the proper composting of grass clippings, leaves, and wood chips into a usable product within the City of St. Marys for use by the City of St. Marys and the general public under this existing permit (reference d). It is also used to familiarize operators, and maintenance personnel with the proper operation of the City of St. Marys Compost Facility. In addition to the operation maintenance of the facility, the plan also discusses the current rules and regulations associated with composting operations within the State of Kansas.

## 2. DEFINITIONS.

- a. Solid Waste Processing Facility: means incinerator, composting facility, household hazardous waste facility, waste-to-energy facility, transfer station, reclamation facility or any other location where solid wastes are consolidated, temporarily stored, salvaged or otherwise processed prior to being transported to a final disposal site. The term does not include a scrap metal recycling and processing facility.
- b. Composting means a controlled process of microbial degradation of organic material into a stable, nuisance free, humus-like product.
- c. Yard Waste means vegetative waste generated from ordinary yard maintenance, including grass clippings, leaves, tree branches, and garden wastes.
- d. Solid Waste Director is the person appointed by the City Manager to be in charge of the City of St. Marys Compost Facility and manage the activities of the operations and facility. The mailing address of the Director is: City of St. Marys Compost Facility, P.O. Box 130, KS 66536.
- e. Operator is the Director or person(s) appointed by the director to be responsible for the daily activities of the Composting Facility. A job description is provided in enclosure 1.
- f. The Kansas Department of Health and Environment (KDHE) acting through the Bureau of Waste Management located at 1000 SW Jackson, Suite 320; Topeka, KS 66612-1366.
- g. Squeeze Moisture Test - Sample from the interior of compost pile. A handful of material should feel damp, not wet. If a handful drips without squeezing, it is too wet.

If the material retains its clump shape after squeezing without releasing water and dampens your hand, moisture is within ideal range for composting (40% - 60%).

### 3. RESPONSIBILITY.

- a. The Street Department Head is responsible for the execution of this operations plan under the direction of the City Administrator.
- b. The Street Department Head is designated as the Solid Waste Director for the City of St. Marys Yard Waste Composting Facility and is responsible for managing the operations and includes but not limited to: providing personnel to staff the facility, providing training to personnel, supplying the necessary machinery and hardware, managing the accounting and record keeping as required by KDHE.
- c. The Compost Facility Operator is under the supervision of the Street Department Head. The operator will be responsible for the processing and manipulation of the compost and tree limbs. All operators will be proficient in the operation of heavy machinery particularly front-end loaders, bulldozers, tree limb chippers, compost turners, and dump trucks. Duties will include but not limited to: inspection of incoming yard waste, policing of litter in staging and mixing areas, plus the mixing, watering, and turning of compost. Also included will be directing customers to the proper locations within the Yard Waste Composting Facility.

### 4. OPERATIONS.

- a. The City of St. Marys Yard Waste Composting Facility is located on south 6th Street.
- b. Dates and Hours of Operation – Monday through Friday 8 to 12, 1 to 5, and Saturday 9-3.
- c. The City of St. Marys Compost Facility will be closed in observance of the following holidays:
  - Labor Day
  - Veterans Day
  - Good Friday
  - Thanksgiving Day
  - Day after Thanksgiving Day
  - Memorial Day
  - Independence Day
- d. As with most facilities, regular maintenance of equipment and review is necessary to ensure the proper operation and to extend the serviceable life of composting equipment. Shelters have been erected to place the equipment out of the elements when not in use.
- e. The Yard Waste Composting Facility will accept and process: (1) grass clippings, (2) leaves, (3) garden waste, (4) wood chips, (5) miscellaneous vegetation. Incoming waste will be processed within one week of receipt. Leaves received will be mixed with grass

clippings and garden waste in windrows.

- 1) Security: Solid Waste entering the facility is controlled by a security fence and gate. The facility will be locked except during hours of operation. Access to all services including composting will be via the entrance gate on west side of the Yard Waste Composting Facility.
- 2) Staging/Receiving: All incoming vehicles with loads will be screened or inspected by an operator and directed to the appropriate staging area for processing. The operator will record what type of material and estimate the approximate weight of all loads arriving at the facility (i.e. truck load, 1/2 truck load, etc.). All of the composting material will be directed to the compost staging areas located on the south side of facility. All tree limbs will be directed to the brush pile located on the west side of the facility.
- 3) Windrow/Processing: Compost windrows will be built by moving material from the staging areas. Completed rows will measure approximately 100 ft. in length by 8 ft. in width by 6 ft. in height. The compost windrows area will be separate from the staging area. The composting compositions will be determined by the look and feel, trial and error method. All efforts will be made to maintain the C:N ratio of the raw material between 20:1 and 40:1 with moisture content between 40% and 60% as determined by the "squeeze moisture" test.
- 4) Mixing/Turning: This will be accomplished with a rubber-tired front-end loader. The windrow will be mixed/turned as determined by the Passive Method (turning windrow at 140 degrees F, when temperature drops without cause, when water is added, when odor is present, or if the temperature difference between the 2 foot and 4 foot levels is greater than 20 degrees F. Moisture will be added on a weekly basis or as needed when determined by the squeeze test. The source for the majority of the applied moisture will be from water hauled and sprayed on compost rows. Allowable additives include finished compost, shredded paper, cardboard, and sawdust.
- 5) Quality Assurance and Control: Curing is the final stage of composting. Curing occurs after most of the organic feedstock has been decomposed and is stable. Curing can be detected when a sustainable drop in temperature takes place or the compost fails to reheat after turning. To determine the decrease in temperature is truly the result of curing and cannot be attributed to process limitation such as lack or excess moisture the following method will be used:

A small sample of compost will be thoroughly wetted, sealed in a plastic bag, and stored at room temperature (68 - 86 degrees F) for one week. Following this time period, if the material does not emit a foul odor, it shall be considered to be in the curing stage. Compost will be maintained in the curing windrows as long as necessary to achieve the desired level of stability. Curing times may range from several weeks to as long as eight or more months. Then, proper blending with soil to provide good topsoil for use.

- 6) End Use: The cured compost and wood chips will be utilized by the City of St. Marys several departments. It will also be made available at no cost to the public.

f. Litter and Odor Control

- 1) Litter control will begin when loads are visually screened for content. The staging and composting areas will be checked routinely for litter. One or more dumpsters will be placed in the area for disposal of non-recyclable material.
- 2) Solid Waste Director will have a clean up of the Yard Waste Composting Facility to pick up and dispose of any non-recyclable material.
- 3) Odor problems will be treated by immediately incorporating nitrogenous raw materials with a balanced source of carbon. If necessary, a cover of finished compost 3 - 6 inches thick will be used to limit the release of odor from the windrow.

- g. Storm Water Control: The composting area has been graded to drain to the south onto a grass area. An area has also been seeded with grass.

- h. Entry Sign: The entry sign will be located at the entryway to the Yard Waste Composting Facility.

- 1) Facility Name: City of St. Marys Yard Waste Composting Facility
- 2) Permit Number: 708
- 3) Site Hours: please see 4b on page 2.
- 4) Traffic Flow: See Compost Facility Operator for Placement of Items.
- 5) Authorized Items: Grass Clippings / Leaves
- 6) Emergency Contact: City Hall (785) 437-2311

i. Administration

- 1) The Solid Waste Director will provide copies of all Yard Waste Composting Facility correspondence to the Street Supervisor.
- 2) The Solid Waste Director will prepare all correspondence to KDHE. This includes all insurance requirements.
- 3) The annual KDHE Compost Report will be submitted as required with a copy provided to the City Administrator. The Solid Waste Director will establish the appropriate files for permanent retention of the records relating to this plan.
- 4) Annually, the Solid Waste Director shall submit a permit application to KDHE.
- 5) Personnel and Contacts: The operator at the St. Marys Yard Waste Composting

Facility will be provided a radio to be able to maintain instant contact with the City operations and emergency services: Other contacts:

<u>Name</u>	<u>Telephone</u>
All Emergencies	911
City Manager	437-2311
Compost Facility Director	437-6161
Fire Department	437-3605
Emergency Management Services	911
KDHE	785-296-1600

- j. Equipment for use at the Yard Waste Composting Facility. All equipment will be accounted for and budgeted for by the Solid Waste Director.

Rubber tired front-end loader  
Tandem dump truck (as needed from Street Dept.)  
Commercial tree limb chipper

- k. Fire Protection and Control:

1. In the event of a fire at the composting site, the following general plan of action shall be carried out:
  - a) If the fire is relatively small and contained to a single location, attempts will be made to extinguish using fire extinguishers.
  - b) If fire appears out of control; the City of St. Marys Fire Department will be contacted immediately.
  - c) If possible, all equipment and loose materials will be removed from the fire scene.
  - d) The facility will be closed and unauthorized personnel will not be permitted to enter.
  - e) Human health will not be endangered in an attempt to extinguish the fire.
2. All city vehicles and machinery are equipped with extinguishers. All extinguishers will be checked on a yearly basis. Inadequate extinguishers will be replaced or recharged.

- l. Maps and Pictures: Maps and any pictures deemed necessary of the City of St. Marys Compost Facility are provided in enclosure (2).

- m. Closure of Facility: In the event the City of St. Marys Governing Body directs the closure of the St. Marys Yard Waste Composting Facility. The Street Department will utilize its heavy equipment to move the material. Equipment will be transferred to other departments within the City of St. Marys organizational structure as approved by the City Manager. The Solid Waste Director will accomplish coordination with KDHE 60 days prior to the closing of the facility. The cost is approximately \$2,100 to close the facility.

3. This memorandum is effective immediately. The City Manager is the approving authority for changes to this plan.

Bob Schindler  
Street/Park/Refuse Supervisor  
City of St. Marys