

Compost Facility RFP # 730A

ADDENDUM 2

Tuesday, July 27, 2010

Attendance from July 19th pre-proposal meeting: See attached list.

RFP Review:

1. Proposers may submit a lease proposal for the City's compost equipment if they choose.
2. Written comments must be received by the City of Ann Arbor by close of business on Friday, July 23, 2010.
3. Proposals are due to the City's Purchasing Unit before 2:00 PM on Monday, August 2, 2010.
4. Any addendum to this RFP will be posted on the City website and be distributed to prospective proposers on the attached attendance list.
5. A bid bond in the amount of \$10,000 is required with each proposal.
6. A performance bond in the amount of \$200,000 will be required by the selected contractor.
7. The capabilities of the City operated scale house were reviewed, including the hours of operation. Hours of operation are: Monday-Friday 7 am-4 pm and Saturday, 8 am -12 pm (April 1- June 30)
8. The far right column of the chart on page 19 of the RFP titled "Yard Debris Breakdown" includes volumes for the first six months of 2010.
9. Noted that liquidated damages for failure to perform are part of the contract documents.
10. Residents will no longer be raking fall leaves to the curbside for bulk collection by the City. City leaf collection will utilize compost carts and leaves bagged in paper yard debris bags picked up by the City and delivered to the compost site. Yard debris bags are not provided by the City.

Questions/Comments from the Attendees during the meeting:

1. Form A-4 under the Technical/Operational Experience should include a general overview of the proposer's intended operation of the site including material receiving, processing and marketing operations. See page 30 of the RFP for more detail.
2. What happened with the finalist from the last RFP process? Saint Louis Composting and the City were negotiating contract terms when SLC expressed their concern over the successful operation of the site with the economic changes that were happening. Market pricing and incoming volumes at the site had changed significantly from when the earlier proposals were received in 2009. It is important that both parties have a good opportunity to succeed in this partnership and the City decided to request new proposals since it had been so long since the original RFP was released.
3. **A summary of the proposals from the previous RFP was requested and is attached as part of this addendum.** City pricing was based on accepting 9,000 tons of yard waste and leaves per year.

4. How much material was Waste Management bringing into the compost site? The first chart on page 19 of the RFP shows that WM and Woodland Meadows (a site operated by WM) brought in a combined 9,345 yards in 2008 and 6,301 yards in 2009.
5. What materials does the City have control of? The City controls residential yard waste that is collected curbside. There are also some materials collected at commercial locations that are participating in the food waste collection pilot program.
6. What is the capacity of the site? The current site designated for composting is 26 acres, which includes material delivery, grinding, active composting windrows, curing piles, detention ponds, buffers and access roads. The Contractor must meet all MDNRE composting site regulations. How are tip fees set? Tip fees for materials brought in by the City of Ann Arbor would be determined by the contractual arrangement with the selected vendor. Tip fees for materials brought in by others would be determined solely by the selected vendor. **Form A-10 has been revised, and no longer requires tip fees for non-City materials.** However, projected tonnages for non-City materials must be included to allow the City to evaluate the financial aspects of the proposal.
7. Can other compostable materials be brought to the site? The City is open to allowing additional compostable materials at the site that are consistent with state and local requirements and upon receiving City approval. Please see attached 2/11/05 letter and the 2007 exemption from MDEQ regarding materials the site can process. The 2007 Exemption may need to be approved by Pittsfield Township as acceptable under the 2005 City-Township Development Agreement and approved site plan.
8. Can the City expand on their intent under Section 4.04 of the proposed contract referencing contaminated loads? If the contractor determines that a City load is contaminated, they must contact the City for confirmation and the City will be responsible for disposing of the portion of the City load containing the contaminated materials. The City has staff at the Wheeler Service Center for multiple shifts each day that can respond quickly to such a call. If the material is from a non-City load, the contamination must be confirmed and the contaminated materials must be properly disposed of by, and at the expense of, the contractor or the third party who delivered the load. The City has not experienced any recent problems with contaminated loads.
9. Does the vendor need to register with the STA, and pay their fees, or can they simply test to the STA standards? The vendor will need to register with the STA.
10. Actual budget information for the compost operation over the last three years was requested. A budget summary is attached as part of this addendum.
11. Does the City have an educational program to minimize contamination? The City has an extensive educational program for both the residents and route drivers to help identify appropriate materials for composting including the City's website and quarterly Waste Watcher magazine that is mailed to all residents and businesses.
12. Is there an exhibit B to the proposed contract in the RFP? No, there are exhibits A, C and D to the proposed contract (Attachment B). There is an exhibit B (MDEQ Permit Forms) under Attachment C of the RFP.
13. Has the City had any problems with litter, odor or compliance issues? No we have not.

14. What are the license or permit requirements for the selected vendor? Please refer to Attachment C, Exhibit B for MDEQ requirements.
15. Is there a requirement to utilize the current compost employees? No, the City employees will be assimilated into other City operations where available.
16. What becomes of the product already on site at the time of transition? All materials will transfer to the contractor. Fall leaves are expected to be partially composted and partially screened.
17. How are tip fees for site generated residue handled? These are the responsibility of the contractor. Likely, the contractor would negotiate a price for these materials with the Waste Transfer Station located just to the north of the compost site, operated by FCR.
18. Are retail sales allowed from the compost site? The City anticipates that small volume retail sales will not be handled at the compost site. Recycle Ann Arbor operates a drop off station at the corner of Platt and Ellsworth Roads that is more compatible with resident traffic associated with small volume sales. The contractor would need to negotiate a deal with Recycle Ann Arbor for this service.
19. Does the Ann Arbor name have to be associated with the product? While the City has developed a local name for quality materials, there is no requirement that the City's name be associated with the product.
20. How was the capacity/throughput of the City's compost equipment determined? It is based on manufacturer specifications.
21. Does the contractor get exclusive use of the Compost Equipment Storage Building (CESB)? Yes, though the City will likely complete periodic inspections of the facility to ensure that it is being properly maintained.
22. What about CESB utilities? The contractor is responsible for these operating costs of the facility. Please refer to page 21, section H of the RFP.
23. Who is responsible for major repairs to the CESB? In general, the City would be responsible for major repairs to the exterior shell of the building and primary mechanical systems within the building that are not the result of a lack of or improper maintenance by the contractor. These details would be addressed in the final contract between the two parties.
24. A longer term of agreement may be beneficial to both the City and the contractor, is the City open to this? All proposals must include the pricing based on the term on page 14 of the RFP. Proposers are welcome to submit an alternative bid, along with their primary bid, showing a different term and associated pricing for consideration by the City.
25. Additional information: The following vendor information was submitted from a Mr. Logsdon interested in using the City composting site:

Stansley Industries has a contract to transport and dispose of yard waste from the City of Detroit Southfield transfer station. We would like to be able to use your facility however we need to be in the \$12.00-\$13.00 /ton range. The material would be brought in 120 cu yd walking floor trailers. Approximate annual tonnage 8-10,000/tons.

Phone: 734 216 8118; email: jlogsdon78@aol.com

Questions and Answers to Written Comments:

1. To maximize labor we would like to grind once every three months. Is this acceptable procedure? This is acceptable as long as there are no odor complaints and operations are consistent with the MDNRE.
2. Can we bring in small amounts of manures/animal bedding? Contractor must meet the requirements of the MDNRE compost regulations.
3. Can we take the site over earlier than the first of the year? Or work with current marketing for fall? It may be possible to for the selected contractor to work with the City on marketing earlier than January 1, 2011.
4. Is the land and buildings that the composting facility located on leased, or part of the overall agreement? The land and the building for the facility are owned by the City, and will be made available to the selected contractor at no additional cost.
5. Would you consider lease purchase on the equipment that could be taken from the tipping fee received from the city? We will consider a lease. The lease would be paid separately.
6. Can the buildings be renovated, or expanded, to accommodate for better marketing plans? This would need to be negotiated with the City. Proposer is encouraged to submit a proposed plan with their proposal.
7. When would the proposed contract purchase price of the equipment be determined? The proposer will include a proposed purchase price for the equipment that they are interested in, and the City will evaluate this as part of the proposal.
8. Section 2.8 RFP
 - a. What are the needs of the City of Ann Arbor for wood chips, compost, and soil products? This varies from year to year. The selected contractor shall provide finished compost (approximately 1,500 cy/yr) and mulch (approximately 1,000 cy/yr) products to Ann Arbor residents via distribution at wholesale prices to the City's drop-off station operator, Recycle Ann Arbor.
 - b. Please identify what 'soil products' you are referring to. Ann Arbor does not currently sell any soil products. This refers to any blends that the proposer may develop.
 - c. What is the established purchase price for wood chips, compost, and soil products?
 - i. Mulch (wood chips): \$10-12/cy
 - ii. Compost: \$2.75 - \$7.00/cy (depending on volume) CURRENTLY SOLD OUT
 - d. Who sets this pricing? This pricing is currently set administratively within parameters that were set by City Council. The Contractor's sales prices for wood chips, compost, and soil products will NOT need to be set or approved by City Council.
 - e. Is this pricing different from citizens, and the DOS? If so, what is their pricing? The DOS and City Parks shall receive materials at wholesale prices.
 - f. In part D, what brand are you referring to? The City of Ann Arbor compost.
 - g. For marketing purposes, can the selected Contractor use our current brand to sell all composted material? Yes.
 - h. Is a sub brand required? No.
9. Section 3.4 RFP

- a. Does all the current composting equipment that the City of Ann Arbor determines to sell need to be purchased by the selected Contractor or can we purchase only what we need? The proposer can purchase only what they need.

**PRE-PROPOSAL MEETING
ATTENDEE LIST
19-Jul-10**

NAME	COMPANY	PHONE	EMAIL
Stacey Petrovas	Soil Solutions Co.	765-479-3123	
Jeff McBurnie	New England Organics	207-347-3600	jeff.mcburnie@casella.com
Jay Kilbourn	New England Organics	207-347-3600	jay.kilbourn@casella.com
Tom Turner	Spurt Industries	616-886-0810	spurtindustries@yahoo.com
Matt Kulhanek	City of Ann Arbor	734-994-9124	mjkulhanek@a2gov.org
Tom McMurtrie	City of Ann Arbor	734-794-6430 X43707	tmcmurtrie@a2gov.org
Brad Morgan	Morgan Composting	231-734-2451	info@dairydoo.com
Dale Morgan	Morgan Composting	231-734-2451	
Justin Morgan	Morgan Composting	231-734-2451	
Dave Kilanski	Kilanski Excavating & Land Clearing	734-941-4583	wkilanski@comcast.net
Buddy Beard	SRS	251-445-5500	bbeard@srs.com
Matthew Sedlak	B & B Landscaping	810-632-6061	
Michael Nicholson	WeCare Organics	419-349-5402	Michael.Nicholson@att.net
Arnie Geldermans	Midwestern Consulting	734-995-0200	ag@midwesternconsulting.com
Dave Retell	Veolia		dave.rettell@veoliaes.com
Carla Castagnero	Agregcycle Inc	412-767-7645	carla@agrecycle.com
Craig Geyer	Synagro	520-631-4982	cgeyer@synagro.com
Don Popma	Synagro	616-291-7878	dpopma@synagro.com
Daniel Domigan	Synagro	937-789-7234	ddomigan@synagro.com
Larry Mullins	EWS	248-318-8250	info@ewsmullins.com
Mark Miller	Synagro	616-318-4146	mmiller@synagro.com
Nicole Chardoul	RRS	734-996-1361 X227	nchardoul@recycle.com
Stewart Beal	Beal	734-320-6376	sbeal@gobeal.com
John Myers	WM	248-596-3506	jmyers@wm.com

Attachment A: Form A-10 (revised)

Composting Processing Services Cost and Revenue Share

The Cost Proposal table must be filled out in full in order to have the cost proposals evaluated as part of the Contractor selection process. The material volumes used in this table should be reasonable estimates of anticipated volumes by the Proposer. ***City quantities are estimates only based on past performance and are no guarantee of future quantities.***

Material (per year)	Yr. 1	Y. 2	Yr. 3	Yr. 4	Yr. 5
(A) Total City Leaves and Yard Debris (tons/yr)*	9,000	9,000	9,000	9,000	9,000
(B) Tipfee (\$/ton)					
(C) Total City Cost (\$/yr) =A x B					
(D) Projected Incoming Merchant Tons (tons/yr) **					
(E) City Share of Incoming Merchant income (\$/ton)					
(F) Payment to City - Incoming Material (\$/yr) =D x E					
(G) Outgoing Material – Projected Market Sales (tons) **					
(H) City Share of Outgoing Materials sales (\$/ton)					
(I) Payment to City – Outgoing Materials (\$/yr) =G x H					
Total Share to City (\$/yr) =F + I					

*Quantities include a small quantity of Source Separated Organics. Note that starting in 2010, fall leaves will no longer be collected separately and will instead be collected with yard debris in compost carts or paper yard debris bags

** Merchant and Market quantities are considered estimates and are used to compare cost proposals.

Ann Arbor Compost Facility RFP

Financial Analysis

	Yr. 1	RRYr. 2	Yr. 3	Yr. 4	Yr. 5
Environmental Wood Solutions	19,000	19,000	19,000	19,000	19,000
Total City Tipfee Expense \$	216,000	\$ 228,960	\$ 242,730	\$ 257,220	\$ 272,700
Total Revenue Share Income \$	30,000	\$ 31,800	\$ 33,700	\$ 35,700	\$ 37,900
Net Cost to the City \$	186,000	\$ 197,160	\$ 209,030	\$ 221,520	\$ 234,800
Equipment Revenue to City \$	87,000	\$ 87,000	\$ 87,000	\$ 87,000	\$ 87,000
Total Cost to the City Net of Equipment \$	99,000	\$ 110,160	\$ 122,030	\$ 134,520	\$ 147,800
Saint Louis Composting	25,065	30,600	36,650	36,700	36,750
Total City Tipfee Expense \$	220,500	\$ 220,500	\$ 229,500	\$ 229,500	\$ 234,000
Total Revenue Share Income \$	35,925	\$ 50,080	\$ 64,194	\$ 64,292	\$ 65,361
Net Cost to the City \$	184,575	\$ 170,420	\$ 165,306	\$ 165,208	\$ 168,639
Equipment Revenue to City \$	68,138	\$ 68,138	\$ 68,138	\$ 68,138	\$ 68,138
Total Cost to the City Net of Equipment \$	116,437	\$ 102,282	\$ 97,168	\$ 97,070	\$ 100,501
Spurt Industries	25,000	25,000	25,000	25,000	25,000
Total City Tipfee Expense \$	441,000	\$ 441,000	\$ 441,000	\$ 441,000	\$ 441,000
Total Revenue Share Income \$	162,000	\$ 182,500	\$ 193,000	\$ 209,000	\$ 229,000
Net Cost to the City \$	279,000	\$ 258,500	\$ 248,000	\$ 232,000	\$ 212,000
Equipment Revenue to City \$	117,012	\$ 117,012	\$ 117,012	\$ 117,012	\$ 117,012
Total Cost to the City Net of Equipment \$	161,988	\$ 141,488	\$ 130,988	\$ 114,988	\$ 94,988
WeCare Organics	20,300	21,000	23,000	25,000	26,000
Total City Tipfee Expense \$	526,500	\$ 526,500	\$ 517,500	\$ 513,000	\$ 513,000
Total Revenue Share Income \$	405,000	\$ 452,400	\$ 560,500	\$ 677,000	\$ 746,900
Net Cost to the City \$	121,500	\$ 74,100	\$ (43,000)	\$ (164,000)	\$ (233,900)
Equipment Revenue to City \$	87,000	\$ 87,000	\$ 87,000	\$ 87,000	\$ 87,000
Total Cost to the City Net of Equipment \$	34,500	\$ (12,900)	\$ (130,000)	\$ (251,000)	\$ (320,900)



ANNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



February 11, 2005

Mr. Bryan Weinert
City of Ann Arbor
P.O. Box 8647
Ann Arbor, Michigan 48107-8647

MR BRYAN WEINERT MANAGER OF SOLID WASTE
CITY OF ANN ARBOR
100 NORTH FIFTH AVENUE PO BOX 8647
ANN ARBOR MI 48107

Dear Mr. Weinert:

SUBJECT: Response to Ann Arbor Composting Questions

Thank you for your request for a description of the solid waste guidelines for organic waste composting. The Department of Environmental Quality (DEQ) commends your efforts to further the recycling of organic resources and looks forward to assisting you in completing the project and developing a successful organic waste composting program in Michigan.

Attached is a document titled "Part 115, Solid Waste Management Statute and Rules Impacting Composting." It assembles the portions of Part 115, Solid Waste Management, Natural Resources and Environmental Protection Act, (NREPA) 1994 PA 451, as amended, (Part 115) and its administrative rules, as they impact composting.

Beyond the requirements of the solid waste statute and rules, the DEQ recommends that all composting operations:

1. Develop detailed operational plans and send all relevant staff to a compost operator-training course. The United States Composting Council and the Michigan Composting Committee of the Michigan Recycling Coalition recommends the development of a Compost Facility Site Management Plan to better manage operations at the composting facility and prepare for any difficult to manage situations. This plan would include basic information about the methods used to compost compostable materials, while avoiding nuisance conditions and negative environmental impact. A well-developed Site Management Plan would typically include the information outlined in the attachment "Compost Facility Site Management Plan Suggested Components."
2. Develop a detailed written plan outlining how the finished compost will be used. This should include a description of markets and uses for the compost to ensure the compost will be used as a product and not speculatively accumulated.

You have mentioned that you are interested in composting the following materials: yard clippings, residence hall kitchen prep waste, residence hall food waste, hospital food waste, cafeteria food waste, restaurant food waste, grocery store food waste, and vivarium animal bedding.

Yard Clippings

Yard clippings can be composted alone or with other material not defined as solid waste in Part 115 without a permit or a license. All composting facilities, including facilities that are not composting material defined as solid waste, must be in compliance with Part 115, Solid Waste Management, Part 55, Air Pollution Control, and Part 31, Water Resources Protection, of the Michigan Compiled Laws of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, (NREPA), and any administrative rules promulgated pursuant to this act. If the facility affects wetlands or waters of the state then a permit may be required pursuant to Part 303, Wetlands Protection, and Part 301, Inland Lakes and Streams. Composting operations cannot create a nuisance, discharge to surface water without a permit, or speculatively accumulate material. In addition, composting facilities must comply with local ordinances and zoning regulations.

Rule 120 of Part 115 administrative rules states yard clippings shall be considered to be site or source-separated and is therefore not solid waste, for the purpose of conversion into compost if the yard clippings are separated from other material defined as solid waste, and maintained separately until used as compost. Material not defined as solid waste can be composted without a permit or license from the DEQ. Therefore, you may compost yard clippings mixed with other site or source separated compostable material including garbage, wood, and paper, which are also defined as site or source separated materials.

Food Waste

The food waste you are looking at composting from residence halls, hospitals, cafeterias, restaurants, and grocery stores is defined as "garbage" in Part 115. For a definition, please see the attachment "Part 115, Solid Waste Management Statute and Rules Impacting Composting." Part 115 defines garbage as a site or source-separated material and is therefore not a solid waste. Similar to yard clippings, no permit or license is required to compost "garbage" as defined in Part 115.

Non-Livestock Animal Bedding

Part 115 defines animal waste from non-production agriculture as solid waste. Even though the bedding material alone is likely not a solid waste, because it is mixed with a material defined as a solid waste, the entire mixture is a solid waste. The composting of the animal bedding must receive approval from the DEQ and be designated a site or source separated material or inert material. Rule 117 of Part 115 rules allows a person to conduct a pilot project with up to 100 tons of solid waste. A solid waste processing plant license is not required for the pilot. The pilot is performed to produce a finished compost that could be declared an inert material if appropriate criteria are met. Rule 118 of Part 115 rules outlines a procedure to petition the DEQ to define the

material as a site or source separated material by demonstrating that the material is beneficially reused. Rule 119 describes the criteria that must be met to be able to beneficially reuse a solid waste. For more information about these rules, please contact Mr. Duane Roskoskey at 517-335-4712.

Any decomposition method including static piles, aerated piles, windrows, ag-bag, and anaerobic digestion can be used to compost site or source-separated compostable material other than yard clippings. Because yard clippings must be composted at the site of generation or at a composting facility, and a composting facility is a facility where composting occurs, and composting is defined as an aerobic process, yard clippings must be processed aerobically. Authorization to process yard clippings anaerobically may be requested from the DEQ.

The DEQ is glad to hear that Ann Arbor is pursuing advances in organic waste composting and looks forward to collaborating on the project. If you have additional questions, please contact me at 517-373-8422, or you may contact me via email at flechtem@michigan.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matt Flechter', written over a horizontal line.

Matt Flechter
Recycling and Composting Coordinator
Solid Waste Management Unit
Storage Tank and Solid Waste Section
Waste and Hazardous Materials Division
517-373-8422

Attachments

cc: Mr. Lonnie C. Lee, DEQ
Mr. Lee Carter, DEQ
Ms. Rhonda Oyer Zimmerman, DEQ
Mr. Duane Roskoskey, DEQ

Part 115, Solid Waste Management Statute and Rules Impacting Composting

Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and its administrative rules that impact composting in Michigan can be read at to the Department of Environmental Quality (DEQ) Web site at <http://www.michigan.gov/deq>. Under the "Waste" heading click on "Solid Waste" then under "Laws and Rules," click on "Solid Waste Statutes and Rules." The following is a concise collection of the requirements for composting organic waste as found within Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and its administrative rules.

Section 11503(10) states "Garbage" means rejected food wastes including waste accumulation of animal, fruit, or vegetable matter used or intended for food or that attends the preparation, use, cooking, dealing in, or storing of meat, fish, fowl, fruit, or vegetable matter.

Section 11505(7) states, " 'Site separated material' means glass, metal, wood, paper products, plastics, rubber, textiles, garbage, yard clippings, or any other material approved by the department that is separated from solid waste for the purpose of conversion into raw materials or new products. Site separated material does not include the residue remaining after glass, metal, wood, paper products, plastics, rubber, textiles, or any other material approved by the department is separated from solid waste."

Section 11506(1) states in part, " 'Solid waste' means garbage, rubbish, ashes, incinerator ash, incinerator residue, street cleanings, municipal and industrial sludges, solid commercial and solid industrial waste, and animal waste other than organic waste generated in the production of livestock and poultry. Solid waste does not include the following:

- (c) Organic waste generated in the production of livestock and poultry.
- (g) Sludges and ashes managed as recycled, or nondetrimental materials appropriate for agricultural or silvicultural use pursuant to a plan approved by the department. Food processing residuals; wood ashes resulting solely from a source that burns only wood that is untreated and inert; lime from kraft pulping processes generated prior to bleaching; or aquatic plants may be applied on, or composted and applied on, farm land or forestland for an agricultural or silvicultural purpose, or used as animal feed, as appropriate, and such an application or use does not require a plan described in this subdivision or a permit or license under this part. In addition, source separated materials approved by the department for land application for agricultural and silvicultural purposes and compost

produced from those materials may be applied to the land for agricultural and silvicultural purposes and such an application does not require a plan described in this subdivision or permit or license under this part. Land application authorized under this subdivision for an agricultural or silvicultural purpose, or use as animal feed, as provided for in this subdivision shall occur in a manner that prevents losses from runoff and leaching, and if applied to land, the land application shall be at an agronomic rate consistent with generally accepted agricultural and management practices under the Michigan right to farm act, 1981 PA 93, MCL 286.471 to 286.474.

- (i) Source separated material.
- (j) Site separated material.
- (l) Other wastes regulated by statute.

Section 11506(6) states, " 'Source separated material' means glass, metal, wood paper products, plastics, rubber, textiles, garbage, yard clippings, or any other material approved by the department that is separated at the source of generation for the purpose of conversion into raw materials or new products including, but not limited to, compost."

Section 11506(7) states, " 'Yard clippings' means leaves, grass clippings, vegetable or other garden debris, shrubbery, or brush or tree trimmings, less than 4 feet in length and 2 inches in diameter, that can be converted to compost humus. Yard clippings do not include stumps, agricultural waste, animal waste, roots, sewage sludge, or garbage."

Rule 102 states in pertinent part, as used in these rules:

(e) "Composting" means the process by which biological decomposition of yard clippings or compostable material is carried out under controlled aerobic conditions and which stabilizes the organic fraction into a material that can easily and safely be stored, handled, and used in an environmentally acceptable manner. The presence of insignificant anaerobic zones within the composting material will not cause the process to be classified as other than composting.

(f) "Composting facility" means a facility where composting of yard clippings or compostable material occurs using composting technology. Composting technology may include physical turning, windrowing, aeration, or other mechanical handling of organic matter.

Rule 103 states in pertinent part, as used in these rules:

(d) "Food processing wastes" means solid wastes that result from processing fruits and vegetables for preservation by freezing, drying, or canning.

Rule 104 states in pertinent part, as used in these rules:

(r) "Processing" means changing the physical or chemical character of solid waste, by separation, treatment, or other methods, so as to make the waste or a constituent of the waste disposable or usable as a resource.

The following activities do not constitute processing:

(vii) The separation of small quantities of solid waste from source-separated material. The volume of solid waste removed shall be considered a small quantity if it is less than 10% of the total volume of material received.

(viii) Composting of yard clippings, if the requirements of R299.4120 are met.

(ix) Composting of material other than yard clippings which is approved under R 299.4121 and which does not involve more than 500 cubic yards at any time. Composting facilities exceeding 500 cubic yards shall be licensed as processing plants.

(x) Shredding or chipping of trees, stumps, and brush.

Rule 105 states in pertinent part, as used in these rules:

(l) "Speculative accumulation" means the storage of material intended for recycling or reuse at a site for a period of over 1 year, or for low-hazard industrial waste accumulated at the site of generation, a period of 3 years. A material is not accumulated speculatively however, if the person who accumulates it can show that the material can be recycled into marketable raw materials or new products and that, during the period, the amount of material that is recycled or that is transferred to a different site for recycling equals not less than 75% by weight or volume, of the amount of material that was accumulated at the beginning of the period.

Rule 106a states in pertinent part, as used in the rules:

(b) "Compost" means organic matter from yard clippings or compostable materials which have undergone biological decomposition by composting, which have been stabilized to a degree that it is potentially beneficial to plant growth without creating a nuisance, and which are used or sold for use as a soil amendment, artificial topsoil, or growing medium amendment or for other similar uses.

(c) "Conversion" means the process by which any of the following is recycled into marketable raw materials or new products:

(ix) Yard clippings

Conversion includes the composting of yard clippings and compostable material in accordance with these rules, but does not include the speculative accumulation of the materials specified in this subdivision.

(f) "New products" means marketable consumer goods produced from site-separated or source-separated material. New products shall not be used in a manner constituting disposal, unless the new products are any of the following:

(ii) Compost produced from yard clippings.

(iii) Compostable material.

(iv) Material applied to the land for agricultural or silvicultural use in a manner consistent with the act and these rules.

Rule 110 states in pertinent part:

As provided by section 11506 of the act, the following wastes are "other wastes regulated by statute" and are exempt from regulation as solid wastes under part 115 of the act:

(f) Animals that are composted or disposed of in accordance with Act No. 239 of the Public Acts of 1982, being §287.651 et seq. of the Michigan Compiled Laws.

Rule 119(2) states,

"For purposes of the act and these rules, waste materials shall not be considered site or source separated for the purpose of conversion into raw materials or new products if the materials are any of the following:

(c) Applied to or placed on the land, or used to produce products that are placed on the land, in a manner that constitutes disposal, unless the materials are any of the following:

(i) Yard clippings that are separated for conversion into compost in accordance with R 299.4120.

(ii) Waste other than yard clippings approved for use as compost under R 299.4121.

Rule 120 states:

(1) "Yard clippings shall be considered to be site or source-separated for the purpose of conversion into compost if all of the following provisions apply to the yard clippings:

- (a) The yard clippings are separated from other solid waste, and maintained separately until used as compost.
- (b) The yard clippings are composted at the site of generation or transported to an off-site composting facility where conversion to compost occurs, except as specified in subrule (2) of this rule.
- (c) The yard clippings are not stored in a manner constituting, speculative accumulation, as specified in subrules (3) and (4) of this rule.
- (d) The yard clippings are managed as a product or resource in a manner that does not create a nuisance." *Rule 901(b) of the Part 9, Air Pollution Control, Rules defines a nuisance for odors.*

(2) Yard clippings may be composted at a location other than a composting facility in the following circumstances:

- (a) The disposal occurs at the site of generation.
- (b) The disposal occurs as a part of normal farming operations. For purposes of this rule, the use of yard clippings by persons on their own property for their own use on that property as part of agricultural, horticultural, or silvicultural operations is considered to be normal farming operations.
- (c) The disposal occurs at a location that contains limited volumes of yard clippings and where conversion to compost may occur under natural decay without creating a nuisance.

(3) Yard clippings accumulated at a transfer facility or staging area that is not designed for composting shall not be stored in a manner that constitutes speculative accumulation. The owner or operator of the transfer facility or staging area is responsible for maintaining the records necessary to demonstrate that speculative accumulation is not occurring.

(4) Yard clippings at a composting facility are subject to the definition of speculative accumulation starting in the third year after the yard clippings are received. The owner or operator of the composting facility is responsible for maintaining the records necessary to demonstrate that speculative accumulation of compost is not occurring.

(5) Deleterious material removed from yard clippings or from compost produced from yard clippings may be landfilled as solid waste and is not subject to the landfill prohibition in section 11521 of the act.

Rule 121 states in part, as used in the act:

A person shall not use a solid waste, other than yard clippings, as compost, unless the director approves the waste as a separated material appropriate for such use pursuant to the provisions of this rule.

(2) A person who proposes to separate a waste for use as compost shall file a petition with the director pursuant to the provisions of R 299.4118. To characterize such compost, the petitioner shall include all of the following information in the petition:

- (a) The type of waste and its potential for creating a nuisance or environmental contamination.
- (b) Compost maturity, as determined by a reduction of organic matter during composting. Organic matter shall be determined by measuring the volatile residues content using EPA method 160.4 or another method that is approved by the director.
- (c) Foreign matter content, as determined by drying a sample of compost using EPA method 160.3 and by passing a weighed sample of the dried compost through a 14- or 6-millimeter screen. The material remaining on the screen shall be separated and weighed. The weight of the separated foreign matter divided by the weight of the total sample multiplied by 100 shall be the foreign matter content.
- (d) Particle size, as determined by a sieve analysis.

(3) The director shall approve a material for use as compost if the person who proposes such use demonstrates all of the following:

- (a) The material has or will be converted to compost under controlled conditions at a composting facility.
- (b) The material will not be a source of environmental contamination or cause a nuisance.
- (c) Use of the compost material will be done at agronomic rates.

(4) EPA methods 160.3 and 160.4 are contained in the document entitled "Methods for Chemical Analysis of Water and Waste, EPA-600," March, 1979 edition, and are adopted by reference in R 299.4138.

Compost Facility Site Management Plan Suggested Components¹

1. Topographic map (U.S. Geological Survey 7.5 minute series) of the area.
2. Site plan showing dimensions and details of the proposed receiving, processing, production, curing and storage areas, and locations of all roads, buildings, fences and gates, and other permanent structures.
3. Description and drawings of the facility's storm water management system showing compliance with all federal, state, and local storm water regulations and codes.
4. Description of methods employed to prevent environmental impacts to surface and groundwater.
5. Detailed methods for achieving odor control.
6. Detailed methods for achieving noise control.
7. Detailed methods for achieving vector, dust, and litter control.
8. Description of fire prevention and control methods.
9. Flow diagram of the processing steps including the period of time in each step and estimates of maximum handling capacity.
10. Capacity for proper handling, storage, and removal of non-permitted wastes delivered to or generated by the facility.
11. Detailed description of weather monitoring equipment or methods.
12. Written provision for operations during wind, heavy rain, snow, freezing, or other inclement weather conditions.
13. Management plan should address employee safety issues according to state and federal requirements.
14. Description of methods employed to monitor and prevent anaerobic conditions within the piles.
15. Method for keeping records to ensure speculative accumulation is not occurring at the site.
16. Method for keeping records to show proper carbon to nitrogen ratio of feedstock (leaves, grass, etc) is available for effective composting.

¹ Adapted from a United States Composting Council 1994 draft document titled "Organic Waste Composting Model State Regulation."

Composting Frequently Asked Questions

Revised May 18, 2005

DRAFT

What regulations must be complied with by a composting operation?

In general, all composting operations must be in compliance with Part 115, Solid Waste Management, Part 55, Air Pollution Control, and Part 31, Water Resources Protection, of the Michigan Compiled Laws of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, (NREPA), and any administrative rules promulgated pursuant to this act. Depending on where the facility is located, a permit may be required under Part 303, Wetlands Protection, Part 301, Inland Lakes and Streams, Part 31, for floodplain protection, and other similar resource protection provisions. Composting operations cannot create a nuisance, discharge to surface water without a permit, or speculatively accumulate material. In addition composting facilities must comply with local ordinances and zoning regulations.

What solid waste regulations must be complied with by a composting operation?

Solid waste regulations affecting composting operations vary depending upon how the material being composted is classified under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and its administrative rules (Part 115 statute and rules).

First, one must determine if any of the materials are classified as solid waste. If any of the materials are defined as solid waste per Part 115 statute and rules then approval to compost the material is necessary. A person proposing to compost material defined as solid waste must seek approval by submitting a petition to the Department of Environmental Quality (DEQ).

The first test to determine if the DEQ will approve composting of a material defined as solid waste is whether or not the material is compostable under Rule 121 of Part 115. If it is not compostable then the petition to compost the solid waste will be denied. If any of the following questions about the solid waste can be answered affirmatively then the DEQ will approve composting of the material:

- a) Is the material to be composted, or the finished compost, inert under Rules 114-117 of Part 115?
- b) Can the material to be composted be approved by the DEQ as site or source separated under Rule 119 of Part 115?
- c) Does the material meet agricultural use requirements of Rule 111 of Part 115?

If the answer is no to all above options then the compostable material remains categorized as a solid waste and the facility must obtain a solid waste processing plant permit and license in order to compost the material. The compost produced will be permitted for use in limited circumstances based on its characteristics.

If the materials to be composted are not defined as solid waste because they are exempted from the definition of solid waste under Section 11506 then DEQ approval to compost the material is not required. However, if the material is defined as site or source separated then composting of it cannot:

- a) create nuisance conditions
- b) cause a discharge to, or otherwise impact surface water or ground water, or
- c) result in speculative accumulation of the material,

Part 115 does not require any operational requirements for composting site or source separated material other than yard clippings. Composting of yard clippings or material that contains yard clippings, must meet the requirements outlined in Rule 120 of Part 115.

Other than yard clippings, what wastes can be composted in Michigan without a permit?

Current regulations do not require any permits or approval from the DEQ for the composting of site or source separated compostable material. Source separated material includes wood, paper products, garbage, yard clippings, or any other material approved by the DEQ that is separated at the source of generation for the purpose of conversion into raw materials or new products. The same material is considered "site separated" if it is separated from solid waste for the purpose of conversion into raw materials or new products at a location other than the point of generation. (Site separated material does not include the residue remaining after wood, paper products or any other material approved by the department is separated from solid waste.) Compost is considered a "new product" for purposes of source and site separated material determinations.

Compostable site or source separated materials include garbage, wood, and paper. Garbage is defined as "rejected food wastes including waste accumulation of animal, fruit, or vegetable matter used or intended for food or that attends the preparation, use, cooking, dealing in, or storing of meat, fish, fowl, fruit, or vegetable matter." Wood is defined as "trees, branches, bark, wood pallets, lumber or other wood product which has not been treated, painted, mixed with glues and fillers, or otherwise contaminated during manufacture or use, and wood chips or sawdust from the materials listed." Paper includes cardboard and paper products that have not been contaminated during manufacture or use.

No DEQ permits are required for composting garbage, wood, and paper, although local authorizations may be necessary. Compostable site or source separated material can be composted as long as it is done in compliance with Part 55, Air Pollution Control, Part 115, Solid Waste Management, and Part 31, Water Resources Protection, of the Michigan Compiled Laws of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, (NREPA), and any administrative rules promulgated pursuant to the NREPA.

The composting of solid wastes like biodegradable utensils, research animal bedding, street cleanings or animal waste other than organic waste generated in the production of livestock and poultry must be approved by the DEQ. The composting of garbage, wood, paper, and yard clippings mixed with a material defined as solid waste must also be approved.

How do I obtain approval to compost a compostable material not listed as a site or source separated material?

In order to compost a solid waste material not defined as a site or source separated material one must receive approval per Rule 121 of Part 115. Including the provisions outlined in Rule 117 and 118, the following information must be included in the petition:

- a) The type of waste and its potential for creating a nuisance or environmental contamination;
- b) compost maturity, as determined by a reduction of organic matter during composting;
- c) foreign matter content;
- d) particle size.

The material will be approved for use as compost if:

- a) the material has or will be converted to compost under controlled conditions at a composting facility,
- b) the material will not be a source of environmental contamination or cause a nuisance,
- c) and use of the compost material will be done at agronomic rates.

In order to gain approval from the DEQ to compost the material and demonstrate that the solid waste can be converted into a compost product or resource, Rule 117 of Part 115 allows a person to conduct a pilot project with up to 100 tons of solid waste. For additional information please contact Duane Roskoskey, Environmental Quality Specialist, at 517-335-4712.

Can yard clippings be composted with material not defined as solid waste?

Yes. Rule 120 of Part 115 states that yard clippings are considered to be site or source-separated (and therefore not solid waste) for the purpose of conversion into compost, if the yard clippings are separated from other solid waste, and maintained separately until used as compost. Because garbage, wood, paper, and manure from the production of livestock or poultry are exempted from the definition of solid waste, those materials can be mixed with yard clippings for the purpose of conversion to compost. Additionally, yard clippings can be composted with other compostable material exempted from the definition of solid waste Section 11506 or if it is approved by the department as a site or source separated, or an inert material.

What approval is necessary to compost food processing residuals, ashes from wood that is untreated and inert, lime from kraft pulping processes, or aquatic plants?

Food processing residuals, wood ashes, lime, or aquatic plants are not solid waste if applied on, or composted and applied on, farmland or forestland for an agricultural or silvicultural purpose, or used as animal feed. Such an application or use does not require a plan or a permit or license.

Land application of these materials or compost generated from these materials for an agricultural or silvicultural purpose must occur in a manner that prevents losses from runoff and leaching, and must be done at an agronomic rate consistent with generally accepted agricultural and management practices (GAAMPs) under the Michigan Right To Farm Act, 1981 PA 93, MCL 286.471 to 286.474.

The Department of Agriculture has developed GAAMPs for certain food processing residuals (primarily fruit and vegetable residuals) and lime from kraft pulping process. Because there are currently no GAAMPs for agricultural use of aquatic plants, wood ashes, and other food processing residuals composting of these materials requires DEQ approval.

What is the difference between food processing residuals and garbage?

"Food processing residuals" are residuals of fruits, vegetables, aquatic plants, or field crops, otherwise unusable parts of fruits, vegetables, aquatic plants, or field crops from the processing thereof, otherwise unusable food products which do not meet size, quality, or other product specifications and which were intended for human or animal consumption. "Garbage" is rejected food wastes including waste accumulation of animal, fruit, or vegetable matter used or intended for food or that attends the preparation, use, cooking, dealing in, or storing of meat, fish, fowl, fruit, or vegetable matter.

Must compostable material be composted aerobically?

A compostable material is defined as any organic material that is able to be converted, by composting, into humus and able to be used as a product or a resource.

Under Rule 102 of Part 115, the act of creating compost must be done aerobically to be defined as composting. Uncontained anaerobic conditions are much more likely to create nuisance odors and therefore violate air quality standards. In addition, anaerobic conditions have a higher risk of combustion. (The DEQ suggests that a detailed fire plan be coordinated with the local fire department, whether or not anaerobic conditions are present.)

Under Rule 120 of Part 115, yard clippings must be composted at the site of generation, at a composting facility, or as part of normal farming operations. Composting facilities are facilities where yard clippings or other compostable material are composted aerobically. Therefore yard clippings, and combinations of yard clippings mixed with other compostable materials, must be composted aerobically.

Organic material listed as site or source separated material or materials approved by the department, other than yard clippings and not mixed with yard clippings, may be converted into a product or resource in an anaerobic method but the activity would not be defined as composting, and would require a permit and a license under part 115.

When are yard clippings and other compostable material said to have been “speculatively accumulated”?

Pursuant to Rules 105(l) and 120(4) of Part 115, yard clippings at a composting facility are subject to the definition of speculative accumulation starting in the third year after the yard clippings are received. The owner or operator of the composting facility is responsible for maintaining the records necessary to demonstrate that speculative accumulation is not occurring.

Other compostable material, or other compostable material mixed with yard clippings, including site and source separated material, is said to have been speculatively accumulated if the material intended for recycling or reuse is stored at a site for a period of over 1 year. A material is not accumulated speculatively however, if the person who accumulates it can show that the material can be recycled into marketable raw materials or new products and that, during the one year period, the amount of material that is recycled or that is transferred to a different site for recycling equals not less than 75% by weight or volume, of the amount of material that was accumulated at the beginning of the period.

What water protection regulations must be complied with?

Pursuant to Sec. 324.3112 of Part 31, of the NREPA, a person shall not discharge any waste or waste effluent into the waters of this state unless the person has a permit from the DEQ. Sec. 324.2104 of Part 21 of NREPA defines "waste" as any waste, wastewater, waste effluent, or pollutant that is discharged into water and includes biological materials, industrial, municipal, and agricultural waste. The water that contacts composting materials and leaches through compost piles is considered wastewater and may contain pollutants that would violate Water Quality Standards. Proper permits and management of waste water is required if a discharge to surface waters or ground waters of the state will occur. As a way to comply with Part 31, DEQ highly recommends capture and reuse of all runoff, which could eliminate the need for a discharge permit. For information on whether a National Pollution Discharge Elimination System permit is required for your facility please contact your DEQ district office. Your district office contact information can be found by calling the DEQ Environmental Assistance Center at 1-800-662-9278.

What information should be included in a Compost Facility Site Management Plan?

The following are suggested components of a Compost Facility Site Management Plan. They are adapted from a United States Composting Council 1994 draft document titled "Organic Waste Composting Model State Regulation."

1. Topographic map (U.S. Geological Survey 7.5 minute series) of the area.
2. Site plan showing dimensions and details of the proposed receiving, processing, production, curing and storage areas, and locations of all roads, buildings, fences and gates, and other permanent structures.
3. Description and drawings of the facility's storm water management system showing compliance with all federal, state, and local storm water regulations and codes.
4. Description of methods employed to prevent environmental impacts to surface and groundwater.
5. Detailed methods for achieving odor control.
6. Detailed methods for achieving noise control.
7. Detailed methods for achieving vector, dust, and litter control.
8. Description of fire prevention and control methods.
9. Flow diagram of the processing steps including the period of time in each step and estimates of maximum handling capacity.
10. Capacity for proper handling, storage, and removal of non-permitted wastes delivered to or generated by the facility.

11. Detailed description of weather monitoring equipment or methods.
12. Written provision for operations during wind, heavy rain, snow, freezing, or other inclement weather conditions.
13. Management plan should address employee safety issues according to state and federal requirements.
14. Description of methods employed to monitor and prevent anaerobic conditions within the piles.
15. Method for keeping records to ensure speculative accumulation is not occurring at the site.
16. Method for keeping records to show proper carbon to nitrogen ratio of feedstock (leaves, grass, etc) is available for effective composting.

When is a yard clippings composting site in violation of solid waste regulations?

If the answer is yes to any of the following questions the composting operation is in violation of Part 115, Solid Waste Management.

1. Are the Yard Clippings being composted anaerobically?

Part 115 Solid Waste Regulations R 299.4102 state that composting must be a controlled aerobic process. If the yard clippings are treated anaerobically then the facility cannot be defined as a composting facility.

3. Is a Nuisance being created?

A nuisance is defined as an unreasonable interference with the comfortable enjoyment of life and property.

4. If at a composting facility, is Speculative Accumulation occurring?

Pursuant to Rules 105(l) and 120(4) of Part 115, yard clippings at a composting facility are subject to the definition of speculative accumulation starting in the third year after the yard clippings are received. The owner or operator of the composting facility is responsible for maintaining the records necessary to demonstrate that speculative accumulation is not occurring.

5. Are the yard clippings mixed with solid waste?

Solid Waste is defined in Section 11506 of Part 115, solid waste regulations.

6. The yard clippings are NOT being used as a product or resource?

To be used as a product or a resource the yard clippings must be used for a purpose rather than disposed.



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

MANURE, PAUNCH, AND PEN WASTE EXEMPTION

Pursuant to the provisions of Sections 11506(1)(g) and 11507 of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and the rules promulgated under Part 115, the following forms of solid waste are granted approval to be exempt from solid waste regulation if managed in compliance with the conditions listed below:

1. Manures not generated from the production of livestock or poultry.
[Organic waste generated in the production of livestock or poultry is already exempt under Section 11506(1)(c).]
2. Pen waste is defined as manure and mixed bedding material, such as wood chips, sawdust, shredded paper or cardboard, hay, straw, and other similar items normally used for this purpose, from holding pens and other areas of a site where animals defecate and urinate.
3. Paunch waste (stomach contents) from slaughtered animals provided it contains minimal amounts of blood and no chemical additives or drugs.
4. Other similar wastes approved, in writing, by the Michigan Department of Environmental Quality (MDEQ), Waste and Hazardous Materials Division (WHMD).

The described wastes are collectively referred to herein as the "Material." The Material may be generated from any of the following:

1. Slaughtering facility;
2. Race track;
3. Research facility;
4. Animal control facility;
5. County or state fair;
6. Zoo;
7. Commercial pet waste removal company;
8. Veterinary facility; or
9. Other locations generating wastes similar to the named facilities.

I. Disposal in Landfills or Wastewater Treatment Plants

- A. The Material may be disposed of in a Type II municipal solid waste landfill (Landfill) licensed pursuant to Part 115, provided the disposal is consistent with the Landfill's waste acceptance policies and the Material is solidified sufficiently to pass the paint filter test.
- B. The Material may be disposed of into a municipal wastewater treatment plant (Plant), provided it is done consistent with the Plant's procedures and the Material is transported in accordance with Part 121, Liquid Industrial Wastes, of the NREPA, if it contains free liquids.

II. Disposal by Land Application

The Material may be land applied, provided it is done in accordance with the following conditions:

- A. The Material shall be applied only to agricultural or silvicultural lands that need fertilization as demonstrated by laboratory soil tests. These agricultural fields must currently be in use, or will be used in the next growing season, for crop production or harvest in the case of agricultural land. Fall applications of Material shall be restricted to fall-planted crops such as winter wheat, forage stands, or for silvicultural use.
- B. Application of the Material to agricultural or silvicultural lands shall not exceed any of the following:
 - 1. The agronomic rate for the crop to be grown on the site subsequent to the application of Material to the site. The agronomic rate is defined as that rate that provides the nitrogen, phosphorus, and other nutrient needs of the crop but does not overload the soil with nutrients or other constituents that may eventually leach to groundwater, limit crop growth, or adversely impact soil quality.
 - 2. The nitrogen and phosphorus addition recommendation as stated in the results of the soil test.
- C. The Material shall not be applied to a site previously used for land application of biosolids, wastes, septage, or wastewater from any other business or facility, without written permission of the WHMD.
- D. Material that is surface applied to agricultural soil shall immediately be incorporated into the soil after application to land, unless prior to application the MDEQ approves an alternate time frame.

- E. The Material shall not be applied in a manner that adversely restricts soil permeability or causes ponding, pooling, or runoff in the area.
- F. The Material shall not be surface applied to slopes exceeding a six percent grade or injected into slopes that exceed a 12 percent grade.
- G. The Material shall not be applied within the following isolation distances for the application methodology used at the application site:

	Application Methodology Distance in Feet	
	<u>Surface Application</u>	<u>Subsurface Injection</u>
Municipal Water Supply	2,000	2,000
Domestic Wells	150	150
Homes and Commercial Buildings	500	100
Public Roads and Property Lines	150	25
Surface Water	150	50

- H. The Material shall not be applied to a site with a water table less than 30 inches below the surface of the soil at the time of application.
- I. The Material or constituents contained in the Material shall not come into direct contact with surface water, groundwater, or a wetland as defined by the NREPA, and the administrative rules promulgated thereunder, unless approved or permitted by the MDEQ.
- J. The application of the Material shall not cause erosion or sedimentation to occur in violation of Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the rules promulgated under Part 91.
- K. Prior to application, the Material shall not be mixed with other wastes that are not inert as defined by Part 115 or the rules promulgated under Part 115, unless appropriate approvals or permits as required by state and/or federal law are obtained.
- L. Any Material that is removed, stored, transported, or land applied shall be managed in such a way so as to prevent nuisance conditions and the release of fugitive dust or visible emissions in violation of Part 55, Air Pollution Control, of the NREPA, or the rules promulgated under Part 55.
- M. Vehicles used to transport the Material shall comply with the Michigan Vehicle Code, 1949 PA 300, as amended (MVC), and the rules promulgated under the MVC. The Material shall be covered to prevent loss to the environment during transport and delivery to application sites.

N. Except as provided in this paragraph, land application of Material shall not occur after December 21 or before March 21. A facility may land apply the Material between these dates if necessary because of inadequate storage for winter, equipment failure, or unavailable alternate disposal options, provided the following conditions are met:

1. The generator shall notify the local township supervisor and the supervisor of the appropriate WHMD District Office (list attached), in writing, at least 21 days in advance of the need to land apply anytime between December 21 and March 21. The WHMD may approve an alternate time frame if necessary because of unforeseen circumstances. Notification shall be provided for each application using the Sample Site Identification Form (copy attached). The notification shall include, at a minimum, an explanation of the need to land apply, the maximum volume of the Material intended to be applied and justification for that volume, a mass balance for the proposed application period, and an explanation of how existing storage will be utilized to the maximum extent possible in order to minimize the volume of Material to be winter applied. The generator shall also submit a plan describing the actions that will be taken to ensure that land application will not be needed for subsequent winters. The WHMD will provide timely review of the notification and will approve or deny the request verbally, followed in writing.
2. All Material that is winter applied shall be subsurface injected, such that no Material is present on the land surface or in the injection furrow in contact with ambient air. The Material must be completely covered by soil in the injection furrow to minimize odors related to the Material, to reduce the potential for vector attraction, and to eliminate the possibility of off-site movement of the Material via surface runoff.
3. The slope of winter application sites shall not exceed six percent. All injection applications shall occur perpendicular to the slope to minimize rill erosion in the ejection furrows from melt waters and precipitation events.
4. Soil frost shall not exceed three inches in depth.
5. Winter application of the Material shall comply with Part 31, Water Resources Protection, of the NREPA.

O. The generator of the Material shall maintain records on the amount of the Material applied at each application site, site identification, and property description of each application site used. The generator of the Material shall maintain all records for five years after the Material was last applied and shall make them available for review by the Director of the MDEQ, or his/her authorized representative, upon request.

III. Disposal by Composting

- A. The Material shall be separated from other solid waste and maintained separately until used to produce compost.
- B. The Material shall be managed as a product or resource in a manner that does not violate Part 31 or Part 55 during composting, storage, or use.
- C. Composting shall be performed in a manner that prevents standing water and the attraction, harborage, or production of insects, rodents, or other vectors.
- D. Prior to commencing composting, the operator of the composting facility shall notify the Director of the MDEQ of the location of the composting operation and the type and amount of materials to be composted.
- E. The compost facility shall be properly sloped and graded to efficiently handle storm water.
- F. Nothing in this approval shall be construed to prevent the need for a facility operating pursuant to this approval to comply with local zoning requirements.
- G. The Material shall be incorporated into the compost pile immediately.
- H. The carbon-to-nitrogen ratio of the compost pile shall be maintained between 20 to 1 and 40 to 1.
- I. The windrow or pile edges and/or any processing or staging area of the composting facility shall meet the following location standards, unless alternate criteria are approved by the Director of the MDEQ:
 - 1. Not placed in a wetland.
 - 2. Not placed in a floodplain.
 - 3. Placed at least four feet above groundwater level on a liner or pad meeting the requirements of R 299.4130 or in another manner approved by the WHMD.
 - 4. Placed at least 50 feet from adjacent property lines or surface water.
 - 5. Placed at least 200 feet from a residential drinking water well.
 - 6. Placed at least 2,000 feet from a Type I or Type IIa water supply well.

7. Placed at least 800 feet from a Type IIb or Type III water supply well.
8. Placed at least 500 feet from a licensed day care center or other receptors likely to be sensitive to any odors generated during composting.

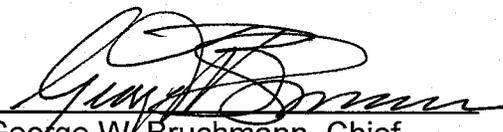
IV. This approval shall immediately become void for any of the following reasons:

- A. Additional information demonstrates that the Material is not appropriate for agricultural or silvicultural use.
- B. Additional information demonstrates that the Material is causing environmental contamination.
- C. New state or federal regulations are promulgated that would cause this approval to be invalid.
- D. The MDEQ, WHMD, modifies or retracts this exception from solid waste regulation.

Every person operating pursuant to this authorization shall ensure that the use of the Material does not cause the creation of a "facility" as defined by Part 201, Environmental Remediation, of the NREPA. Activity inconsistent with this approval does not constitute a permitted release as defined in Part 201 of the NREPA.

Violation of the conditions of this approval is subject to the enforcement provisions of Part 31, Part 55, Part 91, Part 115, and Part 121 or other applicable state and federal laws/statutes.

STATE OF MICHIGAN
Department of Environmental Quality

By: 
George W. Bruchmann, Chief
Waste and Hazardous Materials Division

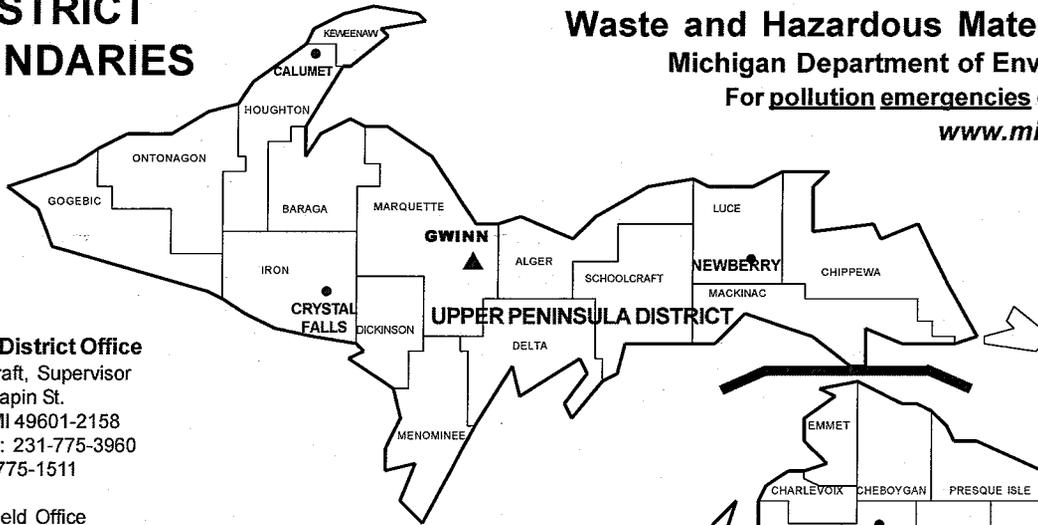
Date: 6-18-07

Attachments

OFFICE LOCATIONS & DISTRICT BOUNDARIES



Waste and Hazardous Materials Division
Michigan Department of Environmental Quality
 For pollution emergencies only: 1-800-292-4706
www.michigan.gov/deqwaste



Cadillac District Office
 Phil Roycraft, Supervisor
 120 W. Chapin St.
 Cadillac, MI 49601-2158
 Telephone: 231-775-3960
 Fax: 231-775-1511

Gaylord Field Office
 2100 West M-32
 Gaylord, MI 49735
 Telephone: 989-731-4920
 Fax: 989-731-6181

Grand Rapids District Office
 Amy Lachance, Supervisor
 350 Ottawa, NW Unit 10
 Grand Rapids, MI 49503-2341
 Telephone: 616-356-0500
 Fax: 616-356-0202

Jackson District Office
 Lee Carter, Supervisor (Tu, Th)
 301 E. Louis Glick Highway
 Jackson, MI 49201-1556
 Telephone: 517-780-7690
 Fax: 517-780-7855

Kalamazoo District Office
 Fred Sellers, Supervisor
 7953 Adobe Road
 Kalamazoo, MI 49009
 Telephone: 269-567-3500
 Fax: 269-567-9440

Lansing District Office
 Lee Carter, Supervisor (M, W, Fr)
 Constitution Hall
 North Tower, 4th Floor
 (525 W. Allegan St.)
 P.O. Box 30242
 Lansing, MI 48909
 Telephone: 517-335-6010
 Fax: 517-241-3571

Saginaw Bay District Office
 Terry Walkington, Supervisor
 503 N. Euclid Ave., Suite 1
 Bay City, MI 48706-2965
 Telephone: 989-686-8025
 Fax: 989-684-9799

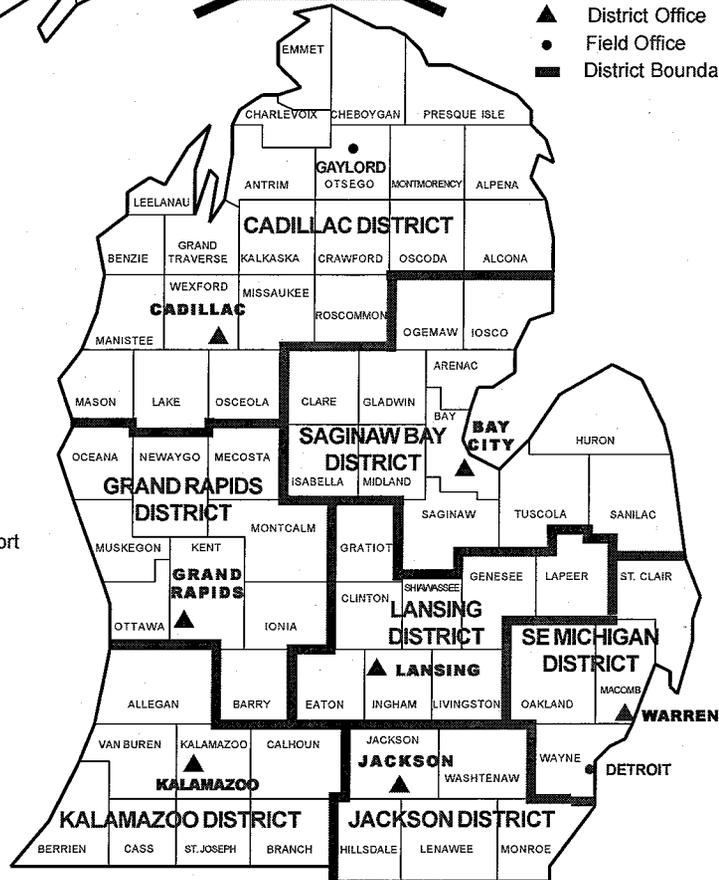
Southeast MI District Office
 Ben Okwumabua, Solid Waste Program/Tire Program Supervisor
 Larry AuBuchon, Hazardous Waste/Tank Program Supervisor
 27700 Donald Court
 Warren, MI 48092
 Telephone: 586-753-3700
 Fax: 586-753-3859

*Detroit Field Office (covers
 Detroit, Highland Park,
 Hamtramck)*
 Cadillac Place
 3058 W. Grand Boulevard
 Suite 2-300
 Detroit, MI 48202
 Telephone: 313-456-4700
 Fax: 313-456-4662

**Upper Peninsula District
 Office**
 Rob Schmeling, Supervisor
 K.I. Sawyer International Airport
 and Business Center
 420 Fifth Street
 Gwynn, MI 49841
 Telephone: 906-346-8300
 Fax: 906-346-4480

LEGEND

- ▲ District Office
- Field Office
- District Boundaries



MAIN OFFICE
DEQ Waste and Hazardous Materials Division
George Bruchmann, Chief
 Constitution Hall, North Tower, Atrium
 P.O. Box 30241 525 W. Allegan St.
 Lansing, MI 48909-7741 Lansing, MI 48933
 Telephone: 517-335-2690
 Fax: 517-373-4797

For general DEQ information
 DEQ Environmental Assistance Center
Telephone: 1-800-662-9278
 Fax: 1-517-241-0673
 E-mail: DEQ-EAD-env-assist@michigan.gov

This is a sample format provided for your use.

SAMPLE SITE IDENTIFICATION FORM

Date: _____

Facility Name: _____

SITE INFORMATION

Township Name: _____

Section: _____ Township: _____ Range: _____

County: _____ Application Area (acres): _____

Land Owner (Print): _____

Address: _____

Telephone Number: (____) _____

Is the land farmed by the landowner? YES [] NO []

If the land is not farmed by the landowner, provide the name of the individual authorized by the landowner to farm the land.

Name: _____

Address: _____

Telephone Number (____) _____

A copy of the information contained in this sample form must be sent to the Supervisor of the Township in which the site is located.

COMPOST OPERATIONS

Composting	FY 09	FY 10	FY 11*
Expenses:			
Perm Time	193,733	171,348	175,356
OT	29,198	29,000	29,000
Annl Sick Leave	256	255	255
Longevity	3,300	2,880	3,105
Deferred Comp	1,655	1,464	1,464
Lifie Insurance	560	564	576
Medical Ins	28,955	29,116	31,684
Disability Ins	30	48	48
VEBA Funding	13,260	20,004	19,248
Worker's Comp	6,564	6,192	6,336
Soc Security	17,309	13,104	13,404
Retirement Cont	20,796	21,936	30,696
Dental Insurance	3,282	3,096	3,348
Optical Insurance	584	564	564
Unemployment	552	442	443
Electricity	-	6,000	6,180
Water	83	150	150
Telecom	471	700	700
Rent City Veh	6,114		
Rent Outside Veh	477	500	500
Fleet Mnt	228,088	286,628	295,227
Fleet Fuel	40,448	36,013	37,094
Fleet Depreciation	73,632	74,837	74,837
Fleet Mgmt	480	754	715
Contracted Serv	30,761	10,000	10,000
Contracted Temps	31,875	24,000	25,000
Uniforms	315	1,180	1,180
Materials & Sup	8,419	14,000	12,000
Taxes	5,838	7,000	7,000
Contingency		9,000	
	747,035	770,775	786,110
Additional Expenses:			
MSC (7.5% of SW)	20,696	21,317	21,956
PSA	7,946	8,184	8,430
Depreciation	110,442	80,758	80,758
IT Charges	7,530	7,756	7,989
Total Expenses:	893,649	888,791	905,243
Composting Revenues:			
Drop-Yrd Wst	231,601	238,549	245,706
Sale-Compost	60,584	62,402	64,274
Sale -Other SW	11,124	11,458	11,801

Sale - Mulch	<u>33,129</u>	<u>34,123</u>	<u>35,147</u>
	336,438	346,531	356,927

* Projected