



September 9, 2020

Chamness Technology, Inc.
Attn: Gary Chamness
2255 Little Wall Lake Road
Blairsburg, IA 50034

Notice of Violation: General Compost Requirements 567 IAC 105.3(2-5), 105.3(7)
Aerobic Conditions 567 IAC 105.4(5)

Subject: Compost Site Inspection; FOCD Inspection #78158
Facility #90-SDP-10-97P-COM Chamness Technology, Inc., Eddyville, Wapello Co, IA

Dear Mr. Chamness:

On September 3, 2020, I conducted an inspection of Chamness Technology Inc.'s compost facility located at 24820 160th Street near Eddyville, Iowa. The enclosed report outlines various items observed during the course of my inspection. Please review the summary requirements, reminders and recommendations outlined at the end of the report.

Site conditions have generally improved over the last few months. Two compost windrows have been created and are currently being managed as needed. Additional cured compost has been moved off the pad and that has created some additional room for mixing and storage/drying of compost material. Additional avenues continue to be cut through older portions of compost. The older material that is moved is being allowed to dry and is reincorporated or hauled to the cured pile when feasible.

At this time issues still remain regarding the overall compost operation. Recent conditions have been dry, but all leachate avenues to the lagoon are not open and completely operational. Compost remains off the pad on the northern and the southwestern perimeter and no exterior controls in those areas were observed. Holes or compromised areas of the asphalt pad were observed and patches or fixes must be implemented. The combustion of material, specifically diatomaceous earth (DE), has occurred in recent months. However, fires have been reduced with the elimination of new DE being brought to the site. A notice of violation is being issued for failure to operate the facility as required, specifically for the items outlined below from Chapter 105 of the Iowa Administrative Code:

105.3(2) Composting shall be performed in a manner that minimizes the formation of compost leachate by the facility.

105.3(3) Measures shall be taken to prevent water from running onto the facility from adjacent land and to prevent compost leachate and runoff from leaving the composting facility. Runoff from the composting facility must be properly managed.

105.3(4) Facilities shall be designed, constructed, and maintained so as to minimize ponding of water or liquids. Any ponding that does occur shall be corrected through routine facility maintenance within 48 hours after the termination of the event causing the ponding.

105.3(5) Composting must be done on an all-weather surface of compacted soil, compacted granular aggregates, asphalt, concrete or similar relatively impermeable material that will permit accessibility during periods of inclement weather and prevent contamination of surface water and groundwater.

105.3(7) Solid waste materials shall be managed through the entire process in accordance with best management practices to minimize conditions such as odors, dust, noise, litter and vectors which may create nuisance conditions or a public health hazard.

105.4(5) Aerobic conditions shall be maintained in accordance with best management practices.

The facility must come into compliance with their own operations plan created for this site. Operational processes such as feedstock staging, bulking agent utilization, good housekeeping, fire procedures, leachate management, and windrow creation and management are not being implemented as outlined in the plan. The facility must continue to make progress and implement improvements to come into compliance with the regulations outlined above as well as the operations plan. Operators and facility staff must identify the needs (personnel, equipment, etc.) of the facility and convey that to facility management. Be advised that if significant progress towards compliance is not achieved or documented, the facility permit may be revoked.

If you have any questions or would like further explanation of any part of this letter, please contact me in this office at 319-653-2135 or at brian.lee@dnr.iowa.gov.

Sincerely,
FIELD SERVICES & COMPLIANCE BUREAU



Brian Lee
Environmental Specialist

Encl. Inspection report, Picture Pages

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xc: Becky Jolly, IDNR Solid Waste Section, via email
Gary Chamness and Doug MacCrea via email
Chamness SDP File

**IOWA DEPARTMENT OF NATURAL RESOURCES
SOLID WASTE COMPOSTING (COM) INSPECTION FORM**

Permit No.: 90-SDP-10-97P-COM	County: Wapello
Facility Name: Chamness Technology, Inc.	Facility Address: 24820 160th Street Eddyville, IA 52553
Phone Number: 515-325-6133	
Responsible Official: Gary Chamness	Mailing Address:
Phone Number: 641-969-5702	2255 Little Wall Lake Road Blairsburg, IA 50034
Person(s) Present: 1)Richard Swan 2) 3)	
Date of This Inspection: 9/3/20	Date of Last Inspection: 3/26/19

**Be advised your facility may require, due to either SIC code or onsite management practices, an NPDES General Permit #1 (Stormwater permit).*

IAC 567 Chapter 105.3: Requirements for Composting Facilities (Not Exempt per Chapter 105.2)		Yes	No	NA
Non-Exempt Composting Requirements	105.3(1) Does the composting facility meet the following setback distance requirements: <ul style="list-style-type: none"> • 500 feet from any existing inhabited residence – not including the residence of the person owning/operating the compost facility at the time the application was received by the department • Facility is outside of a wetland • 200 feet from a public well • 100 feet from a private well • 50 feet from a property line • 100 feet from flowing or intermittent streams, lakes, or ponds 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	105.3(2) Is composting being performed in a manner that minimizes the formation of compost leachate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.3(3) Are measures being taken to prevent water from running onto the facility and to prevent compost leachate and runoff from leaving the facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.3(4) Is the facility maintained so as to minimize ponding of water and is any ponding that does occur being corrected within 48 hours of ponding event?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.3(5) Is composting being done on an all-weather surface that will permit accessibility during periods of inclement weather and prevent contamination of surface and groundwater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.3(6) Is solid waste that cannot be composted or removed during composting being properly disposed of?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	105.3(7) Are solid waste materials being managed through the entire process to minimize odors, dust, noise, litter and vectors that may create nuisance conditions or a public health hazard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.3(8) Is storage of cured or finished compost limited to 18 months unless written approval was granted from the department?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	105.3(9) Is compost that is offered for sale registered with IDALS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	105.3(10) Does the finished compost that is applied to land have human-inert materials such as glass, metal, and plastic in excess of 1.5 percent by dry weight or is larger than 13mm (0.512 inches)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments: Rain that contacts the pad is not able to readily discharge into the lagoons. Much of the water will be trapped and pool in older compost areas. Not all avenues to leachate discharge points are open. New drains are to be installed on the east side. However, water is being diverted away from the new rows. Compost is still off the pad on the north perimeter and south perimeter (west half). No runoff controls off the pad are implemented at this time for those areas. The east side compost and fill material does not have a clear boundary.

A few areas of the pad appeared compromised and need fixed/filled in.

Nuisance conditions have been reduced with the elimination of new diatomaceous earth being brought in.

IAC 567 Chapter 105.4: Requirements for Yard Waste Composting Facilities		Yes	No	NA
Yard Waste Composting Requirements	105.4(1) Was both the department's central and field offices properly notified in writing with the following information: <ul style="list-style-type: none"> • The location of the composting facility • Legal description of the facility • Landowner's name, telephone number, and mailing address • Responsible party's name, telephone number, and mailing address • Annual capacity of the facility • Method of composting to be employed • Source of the yard waste and any necessary bulking agent. The description must include a description of service area defined in terms of municipalities wherein sources of the material are located 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	105.4(2) Does the composting facility have a permanent sign posted at the entrance specifying the following: <ul style="list-style-type: none"> • Name of operation • Operating hours • Materials which are accepted or the statement "All materials must have prior approval" • Telephone number of 24-hour contact person 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	105.4(3) Is the composting facility area large enough for the volume of yard waste composted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	105.4(4) Is the yard waste being taken out of the collection container before being composted, unless the containers are compostable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.4(5) Are aerobic conditions being maintained in accordance with best management practices?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.4(6) Is the following information being reported to the department and maintained on file for a period of three years: <ul style="list-style-type: none"> • Submission of the department reporting form 542-3276C • All applicable sections of the form completed • Form 542-3276C was submitted by July 31st of each year in operation 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: A minimal amount of yard waste is composted compared to other waste streams. However, the facility has very little room for mixing any new waste and the creation of new rows. Compostable yard waste containers were observed. Some non-compostable containers and plastic were also observed for food waste and other material. A dumpster is available on site to dispose of any trash or other non-compostable material.

Aerobic conditions are being maintained, but only in the new rows. The older compost areas are slowly being opened up, but they must dry and be peeled back in layers to be able to be hauled to the cured pile to be screened. Older, lower areas of older compost are still wet and have not been turned for years.

IAC 567 Chapter 105.5: Small Facilities Receiving Off-Premises Materials		Yes	No	NA
Small Facility Requirements	105.5(1) Is the facility accepting yard waste, food residuals, and agricultural waste at a rate less than 2 tons per week? <i>(Note: If more than two tons per week are accepted or materials not listed above are accepted, a solid waste composting permit will need to be obtained. The two tons per week rate does not apply to any clean wood waste or other bulking agents if the amount received is appropriate for the amount composted at the facility)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IAC 567 Chapter 105.5: Small Facilities Receiving Off-Premises Materials (Cont'd)		Yes	No	NA
Small Facility Requirements	105.5(1) Is the facility accepting yard waste, food residuals, and agricultural waste at a rate less than 2 tons per week? <i>(Note: If more than two tons per week are accepted or materials not listed above are accepted, a solid waste composting permit will need to be obtained. The two tons per week rate does not apply to any clean wood waste or other bulking agents if the amount received is appropriate for the amount composted at the facility)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.5(2) Was the department properly notified in writing before operation of the composting facility commenced? Notification should have included the following: <ul style="list-style-type: none"> • The location of the composting facility • Legal description of the facility • Landowner's name, telephone number, and mailing address • Responsible party's name, telephone number, and mailing address • Annual capacity of the facility • Method of composting to be employed • Source of the feedstock and any necessary bulking agent. The description must include a description of service area defined in terms of municipalities wherein sources of the material are located 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
	105.5(3) Is the following information being reported to the department and maintained on file for a period of three years: <ul style="list-style-type: none"> • Submission of the department reporting form 542-3276C • All applicable sections of the form completed • Form 542-3276C was submitted by July 31st of each year in operation 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>

Comments: A new pemrit was issued in April 2020. The information has been submitted as required.

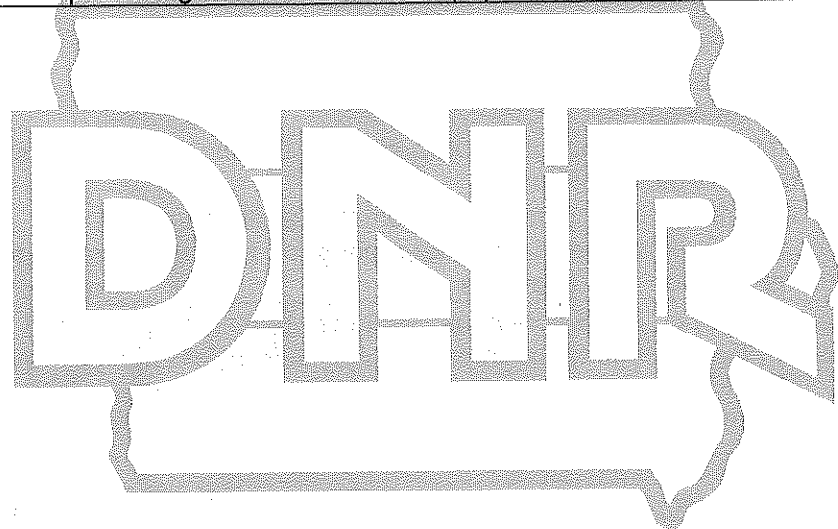
IAC 567 Chapter 105.6: Animal Mortality Composting Requirements		Yes	No	NA	
Animal Mortality Requirements	105.6(1)	Was the department notified before the composting facility commenced operation? <i>(Note: Notification is not required and does not constitute a violation)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	105.6(2)	Were farm animals that were known or suspected to have died from an infectious disease that can be spread by scavengers or insects or that died from a reportable disease disposed of in accordance with the requirements of the Iowa department of agriculture and land stewardship and the department?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	105.6(3)	Were transportation vehicles constructed to prevent the release of mortality contaminated materials under normal operating conditions? In addition, was the most direct haul route that avoids biosecurity risks used?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	105.6(4)	Was the composting facility designed to accommodate at least the average annual death loss for all sites using the composting facility? <i>(Note: Facility design shall also take into account space requirements for managing raw materials (e.g., additional bedding and bulking agents needed for mortality composting) and finished compost)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	105.6(5)	In the event of a catastrophic event (such as a fire or electrical outage), were or are there plans for the animal mortalities to be composted <i>(Note: Animal mortalities must not be composted until the department field office is contacted and arrangements are approved for the appropriate treatment or disposal of the animals. The facility shall contact the department field office with jurisdiction over the facility as soon as possible after such a catastrophic event occurs to receive approval of the disposal option)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IAC 567 Chapter 105.6: Animal Mortality Composting Requirements (Cont'd)		Yes	No	NA	
Animal Mortality Requirements	105.6(6)	Are dead farm animals being incorporated into the composting process within 24 hours of death? In addition, was an adequate base layer (from 12 to 24 inches thick, depending on the size and number of dead farm animals) with 6 to 12 inches of bulking agent between carcasses and an additional 12 inches of cover material being maintained around carcasses at all times to control mortality leachate, odors and to prevent access by scavenging domestic and wild animals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	105.6(7)	Is all soft tissue being fully decomposed on the dead farm animals before they are being removed from the composting pile?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	105.6(8)	Is the compost (including bones that have not fully decomposed) being applied to cropland in a manner that minimizes the runoff into a water of the state? <i>(Note: Application of the compost to lands other than cropland shall require prior approval by the department)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments: No dead animals have been accepted recently and are not anticipated to be accepted at this time.

IAC 567 Chapter 105.9: Solid Waste Composting Operating Requirements		Yes	No	NA	
Composting Operating	105.9(1)"a"	Is access restricted with a lockable gate at the entrance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.9(1)"b"	Is access only allowed when an employee, agent, or representative of the facility is on duty?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	105.9(1)"c"	Is emergency access provided and fire lanes maintained as to provide access to firefighting equipment as required by the local fire department?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	105.9(2)	Is a permanent sign posted with name of operation, operating hours, materials accepted, and phone number of 24-hour emergency contact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

105.9(3)	Are all materials that are accepted incorporated into the composting process within 24 hours of receipt? <i>(Note: Extra time for storage is allowed for these materials if specified in the plan and approved by the department)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
105.9(4)	<p>Is the facility, at a minimum, testing the following in accordance with the most recent version of Test Methods for the Examination of Composting and Compost or other testing procedures as approved by the department;</p> <ul style="list-style-type: none"> • Twice weekly temperature readings of compost piles, batches, and windrows in order to meet "Processes to Further Reduce Pathogens", compost must be held above 55 degrees Celsius for an appropriate amount of time. • Weekly moisture levels of compost piles, batches, and windrows 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
105.9(4)"c"(1)	<p>Is the compost that is land applied able to meet the following requirements:</p> <ul style="list-style-type: none"> • Density of fecal coliform is less than 1000 MPN per gram of total solids (dry weight basis) • Density of Salmonella sp. bacteria in compost shall be less than 3 MPN per four grams of total solids (dry weight basis) 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



IAC 567 Chapter 105.9: Solid Waste Composting Operating Requirements (Cont'd)		Yes	No	NA																				
Composting Operating Requirements	105.9(4)"c"(2)	<p>Did the testing of finished product meet the following levels?</p> <p>The concentration of the following chemicals shall be less than or equal to the following:</p> <table border="1"> <thead> <tr> <th><u>METAL</u></th> <th><u>CONCENTRATION mg/kg dry weight</u></th> </tr> </thead> <tbody> <tr> <td>Arsenic (As)</td> <td>41</td> </tr> <tr> <td>Cadmium (Cd)</td> <td>39</td> </tr> <tr> <td>Copper (Cu)</td> <td>1,500</td> </tr> <tr> <td>Lead (Pb)</td> <td>300</td> </tr> <tr> <td>Mercury (Hg)</td> <td>17</td> </tr> <tr> <td>Nickel (Ni)</td> <td>420</td> </tr> <tr> <td>Selenium (Se)</td> <td>36</td> </tr> <tr> <td>Zinc (Zn)</td> <td>2,800</td> </tr> </tbody> </table>		<u>METAL</u>	<u>CONCENTRATION mg/kg dry weight</u>	Arsenic (As)	41	Cadmium (Cd)	39	Copper (Cu)	1,500	Lead (Pb)	300	Mercury (Hg)	17	Nickel (Ni)	420	Selenium (Se)	36	Zinc (Zn)	2,800	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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105.10	<p>Is the person responsible for daily operation of the facility certified by a department approved program?</p> <ul style="list-style-type: none"> • Kirkwood Compost Operator Training, or • Midwest Extension Composting School 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																				
105.11	<p>Is the following information being reported to the department and maintained on file for a period of three years;</p> <ul style="list-style-type: none"> • Testing results reported on form 542-3276C • Types and weight of compostable material and bulking agent, in tons, accepted by the facility annually? • Weight of compost, in tons, removed from the facility annually • Are a copy of the plan, permit, annual reports, and current storm water pollution prevention plan available 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>																				
105.12	<p>Was an annual report for the previous fiscal year beginning July 1 and ending June 30 submitted to the department by July 31 of each year by the permitted solid waste composting facility? <i>(Note: The report shall be submitted using Form 542-3276C, provided by the department, and all applicable sections of the form must be completed)</i></p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																				

Comments: One gate post is down and needs to be repaired to be able to provide a lockable gate. Temperature and moisture data has been collected on the new rows over the past few weeks. No recent data has been collected on the older portions. Lanes between piles and around a majority of the perimeter have been created for fire accessibility and facility equipment access. However, not all areas are accessible for fire trucks.

No compost has reportedly been land applied in many months and therefore no testing has been conducted on the cured material. Cured compost that is moved off the pad is stored near the screener southeast of the main shop. It has been stored off the pad for less than 18 months. Other cured material had been utilized as fill and it is located east of the pad. A portion of the overlapping material will reportedly be screened and the trash removed.

Richard Swan is the site manager at this time, but he is not a certified operator. Doug MacCrea, Johanna Miller, and Scott Amendt are the operators that are currently certified. Ms. Miller was on site at the time of my inspection.

The annual report was received by the Department on July 13, 2020.

Summary of Requirements:	Compliance Date:
1) Create compost rows to properly manage incoming mixed material.	Immediately
2) Mix all incoming material, unless outlined separately per operations plan, within 24 hours and incorporate into windrows within 14 days.	”
3) Move all compost material on to the pad	”
4) Open up/install leachate drains	”
5)	

Summary of Reminders:
1) Implement storm water management practices where storm water has the capability to discharge off site (specifically the west perimeter of the pad and from the cured pile on southeast portion of site.
2) Proper testing must be conducted on the finished product prior to land application/ or being moved offsite.
3) Compost shall not be applied to land, sold or given away unless the size of any human-made inert materials is less than 13 mm (0.512 inches)
4)
5)

Summary of Recommendations:
1) Move and screen the final cured compost as soon as feasible to make room on the pad. Rent a screener unit since the current one will not be in operation for many weeks or potentially months.
2) Limit incoming feedstocks until pad material can be restructured into rows.
3) Land apply/irrigate leachate from the central lagoon whenever feasible to provide as much storage capacity as feasible.
4)
5)

Inspector: <u>Brian Lee</u> Date: <u>Brian Lee</u> 9/9/20	Reviewer: <u>Kurt Levetzow</u> Date: <u>Kurt Levetzow</u> 9/9/20
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Picture 1. Looking west from northeast corner of the pad. The northern perimeter of the pad is approximately the right side of the picture. Compost is beyond the edge of the pad.



Picture 2. Looking south from the east-central perimeter of the pad. Leachate does not have an open avenue to discharge to the east lagoon. A cut drain through the pad lies just beyond the end of this path.



Picture 3. Looking north from the east-central portion of the pad. The drain next to the concrete block, on the middle-right of the picture, remains blocked.



Picture 4. Looking south from the central portion of the southeastern section of the pad. The pad asphalt has been damaged and a hole is located in the central portion of this picture. The rock below the asphalt is exposed.



Picture 5. Looking north from the southern perimeter of the southeastern section. This material was stored in the middle of older compost and flowed out when opened up to dry.



Picture 6. Looking west from the east-central portion of the pad. This is the western windrow that has been created in the past few weeks. Access paths (fire lanes) have been created around the pad and windrows.



Picture 7. Looking northwest from central pad area. Some additional room for mixing has been created in this area, but overall minimal room on the pad is available for mixing and storing material.



Picture 8. Looking south at the western perimeter. Leachate avenue to southwest drain is not clear. A berm is in place to attempt to keep leachate from migrating of the pad.



Picture 9. Looking west from the south-central pad perimeter. Compost is off the pad in this area. Material continues to be pushed towards the pad and this berm creates a barrier to keep leachate on the pad.



Picture 10. Looking west from the west-central portion of the pad. Avenue to the southwest leachate drain is not open.

