



June 30, 2020

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

Notice of Violation: Leachate/Ponding Management 567 IAC 105.3(2-5), 105.3 (7)
Prohibited Discharge, 567 IAC 62.1(1)
General Water Quality Criteria: 567 IAC 61.3(2)

Subject: Complaints #28360, #28361, #28393, #28425, #28426, #28427
Facility #90-SDP-10-97P-COM Chamness Technology, Inc., Eddyville, Wapello Co, IA

Dear Mr. Chamness:

On June 11, 2020, I investigated multiple complaints regarding operations at Chamness Technology Inc. compost facility located at 24820 160th Street near Eddyville, Iowa. The complaints outlined burning, smoke, odor, and leachate issues associated with the compost operation. I met Chamness representatives Scott Amendt and Richard Swan on site to observe and discuss site conditions.

A notice of violation is being issued for failure to comply with multiple items outlined in Chapter 105 and also those outlined in the facility's own operations plan. Compost material continues to not be contained on the pad and ponding remains an issue. There was very limited space for new material on the pad. No windrows and no overall organized material management appeared to be taking place on the pad. The material appeared to be extremely wet and even "flowable" in a few areas. Leachate was discharging off the pad as well. Pictures from various complainants indicate heavy smoke on multiple days from the facility. No burning or smoke was observed at the time of my investigation, but the smoke that had occurred was reportedly due to the mixing and/or exposure of diatomaceous earth in the compost material. Multiple violations of compost rules have been determined, including but not limited to:

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.

As indicated above, leachate was observed running off the pad. It was flowing off the northwest corner of the pad, around the west lagoon and discharging into a tributary of Palestine Creek. Reference pictures at the end of this report. A sample of the leachate in the tributary to Palestine Creek, as well as samples of the creek upstream and downstream, were collected. The downstream samples were collected about 2 miles downstream, where Palestine Creek Crosses 160th Street. Samples were delivered to and analyzed by the State Hygienic Laboratory. The results are outlined below and a copy of the results are enclosed.

Sample	NTU.#	TSS(mg/L)	pH	CBOD	Ammonia
Source Tributary Chamness	140	110	7.9	1000	130
Upstream Chamness	15	8	7.8	<2	N/A
Bridge Chamness	28	26	7.5	9	N/A

A notice of violation is also being issued for water quality violations and discharging without a permit. Be advised that 567 IAC 62.1(1) states, "The discharge of any pollutant from a point source into a navigable water is prohibited unless authorized by an NPDES permit." Also be advised that, 567 IAC 61.3(2) General water quality criteria, states, "The following criteria are applicable to all surface waters including general use and designated use waters, at all places and at all times for the uses described in 61.3(1)"a."

c. Such waters shall be free from materials attributable to wastewater discharges or agricultural practices producing objectionable color, odor or other aesthetically objectionable conditions.

e. Such waters shall be free from substances, attributable to wastewater discharges or agricultural practices, in quantities which would produce undesirable or nuisance aquatic life.

Some finished compost has reportedly been removed from the pad and utilized off site over the last few months. A recently placed pile of cured, unscreened compost was stored off the pad to the west. Controls must be in place to prevent leachate runoff from that pile discharging off site. Other finished compost is being stored to the east of the pad. Leachate runoff in that area appeared to be directed to the east lagoon. That compost must be screened before being able to be land applied. Be reminded of 567 IAC 105.3.10:

105.3(10) Compost shall not be applied to land, sold or given away unless the concentration of human-made inert materials such as glass, metal, and plastic is less than 1.5 percent by dry weight. 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).

It is recommended Chamness stop accepting diatomaceous earth and limit incoming material to a volume that can be properly managed. Repairs must be made to non-functioning essential equipment. Extending the hours of operation during optimal weather conditions is encouraged. It is recommended Chamness consider reaching out to local businesses, homeowners, and property owners, to explain the current status and progress of the facility.

Based on the results of this investigation, this matter is being referred to our legal section for further enforcement action. Significant progress and improvements must be made to overall compost operations. Per the most recent Order (#2020-HC-02/SW-02/WW-05) this office will conduct quarterly site visits to assess progress and compliance. Additional complaints may be investigated at the time they are received and may not align with scheduled quarterly visits.

If you have any questions or would like further explanation of any part of this report, 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. Pictures, Sample Results

N:FO6\BLEE\SW\Chamness complaint NOV 061120
N:FO6\PICTURES\2020\June\Chamness 061120 (1-57)

xc: Becky Jolly, IDNR Solid Waste Section, via email
Doug McCrea via email
Chamness SDP File



Picture 1. Taken 6/11/20. Looking south from northwest corner of the compost pad. Leachate can be seen off the west edge of the pad, flowing south. This leachate enters a drainageway, flows around the west lagoon, and enters the tributary of Palestine Creek, as seen in picture 2.



Picture 2: Taken 6/11/20. Looking south at the tributary to Palestine Creek. Leachate is flowing off the west side of the pad, flowing around the west lagoon, and entering this tributary. Flow is from the bottom to the central portion of this picture. This point is approximately 200 yards south/southeast of the west lagoon.



Picture 3. Taken 6/11/20. Looking north at the tributary from picture 2 discharging into the main channel of Palestine Creek (center of picture). Flow of the main channel is from the bottom left to the middle right. This point is approximately 200 yards south of the central lagoon.



Collection Location upstream chamness	Collector and Phone lee brian 319/461-8849	Client Reference	Accession # 1045404
EDDYVILLE,	Collected 2020-06-11 10:55	Received 2020-06-11 16:25	Project 04wqfs
Report To IDNR-FO 6 1023 W MADISON ST WASHINGTON, IA 52353-1623	Sample Description		
	Sample Type Non-Drinking Water		
	Sample Source Surface Water		
	Sample Note(s) 1		

RESULTS OF ANALYSIS - FINAL REPORT

<u>TEST</u>	<u>RESULT (mg/L)</u>	<u>QUANT LIMIT</u>	<u>ANALYSIS NOTE(S)</u>
BOD, Carbonaceous 5 Day, SM 5210 B CBOD, 5 Day	<2	2	
<u>TEST</u> Laboratory pH, SM 4500 H+B Laboratory pH	<u>RESULT (pH)</u> 7.8		<u>ANALYSIS NOTE(S)</u> 2
<u>TEST</u> Total Suspended Solids, USGS I-3765-85 Total Suspended Solids	<u>RESULT (mg/L)</u> 8	<u>QUANT LIMIT</u> 1	<u>ANALYSIS NOTE(S)</u>
<u>TEST</u> Turbidity, SM 2130 B Turbidity	<u>RESULT ([NTU])</u> 15	<u>QUANT LIMIT</u> 1	<u>ANALYSIS NOTE(S)</u>

SAMPLE AND ANALYSIS NOTES

1. Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.
2. EPA holding time requires pH analysis be completed within 15 minutes of collection to be valid for regulatory reporting. Results reported as Laboratory pH do not meet this requirement and must be qualified if reported for regulatory purposes.

ANALYSIS INFORMATION

<u>TEST</u>	<u>ANALYZED</u>	<u>SITE</u>	<u>RELEASED</u>	<u>ANALYSIS PREP</u>
1. BOD, Carbonaceous 5 Day, SM 5210 B	2020-06-12 17:45 IV, RAD	3200	2020-06-19 10:14 IV	
2. Laboratory pH, SM 4500 H+B	2020-06-12 13:36 IV	3200	2020-06-18 15:36 RAD	
3. Total Suspended Solids, USGS I-3765-85	2020-06-15 11:00 KAR	3201	2020-06-16 15:15 MLS	
4. Turbidity, SM 2130 B	2020-06-13 08:33 LD	3201	2020-06-15 09:22 KMJ	

DESCRIPTION OF UNITS

mg/L = Milligrams per Liter
pH = pH Units
[NTU] = Nephelometric Turbidity Units



Collection Location	Collector	Client Reference	Accession #
upstream chamness	lee brian		1045404

SITE(S) PERFORMING TESTING

- 3200 STATE HYGIENIC LABORATORY CORALVILLE, UNIVERSITY OF IOWA RESEARCH PK, 2490 CROSSPARK RD, CORALVILLE, IA 52241; Phone 319/335-4500; Fax 319/335-4555; Michael D. Schueller, M.S., Interim Associate Director; Wade K. Aldous, Ph.D. (D)ABMM, Associate Director; IOWA ENVIRONMENTAL LAB ID #027
- 3201 STATE HYGIENIC LABORATORY ANKENY, IOWA LABORATORIES COMPLEX, 2220 S ANKENY BLVD, ANKENY, IA 50023; Phone 515/725-1600; Fax 515/725-1642; Michael D. Schueller, M.S., Interim Associate Director; Wade K. Aldous, Ph.D. (D)ABMM, Associate Director; IOWA ENVIRONMENTAL LAB ID #397

The result(s) of this report relate only to the items analyzed. Where the laboratory has not been responsible for the sampling stage the results apply only to the sample as received. This report shall not be reproduced except in full without the written approval of the laboratory. If you have any questions, please call Client Services at 800/421-IOWA (4692) or 319/335-4500.



Collection Location bridge chamness		Collector and Phone lee brian 319/461-8849	Client Reference	Accession # 1045403
EDDYVILLE,		Collected 2020-06-11 10:28	Received 2020-06-11 16:25	Project 04wqfs
Report To	IDNR-FO 6	Sample Description		
	1023 W MADISON ST	Sample Type Non-Drinking Water		
	WASHINGTON, IA 52353-1623	Sample Source Surface Water		
		Sample Note(s) 1		

RESULTS OF ANALYSIS - FINAL REPORT

TEST	RESULT (mg/L)	QUANT LIMIT	ANALYSIS NOTE(S)
BOD, Carbonaceous 5 Day, SM 5210 B CBOD, 5 Day	9	2	
Laboratory pH, SM 4500 H+B Laboratory pH	7.5		2
Total Suspended Solids, USGS I-3765-85 Total Suspended Solids	26	1	
Turbidity, SM 2130 B Turbidity	28	1	

SAMPLE AND ANALYSIS NOTES

1. Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.
2. EPA holding time requires pH analysis be completed within 15 minutes of collection to be valid for regulatory reporting. Results reported as Laboratory pH do not meet this requirement and must be qualified if reported for regulatory purposes.

ANALYSIS INFORMATION

TEST	ANALYZED	SITE	RELEASED	ANALYSIS PREP
1. BOD, Carbonaceous 5 Day, SM 5210 B	2020-06-12 17:45 IV, RAD	3200	2020-06-19 10:14 IV	
2. Laboratory pH, SM 4500 H+B	2020-06-12 13:36 IV	3200	2020-06-18 15:36 RAD	
3. Total Suspended Solids, USGS I-3765-85	2020-06-15 11:00 KAR	3201	2020-06-16 15:15 MLS	
4. Turbidity, SM 2130 B	2020-06-13 08:33 LD	3201	2020-06-15 09:22 KMJ	

DESCRIPTION OF UNITS

mg/L = Milligrams per Liter
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Collection Location bridge chamness	Collector lee brian	Client Reference	Accession # 1045403
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Collection Location source tributary chamness	Collector and Phone lee brian 319/461-8849	Client Reference	Accession # 1045405
EDDYVILLE,	Collected 2020-06-11 10:48	Received 2020-06-11 16:25	Project 04wqfs
Report To IDNR-FO 6 1023 W MADISON ST WASHINGTON, IA 52353-1623	Sample Description		
	Sample Type Non-Drinking Water		
	Sample Source Surface Water		
	Sample Note(s) 1		

RESULTS OF ANALYSIS - FINAL REPORT

<u>TEST</u>	<u>RESULT (mg/L)</u>	<u>QUANT LIMIT</u>	<u>ANALYSIS NOTE(S)</u>
Ammonia as N, LAC 10-107-06-1J Ammonia nitrogen as N	130	0.05	
BOD, Carbonaceous 5 Day, SM 5210 B CBOD, 5 Day	1000	2	2
<u>TEST</u>	<u>RESULT (pH)</u>		<u>ANALYSIS NOTE(S)</u>
Laboratory pH, SM 4500 H+B Laboratory pH	7.9		3
<u>TEST</u>	<u>RESULT (mg/L)</u>	<u>QUANT LIMIT</u>	<u>ANALYSIS NOTE(S)</u>
Total Suspended Solids, USGS I-3765-85 Total Suspended Solids	110	1	
<u>TEST</u>	<u>RESULT (NTU)</u>	<u>QUANT LIMIT</u>	<u>ANALYSIS NOTE(S)</u>
Turbidity, SM 2130 B Turbidity	140	1	

SAMPLE AND ANALYSIS NOTES

1. Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.
2. As concentration of sample increased there was sufficient decrease in BOD/CBOD to indicate a possible inhibitory interference with biochemical activity. The result from the dilution containing the least volume of sample, not an average of all dilutions meeting Standard Methods depletion criteria, is reported. If reported to IDNR results must be qualified as an estimate.
3. EPA holding time requires pH analysis be completed within 15 minutes of collection to be valid for regulatory reporting. Results reported as Laboratory pH do not meet this requirement and must be qualified if reported for regulatory purposes.

ANALYSIS INFORMATION

<u>TEST</u>	<u>ANALYZED</u>	<u>SITE</u>	<u>RELEASED</u>	<u>ANALYSIS PREP</u>
1. Ammonia as N, LAC 10-107-06-1J	2020-06-19 09:37 SLS	3201	2020-06-19 16:37 JAE	
2. BOD, Carbonaceous 5 Day, SM 5210 B	2020-06-12 17:45 IV, RAD	3200	2020-06-19 10:14 IV	
3. Laboratory pH, SM 4500 H+B	2020-06-12 13:36 IV	3200	2020-06-18 15:37 RAD	
4. Total Suspended Solids, USGS I-3765-85	2020-06-15 11:00 KAR	3201	2020-06-16 15:15 MLS	
5. Turbidity, SM 2130 B	2020-06-13 08:33 LD	3201	2020-06-15 09:22 KMJ	



Collection Location source tributary chamness	Collector lee brian	Client Reference	Accession # 1045405
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DESCRIPTION OF UNITS

mg/L = Milligrams per Liter
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