

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE CONSENT ORDER**

IN THE MATTER OF: MUSCATINE COUNTY SOLID WASTE MANAGEMENT AGENCY; Permit No. 70-SDP-2-75P	ADMINISTRATIVE CONSENT ORDER NO. 2015-SW-
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**TO: Laura Liegios
Solid Waste Manager
Muscatine Co. SWMA
1000 Houser St.
Muscatine IA 52761-6146**

I. SUMMARY

This administrative consent order (Order) is entered into between the Iowa Department of Natural Resources (DNR) and Muscatine County Solid Waste Management Agency (Muscatine Co. SWMA) to correct operational violations. Pursuant to this Order, Muscatine Co. SWMA shall make necessary improvements and shall pay an administrative penalty of \$6,000.

Any questions regarding this Order should be directed to:

Relating to technical requirements:

Kurt Levetzow
Field Office #6
Iowa Department of Natural Resources
1023 West Madison
Washington, Iowa 52353
Ph: 319-653-2135

Relating to this Order to:

Jon C. Tack, Attorney
Iowa Department of Natural Resources
Henry A. Wallace Building
Des Moines, Iowa 50319-0034
Ph: 515-281-8889

II. JURISDICTION

This Order is issued pursuant to Iowa Code section 455B.307(2) which authorizes the Director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code chapter 455B, Division IV, Part 1 (solid waste) and the rules adopted pursuant to that part; and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10, which authorize the Director to assess administrative penalties.

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III. STATEMENT OF FACTS

1. The Muscatine County Sanitary Landfill (the landfill) is owned by the City of Muscatine. Sanitary Disposal Project permit No. 70-SDP-2-75P is held by the Muscatine Co. SWMA, an entity created pursuant to Iowa Code chapter 28A, and authorizes the operation of the landfill. The landfill has been operated since July 1, 2007 by Dick Doyle Excavation pursuant to a contract with Muscatine Co. SWMA.

2. On May 30, 1997, Administrative Order No. 1997-SW-08 was issued to the City of Muscatine due to operational violations related to daily cover and litter control at the landfill. This order assessed a penalty of \$2,000. A timely appeal was filed by the City of Muscatine.

3. On July 7, 1999, Administrative Order No. 1999-SW-09 was issued to the City of Muscatine due to operational violations related to daily cover, litter control, leachate control, and storm water control and maintenance at the landfill. This order assessed a penalty of \$10,000. A timely appeal was filed by the City of Muscatine.

4. In November of 1999, the DNR and the City of Muscatine reached a settlement of the two pending orders. Pursuant to the terms of the settlement, the City of Muscatine paid \$5,000 to resolve the outstanding contested cases.

5. On January 3, 2008, Administrative Consent Order No. 2008-SW-01 was issued by the DNR to the Muscatine Co. SWMA due to operational violations including violations related to appropriate cover, erosion control, litter control, and waste placement. Pursuant to the 2008 administrative consent order, Muscatine Co. SWMA paid a penalty in the amount of \$4,000 and was required to submit an operational plan to prevent further operational violations and a long-term plan of action to address construction and operational planning.

6. On January 3, 2008, the DNR issued a Notice of Violation to the Muscatine Co. SWMA and the contract operator for violations related to operating heavy equipment across a newly installed liner, potentially damaging the new liner and leachate collection system. These violations were not described in the Administrative Consent Order issued on the same date and were not resolved by the issuance of that order.

7. On January 8, 2008, the DNR received a complaint indicating that a snowmobiler had come across a large amount of wind-blown litter originating from the Muscatine County Sanitary Landfill. The DNR reported the complaint to landfill director Laura Liegois.

8. On May 20, 2008, the DNR conducted a routine inspection at the Muscatine County Sanitary Landfill. Stormwater control violations were noted including the failure to stabilize and the failure to install sufficient best management practices. Violations were

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also noted in regard to the failure to address known leachate seeps. A Notice of Violation was issued on June 23, 2008.

9. On October 31, 2008, the DNR conducted a routine inspection of the Muscatine County Sanitary Landfill. Deficiencies were noted in regard to stormwater runoff controls and litter collection. A copy of the report was sent to the Muscatine Co. SWMA on November 6, 2008.

10. On June 12, 2009, the DNR conducted a routine inspection of the Muscatine County Sanitary Landfill. Deficiencies were noted in regard to litter control. A Notice of Violation was issued to the Muscatine Co. SWMA on June 16, 2009.

11. On September 22, 2009, the DNR conducted a routine inspection of the Muscatine County Sanitary Landfill. It was noted that litter control had improved. The Muscatine Co. SWMA was directed to remove all trees from the closed portions of the landfill since they could damage the engineered cap and allow for infiltration of ground or surface water into the closed landfill cells. A copy of the report was sent to the Muscatine Co. SWMA on September 28, 2009.

12. On December 18, 2009, the DNR conducted an inspection of the Muscatine County Sanitary Landfill, including a record review. It was determined that required landfill gas monitoring had not been done in the 3rd and 4th quarters of 2009 due to an inoperable gas monitor. It was also determined that required waste screening had not been completed and that necessary stormwater records could not be located. A Notice of Violation was issued to the Muscatine Co. SWMA on December 18, 2009.

13. On June 11, 2010, the DNR conducted a routine inspection of the Muscatine County Sanitary Landfill. It was observed that large sections of the sand drainage layer in the newly constructed cell had eroded away exposing the liner and subjecting it to potential damage or failure. Additionally, significant erosion was observed in cell 1 and the adjacent cell. Some litter was observed that needed to be collected. Laura Liegois was present during this inspection and was aware of the findings.

14. On August 31, 2010, the DNR conducted a routine inspection of the Muscatine County Sanitary Landfill. The new liner was observed to be exposed in multiple areas due to erosion of the drainage layer. Gas build-up under the liner was noted and a leak in the liner was observed. Other violations included trees on the closed liner, ponding in the working area, and significant erosion in inactive areas. A Notice of Violation was issued to the Muscatine Co. SWMA on September 8, 2010.

15. On September 27, 2010, the DNR renewed Sanitary Disposal Project permit No. 70-SDP-2-75P for the operation of the Muscatine County Sanitary Landfill by the Muscatine Co. SWMA. Pursuant to Special Provision #4(h), the Muscatine Co. SWMA was required to submit an assessment of corrective measures by December 31, 2010 to identify and analyze potential remedies to address groundwater contamination caused by

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the landfill. The assessment of corrective measures is required by 567 IAC 113.10(7) when a sanitary disposal project has discovered a statistically significant increase in groundwater pollution in the facility's groundwater monitoring network.

16. The Muscatine Co. SWMA failed to submit the assessment of corrective measures by December 31, 2010 as required by the permit and the applicable regulations.

17. On March 7, 2011, the DNR conducted an inspection of the Muscatine County Sanitary Landfill. The liner leak had been repaired and the majority of the exposed areas of the liner had been covered. Although some trees had been removed from the closed portion of the landfill, additional trees remained. A copy of the report was sent to the Muscatine Co. SWMA on March 15, 2011.

18. On May 20, 2011, the DNR conducted an inspection of the Muscatine County Sanitary Landfill. It was observed that, once again, there were several areas where the final layer of sand for the newest cell construction area had been eroded away leaving the liner exposed and subject to damage. Areas of exposed liner had been observed during each inspection in four consecutive inspections beginning in June of 2010. During this inspection, it was observed that garbage and cover material had been placed directly on the liner. The required 12-inch sand layer provides protection for the liner in addition to its drainage properties. Without this layer, the liner is much more likely to be damaged or pierced and the ability of the system to convey leachate to the leachate collection system may be impaired. Other violations noted included a lack of litter control and the failure to repair leachate seeps.

19. On June 23, 2011, the DNR conducted an inspection of the Muscatine County Sanitary Landfill. Violations included the failure to repair the drainage layer over the liner, litter control, leachate control, lack of appropriate cover, and the ponding of surface water. A Notice of Violation was issued on July 18, 2011.

20. On September 15, 2011, the DNR conducted an inspection of the Muscatine County Sanitary Landfill. Violations noted were the continuing failure to repair the sand drainage layer, failure to remove trees from the liner of the closed portion of the landfill, and failure to address leachate seeps. A Notice of Violation was issued on September 20, 2011.

21. On November 30, 2011, the DNR conducted an inspection of the Muscatine County Sanitary Landfill. No violations were observed but it was incorrectly determined that the lined cell had been repaired and the sand drainage layer had been completely covered with solid waste. A copy of the inspection report was sent to the Muscatine Co. SWMA on December 6, 2011.

22. On September 12, 2012, the DNR visited the Muscatine County Sanitary Landfill. Erosion repair work was underway. The two areas of violation noted were multiple large ponded areas in the areas surrounding the working face and tree saplings growing on

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closed areas. A copy of the inspection report was sent to the Muscatine Co. SWMA on October 22, 2012.

23. On December 18, 2012, the DNR visited the Muscatine County Sanitary Landfill. Issues noted that needed to be addressed included the erosion of soil cover resulting in exposed waste and the ponding of surface water. Litter control was inadequate on this date. A copy of the inspection report was sent to the Muscatine Co. SWMA on December 21, 2012.

24. On April 2, 2013, the DNR received a complaint alleging that wind-blown litter from the Muscatine County Sanitary Landfill had been accumulating on a neighboring property since October of 2012. The complainant also stated that soil from the landfill was being washed onto his land by stormwater. The complaint was investigated by the DNR on April 9, 2013 and the litter and stormwater violations were confirmed. A Notice of Violation was issued on April 24, 2013.

25. On May 30, 2013, a follow-up inspection was conducted by the DNR at the Muscatine County Sanitary Landfill. Multiple violations were noted. Significant waste was lacking adequate cover and exposed in Phase 3 and 4. A portion of the liner was exposed in Phase 4. Additional erosion control measures were needed to control stormwater runoff. A letter of non-compliance was issued on June 6, 2013.

26. On June 26, 2013, the DNR received a complaint alleging that sediment from the landfill was being washed onto a neighboring property. The complaint was investigated on June 27, 2013. It was observed that a temporary berm around the southeast corner of the landfill soil borrow area had blown out and that sediment had migrated southeast toward the property line. Additionally, sediment build-up from stormwater flows was observed in the northeast corner of the property where a silt fence had failed. It was clear that sediment controls had failed but no sediment was observed to have left the property.

27. On July 10, 2013, the Muscatine Co. SWMA submitted a request to the DNR that the April 24th Notice of Violation be rescinded. This request was based upon a determination that some stormwater and sediment flows in the northeast corner of the landfill property were unrelated to landfill activities. By letter dated July 12, 2013, the DNR acknowledged the facts related to the northeast culvert but reaffirmed the Notice of Violation due to the observation of conditions in other areas of the landfill on April 9th.

28. On December 26, 2013, the DNR conducted a compliance visit at the Muscatine County Sanitary Landfill. Violations observed included the failure to repair the exposed areas of the liner prior to winter conditions including snow and freezing temperatures, failure to apply daily or intermediate cover and excessively steep slopes. Numerous cardboard powder paint residue drums were observed. They were snow-covered and snow had not been received in the area for several days. The landfill operator

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acknowledged that the paint drums had been onsite for more than one week. A letter of noncompliance was issued on January 6, 2014.

29. On March 28, 2014, the DNR conducted a follow-up inspection of the Muscatine County Sanitary Landfill. The area of exposed liner was observed. On that date, rocks, a piece of metal, wire, and various other solid wastes were either in contact with or near the exposed liner. The paint drums that were observed on December 26, 2013 had still not been covered and were leaking.

30. On March 29, 2014, the DNR visited the Muscatine County Sanitary Landfill and observed that the areas of exposed liner which had been observed the previous day had now been covered with sand and dirt.

31. On March 31, 2014, the DNR returned to the Muscatine County Sanitary Landfill. It was observed that the paint waste remained uncovered. The exposed liner appeared to have been covered on March 29th. Other violations included inadequate cover, the burial of yard waste, the ponding of surface water in the working face, inadequate litter control, and trees growing on the closed areas of the landfill. On April 3, 2014, a Notice of Violation was issued by the DNR.

32. On April 11, 2014, a conference call was held between the DNR, Laura Liegois of the Muscatine Co. SWMA and Doug Luzbetak of HLW Engineering to discuss compliance issues at the landfill. During this meeting it was agreed that the exposed liner area would be cordoned off and not used and that it would be repaired during the construction of the next landfill cell.

33. On April 18, 2014, the Muscatine Co. SWMA submitted a letter memorializing the agreement of April 11th and providing further response in regard to the recently documented violations at the landfill. It was reported that the paint drums had been covered, the origin of the ponding at the working face had been determined and addressed, and assurances were given in regard to litter control and tree removal.

34. On June 11, 2014, the DNR issued a letter to the Muscatine Co. SWMA in response to correspondence exchanged between the parties in regard to the 2013 Annual Groundwater Quality Report submitted by the Muscatine Co. SWMA. Among the noted deficiencies were the failure to submit an assessment of corrective measures and the failure to complete plume delineation in regard to multiple findings of statistically significant increases in groundwater contamination above groundwater protection standards.

35. The Muscatine Co. SWMA is in the process of obtaining access to neighboring properties for the purpose of carrying out the required site assessment necessary for the completion of an assessment of corrective measures.

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IV. CONCLUSIONS OF LAW

1. Iowa Code section 455B.304 provides that the Environmental Protection Commission (Commission) shall establish rules governing the handling and disposal of solid waste. The Commission has adopted such rules at 567 IAC chapters 100-121.

2. Pursuant to 567 IAC 113.8(2)“b”(2) & (3), construction and earth moving equipment shall not operate directly on the liner and leachate management system until a minimum of 4 feet of waste has been mounded over the top of the leachate collection system and the first 4 feet of waste shall consist of select waste that is unlikely to damage the liner and performance of the leachate collection system. The Muscatine Co. SWMA has violated these provisions.

3. Pursuant to 567 IAC 113.8(2)“f”(1), solid waste at the site shall be covered after each day of operation with a compacted layer of at least 6 inches of earth. Pursuant to 567 IAC 113.8(2) “f”(2), at least 1 foot of compacted cover material or an approved depth or application of alternative cover material shall be placed and maintained over waste in the active portion that has not or will not receive more waste for at least 30 days. The Muscatine Co. SWMA has violated these rule requirements on multiple occasions.

4. Pursuant to 567 IAC 113.8(2)“g”, the owner or operator of a sanitary disposal project shall contain and plug leachate seeps upon a seep being identified. The Muscatine Co. SWMA has violated this provision.

5. Pursuant to 567 IAC 113.8(3)“f”, the operator of a sanitary disposal project shall take steps to minimize the production of litter and the release of windblown litter off site of the facility. All windblown litter off site of the facility shall be collected daily unless prevented by unsafe working conditions. On-site litter shall be collected daily unless prevented by working conditions. The Muscatine Co. SWMA has violated these provisions.

6. Pursuant to 567 IAC 113.10(7)“a”, within 90 days of finding that any of the constituents listed in Appendix II of Chapter 567 -113 have been detected at a statistically significant level exceeding the groundwater protection standards defined pursuant to subrules 113.10(6) “h” or 113.10(6) “i” the owner or operator must initiate an assessment of corrective measures. Such an assessment must be completed and submitted to the DNR for review and approval within 180 days of the initial finding unless otherwise authorized or required by the DNR. The Muscatine Co. SWMA was required to submit the assessment of corrective measures by December 31, 2010 and has been continuously in violation of this provision since that date.

7. Pursuant to 567 IAC 113.13(1), following the closure of each MSWLF unit, the owner or operator must conduct postclosure care including maintaining the integrity and effectiveness of final cover. The Muscatine Co. SWMA has violated this provision.

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V. ORDER

The DNR and the Muscatine Co. SWMA agree and the Muscatine Co. SWMA is hereby ordered to comply with the following requirements:

1. The Muscatine Co. SWMA shall pay a penalty in the amount of \$6,000 at the time of execution of this Order.
2. Muscatine Co. SWMA shall comply with Sanitary Disposal Project permit No. 70-SDP-2-75P and all applicable statutes and regulations.
3. By January 31, 2014, the Muscatine Co. SWMA shall complete a review of existing hydrogeologic data and records for the Muscatine County Sanitary Landfill. A summary of the review findings shall be submitted to the DNR by March 2, 2015.
4. During calendar year 2015 the Muscatine Co. SWMA shall complete the following actions:
 - a. Sample select monitoring wells and leachate piezometers for geochemical parameters to evaluate the source of any groundwater standard exceedances and determine whether those pollutant levels are the result of landfill gas and/or leachate migration or something else – minimum of two rounds of samples.
 - b. Develop and implement a drilling work plan for the west side of the site and the south side of the site , if necessary, based on the hydrogeological review and the geochemical evaluation of the first round of samples. If ownership of the strip of property to the east of the site has been obtained, drilling or excavation for waste boundary delineation will be included in this event.
 - c. Sample select monitoring wells for natural attenuation parameters to evaluate the occurrence, sustainability, and projected remedial rate of natural attenuation as a component of a remedy – minimum of four rounds of samples. This data also could be used to attempt to evaluate the possible cause(s) of various metals SSLs based on redox indications.
5. By March 1, 2016, Muscatine Co. SWMA shall submit to the DNR a summary of the findings of the activities conducted pursuant to paragraph 3, above.
6. During calendar year 2016 the Muscatine Co. SWMA shall complete the following actions:
 - a. Continue to sample select monitoring wells for natural attenuation parameters to evaluate the occurrence, sustainability, and projected remedial rate of natural attenuation as a component of a remedy – minimum of four rounds of samples. This data also could be used to attempt to evaluate the possible cause(s) of various metals SSLs based on redox indications.

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- b. After obtaining ownership of the strip of property to the east, delineate the waste boundary and possibly install monitoring wells at a 50-foot offset (point of compliance (POC)) from the delineated waste boundary.
 - c. If the installation of new monitoring wells at the POC boundary is determined to be prudent, collect five background samples from the newly installed monitoring wells at the POC and re-evaluate compliance requirements.
7. By March 1, 2017, Muscatine Co. SWMA shall submit to the DNR a summary of the findings and recommendations derived from the activities conducted pursuant to paragraph 5, above. The summary shall include, but not be limited to, a determination of whether pollutants persist at statistically significant levels above groundwater standards along the eastern point of compliance boundary and whether additional drilling is necessary to delineate the groundwater contaminant plume in that area.
8. By August 1, 2017, the Muscatine Co. SWMA shall complete all groundwater plume delineation and evaluation actions necessary to the preparation of an assessment of corrective measures.
9. By December 1, 2017, the Muscatine Co. SWMA shall submit an assessment of corrective measures in compliance with 567 IAC 113.10(7) "a".
10. Within 60 days of approval by the DNR of the assessment of corrective measures, the Muscatine Co. SWMA shall hold a public meeting with interested and affected parties as required by 567 IAC 113.10(7)"d".
11. Within 60 days of the public meeting, the Muscatine Co. SWMA shall select a remedy that, at a minimum, meets the standards listed in paragraph 113.10(8) "b".
12. The DNR and the Muscatine Co. SWMA further agree that the requirements set forth herein are intended to produce additional information necessary to the determination of an appropriate course of action. To the extent such new information necessitates the revisions of any timelines or deadlines contained herein, the DNR agrees that it will not unreasonably deny the amendment of this Order to revise such provisions as may be appropriate.

VI. PENALTY

- 1. Iowa Code section 455B.307(3) provides for civil penalties of up to \$5,000 per day for solid waste violations.
- 2. Iowa Code section 455B.109 authorizes the Commission to establish by rule a schedule of civil penalties up to \$10,000 that may be assessed administratively. The Commission has adopted this schedule with procedures and criteria for assessment of penalties at 567 IAC chapter 10.

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a. Economic Benefit. The operational deficiencies which are documented in this order are likely to have resulted in initial economic benefits related to the avoidance of expenditures on labor, fuel and materials but these benefits are significantly reduced by the costs of necessary liner repair. The failure to complete an assessment of corrective measures to address groundwater contamination results in cost avoidance and cost delay in regard to not only the assessment itself but also the remedial measures which could be identified and undertaken to address the groundwater contamination. The avoidance of costs related to plume delineation also results in a delay in costs related to addressing these groundwater plumes. However, these costs have not decreased over time. In order to resolve this matter consensually, a penalty in the amount of \$2,000 is assessed for this factor.

b. Gravity of the Violation. One of the factors to be considered in determining the gravity of a violation is the amount of penalty authorized by the Iowa Code for the type of violation. The regulations violated by the Muscatine Co. SWMA are designed to protect the groundwater and surface water of the state. A failure to properly protect the liner and the resulting damage threatens to create future groundwater contamination at this site. Existing data shows past groundwater contamination. The lack of adequate cover can increase the threat of groundwater and surface water contamination. In order to resolve this matter consensually, a penalty in the amount of \$2,000 is assessed.

c. Culpability. This Order is the fourth enforcement action arising from violations at the Muscatine County Sanitary Landfill. The violations described in the administrative orders are consistent. The DNR has conducted regular inspections since the issuance of the prior enforcement action in January of 2008 and discovered ongoing violations during virtually every inspection. Muscatine Co. SWMA has taken corrective action to address violations but those violations continue to recur. In the issuance of the 2008 order, the DNR considered the operational and organizational changes that were implemented in 2007 to be a mitigating factor. Those changes have not produced the desired compliance. In order to resolve this matter consensually, a penalty of \$2,000 is assessed for this factor.

VII. WAIVER OF APPEAL RIGHTS

Iowa Code section 455B.308 and 561 IAC 7.4(1), as adopted by reference by 567 IAC chapter 7, authorize a written notice of appeal to the Commission. This Order is entered into knowingly by and with the consent of the Muscatine Co. SWMA. By signature to this Order, all rights to appeal this Order are waived.

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VIII. NONCOMPLIANCE

Failure to comply with this Order may result in the imposition of administrative penalties or referral to the Attorney General to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.307. Compliance with section V. Order of this Order constitutes full satisfaction of all requirements pertaining to the violations described in section "IV. Conclusions of Law" of this Order.

Chuck Gipp, Director
Iowa Department of Natural Resources

Dated this _____ day of
_____, 2015

Muscatine County Solid Waste Management Agency

Dated this _____ day of
_____, 2015

Field Office #6; Jon Tack; SDP No. 70-SDP-2-75P; Mike Smith; VI.B(2)