IOWA DEPARTMENT OF NATURAL RESOURCES

GOVERNOR, KIM REYNOLDS
LT. GOVERNOR, CHRIS COURNOYER
DIRECTOR, KAYLA LYON

May 15, 2025

BRAD SEWARD, DIRECTOR
CLINTON COUNTY AREA SOLID WASTE AGENCY
4292 220TH STREET
PO BOX 996
CLINTON IA 52733

RE: Clinton County Sanitary Landfill (East)
Permit No. 23-SDP-01-74P
North MSWLF Unit - Leachate Intercept Trench Construction Documentation Report
(Document No. 112987)
Permit Revision #8

Dear Mr. Seward:

The Iowa Department of Natural Resources has approved the North MSWLF Unit - Leachate Intercept Trench Construction Documentation Report, dated May 1, 2025, as submitted by SCS Engineers. Enclosed is a revised permit for the Clinton County Sanitary Landfill (East).

The permit and the approved plans must be kept at the sanitary disposal project in accordance with Iowa Administrative Code 567 subparagraph 113.11(1) (567 IAC 113.11(1)). Please review the permit with your operators, as they must become familiar with it.

If you have any questions, please contact me at (515) 229-8356 or at mike.smith@dnr.iowa.gov.

Sincerely,

Digitally signed by Michael W. Smith
Date: 2025.05.15 07:17:37 -05'00'

Michael W. Smith, P.E.
Land Quality Bureau

copy: Christine L. Collier, P.E.
SCS Engineers
1690 All State Court, Suite 100
West Des Moines, IA 50265

DNR Field Office #6

IOWA DEPARTMENT OF NATURAL RESOURCES
SANITARY DISPOSAL PROJECT PERMIT

I. Permit Number: 23-SDP-01-74P
Clinton County Sanitary Landfill (East)

II. Permitted Agency: Clinton County Area Solid Waste Agency

III. Project Location: Generally described as the S½, NE¼ and the SE¼; except for approximately a 603' (E-W) by 350' (N-S) area in the SW¼, SE¼, SE¼, except for a 220' (E-W) by 1180' (N-S) area in the SE¼, SE¼, and except for a county road easement on the south side of the site; all in Section 33, T82N, R6E, Clinton County, Iowa

IV. Responsible Official

Name:	Brad Seward, Director of Operations & Education
Address:	Clinton County Sanitary Landfill (East) 4292 220th Street P.O. Box 996 Clinton, IA 52733
Phone:	(563) 243-4749
email:	ccaswa@gmtel.net

V. Licensed Design Engineer

Name:	Tim Buelow, P.E.
Address:	SCS Engineers 1690 All State Court, Suite 100 West Des Moines, IA 50265
Phone:	(515) 681-5455
Email:	tbuelow@scsengineers.com
Iowa License Number:	14445

VI. Date Permit Issued: **October 1, 2020**
Date Revision #8: **May 15, 2025**

VII. Permit Expiration Date: **October 1, 2025**

VIII. Issued by: Michael W. Smith
Digitally signed by Michael W. Smith
Date: 2025.05.15 07:15:33 -05'00'

Iowa Department of Natural Resources

IX. General Provisions

The above named permitted agency is hereby authorized to operate a sanitary disposal project at the described location in conformance with Iowa Code section 455B, the rules pursuant thereto existing at the time of issuance, and any subsequent new rules which may be duly adopted, and any provisions contained in Section X of this permit.

The issuance of this permit in no way relieves the applicant of the responsibility for complying with all other local, state, and federal statutes, ordinances, and rules or other requirements applicable to the establishment and operation of this sanitary disposal project.

No legal or financial responsibility arising from the construction or operation of the approved project shall attach to the State of Iowa or the Department of Natural Resources (DNR) due to the issuance of this permit.

If title to this project is transferred, the new owner must apply to the DNR for a transfer of this permit within thirty days of the date of title transfer pursuant to subrule 113.4(3). This permit is void sixty days after the date of title transfer unless the DNR has transferred the permit.

The permit holder shall file a Quarterly Solid Waste Fee Schedule and Retained Fee Report utilizing the DNR's Form 542-3276 and remit tonnage fee payment, as applicable, for all wastes disposed at the sanitary disposal project in accordance with Iowa Code section 455B.310. The Reports will be due January 1, April 1, July 1 and October 1 for the quarters ending September 30, December 31, March 31 and June 30, respectively. The permit holder shall mail the completed report to the Solid Waste Section, Wallace State Office Building, 502 East Ninth Street, Des Moines, Iowa 50319. This reporting procedure supersedes any previous conflicting permit provisions.

The permit holder shall weigh all solid waste collection vehicles and solid waste transport vehicles on a scale certified by the Iowa Department of Agriculture and Land Stewardship. If conditions are such that make it impractical to provide an on-site scale, then off-site scale facilities may be used if justified and approved by the DNR. The permit holder shall comply with the waste weighing, record keeping and tonnage fee reporting requirements defined in rule 101.14(455B,455D). The scale weighing facilities shall comply with the certification and licensing requirements of the Iowa Department of Agriculture and Land Stewardship at all times. The permit holder shall maintain a current copy of the weighing scale facility licensing certificate issued by the Iowa Department of Agriculture and Land Stewardship at all times.

The permit holder shall comply with the gas control provisions of IAC 567 Chapters 20 through 31, including paragraph 23.1(2)"rrr" for the New Source Performance Standards and paragraph 23.1(5)"a" for the Emission Guidelines.

The permit holder shall ensure that the sanitary disposal project does not (1) cause a discharge of pollutants into waters of the United States, including wetlands, that violates any

[1] See rules published 08/17/94 and effective 9/21/94

requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, pursuant to Section 402 of the Clean Water Act, and (2) cause the discharge of a nonpoint source of pollution into waters of the United States, including wetlands, that violates any requirement of an areawide or statewide water quality management plan that has been approved under Section 208 or 319 of the Clean Water Act.

The permit holder shall submit an updated Municipal Solid Waste Sanitary Landfill Financial Assurance Report Form no later than April 1st, annually, pursuant to rule 113.14(455B). Use of this form provides permit holders a uniform means of submitting all required documentation to ensure that closure and postclosure cost estimates and applicable financial assurance instruments are updated as required.

Failure to comply with Iowa Code section 455B, or any rule of order promulgated pursuant thereto, or any provisions of this permit may result in 1) a civil penalty of up to $5000 for each day of violation, pursuant to Iowa Code section 455B.307, or 2) the suspension or revocation of this permit, pursuant to Iowa Code section 455B.305.

X. Special Provisions

1. The permit holder is authorized to accept solid waste for disposal in accordance with the approved Bi-State Regional Planning Area – Iowa Region Comprehensive Plan, Part I. The Comprehensive Plan, Part I as approved on May 26, 2016; any approved amendments to the plan; and the latest plan update, are incorporated into the permit.

   The permitted service area includes all cities and the unincorporated areas of Clinton County.

   In accordance with subrule 101.13(2), the permit holder shall submit an updated Comprehensive Solid Waste Management Plan compliant with the DNR's schedule.

2. The permit holder shall develop and operate the site in accordance with the Development and Operations Plan contained in Appendix 5 of the 2015 Permit Renewal documentation (doc #82424), dated February 3, 2015 and approved on August 17, 2015, as submitted by Barker Lemar Engineering Consultants, and the following:

   a. Waste disposal is limited to the Phase 0, Phase IA, Phase E-1, and Phase 2 Cells. The site vertical height shall not exceed a maximum waste elevation of 820 feet near N 695400 and E 2522200. Any further expansion beyond these cells shall require prior DNR approval.

   b. The permit holder shall collect leachate from the leachate control system and properly dispose of the leachate either by treatment in an on-site facility, discharge with an NPDES permit; or by discharge to the City of Clinton publicly owned treatment works

[1] See rules published 08/17/94 and effective 9/21/94

(POTW). If the discharge is to a POTW with a pretreatment program approved by the DNR, the discharge must comply with the terms and conditions of a local permit issued for the discharge by the POTW. If the discharge is to a POTW without an approved pretreatment program a completed treatment agreement form shall be submitted to the DNR's Wastewater Section. Copies of the local permit or treatment agreement shall be provided to the DNR's Solid Waste Section and the local Field office. The treatment agreement must be on DNR Form 31 (542-3221) and must comply with the requirements of subrule 64.3(5).

In addition, the permit holder shall monthly measure leachate head levels and elevations at all piezometers and record the volume of leachate collected and transported to the treatment works. Records of leachate contaminants testing required by the treatment works and any NPDES permit for on-site treated leachate discharges shall be maintained.

The permit holder shall annually submit a Leachate Control System Performance Evaluation (LCSPE) Report pursuant to subparagraph 113.7(5)"b"(14) as a supplement to the facility Annual Water Quality Report, as defined in subrule 113.10(10).

c. The following shall be recorded by the permit holder and reported in the LCSPER for each leachate thickness measurement that equals or exceeds 12 inches:
    1) Date of original and any verification measurement.
    2) If 12 inch or greater leachate column is verified, specific actions taken by the certified operator to lower leachate thickness, or an explanation why specific actions were not necessary.
    3) Date and results of follow-up measurement.

    Repeat steps 2 and 3 as necessary until a compliant measurement is collected.

d. The permit holder shall follow the approved Emergency Response and Remedial Action Plan (ERRAP) procedures during all emergencies pursuant to subrule 113.8(5). An updated ERRAP shall be submitted at the time of each permit renewal application. An updated ERRAP shall be included with any request for permit modification to incorporate a facility expansion or significant changes in facility operation that require modification of the currently approved ERRAP.

e. In accordance with the letter (doc #80384) dated May 29, 2014, as submitted by Barker Lemar Engineering Consultants, the site Development and Operations Plan includes a public drop-off area at the landfill.

f. In accordance with the litter control policy contained in Attachment B of the Permit Renewal Application response letter (doc #83671) dated June 18, 2015, as submitted by Barker Lemar Engineering Consultants, the permit holder shall utilize litter fence to minimize the blowing of litter, and complete and maintain the daily litter collection log as included in the letter. If the facility continues to have litter problems, as defined by

[1] See rules published 08/17/94 and effective 9/21/94

the DNR Field Office as a Letter of Noncompliance or Notice of Violation, the policy shall be amended as necessary.

3. The permit holder shall construct the liner and leachate collection systems in accordance with the 2016 Master Plan (doc#85357), dated February 4, 2016, as amended by the Barker Lemar Engineering Consultants submittal dated March 8, 2016 (doc#85639) and approved on April 14, 2016; and the Barker Lemar Engineering Consultants submittal dated January 31, 2020 (doc #96916) and approved on March 8, 2020; and the following:

   a. The permit holder is authorized to construct the Phase E-2 cell as depicted in the documents referenced above. Ninety (90) days prior to commencement of construction activities for the Phase E-2 cell, the permit holder shall submit a request to construct the cell, including tentative construction schedules and Final QC&A submittal dates. Construction of the cell shall not commence without DNR approval of this request.

      Any further expansion beyond this cell shall require DNR approval. No waste disposal shall commence in the Phase E-2 cell until the final construction certification has been submitted in accordance with paragraph 113.7(6)"d", and the cell has been inspected and approved by the DNR.

   b. Ninety (90) days prior to commencement of construction activities for the Phase E-2 cell, the permit holder shall submit a request to construct the cell, including tentative construction schedules and Final QC&A submittal dates. Construction of the cell shall not commence without DNR approval of this request.

   c. The updated Quality Control and Assurance Plan - New Cell Construction (doc #89567), dated May 25, 2017, as submitted by Barker Lemar Engineering Consultants, and approved on June 23, 2017, is incorporated into the permit.

   d. The permit holder shall notify the DNR and have the site inspected when the construction of a new MSWLF unit or significant components thereof has been completed, in accordance with subrule 113.4(6). Prior to the inspection, the QC&A officer shall submit a final report to the DNR that verifies compliance with the requirements of rule 113.7 and the approved plans and specifications. No waste disposal shall commence in any newly constructed unit or portion thereof until it has been inspected and approved by the DNR.

   e. The Construction Certification Report for Phase 0 Cell Construction (doc #8074), dated September 4, 2007, as submitted by Barker Lemar Engineering Consultants and approved on September 20, 2007, is incorporated into the permit.

   f. The Phases 1 and 2 Construction Phasing Revisions and Request for Post-Permit Action (doc #63039), dated January 14, 2011, as submitted by Barker Lemar Engineering Consultants and approved on April 7, 2011, is incorporated into the permit.

[1] See rules published 08/17/94 and effective 9/21/94

g. The Phase 0 Leachate Collection System Modifications construction certification report (doc #66368), dated August 22, 2011, as submitted by Barker Lemar Engineering Consultants, and approved on October 5, 2011, is incorporated into the permit. The LCS modification consisted of the installation of a 100 foot perforated leachate collection pipe in the southeastern corner of the Phase 0 cell.

h. The Construction Observation Report, Phase 1A Cell Construction (doc #66679), dated September 28, 2011, including the revisions dated October 3, 2011 (doc #66699) as submitted by Barker Lemar Engineering Consultants and approved on October 5, 2011, is incorporated into the permit.

i. The construction documentation for leachate piezometers LMW-5DR and LMW-6AR (doc #78178), dated September 26, 2013, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

j. In document #82558, dated February 27, 2015, the permit holder reported that discharge from the Phase 1A cell groundwater underdrain monitoring point GU-1 has been connected to the leachate storage lagoon.

k. The Phase E-1 Cell Construction Observation Report (doc #90294), dated September 12, 2017, as submitted by Barker Lemar Engineering Consultants, and approved on September 13, 217, is incorporated into the permit.

l. The Phase 2 Cell Construction Observation Report, dated September 9, 2020, as submitted by Evora Consulting, and approved on September 10, 2020, is incorporated into the permit.

4. Hydrologic monitoring at the site shall be conducted in accordance with the Revised Hydrologic Monitoring System Plan (HMSP, doc #95626), dated July 30, 2019, as submitted by Barker Lemar Engineering Consultants and approved on October 25, 2019; the HMSP and Corrective Action Groundwater Monitoring Program Modification request (doc #103586), dated July 12, 2022 and approved on July 29, 2022; and the following:

   a. The HMSP for the South MSWLF unit, including the Phase 0 and Phase 1A cells in the Lateral Expansion, shall include the following:
      (1) Unconsolidated aquifer background groundwater monitoring point MW-06-7R;
      (2) Unconsolidated aquifer downgradient compliance wells, MW-05-8R, MW-19, and MW-25R;
      (3) Downgradient attenuation zone compliance wells MW-05-2, MW-05-3, MW-28, and MW-29;
      (4) Supplemental attenuation zone source wells MW-90-11, MW-20, MW-24, MW-32, and MW-33[1];
      (5) Bedrock aquifer downgradient compliance wells MW-39, MW-40, MW-41, MW-42;

[1] See rules published 08/17/94 and effective 9/21/94

(6) underdrain monitoring points UD-2 and GU-1; and
(7) Corrective action monitoring program (CAMP) points[2].

[1] Samples from the supplemental attenuation zone source wells shall be analyzed semiannually for the Appendix 1 parameters and biennially for total organic carbon, nitrate, iron, manganese, and sulfate until the DNR approves otherwise. Since these wells are not compliance points, they are not subject to the requirements of 567 IAC 113.10(5)"c" and 113.10(6).

[2] The Selection of Remedy and Corrective Action Monitoring Program (CAMP) letter report (doc #97615), dated April 27, 2020, and CAMP amendment (doc #98264), dated August 17, 2020, both submitted by Evora Consulting, was approved on September 10, 2020. The CAMP has been further modified in accordance with HMSP and Corrective Action Groundwater Monitoring Program Modification request (doc #103586), dated July 12, 2022 and approved on July 29, 2022. As described in these documents, the following corrective action monitoring activities will be conducted semiannually in addition to the routine monitoring required in 567 IAC 113.10(5,6) until otherwise approved:
- Delineation wells MW-90-18, and MW-34 – for vinyl chloride, and
- Phase E-1 gas vent – for methane.

b. The permit holder shall semiannually collect groundwater elevation data from monitoring wells MW-21, MW-05-1, MW-05-2, and MW-05-3 and the Phase 1A underdrain in order to measure the separation of the base of the MSWLF unit from the groundwater table as required in paragraph 113.6(2)"i". This data shall be included in the facilities' AWQR.

c. DNR construction documentation form 542-1277 and boring logs for all monitoring wells and piezometers shall be submitted within 30 days of installation. DNR construction documentation form 542-1323 shall be submitted within 30 days of establishing surface water monitoring points.

d. The permit holder shall conduct background and routine semiannual groundwater sampling and analysis; as well as perform statistical tests for the approved monitoring points for the Appendix I parameters and total suspended solids (TSS) in accordance with rule 113.10(455B). Groundwater samples shall **not** be field-filtered prior to laboratory analysis and total suspended solids shall be analyzed using Method 1376585, with a reporting limit goal of <= 2 mg/l). Turbidity measurement may be approved by the DNR in lieu of TSS, provided a correlation between the two is established.

Groundwater underdrain point GU-1 is approved for annual sampling as discharge from this point is being treated as leachate.

e. The permit holder shall include in each AWQR an evaluation of TSS/turbidity data and other pertinent sampling and analytical results, to determine if representative samples

[1] See rules published 08/17/94 and effective 9/21/94

of groundwater have been collected. If samples are not representative, the permit holder may be required to utilize low flow or no-purge sampling methods, consider new well construction with an optimized filter pack design, and/or additional well development. If sample quality does not improve with improved well construction, well development, and/or sampling methods, the DNR will consider higher TSS/turbidity levels as representative of site groundwater conditions.

f. The frequency for full Appendix II analysis at monitoring points that are in assessment monitoring and have had at least two (2) rounds of analysis using the entire Appendix II list is once every (5) five years. If monitoring points exit assessment monitoring and later return to assessment monitoring an additional two (2) rounds of analysis using the entire Appendix II list is required.

g. The permit holder shall semiannually measure groundwater elevations within 1/100 of a foot in each well and immediately prior to purging, each time groundwater is sampled.

h. An Annual Water Quality Report (AWQR) summarizing the effects the facility is having on groundwater quality shall be submitted to the DNR's Solid Waste Section by January 31 each year. This report shall be prepared in accordance with subrule 113.10(10) by a qualified groundwater scientist pursuant to paragraph 113.10(1)"d" and by using the DNR Annual Water Quality Report Format.

i. The Well Abandonment Documentation for MW-90-1, MW-90-2, MW-92-1, and OLD MW (doc #8369), dated August 30, 2007, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

j. The well construction documentation for MW-07-10 construction documentation (doc #8864), dated September 20, 2007, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

k. The well abandonment documentation for MW-90-4 (doc #43037), dated April 30, 2009, as submitted by Barker Lemar Engineering Consultants is incorporated into the permit.

l. The construction documentation for monitoring wells MW-19, MW-10, MW-21, and MW-22, and landfill gas wells LFG-W1, LFG-W2, and LFG-W3 (doc #548646), dated January 29, 2010, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

m. The well abandonment documentation for MW-07-10 (doc #64463), dated April 1, 2011, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

n. The well abandonment documentation for MW-05-6 (doc #66748), dated June 16, 2011, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

[1] See rules published 08/17/94 and effective 9/21/94

o. The well construction documentation for MW-25 (doc #65730), dated July 5, 2011, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

p. The well construction documentation for MW-26 through MW-31 (doc #76261), dated March 21, 2013, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

q. The well construction documentation for MW-32 and MW-33 (doc #78178), dated September 26, 2013, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

r. The construction documentation for groundwater monitoring wells MW-05-8R, MW-25R, and MW-34 (doc #82841), dated March 24, 2015, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

s. The construction documentation for monitoring wells MW-39 through MW-43BG and leachate piezometer LMW-5AR, dated February 15, 2018 (doc #91564) and submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

t. The abandonment documentation for monitoring well MW-90-8R and construction documentation for gas well LFGW-3 (doc #96321), dated November 6, 2019, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

5. The permit holder shall conduct subsurface gas monitoring in accordance with the Revised Landfill Gas Monitoring Plan (doc #59575), dated April 7, 2009, as submitted by Barker Lemar Engineering Consultants and approved on May 26, 2009, and the following:

   a. The permit holder shall quarterly monitor and annually report site methane concentrations in accordance with rule 113.9(455B). Specific actions, as defined in the rules, shall be taken in the event of methane gas level limit exceedances.

   b. The permit holder shall annually submit a report by January 31 summarizing the methane gas monitoring results and any action taken resulting from gas levels exceeding the specified limits during the previous 12 months as a supplement to the facility Annual Water Quality Report, as defined in subrule 113.10(10).

   c. The Landfill Gas Well Installation documentation for LFGW-4, LFGW-5, LFGW-6, and LFGW-7 (doc #63865), dated February 15, 2011, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

6. The permit holder is authorized to collect, process, grind, or chip trees, limbs, brush, and clean wood wastes free of coatings and preservatives, for the purposes of reuse as bedding material, mulch, compost bulking material; or for other beneficial reuses, in accordance with the following:

[1] See rules published 08/17/94 and effective 9/21/94

a. Trees, limbs, brush, and clean wood wastes shall not be stored for a period exceeding twelve (12) months before processing.

b. Ground or chipped materials shall not be allowed to accumulate such that the stockpiles are not completely reused within twelve (12) months of initial stockpiling.

c. The processed materials may be used as mulch or soil conditioner for off-site purposes and on landfill areas with intermediate and final cover and on soil borrow areas.

d. Mulch or soil conditioner applied to existing vegetated landfill areas shall be applied at a rate such that established vegetation is not adversely impacted by its use.

7. In accordance with the variance approval dated October 1, 2020, the permit holder may burn trees and tree trimmings resulting from the August 20 derecho event within the designated areas described in the August 21, 2020 request from Evora Consulting (doc #98290), until August 21, 2021. In accordance with the request, open burning shall be conducted in a manner to reduce impact to neighbors, and shall not be conducted when significant winds exist.

8. The permit holder is authorized to utilize a de-watered industrial process sludge produced by Equistar Chemicals LP in combination with soil as daily and intermediate cover subject to the following conditions:

a. The soil-sludge mixture shall not exceed 20 percent by weight sludge. The quantity of sludge accepted by this landfill shall be limited to that required for cover. The disposal of additional quantities of the sludge in excess of that required for cover material is not authorized.

b. Quantities exceeding 1-week usage shall be disposed in the workface area.

c. Appropriate measures shall be taken in the use or stockpiling of soil-sludge mixture of the mixture to prevent erosion of the mixture. Should adequate erosion control and the retention of sediments fail to be provided, the DNR reserves the right to require modification of the operating procedures.

d. Records shall be maintained of the amount of sludge received.

e. The permit holder shall notify the DNR regarding any problems encountered with use of the soil-sludge mixture.

f. A composite sample of the sludge shall be collected by September 1 and March 1 of each year and analyzed for the parameters listed in TCLP test except for the pesticides. Results of the analyses shall be submitted to this DNR within 60 days of the sampling.

[1] See rules published 08/17/94 and effective 9/21/94

g. The DNR reserves the right to terminate the use of soil-sludge mixture at any time if deemed appropriate.

9. The permit holder is authorized to use geotextiles by the trade names *Typar* and *TarpARMOR* as alternative cover materials for the active MSWLF unit, subject to the following:

a. The use and installation of this product shall be in conformance with the manufacturer's recommendations.

b. This product shall only be used as a daily alternative cover material and shall not be utilized as a replacement for soil cover if application performance in terms of litter, vector, odor, and precipitation entry control is not provided.

c. This product shall be applied so as not to promote water ponding, or drainage run-on from adjacent upper and side MSWLF unit areas beneath the installed geotextile.

d. This product shall be weighted at the close of each working day to prevent displacement by wind using soil or tires.

e. This product shall not be exposed for longer than **seven (7)** consecutive days. For any waste covered with this product beyond the stipulated period, the product shall be removed and the underlying waste shall be immediately covered with soil in accordance with the applicable IAC rules.

f. This product shall not be used if it becomes damaged or worn, or if the intended performance is breached. In such instances, this product shall be disposed of as a part of the waste fill.

g. The operator shall inspect each application of this product for thorough coverage and cover integrity. If operational problems arise from the use of this product or its method of application, the use of this product shall be suspended until proper corrections are made by the operator, with six inches of compacted daily cover being utilized during this interim period.

h. If, at any time, the DNR or permit holder deems this product ineffective or otherwise unsatisfactory, the permit holder shall immediately revert to soil or another previously approved alternative daily cover. The permit holder shall immediately notify the DNR's Main and local Field office through both written and verbal notification of this action. This notification is not necessary if use of this product ceases only on a temporary basis, such as during adverse operational or weather conditions.

[1] See rules published 08/17/94 and effective 9/21/94

10. The permit holder is authorized to use of biomass sludge from ADM (Clinton) mixed with soil as alternative daily cover in accordance with their letter (doc #40245) dated May 9, 2003, and the following:

    a. Only biomass sludge from aerobic wastewater treatment of food waste at the ADM plant in Clinton and which has been dried shall be accepted, stockpiled and used.

    b. The maximum amount of sludge accepted shall not exceed 800 tons per month.

    c. The sludge shall be blended with site soils on a 50/50 by volume basis for use as the authorized alternative covers. All sludge accepted by the landfill shall be soil-blended by the end of the working day of receipt. The resultant mixture shall be temporarily stockpiled in an area close to the working face and shall be used as an alternative daily cover within 7 days.

    d. Runoff from all pre-blended and post-blended sludge/soil stockpiles shall be controlled to prevent sludge from being released beyond the working face and stockpile area.

    e. A 6”-thick compacted layer of the sludge and soil blend shall be used to cover the waste in the regular working face.

    f. The sludge and soil mixture shall not be used as an intermediate or final soil cover.

    g. In the event of any adverse environmental, operational, odor, rodent, or vector problem implications caused by the acceptance, blending, stockpiling, and cover use operations, the alternative cover use shall be immediately terminated, all sludge materials disposed of in the working face, the DNR’s Main and Field Office #6 notified, and the landfill required to revert to other approved daily cover materials. Any adverse contaminant releases to the environment shall be promptly remedied.

11. The permit holder is authorized to accept Foundry Sand from Westwick Foundry Ltd. in Galena, Illinois or from Gray Powder Technologies in Muscatine, Iowa. The permit holder is authorized to use a foundry sand/soil combination as an alternative cover material, subject to the following:

    a. The ratio of foundry sand to soil shall not exceed 50% foundry sand by volume. Quantities exceeding 1-week usage shall be disposed in the workface area. Only foundry sand placed at a ratio of 6:1 (6 tons of waste to 1 ton of approved foundry sand) will be considered alternative daily cover. Any material used in excess of that ratio shall be reported as waste. Pursuant to Iowa Code section 455B.310(9), foundry sand used by a sanitary landfill as daily cover is exempt from imposition of the tonnage fee if the foundry sand is generated by a foundry located within the state and if the foundry sand is provided to the permit holder at no cost to the permit holder.

[1] See rules published 08/17/94 and effective 9/21/94

b. The foundry sand/soil may be used in lieu of the 6-inch daily cover requirement. Foundry sand/Soil shall not be used as a substitute for intermediate or final soil cover.

c. The waste must be compacted, before the foundry sand/soil is applied, to provide an even surface to minimize ponding, prevent pockets, and to maximize uniform surface drainage.

d. Foundry sand/soil shall be applied to the active waste face at the end of each day of operations and more frequently if necessary to control fire or fire hazards, blowing litter, scavenging, odors, insects, and rodents.

e. The soil ratio shall be increased, if necessary, to optimize cover performance relative to the criteria stated in items “c” and “d” above.

f. The permit holder shall scarify the foundry sand/soil cover material over the working face area on which it is applied prior to each day’s use of that area as a working face.

g. The permit holder shall maintain in the landfill files appropriate quarterly laboratory analytical documentation that demonstrates that the foundry sand is not hazardous by TCLP metals test. Documentation reporting of such testing shall be submitted to both the DNR’s Main and local Field office.

h. The use of foundry sand/soil for daily cover usage by any other generator than the one approved above shall be subject to specifications approval by the DNR.

i. If the foundry sand/soil is found by the DNR not to be performing satisfactorily, its use shall be discontinued and the remaining materials shall be disposed in the working face.

12. The permit holder is authorized to accept sandblast or coal combustion residue from ADM in Clinton, Iowa, and coal combustion residue from Alliant Energy’s Clinton, Iowa plant. The permit holder is authorized to use sandblast residue or CCR/soil combination as an alternative cover material, subject to the following:

a. The ratio of sandblast residue or CCR to soil shall not exceed 50% sandblast residue or CCR by volume. Quantities exceeding 1-week usage shall be disposed in the workface area. Only CCR placed at a ratio of 6:1 (6 tons of waste to 1 ton of approved CCR) will be considered alternative daily cover. Any material used in excess of that ratio shall be reported as waste.

b. The alternative cover material may be used in lieu of the 6-inch daily cover requirement but it shall not be used as a substitute for intermediate or final soil cover.

c. The waste must be compacted before the alternative cover material is applied to provide an even surface to minimize ponding and maximize uniform surface drainage.

[1] See rules published 08/17/94 and effective 9/21/94

d. The alternative cover material shall be applied to the active waste face at the end of each day of operations and more frequently if necessary to control fire or fire hazards, blowing litter, scavenging, odors, insects, and rodents.

e. The soil ratio shall be increased, if necessary, to optimize cover performance relative to the criteria stated in items “c” and “d” above.

f. The permit holder shall scarify any alternative cover material prior to each day’s use of that area as a working face.

g. The permit holder shall maintain in the landfill files appropriate quarterly laboratory analytical documentation that demonstrates that the sandblast residue or CCR is not hazardous by TCLP testing. Documentation reporting of such testing shall be submitted to both the DNR’s Main and local Field Office.

h. The use of sandblast residue or CCR for daily cover usage by any other generator than the one above shall be subject to specifications approval by the DNR.

13. The permit holder is authorized to accept Automobile Shredder Residue (ASR) from the Clayton County Recycling facility in Monona, Iowa. The permit holder is authorized to use an ASR/soil combination as an alternative cover material, subject to the following:

a. The permit holder shall remove all materials exceeding 1.5 inches in size before mixing with soil on a 50% by volume basis and using as an alternative daily cover material. The ratio of ASR to soil shall not exceed 50% ASR by volume. Quantities exceeding 1-week usage shall be disposed in the workface area. Only ASR placed at a ratio of 6:1 (6 tons of waste to 1 ton of approved ASR) will be considered alternative daily cover. Any material used in excess of that ratio shall be reported as waste.

b. The ASR/soil may be used in lieu of the 6-inch daily cover requirement. ASR/soil shall not be used as a substitute for intermediate or final soil cover.

c. The waste must be compacted, before the ASR/soil is applied, to provide an even surface to minimize ponding, prevent pockets, and to maximize uniform surface drainage.

d. ASR/soil shall be applied to the active waste face at the end of each day of operations and more frequently if necessary to control fire or fire hazards, blowing litter, odors, insects, and rodents.

e. The soil ratio shall be increased, if necessary, to optimize cover performance relative to the criteria stated in items “c” and “d” above.

[1] See rules published 08/17/94 and effective 9/21/94

f. The permit holder shall scarify the ASR/soil cover material over the working face area on which it is applied prior to each day's use of that area as a working face.

g. The permit holder shall maintain in the landfill files appropriate quarterly laboratory analytical documentation that demonstrates that the ASR is not hazardous by TCLP metals test, contains no PCBs that equal or exceed 50 ppm, is not ignitable, and has certification from the generator that the material was processed according to the above noted specifications. Documentation reporting of such testing shall be submitted to both the DNR's Main and local Field office.

h. The use of ASR/soil for daily cover usage by any other generator than the one approved above shall be subject to specifications approval by the DNR.

i. If the ASR/soil is found by the DNR not to be performing satisfactorily, its use shall be discontinued and the remaining materials shall be disposed in the working face.

14. In accordance with the variance approval dated May 19, 2015 (doc #83414), the permit holder may dispose of up to 120 tons per week of Class II sewage sludge from the City of Clinton Regional Water Reclamation Facility until the expiration date of this permit.

15. The permit holder is authorized to temporarily store a maximum of 20 tons/year of mixed colored glass for alternative daily cover use. The maximum percentage of mixed glass in the daily cover blend shall not exceed 10% by volume. The mixed glass/soil blend shall be stockpiled in an area close to the working face that will not interfere with disposal operations, as directed by the landfill supervisor. Glass shall not be utilized in intermediate or final cover.

16. The permit holder is authorized to accept and temporarily store a maximum of 1500 waste tire equivalents for the purpose of reclamation processing or disposal. Tire storage and processing shall be conducted at approved plan locations. The tires shall be removed at least once every 120 days and transported to the appropriate reclaimer/processor, or disposed of at the site. All operations shall be in accordance with subrule 109.10(3), IAC 567 Chapter 117 and the current local fire code.

17. The permit holder is authorized to collect and temporarily store used oil for recycling purposes. The storage tank(s) shall be designed and maintained to prevent the spillage or discharge of used oil. Absorbent material shall be available at the tank site for use by the operator to control used oil spillage or discharge. The used oil shall be processed in accordance with IAC 567 Chapter 119. The maximum length of time for storage is twelve (12) months.

18. The permit holder is authorized to accept and temporarily store antifreeze for recycling purposes. The antifreeze shall be stored in plastic drums at a location designated by the operator. Absorbent material shall be available for use by the operator to control

[1] See rules published 08/17/94 and effective 9/21/94

antifreeze spillage or discharge. The plastic drums shall be placed in a spill control pan of a capacity sufficient to contain the contents of the largest drum with all drums in place in the control pan. The maximum length of time for storage is twelve (12) months.

19. The permit holder is authorized to temporarily store white goods and scrap metal in an area designated by the operator. No discarded appliance may be stored for more than 270 days without being demanufactured. No scrap metal or discarded appliance may be stored for more than a total of twelve (12) months, including demanufacturing processing, prior to being recycled/salvaged. The operator and salvaging contractor shall comply with applicable provisions of IAC 567 Chapter 118 and the General Provisions of this permit. No scavenging shall be allowed.

20. The permit holder is authorized to accept and temporarily store lead acid batteries for recycling purposes. Lead acid batteries must be stored in a designated area that will curtail movement of acids and provide proper ventilation of gases from the batteries. The maximum length of time for storage is twelve (12) months.

21. The permit holder is authorized to collect and temporarily store plastic farm pesticide containers for recycling. The storage area shall be located at a readily accessible area to the facility. The following conditions and procedures shall apply:

    a. Pesticide containers containing any product or free liquids shall not be accepted for recycling or disposal.

    b. The storage area shall be used only for recyclable plastic farm pesticide containers that have been properly rinsed and drained. Contact the Iowa Department of Agriculture and Land Stewardship (IDALS) Pesticide Bureau at (515) 281-8506 for container rinsing and recycling information.

    c. The storage area shall be either fenced or provided with a recycle bin to keep the containers segregated from other wastes and to prevent them from leaving the storage area during windy conditions.

    d. The storage area base shall be graded to divert surface water run-on. An all weather access to the area shall be provided.

    e. The base of the storage area that does not utilize a recycle bin should be provided with either an impervious surfacing, rock or anchored plastic membrane surfacing over a compacted soil base to keep the containers free of dirt to maximize material recovery and minimize damage to recycle grinding equipment.

    f. All stored containers shall be removed from the temporary storage area and granulated on-site for recycling purposes by April 1st annually. Contact the Agribusiness Association of Iowa at (515) 262-8323 to schedule container recycle granulation and site removal.

[1] See rules published 08/17/94 and effective 9/21/94

g. The storage area shall be monitored frequently by the operator to confirm proper usage and to visually check for the presence of any product or rinsate releases to the environment or storage area.

h. Any containers found in the storage area with free product or product rinsate liquids shall be promptly removed from the storage area and either returned to the disposer or properly rinsed, drained and the liquids discharged to the on-site leachate storage system or land applied on the landfill site at the allowable labeled application rate for the product. Care should be taken to apply the product liquids to the appropriate area.

i. If any apparent releases to the storage area are observed by the operator or DNR personnel, the operator shall promptly report the event to the IDALS Pesticide Bureau by telephone at (515) 281-8506 with a follow-up written report of the event to IDALS. Report copies shall be provided to the DNR's Main and local Field office. IDALS representatives will conduct a site visit, sample the appropriate areas, complete the necessary contaminant(s) testing and notify the DNR of any recommended actions to be taken. The DNR will inform the permit holder of required actions to remedy the release.

22. The permit holder shall permit holder shall close the South MSWLF Unit in accordance with the 2016 Master Plan (doc #85357), dated February 4, 2016, as amended by the submittal dated March 8, 2016 (doc #85639), both submitted by Barker Lemar Engineering Consultants and approved on April 14, 2016; and the following:

a. The Final Closure Request regarding the verification of closure of 11.5 unlined acres referred to as Ravine #5 in the South MSWLF Unit (doc #40252), dated August 26, 2005, as submitted by Barker Lemar Engineering Consultants and approved on August 10, 2006, is incorporated into the permit.

b. The Closure Observation Report, regarding final cover and leachate collection system construction on the final remaining 19.7 acres in the unlined portion of the South MSWLF unit (doc #55423), dated February 12, 2010, as submitted by Barker Lemar Engineering Consultants and approved on May 7, 2010, is incorporated into the permit.

c. Effective control of leachate in the unlined portion of the South MSWLF unit shall be evaluated on a case-by-case basis to determine how to achieve the lowest possible leachate head; and by complying with the environmental monitoring and corrective action requirements for groundwater and surface water.

XI. Special Provisions- Closed Units

1. The North MSWLF Unit stopped receiving waste prior to October 9, 1994.

[1] See rules published 08/17/94 and effective 9/21/94

2. The thirty-year post closure period for this facility began on May 7, 2010.

3. Final cover has been constructed over the North MSWLF Unit in accordance with paragraph 113.2(8)"d" as follows:

   a. The Cover Verification for Pre-1989 Fill Area letter, dated August 19, 2002, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit. This letter documents placement over the majority of the North MSWLF Unit and identifies 3 areas where insufficient cover existed.

   b. The North MSWLF Unit Insufficient Cover Area letter, dated February 25, 2010, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit. This letter certifies the placement of sufficient additional soil on those cover-deficient areas identified in Special Provision 3a.

4. The permit holder is prohibited from any additional waste disposal, recycling, composting, and other related landfill activities at the North MSWLF Unit unless they are specifically approved through an amendment to this permit.

5. The North MSWLF unit shall be monitored for water quality in accordance with the Revised Hydrologic Monitoring System Plan, dated April 9, 2009, as submitted by Barker Lemar Engineering Consultants, and the following:

   a. The HMSP shall include upgradient monitoring wells MW-06-6R and MW-06-7R; downgradient wells MW-90-5, MW-90-13, MW-03-16, MW-90-15R, PZ-R3, and PZ-R4.

      Groundwater elevations shall be determined from monitoring well MW-90-5 during each sampling event and this well shall be permanently included as a routine sampling point if groundwater flow conditions indicate that it is located downgradient from the North MSWLF Unit at any time.

   b. Routine water quality sampling from approved monitoring points shall consist of the following:

      MW-06-7R: Appendix I, Total suspended solids (TSS)
      MW-90-5: Appendix I VOCs
      MW-90-13: Appendix I VOCs
      MW-03-16: Appendix I, TSS, Geochemistry, Natural attenuation parameters (NA)
      PZ-R3: Appendix I VOCs, TSS, Geochemistry, NA
      PZ-R4: Appendix I, TSS, Geochemistry, NA
      MW-06-6R (u): Appendix I metals list, TSS
      MW-90-15R: Appendix I VOCs

[1] See rules published 08/17/94 and effective 9/21/94

Geochemistry and natural attenuation parameters shall be tested biennially. All other parameters shall be tested semi-annually unless otherwise noted.

The following supplemental wells shall be tested biennially for the parameters noted.

PZ-2-R16: Geochemistry, NA
PZ-6-R16: Geochemistry, NA
PZ-11: Appendix I metals, TSS, Geochemistry, NA
PZ-12: Appendix I metals, TSS, Geochemistry, NA
MW-36: Arsenic, Cobalt, Benzene, TSS
MW-38: Arsenic, Cobalt, Benzene, TSS

c. Supplemental semiannual sampling and analysis of monitoring points MW-03-16, PZ-R3, and PZ-R4 for the Appendix I organic constituents and arsenic shall be conducted in addition to the routine test parameters. The additional testing may be discontinued upon all of the following: **1)** After three consecutive test results show concentrations below the lowest action level at all of the monitoring points; **2)** The test results and a request for elimination of the additional sampling are submitted to the DNR; **and 3)** The DNR approves discontinuation of the additional sampling.

d. Samples collected for dissolved metals analysis shall be preserved and promptly transferred to a certified laboratory.

e. If laboratory test results exceed the upgradient mean plus two standard deviations or the Maximum Contaminant Level (MCL) for any parameter, the DNR shall be notified within 30 days of receipt of the analytical results.

f. Results of all analysis and the associated sampling forms shall be submitted to both the field and main offices of this DNR within 45 days of the sample collection.

g. The AWQR report, summarizing the effects the facility is having on groundwater quality, shall be submitted to the DNR by November 30 of each year as required by paragraph 103.2(8)d[1]. This report shall be prepared by a professional engineer licensed in Iowa.

h. By means of a variance granted on January 23, 2003, groundwater measurements are required to be taken in March and September of each year.

i. The well plugging records for groundwater wells MW-90-16 and MW-97-16R, abandoned on August 18, 2003, as submitted by Barker Lemar Engineering Consultants, are incorporated as part of the permit documents.

j. The Boring Log/Monitoring Well Construction documentation for well MW-03-16, installed on August 18, 2003, as submitted by Barker Lemar Engineering Consultants, is incorporated as part of the permit documents.

[1] See rules published 08/17/94 and effective 9/21/94

k. The well plugging records for wells MW-90-6 and MW-90-7, abandoned on January 16, 2006, as submitted by Barker Lemar Engineering Consultants, are incorporated as part of the permit documents.

l. The Boring Log/Monitoring Well Construction Details for wells MW-06-6R and MW-06-07R, installed on January 17, 2006, as submitted by Barker Lemar Engineering Consultants, are incorporated as part of the permit documents.

m. In accordance with the letter request dated July 29, 2014, as submitted by Barker Lemar Engineering Consultants, the monitoring well maintenance and performance reevaluation plan is modified to replace in-situ permeability well testing conducted every five years with biennial well recharge rate evaluations.

n. The construction documentation for groundwater piezometers PZ-11 and PZ-12, as contained in document #82841, dated March 24, 2015, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

o. Well construction documentation for new bracketing wells MW-36, MW-37-1, MW-37-2, and replacement piezometers PZ-1-R16, PZ-2-R16, and PZ-6-R16 as contained in document #86490, dated June 3, 2016, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

p. Well construction documentation for new well MW-38, and well abandonment documentation for MW-37-1 and MW-37-2, dated June 29, 2017, as submitted by Barker Lemar Engineering Consultants, is incorporated into the permit.

6. The Groundwater Remediation Plan As-Built report and included plans dated December 5 2003, as submitted by Barker Lemar Engineering Consultants and approved on January 26, 2004, are incorporated as part of the permit documents.

7. This MSWLF unit shall be inspected on a semiannual basis by a professional engineer licensed in the State of Iowa. The engineer shall prepare a brief report describing the unit's conformance and nonconformance with the permit and the approved plans and specifications during the inspections. These reports shall be submitted by May 1 and November 1 each year to the DNR's Main and local Field offices.

8. This site shall be maintained in accordance with subrule 103.2(14)[1].

9. All diversion and drainage systems must be maintained to the approved specifications to prevent run-on and runoff erosion, or other damage to the final cover. These diversion and drainage structures must be designed to meet a 25-year, 24-hour rainfall event.

[1] See rules published 08/17/94 and effective 9/21/94

10. The vegetative cover shall be reseeded as necessary to maintain good vegetative growth. Any invading vegetation whose root system could damage the compacted soil layer shall be removed or destroyed immediately.

11. The integrity and effectiveness of the final cover must be maintained by making repairs as necessary to correct the effects of settling, subsidence, erosion, or other events. If damage to the final cover compacted soil layer occurs, repairs shall be made to correct the damage and return it to original specifications.

12. Methane monitoring of the North MSWLF unit is performed in accordance with the Methane Migration Monitoring Plan described in Special Provision 5 of **Section X. Special Provision- Operating Units**.

13. The permit holder is authorized to operate the North Unit MSWLF Unit leachate control system in accordance with the Leachate Collection System plan dated October 2004, as submitted by Barker Lemar Engineering Consultants and approved on November 2, 2004, and the following:

    a. The permit holder shall collect leachate from the leachate control system and properly dispose of the leachate either by treatment in an on-site facility, discharge with an NPDES permit; or by discharge to the City of Clinton publicly owned treatment works (POTW). If the discharge is to a POTW with a pretreatment program approved by the DNR, the discharge must comply with the terms and conditions of a local permit issued for the discharge by the POTW. If the discharge is to a POTW without an approved pretreatment program, a completed treatment agreement form shall be submitted to the DNR's Wastewater Section. Copies of the local permit or treatment agreement shall be provided to the DNR's Solid Waste Section and the local Field office. The treatment agreement must be on DNR Form 31 (542-3221) and must comply with subrule 64.3(5).

    b. The leachate control system shall be operated and maintained in accordance with the approved permit documents. After implementation of the leachate control system, the permit holder shall routinely collect the necessary information and evaluate the effectiveness of the system in controlling the leachate. All documentation shall be summarized in the Leachate Control System Performance Evaluation (LCSPE) Report. Effective control shall be considered as maintaining the lowest possible leachate head above the MSWLF unit liner and maintaining surface and groundwater quality standards at compliance monitoring points.

    c. The North MSWLF Unit LCSPE reporting shall be included in the LCSPER described in Special Provision 2d of **Section X. Special Provision- Operating Units**. The evaluation shall include proposed additional leachate control measures and an implementation schedule in the event that the constructed system is not performing effectively.

[1] See rules published 08/17/94 and effective 9/21/94

d. Leachate head levels and elevations shall be measured semiannually at all piezometers in the North MSWLF Unit and the volume of leachate collected from the North MSWLF Unit and transported to the treatment works recorded. Records of leachate contaminants testing required by the treatment works and any NPDES permit for on-site treated leachate discharges shall be maintained.

e. The Construction Certification Report pertaining to the construction of the leachate storage lagoon, leachate conveyance system, and the leachate collection system, dated September 12, 2005 and submitted by Barker Lemar, and approved on October 6, 2005; is incorporated as part of the permit documents.

f. The Leachate Collection System Retrofit regarding the installation of 2 additional leachate collection trenches in the vicinity of Ravine #2 to address persistent leachate seeps, dated May 24, 2007, submitted by Barker Lemar Engineering Consultants and approved on June 12, 2007, is incorporated as part of the permit documents.

g. The Construction Certification Report for the Leachate Collection System Retrofit, dated March 6, 2008, as submitted by Barker Lemar Engineering Consultants and approved on July 10, 2008, is incorporated into the permit. This report pertains to leachate collection trenches installed in the area of Ravine #2 to intercept persistent leachate seeps in the area.

h. The Proposed Leachate Interceptor Trench plan, dated February 7, 2024, as submitted by SCS Engineers, is hereby approved.

i. The North MSWLF Unit – Leachate Intercept Trench Construction Documentation Report, dated May 1, 2025, as submitted by SCS Engineers is hereby approved.

14. The permit holder shall conduct all contingency and emergency operations in accordance with the approved Emergency Response and Remedial Action Plan (ERRAP). An updated ERRAP shall be submitted at the time of any significant changes in closure operations that require modification of the currently approved ERRAP.

[1] See rules published 08/17/94 and effective 9/21/94

XII. Permit Renewal and Revision History

Date	Comment
June 5, 2023	Permit Revision #6, removed background bedrock well MW-43BG from the HMSP (Special Provision X.4.a).
March 6, 2024	Permit Revision #7 approves the plan to install a leachate interceptor trench (Special Provision XI.13.h).
May 15, 2025	Permit Revision #8 approves the North MSWLF Unit – Leachate Intercept Trench Construction Documentation Report (Special Provision XI.13.i).

[1] See rules published 08/17/94 and effective 9/21/94