



July 20, 2022

Sarah Schlichtholz
Alter Trading Corp.
700 Office Parkway
St. Louis, MO 63141

RE: Alter Metal Recycling - Highway 22 Industrial Monofill
Permit #82-SDP-04-89C

Dear Ms. Schlichtholz:

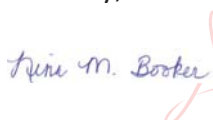
Enclosed is Amendment #12 to the permit issued on February 23, 2006, for the Alter Highway 22 Industrial Monofill. The amendment and approved plans must be kept with the permit at the sanitary disposal project in accordance with solid waste rule 567 IAC 115.26(2)"c". Please review this amendment with your operators, as they must become familiar with it.

The enclosed amendment approves the *Leachate Extraction Cessation Request*, dated July 15, 2022, as submitted by Evora Consulting, and hereby incorporates it as part of the permit documents.

Note that the amendment may contain special provisions that require a response or action by you which, if not properly complied with, may prompt enforcement action by this department.

If you have any questions, you may contact me at (515) 537-4051.

Sincerely,

 Digitally signed by
Nina M. Booker
Date: 2022.07.20
21:00:46 -05'00'

Nina M. Booker
Environmental Engineer Senior
Land Quality Bureau

cc: DNR Field Office #6

Alter Metal Recycling
626 Schmidt Road
Davenport, IA 52802

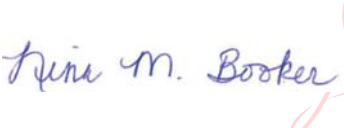
Evora Consulting
1690 All State Ct., Suite 100
West Des Moines, IA 50265

**IOWA DEPARTMENT OF NATURAL RESOURCES
SANITARY DISPOSAL PROJECT PERMIT**

- I. **Permit Number:** 82-SDP-04-89P
Alter Highway 22 (IW) Landfill
- II. **Permitted Agency:** Alter Trading Corporation
- III. **Project Location:** Parts of the SE¼ of Section 7, the NW¼ and the
SW¼ of Section 8, and the NE¼ of Section 18, all in
T77N, R3E, Scott County, Iowa (117 acres).
- IV. **Responsible Official**
- Name: Sarah Schlichtholz
Address: Alter Trading Corporation
700 Office Parkway
St. Louis, MO 63141

Phone: (314) 872-2406
FAX: (314) 872-2420
- V. **Licensed Design Engineer**
- Name: Lauren P. Norland, P.E.
Address: Evora Consulting
1690 All State Ct., Suite 100
West Des Moines, IA 50265

Phone: (515) 256-8814
FAX: (515) 256-0152

Iowa License Number: 25064
- VI. **Permit Issuance Date:** February 23, 2006
Permit Revision Date: July 20, 2022 Amendment #12
- VII. **Permit Expiration Date:** February 23, 2036
-  Digitally signed by Nina M.
Booker
Date: 2022.07.20 21:16:47
-05'00'
- VIII. **Issued by:** _____
Environmental Services Division
for the Director

IX. General Provisions

The above named permitted agency is hereby authorized to close the sanitary landfill at the described location in conformance with Iowa Code Chapter 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 facility shall be closed according to the engineering plans and specifications approved by the Iowa Department of Natural Resources (IDNR) and these shall become a part of this permit. Any modifications or deviations from the engineering plans and specifications must have prior approval by the IDNR and an amendment to this permit issued.

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 closure and maintenance of this closed sanitary landfill.

No legal or financial responsibility arising from the closure and postclosure of the approved project shall attach to the State of Iowa or the Department of Natural Resources due to the issuance of this permit.

If title to this project is transferred, the new owner must apply to the IDNR for a transfer of this permit within thirty days of the date of title transfer. This transfer is void sixty days after the date of title conveyance unless the IDNR has transferred the permit.

This facility shall be surveyed as necessary and inspected as described in the special provisions of this permit. Semiannual reports shall be prepared containing a brief report describing the site'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 both the Field and Main offices of the IDNR. The IDNR shall be notified if any inspection reveals any nonconformance with the permit and approved plans and specifications.

Failure to comply with Iowa Code Chapter 455B, or any rule of order promulgated pursuant thereto, or any or all provisions of this permit may result in a civil penalty of up to \$5000 for each day of violation, pursuant to Iowa Code section 455B.307.

X. Special Provisions

1. The thirty-year postclosure period for this facility begins on the date of issuance of this closure permit. This post-closure period can be reduced at the IDNR's discretion after completion of the remediation activities described in Special Provision #3 subject to the completion of environmental monitoring in accordance with Special Provision #4I.

2. Issuance of this closure permit prohibits any additional waste disposal and other related landfill activities unless they are specifically approved through an amendment to this permit.
3. The site shall be closed and (if) remediated in accordance with the Remediation/Closure Plan dated March 2005 and certified on July, 22, 2005, as submitted by CPI Environmental Services, Inc, approved on July 25, 2005, and the following:
 - a. The permit holder shall notify the IDNR's main and local field offices 30 days prior to commencement of waste excavation activities.
 - b. The permit holder is authorized to excavate the automobile shredder residue (ASR) from Phases I and II for transport and disposal at a permitted sanitary landfill.
 - c. The permit holder shall complete the waste excavation in Phases I and II within a 3-year time period starting at the time of notification.
 - d. The excavated fill area shall be properly backfilled and regraded in accordance with the Section 4.4 of the Remediation/Closure Plan and shown on the approved Figure 1, Proposed Final Grade, dated January 12, 2006, as submitted by CPI Environmental Services, Inc.
 - e. No stockpiling of waste is authorized outside of the permitted waste boundary.
 - f. Due to moisture and density of the excavated materials, daily cover is not required during the remedial excavation of the landfill, subject to the following: (Amendment #2 issued March 12, 2007)

When waste will be exposed for a period of greater than 1 day, cover materials as described in the Closure Plan will be utilized until excavation activities resume.

If conditions change as the excavation progresses, where run on/runoff, litter, odors, or vectors become a nuisance, daily cover as described in the Closure Plan will be utilized as needed.

- g. The permit holder is authorized to extend the implementation period of the approved March 2005 Remediation/Closure Plan. (Amendment #3 issued July 6, 2009)

In accordance with the May 29, 2009 Extension Request from Alter, excavation in Phases I and II may continue for an additional 5-year period. The excavated wastes shall be disposed at the Millennium Waste Landfill located in Milan, Illinois.

Excavation of the waste mass shall continue in accordance with the permit and/or subsequent amendments; the Remediation/Closure Plan, dated March 2005 and approved on July 26, 2005; and the May 29, 2009 Extension Request submitted by Alter Trading Corp.

The permit holder shall maintain the integrity and effectiveness of the final cover in areas not currently undergoing excavation by making repairs as necessary to correct the effects of settling, subsidence, erosion, ponding, or other events.

- h. The permit holder shall submit quarterly status reports regarding implementation of the plan until completion of waste removal activities. These reports shall include the operational status of all leachate extraction wells and quantity of leachate discharged into the POTW.
- i. The permit holder is authorized to implement the Request for Closure Permit Amendment, dated October 19, 2012, as submitted by Barker Lemar Engineering Consultants (Barker Lemar). (Amendment #4 issued November 20, 2012)

The closure amendment has been submitted to address the transition from completely excavating the waste for metals extraction purposes, to capping the remaining wastes in-place. The waste removal process was initiated in the southern portion of the Phase II cell and was ceased due to the unfavorable economics of the process.

As a result of cessation of subsequent waste removal activities, the slope at the southern end of Phase II was left steeper than 25%. Placement of the final cover involves removal of sufficient waste to achieve a maximum slope of 25%. Wastes removed to achieve the required slope shall be properly disposed.

The permit holder shall submit a closure compliance report certified by a professional engineer licensed in the State of Iowa upon completion of the final cover construction. The report shall certify that the site closure has been implemented in compliance with the rules, the Closure and Post Closure Plan, and the permit or amendments thereto.

- j. The Closure Compliance Report, dated November 13, 2013, as submitted by Barker Lemar Engineering Consultants (Barker Lemar), is approved and incorporated as part of the permit documents. (Amendment #5 issued May 22, 2014)

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.

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.

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.

The leachate control system shall continue to be operated and maintained in accordance with the approved permit provisions.

4. Hydrologic monitoring at the site shall be conducted in accordance with the approved Hydrologic Monitoring System Plan (HMSP), and the Groundwater Quality Assessment Plan (GQAP) dated December 24, 2004 and subsequent GQAP revision dated February 14, 2005, as submitted by CPI Environmental Services and approved on February 24, 2005, and the following provisions:
 - a. The HMSP shall include:
 - 1) **Alluvial system** groundwater monitoring points, consisting of upgradient monitoring wells MW-3, MW-4, MW-5, and downgradient monitoring wells MW-7R, MW-8R, MW-9, and MW-23. (Amendment #6 issued on September 15, 2014) and (Amendment #11 issued April 16, 2020)
 - 2) **Water Level Only** monitoring points, consisting of MW-10, MW-18, MW-21, MW-21L, MW-21R, MW-22R, MW-101, MW-102, MW-106, and MW-201. (Amendment #6 issued on September 15, 2014) (Amendment #11 issued April 16, 2020)
 - b. The permit holder is no longer required to conduct surface water sampling and analysis at SW-1, SW-2, and SW-3 as requested in the 2017 AWQR, dated November 16, 2016, as submitted by Barker Lemar. Surface water sampling and analysis may cease since it does not appear relevant for determining impact from the closed landfill. When enough water was available to sample, there were no detections of VOCs, including benzene. Also metal concentrations were rarely detected above the laboratory reporting limits. (Amendment #11 issued April 16, 2020)
 - c. IDNR construction documentation form 542-1277 and boring logs for all monitoring wells and piezometers shall be submitted within 30 days of installation. IDNR construction documentation form 542-1323 shall be submitted within 30 days of establishing surface water monitoring points.

The Monitoring Well Construction and Surface Water Monitoring Point Construction Documentation Forms for groundwater monitoring well MW-201 and SW-3, respectively, as submitted by email on August 2, 2006 by CPI Environmental Services, Inc. are incorporated as part of the permit documents. (Amendment #1 issued August 8, 2006)

The *Monitoring Well Installation*, dated November 25, 2014, as submitted by Barker Lemar Engineering Consultants, and the attached boring log and monitoring well documentation for wells MW-7R, MW-8R, and MW-23 is approved and incorporated as part of the permit documents. (Amendment #7 issued January 7, 2015)

- d. Abandonment of any monitoring points requires prior approval by the IDNR. Well abandonment must be performed and documented in accordance with 567 IAC 115.24(2).

The *Monitoring Well Abandonment Records*, dated December 10, 2014, as submitted by Barker Lemar Engineering Consultants, and the attached Abandoned Water Well Plugging Records for wells MW-1, MW-2, MW-6, MW-7, MW-8, and MW-11 are approved and incorporated as part of the permit documents. (Amendment #8 issued April 14, 2015)

- e. First year quarterly sampling and analysis has been completed in accordance with the IDNR's approval letter dated February 24, 2005. All statistical evaluations shall include the updated baseline and subsequent sampling documentation.

Continued routine annual sampling and analysis for the parameters listed in 567 IAC 115.26(4)"e" and 567 IAC 115.26(4)"f", minus phenols, shall be conducted at each approved monitoring point. (Amendment #11 issued April 16, 2020)

Continued supplemental annual sampling shall be conducted for analysis of arsenic and benzene at upgradient monitoring wells MW-3, MW-4, MW-5, and downgradient monitoring well MW-9. The additional testing may be discontinued upon all of the following: **1)** After three consecutive test results show concentrations below the lowest action level; **2)** The test results and a request for elimination of the additional sampling are submitted to the IDNR; **and 3)** The IDNR approves discontinuation of the additional sampling. (Amendment #11 issued April 16, 2020)

- f. The Method Detection Limit (MDL) for the test parameters shall not exceed action levels as defined in 567 IAC Chapter 133. If the action levels cannot be feasibly achieved using procedures described in 567 IAC 115.2(5), then the MDL shall not exceed the lowest feasible level.
- g. The variance approval of November 14, 2017; as based on the *Permit Modification Request-Petition for Variance*, dated August 16, 2017, as submitted on your behalf by Barker Lemar Engineering Consultants is incorporated as part of the permit documents.

The permit holder is approved to discontinue the collection of filtered samples for analysis of dissolved metals, as required by 567 IAC 115.26(4)"d"; and instead, shall conduct sampling and analysis of total recoverable metals. (Amendment #10 issued November 14, 2017)

- h. The permit holder may continue statistics calculations based on prediction limits and report any statistically significant increases (SSI) in the Annual Water Quality Report.

- i. Results of all analysis and the associated IDNR sampling forms 542-1322 shall be submitted to the IDNR's Main and local Field offices within 45 days of the sample collection.
 - j. By means of a variance granted on February 22, 1999, groundwater measurements were allowed to be reduced.
 - k. An Annual Water Quality Report (AWQR) summarizing the effects the facility is having on groundwater and surface water quality shall be submitted to the IDNR's Main and local Field offices by November 30 each year. This report shall be prepared in accordance with 567 IAC 115.26(8)"d" by a Professional Engineer licensed in the State of Iowa. The AWQR shall include the results of the annual groundwater measurements, routine analyses conducted at the monitoring points, and 12 report components specified in the IDNR's September 28, 2004 and January 26, 2005 letters regarding the 2003 and 2004 AWQRs.
 - l. The IDNR will consider discontinuation of groundwater and surface water monitoring prior to the completion of the 30 year postclosure period after:
 - 1) Completion of a minimum period of 5 years of environmental monitoring in accordance with Special Provision #4, beginning at the completion of waste removal activities;
 - 2) Contaminant concentrations in all wells and surface water monitoring points are below the lowest action level for three consecutive tests;
 - 3) Contaminant concentrations exhibit stable or declining concentrations based upon the last three sampling events;
 - 4) Completion of any additional remedial measures or monitoring deemed appropriate by the IDNR in accordance with 567 IAC 115.26(9)"d".
 - m. In accordance with the April 4, 2014 request from Barker Lemar, the permit holder is authorized to omit the Spring 2014 sampling event in order to modify the hydrologic monitoring system plan by revising various monitoring point locations and depths. The sampling shall resume with the Fall 2014 sampling event. (Amendment #5 issued May 22, 2014)
5. The permit holder is authorized to implement the Revised Groundwater Quality Assessment Plan (GWQAP), dated October 18, 2012, as submitted by Barker Lemar Engineering Consultants (Barker Lemar) (Amendment #4 issued November 20, 2012):
- a. The GWQAP has been submitted to assess possible impacts to the groundwater as a result of the wastes disposed at this site.

- b. As part of the assessment, Barker Lemar proposes to review the hydrogeologic conditions and historical data, update the hydrologic monitoring system plan, and revise the analytical program. The IDNR concurs with the proposal as presented.
- c. Based on the meeting between representatives from Alter, Barker Lemar, and the IDNR on November 1, 2012; and the telephone conversation on November 9, 2012 between Tim Buelow (Barker Lemar) and Nina Koger (IDNR), it was concluded that for calendar year 2013, Alter would not be required to submit the semi-annual and annual water quality reports in lieu of conducting the sampling, data collection, analyses, and evaluations discussed in the GWQAP. The routine parameters listed in paragraph 115.26(4)"e" and "f" and additional parameters specified by the IDNR will continue to be sampled for in 2013 and the laboratory analytical reports, field data sheets, and historical tabular summary of data will be submitted in place of the semi-annual and annual water quality reports. The sampling, data collection, analyses, and evaluations discussed in the Groundwater Quality Assessment Plan will be reported in the Groundwater Quality Assessment Report required in paragraph 115.26(9)"c".
- d. The permit holder shall provide periodic updates on the GWQAP schedule implementation. Any major deviations from the schedule shall have prior IDNR approval.
- e. The Groundwater Quality Assessment Report (GWQAR), dated March 2014; as submitted by Barker Lemar, is approved and incorporated as part of the permit documents. (Amendment #5 issued May 22, 2014)

Future Annual Water Quality Report maps (AWQR); as well as future GWQAR maps, shall include the Cell 1 waste boundary that was constructed but not used so that positioning of future wells can be adequately reviewed.

The permit holder shall re-evaluate the parameters proposed for sampling and analysis and determine what an applicable list of constituents should consist of for the monitoring program

The permit holder shall not plug and abandon any monitoring wells without prior approval from the IDNR.

- f. The *Response to Permit Amendment #5-GWQAR Approval*, dated August 14, 2014, as submitted by Barker Lemar Engineering Consultants, is approved and incorporated as part of the permit documents. The approved hydrologic monitoring system plan/groundwater quality assessment plan is revised. (Amendment #6 issued September 15, 2014)

The IDNR grants authorization to plug and abandon groundwater monitoring wells MW-1, MW-2, MW-6, MW-7, MW-8, and MW-11, as these wells are inappropriately located

or poorly constructed. These wells, as shown on Figure 1 attached to the August 14, 2014 submittal, shall be properly plugged and abandoned.

The permit holder is authorized to install groundwater monitoring wells MW-7R, MW-8R, and MW-23, as shown on Figure 1, attached to the August 14, 2014 submittal.

6. All diversion and drainage systems must be maintained to the approved specifications to prevent run-on and runoff erosion, as long as waste remains at the site. These diversion and drainage structures must be designed and maintained to meet a 25-year, 24-hour rainfall event.
7. This site shall be inspected monthly for the first year, or more frequently depending on weather conditions. The frequency of routine inspections may be decreased after the first year, but no less frequent than semiannually, if the permit holder provides justification that monthly inspections are no longer necessary to ensure proper maintenance of the site. Summarize all inspection data in the semiannual report defined in the General Provisions.
8. As long as waste remains at the site, the permit holder is authorized to operate the leachate control system in accordance with the Leachate Control Plan (LCP) contained in Section 3 of the Final Permitting Documentation Report and Engineering Drawings, both dated August 1995, as submitted by Foth & Van Dyke and approved by the IDNR on August 17, 1995; the supplemental plans contained in the Permit Renewal Documentation Report dated November 23, 1998; the leachate force main construction plans and specification attached to the Foth & Van Dyke letter dated November 24, 1998; and the Remediation/Closure Plan, dated March 2005, as submitted by CPI Environmental Services, Inc.; and the following:
 - a. All leachate extraction and monitoring wells will remain active as long as possible during the remedial excavation and will be abandoned or decommissioned in accordance with the Remediation/Closure Plan.
 - b. Leachate collected from the leachate control system shall be disposed of either by treatment in an on-site facility with an NPDES permit or by discharge to the City of Davenport's publicly owned treatment works (POTW). If the discharge is to a POTW with a pretreatment program approved by the IDNR, 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 IDNR's Wastewater Section. Copies of the local permit or treatment agreement shall be provided to the IDNR's Main and local Field office. The treatment agreement must be on DNR Form 31 (542-3221) and must comply with the requirements of 567 IAC 64.3(5).
 - c. 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 a Leachate Control System Performance Evaluation (LCSPE) Report. Effective control shall be considered as maintaining compliance with maximum leachate head as defined in 567 IAC 115.26(11)“a”(1), achieving the lowest possible leachate head as required in 567 IAC 126.26(12)“b”(2), and maintaining surface and groundwater quality standards at compliance monitoring points.

- d. Leachate head levels and elevations shall be measured at least quarterly at all extraction wells and the volume of leachate collected 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. Leachate head levels and elevations in leachate observation wells may be measured semiannually.
- e. The permit holder shall annually submit the LCSPE Report, including record data, as a supplement to the facility Annual Water Quality Report, as defined in 567 IAC 115.26(8). The performance evaluation shall include proposed additional leachate control measures and an implementation schedule in the event that the constructed system is not performing effectively.
- f. **The *Leachate Extraction Cessation Request*, dated July 15, 2022, as submitted by Evora Consulting, is hereby approved and incorporated it as part of the permit documents. (Amendment #12)**

The permit holder is authorized to implement cessation of leachate extraction to allow collection of groundwater analytical data not influenced by leachate extraction. Cessation of leachate extraction shall be implemented in lieu of Special Provision #8 “a” through “e”, as follows:

- **Groundwater sampling, statistical tests, and reporting will continue as currently required. If deterioration in groundwater quality is measured corresponding to the cessation of leachate extraction, the leachate extraction pumps will be turned back on to resume leachate extraction from the Monofill as currently directed. Discussion will be included in future AWQRs on the condition of groundwater as it relates to the cessation of leachate extraction.**
- **Occurrences of leachate head level measurements in the Monofill extraction wells (EW-2 to EW-8) will be increased to monthly to monitor the expected rebound and subsequent stabilization of leachate levels in the monitoring points. Leachate head level measurements are currently approved for quarterly measurements as authorized by permit amendment #9 dated November 7, 2016; however, measurements have generally continued to be taken on a monthly basis. Leachate head levels will be reported annually in the Leachate Collection System Performance Evaluation (LCSPE) Report.**

- **Landfill cap inspections will be performed monthly to check for the presence of leachate seeps. If leachate seep(s) are discovered, the location and characteristics of the seep will be reported to the DNR within seven days along with a plan and schedule for addressing the seeps including the resumption of leachate extraction, if necessary.**

9. As long as waste remains at the site, the permit holder shall semiannually monitor and annually report site methane concentrations in accordance with 567 IAC 115.26(15) after May 18, 1994. Specific actions, as defined in the rules, shall be taken in the event of methane gas level limit exceedances.

The annual report summarizing the methane gas monitoring results and any action taken resulting from gas levels exceeding the specified limits during the previous 12 months shall be submitted to the IDNR's Main and local Field offices by November 30 of each year.

10. The Emergency Response and Remedial Action Plan (ERRAP) submitted by Foth and Van Dyke, Inc. and dated November, 2001, in compliance with 567 IAC 102.16(455B) was approved by the IDNR on January 2, 2003. An updated ERRAP shall be submitted at the time of any significant changes in facility closure operations that require modification of the currently approved ERRAP.

11. In accordance with the variance approval of November 7, 2016; and the approval of the *Permit Modification Request-Petition for Variance*, dated August 10, 2016, as submitted on your behalf by Barker Lemar Engineering Consultants; the permit holder is authorized to implement the following: (Amendment #9 issued November 7, 2016)

Change the groundwater level measurement frequency, as required by 567 IAC 115.26(4)"b", from quarterly to semi-annually. (Amendment #11 issued April 15, 2020 further reduces the measurement frequency to annually)

Change the methane gas monitoring frequency, as required by 567 IAC 115.26(15)"b", from quarterly to semi-annually.

Change in-situ permeability testing every five years, as required by 567 IAC 115.21(2)"d", to a biennial well recharge rate evaluation