

FACT SHEET
American Zinc Recycling Corporation
Bartlesville, Oklahoma

The Oklahoma Department of Environmental Quality (DEQ) has approved a draft operations permit renewal for American Zinc Recycling Corporation's (AZR) non-hazardous waste injection well facility located at Highway 123 and West 11th Street, Bartlesville, Oklahoma 74003. The draft permit addresses the operation of two (2) Class I non-hazardous waste injection wells. The legal description of AZR is NW ¼, SE ¼, SE ¼, of Section 11, Township 26 North, Range 12 East of the Indian Meridian in Washington County, Oklahoma.

AZR is a private Class I non-hazardous waste injection well facility that maintains two (2) underground injection wells. All injection fluids are stormwater generated onsite at the AZR facility. The draft permit allows a maximum surface injection pressure of 350 pounds per square inch at a maximum flow rate of 850 gallons permit minute. The target injection zone for the injection wells is defined as and limited to the strata within the Arbuckle dolomite or its geological equivalent.

DEQ reviewed the permit renewal application and all supplemental information for physical and technical suitability, and established permit conditions to assure it complies with regulatory requirements. Permit conditions in Section A of the draft permit are specific to this facility and address the operating, monitoring, and reporting requirements found in 40 CFR 146.13. These conditions are required by 40 CFR 144.52. Permit conditions in Section B are required in all Underground Injection Control permits (40 CFR 144.51). The duration of the renewed permit will be 10 years.

The contact for the injection well facility is:

Thomas W. Johnston
199 Truck Route, P.O. Box 5
Rockwood, TN 37854
Telephone: (865) 354-0955 ext 1115

DEQ will not make a final decision on renewing this permit until the public has had an opportunity to comment and/or request a public meeting. Any person may request a public meeting and/or provide comments to DEQ at the address below within thirty (30) days after the date of the newspaper publication.

Hillary Young, P.E.
Chief Engineer
Land Protection Division
Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, Oklahoma 73101
Telephone (405) 702-5100

**OPERATIONS PERMIT
FOR AN
INJECTION WELL FACILITY**

**American Zinc Recycling Corp.
Highway 123 & West 11th Street
Bartlesville, OK 74003**

**Permit Number: IW-NH-74006-R1
Effective Date:
Expiration Date:**

Having complied with the requirements of the law, American Zinc Recycling Corporation (AZR) is hereby granted permission to operate, maintain and monitor a Class I non-hazardous industrial waste injection well facility located at Highway 123 and West 11th Street in Bartlesville, Oklahoma, specifically for disposal of non-hazardous waste generated on-site. The facility is situated in the NW ¼, SE ¼, SE ¼ of Section 11, Township 26 North, Range 12 East of Indian Meridian, in Washington County, Oklahoma.

The injection well facility includes Well Numbers 1 and 2 which are positioned at the following latitude and longitude (NAD-27 CONUS):

Well No.1 - lat: 36 degrees, 44 minutes, 41.28 seconds, North;
long: 95 degrees, 59 minutes, 34.52 seconds, West;

Well No. 2 - lat: 36 degrees, 44 minutes, 42.21 seconds, North;
long: 95 degrees, 59 minutes, 35.89 seconds, West;

and other appurtenances as described in the permit application.

The disposal zone is defined as, and limited to, the strata of the Arbuckle dolomite or its geological equivalent. No injection shall be allowed into any stratum above the base of the Woodford Formation (confining zone) or its geological equivalent.

This permit is renewed by the Oklahoma Department of Environmental Quality (DEQ) pursuant to its authority under the Oklahoma Environmental Quality Act (27A O.S. §1-3-101), the Oklahoma Environmental Quality Code (27A O.S. §2-1-101 *et seq.*), the federal Safe Drinking Water Act (42 U.S.C. 300f *et seq.*) and rules promulgated thereunder at Title 40 of the Code of Federal Regulations (40 CFR) Parts 144, 145 and 146 and Oklahoma Administrative Code (OAC 252:652).

Hillary Young, P.E., Chief Engineer
Land Protection Division

Kelly Dixon, Division Director
Land Protection Division

PREAMBLE

The permittee must operate the facility in compliance with the terms and conditions of this permit; the provisions of the Oklahoma Environmental Quality Code, 27A O.S. §2-1-101 *et seq.*; OAC 252:652; the Safe Drinking Water Act, 42 U.S.C. 300f *et seq.*; 40 CFR 144 and 146; and with the approved permit application. The approved permit application, hereby incorporated by reference, for this permit consists of the original application submitted on December 13, 2018 and all subsequent submissions up to and including March 23, 2020. The provisions herein are severable. If any provision of this permit or its application to a given circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected hereby.

A. Conditions Specific to this Facility

- 1. Maximum Injection Pressure and Rate:** The applied surface injection pressure must be limited to:

<u>Well #</u>	<u>Pressure (psig)</u>	<u>Flow Rate (gpm)</u>
1	350	850
2	350	850

- 2. Annulus Pressure:** The annulus pressure shall be maintained above 10 psig during the injection of stormwater. If facility circumstances change and injection of anything other than stormwater occurs, then the annulus pressure must be maintained above the operating injection pressure of the wells.
- 3. Maximum Injectant Temperature:** The temperature of the fluid to be injected must not exceed one hundred (100) degrees Fahrenheit.
- 4. Waste Types:** Waste types include stormwater generated on-site. An approved permit modification is required before any other waste types may be injected.
- 5. Waste Analysis:** Injectate must be sampled at least monthly and analyzed for the following parameters: pH, total suspended solids, specific gravity, zinc, sulfate, cadmium, and lead.
- 6. Groundwater Monitoring:** The permittee must monitor groundwater in deep monitoring well No. 2. A representative sample of groundwater must be taken from the well monthly, or as required by DEQ, and analyzed for the following parameters: pH, specific conductivity, zinc, cadmium, chloride, sulfate, total dissolved solids, and lead. Static water level must be measured and recorded in the monitoring well prior to acquisition of samples. Results of all sampling and analysis will be reported to DEQ in the Permittee's quarterly report.
- 7. Detention Basins:** The permittee must maintain two (2) lined detention basins to collect and contain injectate prior to injection.

8. Well Testing:

- a. Every six (6) months, or more frequently if necessary, the annulus of each injection well must be tested by pressurizing the annulus to a minimum of 125% of the highest operating annulus pressure for a period of two (2) hours. Pressure loss or gain exceeding -5% or +10%, respectively, from the initial test pressure may require additional tests and/or immediate repairs to ensure the mechanical integrity of the well.
- b. DEQ may require the permittee to perform a workover, including but not limited to electromagnetic casing evaluation logs or oxygen activation logs if irregularities in the operating pressures (e.g. tracking of injection and annulus pressures) are observed.

9. Annual Fall-off Test: The permittee must conduct annual monitoring of the pressure buildup in the injection zone, including at a minimum, a shut down of the well for a time sufficient to conduct a valid observation of the pressure fall-off curve [40 CFR 146.13(d)]. The Permittee will submit a report of the pressure fall-off test to DEQ within thirty (30) days of conducting the test. The report must include a comparison of the calculated reservoir parameters with the parameters presented in the permit application.

10. Other Reporting: The permittee must submit a report including test data, logs (where applicable) and expert interpretation thereof within thirty (30) days after completion of any of the following tests:

- a. Mechanical integrity tests;
- b. Workovers; or
- c. Any other test of the injection well(s) or injection zone.

11. Retention of Records: If the permittee elects not to retain records concerning the nature and comparison of all injected fluids after the required three (3) year retention period, the Permittee must transfer them to DEQ [40 CFR 144.51(j)(2)(ii)].

12. Financial Assurance: The permittee must adjust the plugging and abandonment cost estimate for inflation within thirty (30) days after each anniversary of the date on which the first plugging and abandonment cost estimate was prepared [40 CFR 144.62(b) and OAC 252:652-5-1(7)].

13. Plugging and Abandonment: The permittee is required to follow the requirements of OAC 252:652-5-1(5) and 40 CFR 146.10 for plugging and abandonment.

14. Prohibition of Injection of Hazardous Waste: The permittee is prohibited from injecting hazardous waste as defined in 40 CFR 261.3.

15. Mechanical Integrity: The permittee must complete a demonstration of mechanical integrity pursuant to 40 CFR 146.8 for each well at least once every five (5) years during the life of the well [40 CFR 146.13(b)(3)].

B. Conditions Common to All UIC Permits

As required by 40 CFR 144.51 and adopted by OAC 252:652-1-3, the following conditions apply to all UIC permits.

- 1. Duty to Comply:** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Safe Drinking Water Act and the Oklahoma Environmental Quality Code and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application except, that the permittee need not comply with the provisions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 CFR 144.34].
- 2. Duty to Reapply:** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- 3. Need to Halt or Reduce Activity not a Defense:** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- 4. Duty to Mitigate:** The permittee must take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
- 5. Proper Operation and Maintenance:** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit.
- 6. Permit Actions:** This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 7. Property Rights:** This permit does not convey any property rights of any sort, or any exclusive privilege.
- 8. Duty to Provide Information:** The permittee must furnish to DEQ, within a time specified, any information which DEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to DEQ, upon request, copies of records required to be kept by this permit.
- 9. Inspection and Entry:** The permittee shall allow DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

10. Monitoring and Records:

- a. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.
- b. The permittee must retain records of all monitoring information for a period of at least three (3) years from the date of the sample, measurement, report, or application, including the following:
 - i. Calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation;
 - ii. copies of all reports required by this permit; and
 - iii. records of all data used to complete the application for this permit.

This period may be extended by request of DEQ at any time.

- c. The nature and composition of all injected fluids until three (3) years after the completion of any plugging and abandonment procedures specified under 40 CFR § 144.52(a)(6), or under 40 CFR Part 146 Subpart G as appropriate. If the permittee elects not to retain records concerning the nature and composition of all injected fluids after the required three (3) year retention period, the Permittee must transfer them to DEQ. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.

11. Signatory Requirement: All applications, reports, or information submitted to DEQ must be signed and certified (See 40 CFR § 144.32).

12. Reporting Requirements:

- a. **Planned changes:** The permittee must give notice to DEQ as soon as possible of any planned physical alterations or additions to the permitted facility.
- b. **Anticipated noncompliance:** The permittee must give advance notice to DEQ of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- c. **Transfers:** This permit is not transferable to any person except after notice to DEQ. DEQ may require modification or revocation and reissuance of the permit to change

the name of the permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act (See 40 CFR § 144.38; in some cases, modification or revocation and reissuance is mandatory).

- d. Monitoring reports: Monitoring results must be reported at the intervals specified in this permit.
- e. Compliance schedules: Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than thirty (30) days following each schedule date.
- f. Twenty-four hour reporting: The permittee must report any noncompliance which may endanger human health or environment, including:
 - i. Any monitoring or other information which indicates that any contaminant may cause endangerment to an Underground Source of Drinking Water (USDW); or
 - ii. Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Any information must be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. A written submission must also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission must contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- g. Other noncompliance: The permittee must report all instances of noncompliance not reported under paragraphs 12(b), (e), or (f) of this section, at the time monitoring reports are submitted. The reports must contain the information listed in paragraph 12(f) of this section.
- h. Other information: Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to DEQ, it shall promptly submit such facts or information.

13. Duty to Notify: The permittee must notify DEQ, at such times this permit requires, before conversion or abandonment of the well.

14. Plugging and Abandonment: The permittee must meet the applicable requirements of 40 CFR § 146.10 to ensure that plugging and abandonment of the well will not allow the movement of fluids into or between USDWs. For purposes of this paragraph, temporary or intermittent cessation of injection operations is not abandonment.

15. Plugging and Abandonment Report: Within sixty (60) days after plugging a well or at the time of the next quarterly report (whichever is less) the owner or operator must submit a report to the DEQ. If the quarterly report is due less than fifteen (15) days before completion of plugging, then the report must be submitted within sixty (60) days. The report must be certified as accurate by the person who performed the plugging operations. Such report must consist of either:

- a. A statement that the well was plugged in accordance with the plan previously submitted to DEQ; or

- b. Where actual plugging differed from the plan previously submitted, an updated version of the plan on the form supplied by the DEQ, specifying the differences.

16. Duty to Establish and Maintain Mechanical Integrity:

- a. The owner or operator must establish prior to commencing injection or on a schedule determined by DEQ, and thereafter maintain mechanical integrity as defined in 40 CFR § 146.8. When DEQ determines that the well(s) lacks mechanical integrity pursuant to 40 CFR § 146.8 of this chapter, written notice of this determination shall be provided to the owner or operator. Unless DEQ requires immediate cessation, the owner or operator must cease injection into the well within 48 hours of receipt of DEQ's determination. DEQ may allow plugging of the well pursuant to the requirements of 40 CFR § 146.10 or require the permittee to perform such additional construction, operation, monitoring, reporting and corrective action as is necessary to prevent the movement of fluids into or between USDWs caused by lack of mechanical integrity. The owner or operator may resume injection upon written notification from DEQ that the owner or operator has demonstrated mechanical integrity pursuant to 40 CFR § 146.8.
- b. DEQ may allow the owner or operator of a well which lacks mechanical integrity pursuant to 40 CFR § 146.8(a)(1) to continue or resume injection, if the owner or operator has made a satisfactory demonstration that there is no movement of fluid into or between USDWs.

AN AUTHORIZED CHIEF ELECTIVE OFFICER OR EXECUTIVE OFFICER OF AMERICAN ZINC RECYCLING CORPORATION MUST SIGN THIS PERMIT.

By signing this Acknowledgement, American Zinc Recycling Corporation acknowledges that it has read this permit and understands the terms and conditions of the permit. American Zinc Recycling Corporation agrees to comply with the Oklahoma Environmental Quality Code (27A O.S. §2-1-101 *et seq.*), specifically: §2-6-105 (Pollution of state air, land or waters – Order to cease); §2-6-701 (Underground injection of hazardous and non-hazardous liquids – Permit required – Water wells and holes to be constructed or sealed to avoid pollution); §2-7-120 (Fee for disposal of liquid waste other than hazardous waste in underground injection wells); and understands that it is subject to the enforcement provisions of the Oklahoma Environmental Quality Code (27A O.S. §2-3-501 through 506 (General Regulation and Enforcement) and §2-6-901 (Penalties, Misdemeanors, Injunctions, Assessment of Civil Penalties); and rules promulgated pursuant thereto (Oklahoma Administrative Code 252:652). American Zinc Recycling Corporation further agrees to comply with the Underground Injection Control program of the federal Safe Drinking Water Act (U.S.C. 300f *et seq.*) and applicable federal rules promulgated thereunder (40 CFR 144, 145 and 146) which are incorporated by reference in the Oklahoma Administrative Code at 252:652.

Signature

Title

Name of authorized signatory
(Please print or type)

Date

STATE OF OKLAOMA)

) ss:

COUNTY OF _____)

Subscribes and sworn to before me this _____ day of _____, 2020.

Notary Public

My Commission Expires: _____.