



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 21, 2023

Ashley Forbes, Deputy Director  
Office of Waste  
Radioactive Materials Division  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, TX 78711-3087

SUBJECT: Intercontinental Energy Corporation – Final Completion Review Report

Dear Ashley Forbes:

The U.S. Nuclear Regulatory Commission (NRC) has completed its review of the Texas Commission on Environmental Quality (TCEQ) submittal of the final Completion Review Report (CRR) dated June 21, 2023<sup>1</sup>. TCEQ proposes to remove Intercontinental Energy Corporation's Zamzow and Lamprecht sites from Texas Radioactive Materials License R02538 and to release these sites without restriction. Both sites are in Live Oak County approximately eight miles east-northeast of Three Rivers, Texas. The TCEQ's request asserts that all applicable standards and requirements pertaining to the reclamation of the Zamzow and Lamprecht sites have been met and seeks the NRC's determination that the TCEQ may remove Zamzow and Lamprecht from the license without restrictions and may terminate Texas Radioactive Materials License R02538.

Prior to the submittal of the final CRR, the TCEQ requested initial NRC review and comment on the draft CRR by email dated January 9, 2023<sup>2</sup>. The NRC staff reviewed the draft CRR document and supplemental information provided by the Texas Commission on Environmental Quality (TCEQ) on January 25, 2023<sup>3</sup> and February 23, 2023<sup>4</sup> using the criteria established in Nuclear Materials Safety and Safeguards (NMSS) procedure SA-900, "Termination of Uranium Mill Licenses in Agreement States." As a result of this review of the draft CRR, NRC staff generated a request for additional information (RAI) on May 2, 2023<sup>5</sup>. Your staff responded to the RAI on June 21, 2023<sup>1</sup> with the additional data. This submittal also included the final CRR dated June 21, 2023<sup>1</sup>, referenced in the previous paragraph.

The NRC staff reviewed the final CRR in accordance with the criteria in the Office of Nuclear Materials Safety and Safeguards (NMSS) Procedure SA-900, "Termination of Uranium Milling Licenses in Agreement States." NMSS Procedure SA-900 described the U.S. Nuclear

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<sup>1</sup> Agencywide Document Access Management System (ADAMS) Accession Package No. ML23191A043 (public)

<sup>2</sup> ADAMS Accession No. ML23010A179 (non-public)

<sup>3</sup> ADAMS Accession No. ML23059A369 (non-public)

<sup>4</sup> ADAMS Accession No. ML23057A001 (non-public)

<sup>5</sup> ADAMS Accession No. ML23103A085 (public)

Regulatory Commission review process for making the determination that all applicable standards and requirements have been met prior to Agreement State uranium milling license termination, as required by 10 of the *Code of Federal Regulations* (CFR) 150.15a(a) and Section 274c. of the Atomic Energy Act of 1954, as amended.

The NRC identified the factors necessary for a determination that all applicable standards and requirements have been met for the proposed license termination for the Intercontinental Energy Corporation's Zamzow and Lamprecht sites licensed under Texas Radioactive Materials License R02538.

As summarized below, this review of the final CRR is based on two factors:

1. the NRC staff's evaluation of TCEQ's conclusion that all standards and requirements have been met;
2. the performance of TCEQ's uranium recovery program as evaluated under the Integrated Materials Performance Evaluation Program, which evaluates NRC and Agreement State materials programs<sup>6</sup>.

First, the final CRR, documents that the TCEQ has performed a complete review of both the Lamprecht and Zamzow sites for compliance with regulatory and license requirements. The applicable standards and requirements, with appropriate references to related sections of the final CRR, are identified in Table 1 of the final CRR<sup>1</sup>. The TCEQ's review covered all necessary technical areas and regulatory requirements relating to the reclamation of these sites including equipment removal, radiation cleanup, soil remediation, and groundwater protection. The NRC reviewed the final CRR for the Zamzow and Lamprecht sites and agrees with the TCEQ's conclusion through review and inspection that the site has met all regulatory and license requirements for the sites to support license termination. The NRC also finds that TCEQ's evaluation is consistent with the guidance in NMSS Procedure SA-900<sup>7</sup> and agrees that the Texas Agreement State license may be terminated to release both sites without restriction. As stated in the CRR there is no need to transfer the land to the State of Texas or a Federal Agency as "contaminated soils, materials, and equipment have been transferred or disposed offsite; and remaining surface soils (wellfields and surrounding open areas) have been decommissioned by homogenization consistent with the NRC's position in SECY-04-0035."

Second, the NRC's most recent Integrated Materials Performance Evaluation Program (IMPEP) review of the TCEQ Program was conducted from February 28 through March 4, 2022<sup>8</sup>. The TCEQ's overall program rating under IMPEP has been determined to be adequate. The overall program rating to date indicates that the TCEQ program is adequate to protect public health and safety, and compatible with the NRC's program. The IMPEP review of the TCEQ's uranium recovery program has resulted in a satisfactory rating (the highest performance rating possible). These consistent satisfactory ratings provide a basis for NRC's confidence on the determinations and conclusions reached by TCEQ, as set out in the CRR. The IMPEP review also provides assurance to the NRC that the TCEQ's reviews, licensing actions, and inspections

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<sup>6</sup> The results of the periodic IMPEP reviews provide a basis for confidence that Texas' reviews, licensing actions, and inspections associated with the partial license termination have been conducted appropriately.

<sup>7</sup> The Office of Nuclear Materials Safety and Safeguards (NMSS) Procedure SA-900, "Termination of Uranium Milling Licenses in Agreement States." URL: <https://www.nrc.gov/reading-rm/doc-collections/nmss-procedures/state-agreement.html> or ADAMS Accession No. [ML21162A046](#).

<sup>8</sup> ADAMS Accession No. ML22172A192.

associated with the Lamprecht and Zamzow sites license termination have been conducted appropriately.

The NRC staff's evaluation of the CRR submittal and the results of the February 28 – March 4, 2022, IMPEP review finds the regulatory standards and requirements for the protection of the public health, safety and the environment have been met and are in accordance with the provisions of 10 CFR 150.15a(a) and Section 274c. of the Atomic Energy Act of 1954 as amended. The NRC concludes the Lamprecht and Zamzow sites may be removed from the Intercontinental Energy Incorporated radioactive materials license, that these sites are remediated to a level that allows them to be released without restriction, and Texas Radioactive Material License R02538 may be terminated

A copy of the NRC's evaluation report, entitled "NRC Review of the Release for Unrestricted Use of Lamprecht and Zamzow sites submitted by Texas Commission for Environmental Quality" is enclosed.

If you have any questions, or we can be of further assistance, please contact Ms. Martha Poston-Brown at 817 220-1181 or [Martha.Poston-Brown@nrc.gov](mailto:Martha.Poston-Brown@nrc.gov).

Sincerely,



Signed by Von Till, Randolph  
on 08/21/23

Bill VonTill, Chief  
Uranium Recovery and Materials  
Decommissioning Branch  
Division of Decommissioning, Uranium Recovery  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

Enclosure:  
NRC Review of Lamprecht  
and Zamzow sites for release  
without restriction.

cc: Chance Goodin, TCEQ  
Molly Coffman, TCEQ  
Lee Line, TCEQ

SUBJECT: FINAL COMPLETION REPORT REVIEW – INTERCONTINENTAL ENERGY CORPORATION – AUGUST 17, 2023

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**ADAMS Accession No.:ML23192A767**

**\*via eConcurrence**

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<b>DATE</b>	7/20/2023	8/15/2023	8/17/2023	

**OFFICIAL RECORD COPY**

**NRC Review of the Release for Unrestricted Use of Lamprecht and Zamzow Sites –**  
**Intercontinental Energy Corporation – Texas Commission on Environmental**  
**Quality**

Licensee: Intercontinental Energy Corporation License: R02538 Location: Live Oak Country, approximately 8 miles east-northeast of Three Rivers, Texas Area: 1273 acres Type of License: In-Situ Recovery Sites – Lamprecht and Zamzow Partial or Full License Termination – Full License Termination
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1. A brief description of the licensee's activities associated with decommissioning and license termination associated with Lamprecht and Zamzow sites.

Comment: This information is provided in Section I and Section II.1 (Decommissioning Activities) of the TCEQ final CRR letter dated June 21, 2023<sup>1</sup>. Acreage information for the mine is provided in that same letter.

2. Groundwater information which demonstrates that the groundwater has been adequately restored to meet applicable standards and regulations.

Comment: This information is provided in Section II.2 (Aquifer Restoration) and II.3 (Plugging and Abandonment of Wells) of TCEQ final CRR letter dated June 21, 2023<sup>1</sup>.

3. Documentation that the production, injection, and monitoring wells have been closed and plugged in accordance with the applicable standards and requirements.

Comment: This information is provided in Section II.3 (Plugging and Abandonment of Wells) of the TCEQ final CRR dated June 21, 2023<sup>1</sup>.

4. Decommissioning information which documents that all radiologically contaminated materials have been properly disposed of, transferred to licensees authorized to possess such materials or meet applicable standards and requirements for release.

Comment: This information is provided in Section II. 4 (Radiologically Contaminated Materials) of the TCEQ final CRR dated June 21, 2023<sup>1</sup>. The TCEQ also indicated that they conducted a review of licensee records associated with the decommissioning on Lamprecht and Zamzow sites including the past inspection reports for identification of any material and/or equipment issues identified during inspection. These issues would include but were not limited to: (1) failure to survey prior to release, (2) decontaminated and released for

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unrestricted use; (3) transfer to another entity for items that could not be contaminated, or (4) disposed of at a licensed byproduct disposal facility. No issues or concerns associated were identified as a result of these records review.

5. Discussion of the results of radiation surveys and soil sample analyses which confirm that the licensed site meets applicable standards and requirements for release.

Comment: This information is provided in the Section II.5 (Radiation Surveys and Soils Analysis) of the TCEQ final CRR dated June 21, 2023<sup>1</sup>. Results of radiation surveys and confirmatory soil samples done while the site was licensed by the TCEQ can be found in ADAMS<sup>9</sup>.

6. Discussion of results of the State's mine unit closure inspections.

Comment: This information is provided in Section II.6 (Site Closure Inspections) of the TCEQ final CRR dated June 21, 2023<sup>1</sup>.

7. For partial terminations, documentation that release of a portion of the site will not negatively impact the remainder of the site to be closed at a later date.

Comment: Not applicable, this is a full license termination.

8. IMPEP review of the TCEQ uranium recovery regulatory program.

Comment: According to the results of 2022 IMPEP<sup>10</sup> review, the State uranium recovery regulatory program was found to be satisfactory based on the IMPEP evaluation criteria. (A satisfactory rating is the highest rating possible for each IMPEP common and non-common performance indicator). The overall State Agreement State program was found to be adequate to protect public health and safety, and compatible with NRC's program.


Based on a review of the above information, as specified in NMSS Procedure SA-900 and in accordance with the provisions of 10 CFR 150.15a(a) and Section 274c. of the Atomic Energy Act of 1954, as amended, staff determines that all applicable standards

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<sup>9</sup> ADAMS Package Accession No. ML23059A369

<sup>10</sup> ADAMS Accession No. ML22172A192

and requirements have been met for release for unrestricted use of the Lamprecht and Zamzow sites, from the radioactive materials license held by Intercontinental Energy Corporation and termination of Texas Radioactive Material License R02538.

Reviewer:  Signed by Poston-Brown, Martha  
on 08/21/23 August 21, 2023

Martha Poston-Brown  
Uranium Recovery and Materials  
Decommissioning Branch  
Division of Decommissioning, Uranium Recovery  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

Chief:  Signed by Von Till, Randolph  
on 08/21/23 August 21, 2023

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