LAURANA TGERTEAM ACTIVITIES REPORT



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Overview

The Louisiana Department of Environmental Quality (LDEQ) established the LAlumina Tiger Team initiative to coordinate interagency efforts in response to red dust emissions from dry-stacked spent bauxite at the former LAlumina LLC alumina production facility in Burnside, Louisiana. The facility ceased operations on August 28, 2020. Emissions from Red Mud Lakes 4 and 5 have prompted regulatory and public concerns for over a decade.



The Tiger Team initiative focused on evaluating interim dust mitigation strategies and supporting the development of a technically viable closure plan for the site in accordance with LDEQ solid waste regulations.



+**150** ACRES EXPOSED +**1000** LDEQ STAFF HOURS **LAlumina LLC** Burnside, Louisiana

Spent bauxite—contains a mix of iron oxides, aluminum hydroxides, silica, titanium dioxide, and trace metals. It is typically reddish in color due to its high iron content and is stored in surface impoundments or dry-stacked piles. Because of its alkaline pH and fine particle size, it can pose environmental risks, especially related to dust emissions.

Facility Background

The LAlumina LLC facility, an alumina production plant, ceased operations and shuttered on August 28, 2020. Spent bauxite (red mud) is a waste byproduct of the alumina production process. Although the plant is no longer operational, red mud remains stored in five solid waste disposal units: Red Mud Lakes 1, 2, 3, 4, and 5. Red Mud Lakes 4 and 5 contain dry-stacked red mud, which has been the primary source of red dust emissions during dry weather, leading to public complaints about wind-blown dust affecting nearby residences.



The facility was permitted to dry stack red mud at an average slope of 4% in a major modification approved October 4, 2017. Based on the permitted average slope, the maximum dry stack height would be approximately 30 feet. On June 29, 2022, LDEQ issued Consolidated Compliance Order & Notice of Potential Penalty (CONOPP), Enforcement Tracking No. MM-CN-22-00348, to LAlumina LLC. There were multiple violations cited. In particular, the CONOPP cited the violation of LAC 33:III.1305.A, which includes failure to eliminate the potential for the generation of airborne dusts from the surface of the dry stacks and failure to take all reasonable precautions to prevent particulate matter from becoming airborne.

The solid waste management of spent bauxite in the dry stacks are subject to Solid Waste Regulations of LDEQ and classified as surface impoundments, which have specific liner and final cover design specifications. However, LAC 33:VII.315.N allows the administrative authority to give special consideration with regard to standards for liners and final cover for surface impoundments that receive only on-site generated spent bauxite and related wastes (resulting from production of alumina). Therefore, LDEQ may approve proposals for alternate designs for the above-referenced dry stacks located at LAlumina. Additionally, the nature of red mud and other mineral processing material, input from an experienced and qualified professional engineer regarding any design is essential in evaluating any proposed design to ensure long-term environmental stability.

Key Milestones

From 2019 through 2025, LDEQ and affiliated contractors undertook regulatory, financial, and technical evaluations related to the site. Key milestones included:



Permit & Enforcement Actions

- 1958 Alumina Production Facility built by Ormet.
- 1984 Site surface impoundments first permitted under the State Solid Waste program.
- 2013 Ormet files bankruptcy & Almatis purchases the facility out of bankruptcy.
- 2019 LAlumina LLC purchases the site from Almatis and takes operational control.
- 2020 LAlumina submits a renewal application for the Solid Waste permit.
- 2021 LAlumina deposits cash into the closure trust fund bringing the fund up to \$6.3M.
- 2022 Compliance Order & Notice of Potential Penalty issued (Enforcement Tracking No. MM-CN-22-00348).



Investigation & Financial Review

- 2023 Financial Affifavit submitted to LDEQ
- 2024 March: LDEQ drone footage collected
- 2024 April: LDEQ requests additional financial information from LAlumina
- 2024 May 14: LAlumina responds; appoints David Kaplan as manager.

Dust Mitigation & Closure Studies

- 2024 May 22: ELOS & Turner Services closure proposal submitted to all parties.
- 2024 July: Drone and land survey conducted at LaLumina with Turner staff.
- 2024 August: ELOS/Turner submit draft remedy alternatives and cost estimates.
- 2024 August: May: Decommissioning of radioactive density gauges completed.
- 2024 Oct. 21: Cooperative Agreement signed between LDEQ and Ascension Parish
- 2024 Nov. 7: LDEQ and Ascension Parish meet to discuss closure and soil donation from Air Products.
- 2024 Nov. 15: Cooperative Agreement signed between LDEQ and LAlumina
- 2024 Nov. 25: Ascension Parish submits initial closure proposal (LDEQ requests more information).
- 2024 Dec. 10: Ascension Parish submits updated closure proposal

Interagency Coordination & Closure Plans

- 2025 Jan. 29: LDEQ site visit to Capitol Lakes GEO tubes with CSRS; referred to Sevenson.
- 2025 Feb. 26: LDEQ provides comments on Ascension Parish's closure plan.
- 2025 Feb. 27: LDEQ site visit with LaLumina and Sevenson to evaluate red mud lakes.
- 2025 March 3: LDEQ meets with David Kaplan regarding red dust prevention measures.
- 2025 March 10: Ascension Parish submits response to LDEQ's comments.
- 2025 March 18: LDEQ meeting with Sochem and Denise Whitehead to discuss surfactants; Sochem collects red mud samples.
- 2025 March 27: LDEQ Drone Footage Collected
- 2025 March 27: LAlumina LLC ratified Ascension Parish's partial Closure Plan
- 2025 March 28: LDEQ acknowledges LAlumina's ratification of Ascension Parish's partial Closure Plan
- 2025 April 1: LDEQ meets with Ascension Parish Delegation, Ascension Parish President, and LAlumina to discuss path forward; all parties sign an updated Cooperative Agreement
- 2025 April 2: LDEQ approves Ascension Parish's partial Closure Plan
- 2025 April 7: Ascension Parish breaks ground on 4 acre test plots

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Closure Planning

LDEQ coordinated with multiple entities, including Ascension Parish Government, ELOS LLC, Turner Services LLC, Sevenson Environmental Services Inc, ATMOS, and Sochem Solutions, to evaluate alternative closure designs and interim dust mitigation solutions.

As part of this effort, LDEQ consulted with Sevenson Environmental Services, Inc. (Sevenson) to assess effective dust mitigation strategies. Sevenson conducted a site inspection and interviewed LAlumina staff to evaluate conditions at the Red Mud Lakes. Concurrently, LAlumina staff have been working to reconfigure the Red Mud Lakes to minimize dust emissions. LDEQ will continue collaborating with Ascension Parish and LAlumina LLC to develop and implement solutions to address the red dust issue in the Burnside area.

LDEQ has evaluated temporary solutions to mitigate dust during the closure work detailed in the APAP. One option considered is Atomos foam, a foam cover used as an alternative to daily landfill cover. This product may help control dust and last for 3–6 months; however, it costs approximately \$10,000 to \$15,000 per acre, resulting in an estimated total cost of \$1.5 million to \$2.25 million to cover the entirety of the dry stacked red mud lakes.

LDEQ has also evaluated Sochem Solutions, a dust suppressant manufacturer in Gonzales, which manufactures dust suppressant that is commonly used on gravel roads. However, the company does not believe this product will be effective long-term, as it requires continuous rewetting. The cost of the product alone, excluding application, is estimated at \$10,000 to \$15,000 per acre. However, the entire area would not need to be treated with either product, as the parish plans to begin the project on the windward side of the ponds, as outlined in the APAP.



Project Highlight

Over 10 different dust control solutions—both long-term and short-term— were evaluated to reduce airborne red mud emissions impacting the Burnside community.

LDEQ's collaborative assessment included:

- Field inspections
- Foam cover evaluations
- Surfactant reviews
- Geotube assessments

These efforts were part of a broader closure strategy to stabilize Red Mud Lakes 4 and 5 while minimizing environmental and public health risks.

Closure Strategy

Total Acres (100-150 acres) Partial Closure Options



Total Acres (100-150 acres) Interim Measures Options

Measure	Implementation Time	Relief Term	Cost Estimate
Sochem Dust Suppression Surfactant	3 mos	3-6 mos	1.3M - 2M ²
ATMOS Technologies Foam	3 mos	3-4 mos	2.3M ²
Soil Sement® Dust Suppression Surfactant	3 mos	6 mos	1.5M ²

¹ Will require post closure maintenance; e.g. erosion repair.
² Cost is for MATERIAL ONLY
³ Parish plan is only for 100 acres

Closure Strategy

Partial Acreage (65 acres) Interim Measures Options



^{*}factored to be used in conjunction with partial closure

Total Acres (100-150 acres) Full Closure Options

Measure	Cost Estimate
LDEQ Estimate	20 M
Turner Industries & ELOS	
Option 1 Create 1 Pond and Redistribute Residual Bauxite (Wet)	16.1 M ⁴
Option 2 Create 3 Ponds with Center Levees and Redistribute Residual Bauxite (Wet)	17.9 M ⁴
Option 3 Closure of Ponds 4 and 5 Via Dirt Cover (Cap-In-Place)	30.8 M ⁴

⁴ Three different closure plans were proposed

Cooperative Agreement

On March 27, 2025, LAlumina LLC ratified the partial closure plan submitted by Ascension Parish Government. Shortly after, on April 1, 2025, LDEQ convened a meeting with the Ascension Parish Delegation and LAlumina representatives, during which all parties signed an updated Cooperative Agreement. This agreement formally established roles and responsibilities for the closure effort, including access to the site, material contributions from Ascension Parish, and the use of approximately \$5.5 million from the LAlumina Closure Trust Fund to finance the work. LDEQ retains exclusive authority to approve closure activities and expenditures, while incorporating input from both LAlumina and Ascension Parish.

The agreement outlines a reimbursement framework in which invoices are submitted to LDEQ, reviewed by all parties, and approved within 60 days. Eligible work must meet specific standards, including placement of at least six inches of soil cover and grass seed. Biweekly inspections, milestone-based site visits, monthly drone imagery, and detailed progress reports are required to verify completion. LAlumina remains financially responsible for any closure costs exceeding the trust fund and is obligated to maintain the site post-closure in compliance with existing and future regulatory requirements.



The Cooperative Agreement between LDEQ, Ascension Parish, and LAlumina directs closure trust funds toward dust control and site stabilization—ensuring community protection and long-term oversight.



LAlumina Tiger Team

With the Cooperative Agreement executed and the Partial Closure Plan formally approved by LDEQ on April 2, 2025, the LAlumina site entered the implementation phase of its long-awaited remediation strategy. The closure marks a pivotal milestone in reducing airborne emissions and stabilizing the site for long-term environmental integrity.

The LAlumina Tiger Teams initiative coordinated significant agency resources—over 1,000 staff hours—to evaluate dust control strategies and develop viable closure solutions. These efforts included site inspections, technical plan reviews, third-party engineering proposals, and close interagency coordination. The approved closure plan incorporates a multi-layer soil-capping system designed to suppress red dust emissions, encourage vegetation growth, and prevent erosion. Construction will be subject to strict engineering oversight and must be certified by a Louisiana-licensed professional engineer upon completion.

This collaborative effort was widely recognized by local and state leadership:

"This is what effective government looks like – State and local leaders stepping up, partnering with industry, and delivering real results for our communities," said Governor Jeff Landry.

"The approval of this Partial Closure Plan is the first step in offering long-awaited relief and hope to families who have been living with this issue for far too long," added Ascension Parish President Clint Cointment.

The LAlumina closure effort now serves as a model for future environmental remediation, reinforcing LDEQ's commitment to protecting Louisiana's environment while promoting responsible development. As the Tiger Team concludes its work at this site, LDEQ remains committed to continued oversight and public transparency throughout the closure process—and will continue deploying Tiger Teams across the state to address emerging environmental concerns.



The LAlumina Tiger Team is a testimony what's possible when expertise, urgency, and collaboration align. In under a year, this team turned a decade-long environmental challenge into a viable closure path demonstrating that when we work together, lasting solutions can take shape.

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