



**Aggregate Industries**  
6211 Ann Arbor Road  
P.O. Box 122  
Dundee, MI 48131  
Phone 734 529 4331

February 3, 2022  
Diane Kavanaugh Vetort, Senior Quality Analyst  
Michigan Department of Environment, Great Lakes and Energy  
Air Quality Division  
Jackson District Office  
301 East Louis Glick Hwy  
Jackson, MI 49201

RE: Response to Violation Notice, SRN: B1743 Monroe County  
Aggregate Industries, Dundee, Michigan

Dear Ms. Kavanaugh Vetort:

Aggregate Industries (AI) is working with Arcadis Consulting to develop an odor control mitigation plan to address the January 4, 2022 Violation Notice. As requested on January 25, 2022 please find a supplemental schedule of activities. Attachment 1 is the timeline for the ditch piping project to address the area with the highest concentration of odors which should be completed by the end of February 2022.

The second attachment is a timeline to create a minimization plan that will minimize odors throughout the plant. This may involve changes in the water flow of the plant, chemical treatment, plant design and NPDES permitting. After the plan is developed, AI will meet with EGLE to discuss the plan for approval and implementation.

If you have any questions please contact me at 734-496-1261.

Sincerely,

**Caroline Depp**

Environmental Manager  
Great Lakes Region

**LafargeHolcim**

**Address:** 6211 Ann Arbor Road, Dundee, MI 48131

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Attachement 2: Odor Minimization Plan

Task		Date
1 – Site Visit	Visit by Arcadis and chemical treatment vendors to review the current plant layout and potential future plant layout possibilities, generate ideas, solutions.	Week of February 7 & 14, 2022
2 – Update Site Water Balance	Review current and potential groundwater water system, flows, water quality and content, investigate options, brainstorm.	Week of February 21, 2021
3 – Data Collection Treatment Testing	Review all available data, conduct any on-site testing and monitoring as needed. Correlate weather data. (Lab Results may take up to 2 weeks for results).	Week of February 21-February 28, 2021
4 – Create Option Analysis	Consider and review all alternatives: water flow, quarry design options, water settling times, chemical treatment, permitting requirements (4-6 weeks)	Month of March
5 – Meeting with EGLE	Meet with both AQD and WRD of EGLE to review plan and set implementation schedule.	April 1-15, 2022
6- Implement Plan		TBD



**Aggregate Industries**  
6211 Ann Arbor Road  
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January 24, 2022  
Diane Kavanaugh Vetort, Senior Quality Analyst  
Michigan Department of Environment, Great Lakes and Energy  
Air Quality Division  
Jackson District Office  
301 East Louis Glick Hwy  
Jackson, MI 49201

RE: Response to Violation Notice, SRN: B1743 Monroe County  
Aggregate Industries, Dundee, Michigan

Dear Ms. Kavanaugh Vetort:

Aggregate Industries (AI) has prepared this response to the Violation Notice (VN) dated January 4, 2022. The Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), conducted an inspection at the Dundee Quarry on August 18, 2021 which included ambient air measurements for H<sub>2</sub>S. AI received a letter from the AQD on September 3, 2021 requesting that AI evaluate and implement additional measures to reduce or eliminate areas contributing to high ambient levels of H<sub>2</sub>S. On December 14, 2021 EGLE-AQD received a large number of complaints from local residents regarding sulfur odors which was followed up by an AQD H<sub>2</sub>S survey that found H<sub>2</sub>S levels above odor thresholds downwind of the Dundee facility on December 15 and 21, 2021.

In response to AQD's September 3, 2021 request, AI immediately took action to evaluate and address odor concerns. The plant immediately redesigned a water drop point in the quarry, where H<sub>2</sub>S levels were found to be the highest during the August inspection. Lowering the drop point reduces oxygen introduced into the water and reduces H<sub>2</sub>S gas that is generated. The redesign significantly reduced odors at the drop point location.

Moreover, AI purchased a weather station and created a complaint log to evaluate data and identify areas of concern. A Jerome Hydrogen Sulfide (H<sub>2</sub>S) meter has also been ordered and should be delivered in the next few weeks. AI contacted Dundee Township in September and requested that any odor complaints be forwarded to AI. To date, the Township has not forwarded any complaints. AI has been working with the AQD to collect complaint information, as well as weather data, to identify the sources of the odor and how they move in the plant, as well as outside the property boundaries.

To further address immediate concerns, AI is reviewing the possibility of hard piping water lines from the south quarry to the old crusher. This area has the highest concentration of H<sub>2</sub>S odors and would have the biggest immediate impact on odor reduction.

AI has also contracted with Arcadis to assist with the H<sub>2</sub>S evaluation and odor minimization plan. The plan will evaluate data, include additional sampling if needed, and identify mitigation options. Options may include rerouting the water in the quarry, adding additional peroxide dosing stations, and removing solids from the settling lakes. The plan may include options that require changes to the existing NPDES permit and coordination between the Air Quality Division and Water Resource Division. AI and Arcadis will meet with AQD and WRD with a proposed plan prior to implementation, so that AQD and WRD are fully apprised of our plans. With the proposed changes, AI wants to ensure that odor issues are fully addressed, and water quality is maintained.

Aggregate Industries will continue to work with EGLE to resolve offsite odors as quickly as possible. If you have any questions, please contact me at 734-496-1261.

Sincerely,

Caroline Depp

**Caroline Depp**

Environmental and Land Manager

Great Lakes Region

**LafargeHolcim**

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