



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Craig W. Butler, Director

April 21, 2017

**CERTIFIED MAIL**

Mr. Gavin Atkinson  
Vice President, Cargill  
Starches & Sweeteners  
3201 Needmore Drive  
PO Box 1400A  
Dayton, Ohio 45414

Re: Final Findings and Orders regarding  
public nuisance violations

Dear Mr. Atkinson:

Transmitted herewith are the Final Findings and Orders ("Orders") of the Director of Ohio EPA concerning the above-referenced matter.

Please note that the effective date of the Orders is the date that the Orders were entered into the Ohio EPA Director's journal, which is the date that is stamped on the first page of the Orders.

Sincerely,

A handwritten signature in black ink, appearing to read "James Kavalec", is written over a faint, light-colored signature line.

James Kavalec, Manager  
Compliance/Enforcement Section  
Division of Air Pollution Control

ec: James Lee, PIC  
Kara Philibin, DAPC  
Lee Tullis, DAPC  
Brandon Schwendeman, DAPC  
Steve Feldmann, Legal  
Jeff Canan, RAPCA

**BEFORE THE  
OHIO ENVIRONMENTAL PROTECTION AGENCY**

**In the Matter of:**

**Cargill, Incorporated  
3201 Needmore Drive  
P.O. Box 1400A  
Dayton, Ohio 45414**

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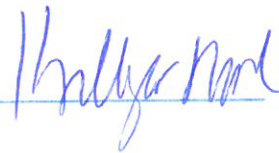
**Director's Final Findings  
and Orders**

Ohio EPA 49PR01 717  
Entered Directors Journal

This document is the property of the  
Ohio Environmental Protection Agency. It is to be used only for the purposes of the Ohio  
Environmental Protection Agency.

**PREAMBLE**

It is agreed by the parties hereto as follows:

By:  Date: 4-21-17

**I. JURISDICTION**

These Director's Final Findings and Orders (Orders) are issued to Cargill, Incorporated (Respondent) pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency (Ohio EPA) under Ohio Revised Code (ORC) Sections 3704.03 and 3745.01.

**II. PARTIES BOUND**

These Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of Respondent or of the facility shall in any way alter Respondent's obligations under these Orders.

**III. DEFINITIONS**

Unless otherwise stated, all terms used in these Orders shall have the same meaning as defined in ORC Chapter 3704 and the rules promulgated thereunder.

**IV. FINDINGS**

The Director of Ohio EPA makes the following findings:

1. Respondent owns and operates a wet corn milling plant (Facility ID 0857041124) located at 3201 Needmore Road, Dayton, Montgomery County, Ohio 45414 (Facility).
2. ORC Section 3704.05(A) states, in part, that "no person shall cause, permit, or allow emission of an air contaminant in violation of any rule adopted by the director of environmental protection"
3. ORC § 3704.05(J) states, in part, that no person shall violate any applicable requirement of a Title V permit or any permit condition.

4. Ohio Administrative Code (OAC) rule 3745-15-07(A) states, in part, that, "the emission or escape into the open air from any source or sources whatsoever, of gases, vapors, odors, or other substances or combinations of substances, in such manner or in such amounts as to endanger the welfare of the public health, or cause unreasonable injury or damage to the property, is hereby found and declared to be a public nuisance. It shall be unlawful for any person to cause, permit or maintain any such public nuisance."

5. OAC rule 3745-31-02(A) states, in part, that "no person shall cause, permit, or allow the installation or modification and subsequent operation of any new source without first obtaining a PTIO from the Director."

6. On May 30, 2003, Ohio EPA issued a Title V permit-to-operate (P092763), with an effective date of June 20, 2003, to Respondent for various emissions units (EU). The EUs listed in P092763 are "air contaminant sources" as defined in OAC Rule 3745-15-01(C) and (X). The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance in violation of OAC rule 3745-15-07.

7. On January 6, 2016, the Regional Air Pollution Control Agency (RAPCA) received a complaint from a mobile home park in close proximity to Respondent. The mobile home park representative reported that on January 2, 2016, between 11:00 and 15:00, the park had noted a white residue deposited on the grass, vehicles and mobile homes in the northwest section of the park. It was also reported that a Cargill representative visited the park on January 5, 2016, following a call to Cargill.

8. On January 7, 2016, RAPCA visited the mobile home park and spoke to the complainant. RAPCA was able to document the residue in pictures and collected a sample.

9. On January 8, 2016, RAPCA spoke with Respondent and informed the company about the complaint. Respondent stated that it had had an upset event on Saturday, January 2, and that it was hoping that this incident was a onetime event. Respondent informed RAPCA that it was studying multiple pieces of equipment to determine whether any of them had caused the incident and that so far plant engineers had been unable to attribute the incident to any source at the Facility. RAPCA requested a copy of the investigation report upon completion.

10. On January 19, 2016, RAPCA received a second complaint from the mobile home park. The mobile home park representative reported that on January 18, 2016, sometime between the hours of 02:00 and 11:00, the park again noted a white residue had been deposited and this time at the front entrance (southeast) of the park.

11. On January 19, 2016, RAPCA spoke with Respondent. RAPCA was

informed that Respondent had had another upset but Respondent still did not know the cause. The investigation for the first incident was still ongoing. Respondent stated it would look at its scrubbers on January 21, 2016, in an effort to locate the cause. Respondent stated it had had no deviations of its control device operating parameters. RAPCA discussed the possibility of Respondent collecting and analyzing a sample of the material to identify the chemical components of the deposits to determine whether there were any potential health effects.

12. On January 27, 2016, RAPCA performed a site visit at Respondent's facility to follow up on the two complaints. Respondent informed RAPCA that it had not yet identified the source of these emissions. Respondent stated that it had shut down the north mill on January 21 and inspected the north mill scrubbers; however, no problems were noted. Respondent promised to shut down the south mill on January 28 to inspect the south mill scrubber sources. Respondent also had been looking at the scrubber sources venting to the main stack. RAPCA noted no physical evidence of the event around the scrubbers and noted no white particulate fallout on Respondent's site. RAPCA requested Respondent to keep RAPCA informed of Respondent's findings and reiterated the benefit of Respondent taking a residue sample and having it analyzed.

13. On January 27, 2016, following the RAPCA site visit, Respondent e-mailed RAPCA and provided results of lab analyses of residue collected from the two events on January 2 and 18. The samples were taken from area vehicles on January 4 and 20. Respondent reported that the material predominately consisted of sodium sulfate.

14. On January 29, 2016, RAPCA issued a letter to Respondent concerning the complaint investigation follow-up. RAPCA stated that, based on the wind direction on January 2 and the proximity to Respondent's facility, Respondent's Facility was the most likely source of the material and that Respondent had confirmed that its Facility was the likely source. Respondent denies that it made any such statement. RAPCA requested Respondent to respond in writing with an identification of the specific source of the material, an identification of why the emissions events occurred, corrective measures the facility has or will put in place to prevent the events from recurring, and an estimation of the emissions caused during the January 2 event and January 18 event.

15. On February 10, 2016, Respondent submitted a response to the January 29, 2016 RAPCA letter. Respondent stated that analyses of the samples collected on January 4 and 20, 2016 indicated the depositions were predominantly sodium sulfate. Respondent noted that the potential source of the sodium sulfate may be the Facility's fiber pre-dryer scrubber system, but that other area facilities could not be ruled out as the sources of the residue. At that time, Respondent was focusing its attention on the two pre-dryer scrubbers. However, Respondent found no structural integrity issues or abnormal material buildup during inspections of the scrubbers. Respondent promised to contact the original equipment manufacturer to discuss other corrective measures that could optimize scrubber performance and operations. Respondent also stated that it was

impractical to quantify emissions that may have occurred during the January 2 and 18, 2016 incidents.

16. On February 10, 2016, Respondent met at RAPCA's office to discuss the ongoing internal investigation into the two complaint events. Respondent stated that it had not yet completed its investigation and had not yet identified the source of the emissions. Respondent was investigating the fiber pre-dryer scrubber system as the potential source of the sodium sulfate. The fiber pre-dryer system consists of EUs P037 Feed House Bran Dryer No. 1 and P040 Feed House Bran Dryer No. 2 controlled by a cyclone & scrubber that is common to both P037 and P040, and the P058 Feed House Bran Dryer No. 3 that is controlled by a separate cyclone and scrubber. RAPCA requested a detailed explanation be submitted by February 24, 2016, to include the actions Respondent had taken to determine the source of the incidents, listing of items that had been investigated and any corrective measures or preventative maintenance that had occurred as a result of the investigation. RAPCA also requested an explanation of why Respondent felt that the fiber pre-dryer scrubber system may be the source of the sodium sulfate.

17. In a letter dated February 24, 2016, Respondent submitted a response to RAPCA's request for information referenced in Finding 16. In the correspondence, Respondent informed RAPCA that Respondent had shut down the Facility's wet corn milling processes and coal boiler for 16 hours on January 21, 2016 to search for the source of the white residue. During this investigation, Respondent inspected the pre-scrubbers, scrubbers, and other control equipment and found no abnormalities. Respondent's letter stated that Respondent had again shut down the wet corn milling process for 16 hours on January 28, 2016 to clean the scrubbers, validate the controls on the scrubber, and sample material on the de-misters and scrubber. The de-mister samples contained only carbon, so they were not the source of the sodium sulfate. The scrubber water, as expected, contained sodium sulfate. Respondent's letter further recounted that Respondent had started a root cause analysis to search for potential sources of the residue on February 9, 2016 involving engineering and environmental experts and Facility personnel. Respondent indicated that any sodium sulfate emitted by the Facility would have had to come from the scrubbers, stating that "[t]he most likely source of sodium sulfate from our operation would be any number of our scrubbers as the wet chemistry within these pieces of equipment is consistent with sodium sulfate generation." Respondent's letter further noted that "the most likely source from our facility would also have had to feed our main stack as only emissions from the main stack would be capable of reaching the off-site areas affected due to height and wind direction. This fact further focused our internal investigation to the fiber pre-scrubber systems." However, Respondent's letter cautioned that its investigations had not pointed to a definitive source of the residue, and that Respondent would continue its efforts to identify the cause. Respondent provided a listing of the investigations conducted by that time, and stated that it was committed to continuing to work through the action items outlined in the letter. Respondent reported that EU P058, the #3 pre-dryer, and the scrubber had

been shut down for the investigations since February 5, 2016 and there was an outage scheduled for March 9 to address additional action items.

18. In a letter dated March 18, 2016, Respondent submitted a detailed explanation of additional actions taken before, during, and after the shutdown performed on March 9. Respondent reported that, on February 24, 2016, a representative for the original equipment manufacturer (OEM) of #3 pre-dryer scrubber was on site for a consultation/discussion on design and operating parameters that could be implemented to minimize the amount of water entrained in the duct from the scrubber that could reach the main stack. On March 9, 2016, Respondent shut down Facility production in order to allow the OEM of the scrubber controlling the #1 and #2 pre-dryers to inspect this scrubber. During this shut down, Respondent completed the following investigations and actions:

- monitored optimizing flows and scrubber operation;
- verified recirculation flow over trays;
- verified recirculation and makeup water flow with portable meter;
- verified weir size pre-scrubbers;
- investigated installation of vertical chevrons after pre-scrubbers;
- investigated programming for the #3 pre-scrubber fan damper control; and
- investigated capping sections of chevrons to adjust air velocity.

The OEM also observed that the piping design in the scrubber controlling the #1 and #2 pre-dryers could potentially be modified to reduce the entrainment of water in the ducts from these pre-dryers. Respondent reported that the OEM was working on the engineering redesign of this piping for Respondent and that Respondent was exploring a similar re-design for the #3 pre-dryer scrubber. No other mechanical issues were found during the March 9, 2016 OEM inspection. Respondent reported that as of March 14, 2016, the #3 pre-dryer scrubber has been placed back into service.

19. On March 25, 2016, RAPCA received a third complaint in an e-mail from a local reporter who stated that she had been contacted by an auto garage owner about their customers' cars being coated with a white substance. RAPCA notified the Respondent of this complaint and visited the garage. The garage owner stated that the cars were coated sometime between Thursday evening (March 24) and Friday morning (March 25). RAPCA was able to document, in pictures, the substance on various cars on the lot, and was able to collect a sample of the deposited material from the cars.

20. On March 28, 2016, RAPCA visited Respondent in response to the third complaint. It was reported that cyclones feeding the scrubber for the #1 and #2 pre-dryers became plugged on March 24 and there was carryover into the scrubber; however, Respondent did not believe this was the cause of the release since it happens from time to time without sodium sulfate incidents. EU P058 and pre-dryer scrubber #3 had been down since March 25, 2016, when RAPCA notified Respondent of the latest complaint.

Respondent reported that some of its employees' autos in the south parking lot had particulate on them as well. Respondent stated that it had never agreed that its Facility was the source of the residue, but only that if it were the source that P058 was the most likely unit to emit the substance. RAPCA stated that, based on wind direction and speed, location of the depositions, velocity of the scrubber exits and stack height, it believed that other facilities could be eliminated as a source of the depositions. RAPCA informed Respondent that it would likely be receiving a Notice of Violation (NOV). RAPCA also informed Respondent that an information request had been made of a neighboring facility, and that RAPCA would be looking at that facility as well.

21. On March 29, 2016, RAPCA issued a NOV letter to Respondent as the result of the complaints of emission depositions on neighboring properties occurring on January 2, January 18, and March 25, 2016. Following investigations of these complaints, RAPCA alleged that the Respondent was causing a nuisance in violation of OAC Rule 3745-15-07.

22. On March 30, 2016, Respondent submitted its monitoring data to RAPCA for the scrubbers controlling the emissions from the #1, #2, and #3 pre-dryers, a baghouse, and the opacity monitor for the main stack. Respondent noted that the data did not reveal any upset conditions in the scrubbers' operation.

23. Respondent notified RAPCA via e-mail on March 31, 2016, that Respondent was conducting maintenance and piping modifications to the top tray on both the scrubber controlling the #1 and #2 pre-dryers and the scrubber controlling the #3 pre-dryer, and was installing additional vertical gas flow mist eliminators in the #3 pre-dryer scrubber. Respondent promised additional details would follow as part of its response to the NOV.

24. On April 8, 2016, Respondent replied to the NOV dated March 29, 2016, and referenced in Finding 20. Respondent stated it has worked closely with RAPCA to investigate the processes at the facility that had the potential to cause or contribute to the depositions. These efforts included the identification of Facility processes that had the potential to cause or contribute to the depositions, testing the deposited material, shutting down processes to determine if there were mechanical or other issues, curtailing operations, completing root cause analyses, consulting with the original equipment manufacturer, optimizing all operating parameters, and reviewing all monitoring data from potential sources. Despite this searching investigation, Respondent did not find any information indicating that its sources were the cause of the depositions other than the Facility's proximity to the properties where the deposition had occurred. Respondent stated that, in the absence of data or other finding indicating that its operations caused the deposition incidents, it did not share RAPCA's belief that its Facility was the cause of the incidents. Respondent felt it was premature to rule out other sources until the identity of the cause was located, particularly given the presence of other industry in the area. Respondent did not agree with RAPCA's allegations in the NOV, but provided assurances that it is committed to fully cooperating by undertaking all appropriate investigations and

providing the agency any information it has. Respondent described the steps it planned to take during a shutdown scheduled for April 20, 2016 to complete the modification of the piping in the scrubber controlling the #1 and #2 pre-dryers and the scrubber controlling the #3 pre-dryer and to install a second set of de-misters in pre-dryer scrubber #3. Respondent also committed to review the potential for other facility air emissions sources to generate sodium sulfate by April 29, 2016.

25. In addition, Respondent reported on the results of its investigation about the nature of the white residue, including the fact that the sodium sulfate in the residue is an ingredient commonly used in commercial products like laundry detergent. Respondent provided RAPCA with a report on sodium sulfate from the Organization for Economic Cooperation and Development, an organization in which the United States and 34 other countries are members. This report found that there are no reported hazards from human or environmental exposure to sodium sulfate, including inhalation and skin contact. The World Health Organization has found that sodium sulfate is a substance of no health concern. Respondent requested copies of the laboratory analyses of RAPCA's samples of the white residue for comparison to their data.

26. On April 8, 2016, RAPCA provided Respondent with the test results received on April 5, 2016, from the sample it had collected on March 25, 2016.

27. On April 18, 2016, in an effort to determine whether other nearby industrial sources could be the cause of the particulate depositions, RAPCA reviewed control device operating information and performed a site visit at the closest neighboring industrial facility. RAPCA stated that this facility was determined to not have any sources of sodium sulfate.

28. On May 17, 2016, Respondent sent a letter notifying RAPCA that Respondent has completed its investigation of the possible sources of the sodium sulfate depositions. However, Respondent's investigation has found the only potential sources of sodium sulfate deposits at the Facility to be the scrubbers for pre-dryers #1, #2, and #3, because only they have the potential to vaporize water in their emissions that could condense in the ambient air and leave a sodium sulfate residue. Respondent reported that its investigations have eliminated all other emission units at the Facility as potential sources of the sodium sulfate incidents.

29. Respondent's letter of May 17, 2016 further reported that Respondent modified the water piping in the scrubber for pre-dryers #1 and #2 during another Facility shutdown on April 20, 2016. Water in the scrubbers has been rerouted to improve its distribution within the units and reduce the potential to become entrained in the air. Respondent also announced that it had installed a second set of de-misters in the scrubber for pre-dryer #3 to increase the removal of water droplets from 95% to 99%.

30. During yet another shutdown in the week of July 11, 2016, Respondent



installed another set of de-misters in the scrubber for the #1 and #2 pre-dryers. This installation completes the improvements that are anticipated to be necessary to prevent water vapor emissions that could potentially cause depositions of sodium sulfate.

31. Respondent has incurred costs of approximately \$130,000 for the new equipment installed to prevent water vapor emissions that could potentially cause depositions of sodium sulfate, in addition to consulting fees.

32. Based upon RAPCA's investigations and the information referenced in these Findings, the Director has determined that Respondent has caused a public nuisance, in violation of OAC Rule 3745-15-07, the terms and conditions of the Title V permit and ORC § 3704.05(J).

33. The Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economic reasonableness of complying with the following Orders and their relation to benefits to the people of the State to be derived from such compliance.

## **V. ORDERS**

The Director hereby issues the following Orders:

1. Respondent shall operate the control equipment that it has installed to reduce the water vaporization by the scrubber for #1 and #2 pre-dryers whenever that scrubber is operating. Respondent shall operate the control equipment that it has installed to reduce the water vaporization by the scrubber for the #3 pre-dryer whenever that scrubber is operating. Once Respondent's permits have been modified pursuant to Order No. 3, this order shall terminate.

2. Respondent shall conduct an annual inspection of the equipment it has installed to reduce the water vaporization by the scrubbers for #1, #2 and #3 pre-dryers and perform preventative maintenance necessary to keep this equipment operational. Once Respondent's permits have been modified pursuant to Order No. 3, this order shall terminate.

3. Respondent agrees that Ohio EPA may add the following language to the terms and conditions for Emission Units P037, P040, and P058 in Part III of the Title V permit for the Facility: "The permittee shall maintain the tray scrubber's associated de-misters in accordance with the manufacturer's recommendations, instructions or operating manuals or the facility's preventive maintenance plan, and shall inspect the de-misters once every calendar year."

4. Respondent agrees to remit \$10,000 within 60 days of the effective date of these Orders to the recipient designated by Ohio EPA, the Montgomery County Office of Emergency Management, that will fund a supplemental environmental project (SEP). The SEP will provide funding for search kits (CERT kits) and training needs for the Montgomery County Office of Emergency Management.

#### **VI. TERMINATION**

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondent has performed all obligations under these Orders and the Chief of Ohio EPA's Division of Air Pollution Control acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of Respondent. For the purposes of these Orders, a responsible official is a principal executive officer of at least the level of vice president or his duly authorized representative.

#### **VII. OTHER CLAIMS**

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Orders, for any liability arising from, or related to, operations by Respondent.

#### **VIII. OTHER APPLICABLE LAWS**

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondent.

### **IX. MODIFICATIONS**

These Orders may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

### **X. NOTICE**

All documents required to be submitted by Respondent pursuant to these Orders shall be addressed to:

Regional Air Pollution Control Agency  
117 South Main Street  
Dayton, Ohio 45422  
Attn: Jennifer Marsee

and to:

Ohio Environmental Protection Agency  
Division of Air Pollution Control  
P.O. Box 1049  
Columbus, Ohio 43216-1049  
Attn: James Kavalec

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

### **XI. RESERVATION OF RIGHTS**

Ohio EPA and Respondent each reserve all rights, privileges and causes of action, except as specifically waived in Section XII of these Orders.

### **XII. WAIVER**

In order to resolve disputed claims, without admission of fact, violation or liability, and in lieu of further enforcement action by Ohio EPA for only the violations specifically cited in these Orders. Respondent consents to the issuance of these Orders and agrees to comply with these Orders. Compliance with these Orders shall be a full accord and

satisfaction for Respondent's liability for the violations specifically cited herein.

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders, and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

### **XIII. EFFECTIVE DATE**

The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

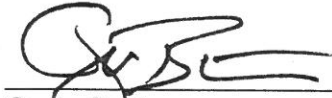
### **XIV. SIGNATORY AUTHORITY**

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these

Orders.

**IT IS SO ORDERED AND AGREED:**

**Ohio Environmental Protection Agency**



Craig Butler  
Director

4/28/17

Date

**IT IS SO AGREED:**

**Cargill Incorporated**



Signature

3/30/2017

Date

Gavin Atkinson

Printed or Typed Name

Vice President, Cargill Starches & Sweeteners,  
Director of Operations and Engineering

Title