



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

RECEIVED

AUG 6 2013

August 5, 2013

RE: Compliance and Storm Water Inspection
NPDES Permit 11N00044*HD

Mr. Ryne Stefanacci
Cargill, Inc.
3201 Needmore Road
Dayton, OH 45414

Dear Mr. Stefanacci:

On June 28th I met with Tom Byrne, John Hurst and you to conduct an NPDES compliance inspection of Cargill's Dayton Corn Milling facility.

A review of your Discharge Monitoring Reports since my previous inspection in 2011 revealed the following reported violations of your effluent limits:

Parameter	Date	Limit	Reported
pH, Minimum	December 15, 2011	6.5 SU	6.13
Total Suspended Solids	January 30, 2013	45 mg/l	47.4 mg/l

Cargill also violated its monitoring frequency requirements during the week of November 22 through 28, 2012 when one weekly monitoring event occurred instead of the required two.

You previously provided notifications and explanations for these violations and no further response is necessary.

Highlighted findings from my inspection follow, with general observations and information included in the attached inspection forms.

Storm Water Basin Improvements

You showed me the significant modifications you are making to the storm water retention basin that are designed to minimize the accumulation of fugitive corn solids that are washed into the basin during storm events. In particular, piping now extends from the basin inlets to a new sloped sump that will be kept essentially empty during non-rainfall periods by a pump that will direct the water to the sanitary sewer through

Mr. Ryne Stefanacci
Cargill, Inc.
August 5, 2013
Page 2

Cargill's pretreatment system. Ideally, the system is intended to capture the 'first-flush' after the beginning of a precipitation event with the basin subsequently overflowing to outfall 001 as it has in the past. The new sump will also allow the basin to be cleaned, if necessary, more easily.

A temporary hydraulic pump was being used at the time of the inspection and I would be interested in knowing when the final system is put into service. I would also appreciate you providing a narrative description of how the system will operate.

Street Sweeper

You showed me a new street sweeper Cargill has obtained for use by its contracted property management service provider (DTZ) in cleaning fugitive accumulations of corn-solids from paved areas throughout the facility. The system is also equipped with a vacuum to allow clean-up of material in areas the sweeper can't access such as around silos, cyclones, bag houses and dumpsters. I appreciate your effort to obtain the use of this sweeper as I believe it can significantly reduce the amount of corn solids that can get washed into the storm sewer system.

I have the following ideas for you to consider regarding the use of this new piece of equipment:

1. I believe it would be ideal to establish specific routes and areas for the sweeper to go based on the areas where corn solids are normally expected to be present to some degree with special stops at places solids are known to accumulate to a higher degree where the vacuum system is used to remove those solids.

Working with the company you've contracted to perform these cleanings, I can envision developing a map of the facility identifying routes and areas to be cleaned including special instructions for areas requiring extra attention. Consider the possibility of also establishing expectations for the condition of processing areas that is based on the 5S method.

2. I believe there are opportunities to remove irregular pavement areas (especially around drainage inlets) to allow the sweeper to better remove accumulations of corn solids that tend to concentrate at these points.

In addition to considering these practices, please also consider adding inspections of storm manholes and catch basins where corn solids are most likely to accumulate in significant amounts and establishing criteria for determining the need to clean them (along with a method for removing accumulated solids). This effort would enhance your goal of reducing the amount of corn solids associated with 'first flush' storm water flows.

✓
Mr. Ryne Stefanacci
Cargill, Inc.
August 5, 2013
Page 3

Please let me know your thoughts on these ideas and if you plan to implement them, or any other strategy, to minimize the corn solids in storm water runoff.

Storm Water Inspection Checklists

Please consider making the monthly storm water checklists used for inspecting the various areas of your facility unique to the area being inspected based on the nature of the operations, conveyance system, materials and controls present.

Also, I believe the facility site map that is part of your SWP3 could be amended so as to specifically identify the areas that are inspected monthly – including identification of specific places, areas or pieces of equipment where particular attention is needed. Color-coding or enumerating the areas and indicating their boundaries may also enhance the plan.

Please let me know if you decide to create customized checklists or enhancements to the facility site map.

Drainage System Improvements

In concert with the previous suggestion to include regular inspections of manholes and catch basins, I believe there may be an opportunity to reduce or eliminate the accumulation of corn solids in the underground storm sewer system where they are not accessible for removal and where they become putrescent as they decompose. Grouting the bottoms of these structures to eliminate sumps would reduce opportunities for solids to accumulate. This, in conjunction with periodic flushing of the storm sewers – with the flush water being captured by the retention basin sump and routed to the sanitary sewer – could significantly reduce the amount of solids ultimately discharged from the retention basin. Please investigate this possibility and let me know if you decide to pursue this effort.

Update of Storm Water Pollution Prevention Plan

You indicated that your consultant was in the process of updating the SWP3 and that several ideas they had were being considered in the amended plan. Although it is likely still too soon to evaluate the effectiveness of the some of the improvements you've made, please ensure updates to the plan actively consider the monitoring data for NPDES outfall 601 that currently shows TSS and BOD to often exceed the benchmark expectations. I would appreciate a summary of highlighted changes to the plan when they become available.

Mr. Ryne Stefanacci
Cargill, Inc.
August 5, 2013
Page 4

Rail Tanker Heel Removal

~~While near the discharge control valves for outfall 002, we observed tanker rail cars having residual (heel) liquid corn product materials removed. You indicated that this was an activity that just recently started being practiced again and that cleaning waste water is directed to the sanitary sewer.~~

It appeared to me that the drainage systems in this area were in need of significant cleaning to ensure the process waste water from heel removal does not end up getting into adjacent storm sewer structures. Although you made initial arrangements to begin the process of cleaning this drainage system, I would appreciate a summary of work completed since the inspection. Pictures of the area when in use with descriptions of piping and drainage system features would be welcome.

New Wells for Cooling Water

You indicated that you are in the process of establishing new and deeper wells for cooling water in the hope that the groundwater will not have iron in amounts that currently cause fouling of heat exchangers which affects production either because of reduced cooling capacity or downtime when the heat exchangers have to be cleaned. The new wells could end up being around 275 feet deep compared to the depth of the current wells at between 150 and 200 feet.

Please keep me informed of the progress to develop new wells. I would appreciate any monitoring data that becomes available once the wells become developed.

Please provide a written response to this letter by August 23rd addressing the items I have presented. If you have any questions, please call or e-mail me.

Sincerely,



Matt Walbridge
Environmental Specialist
Division of Surface Water

MW/uf

ATTACHMENT

EC: Tom Byrne, Cargill
Ken Hardesty, EQM



Section A: National Data System Coding

Permit Number 1IN00044*HD	NPDES Number OH0022403	Inspection Date 6-28-13	Inspection Type C	Inspector S	Facility Type 2
-------------------------------------	----------------------------------	-----------------------------------	-----------------------------	-----------------------	---------------------------

Section B: Facility Data

Name and Location of Facility Inspected:	Entry Time	Permit Effective Date
Cargill, Incorporated 3201 Needmore Rd. Dayton, OH 45414	0900	2-1-13
	Exit Time	Permit Expiration Date
	1210	1-31-18
Name(s) and Titles of On-Site Representative(s)	Phone Number(s)	
Ryne Stefanacci, PE, CHMM – Environmental Manager	(937)237-1285	
Thomas Byrne – Environmental Coordinator	(937) 237-2617	
John Hurst - Environmental Technician		
Name, Title and Address of Responsible Official:	Phone Number	
Greg Holler, PE Assistant Vice President and Facility Manager Cargill, Incorporated 3201 Needmore Rd. Dayton, OH 45414	(937) 237-1210	

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, NA = Not Applicable, NE – Not Evaluated)

S Permit	S Flow Measurement	NA Pretreatment
S Records/Reports	NE Laboratory	NA Compliance Schedules
S Operations & Maintenance	S Effluent/Receiving Waters	NA Collection System
S Facility Site Review	NA Sludge Storage/Disposal	NA Other
S Self-monitoring Program		

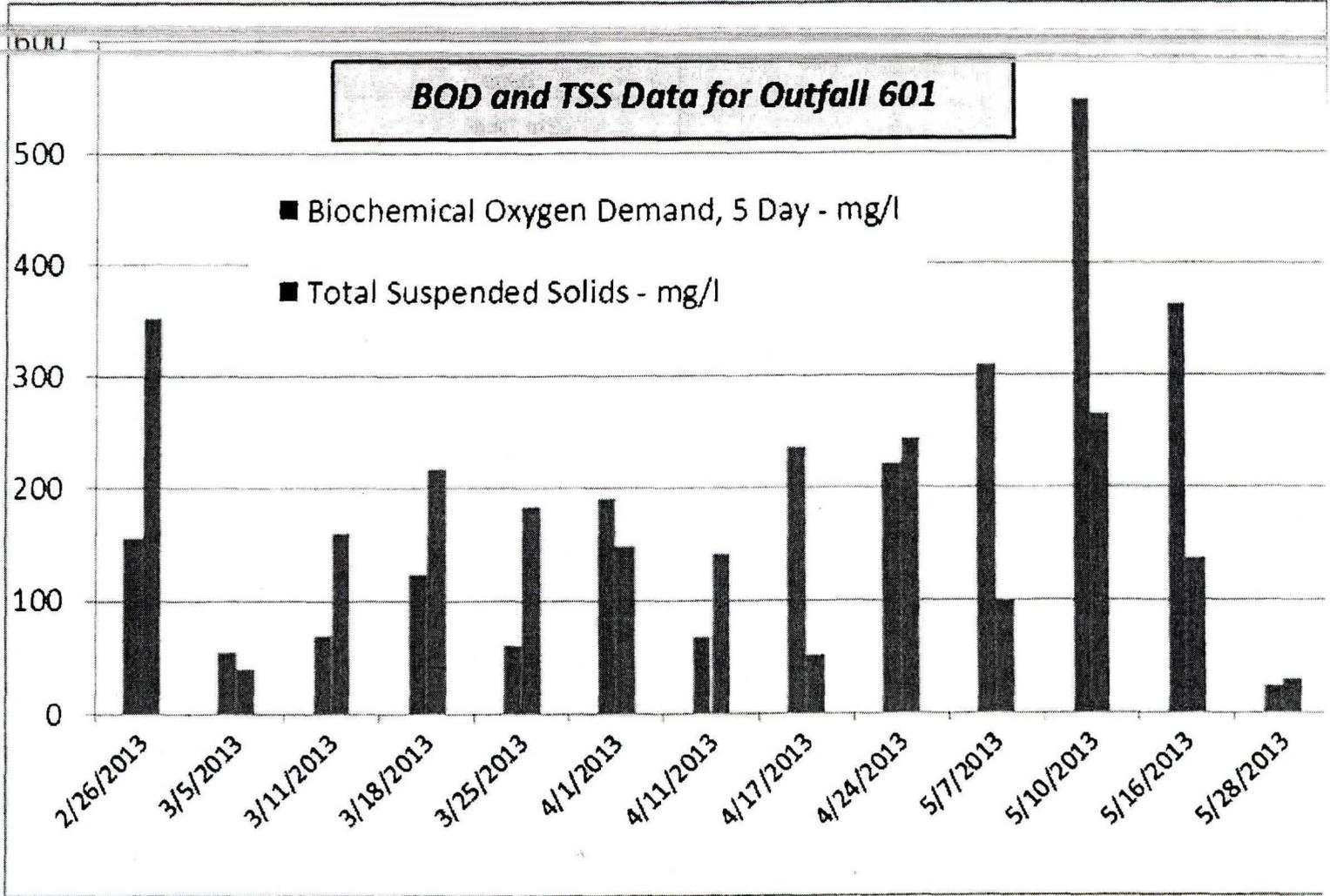
Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

- **It appeared that there are still areas where corn solids accumulate in appreciable amounts where a dedicated effort to clean them up would be worthwhile. This is especially true considering their new sweeper.**
- **Available TSS and BOD monitoring data for the stormwater basin discharge (outfall 601) is presented on the back of this inspection form.**
- **Repairs to pavement areas would seem to improve the effectiveness of the sweeper.**
- **Stormwater basin looked good.**
- **Cargill uses DTZ (an industrial property management company) to run the new street sweeper. It would be interesting to know what performance expectations have been established.**

Name and Signature of Inspector(s) Matt Walbridge	Agency / Office / Telephone Ohio EPA / Southwest District Office / (937) 285-6095	Date 8-5-13
Name and Signature of Reviewer(s) Joe Miller – Environmental Supervisor	Agency / Office / Telephone Ohio EPA / Southwest District Office / (937) 285-6034	Date 8/5/13

BOD and TSS Data for Outfall 601

■ Biochemical Oxygen Demand, 5 Day - mg/l
■ Total Suspended Solids - mg/l



Industrial Storm Water Reconnaissance Inspection Report

Name of facility: **Cargill Inc. – Dayton Corn Milling Plant**

Address: **3201 Needmore Rd.
Dayton, OH 45414**

Permit number: **1IN00044*HD**

Applicable permit sector: **U1- Grain Mill Products**

*(This individual permit includes
industrial stormwater requirements)*

(Their SIC code is 2046)

Date of visit: **June 21, 2013**

Time started: **9:00**

Time ended: **12:10**

Facility representative(s): **Ryne Stefanacci, Tom Byrne and John Hurst**

OEPA inspector: **Matt Walbridge**

SWP3:

- A. Did the facility representative produce an SWP3? **Y / ~~N~~ / Not requested**
- A1. Did it include a site map? **Y / ~~N~~**
- A2. Did it include schedules and procedures for the quarterly routine facility inspections? **Y / ~~N~~**
- A3. Did it include schedules and procedures for the comprehensive annual facility inspection? **Y / ~~N~~**
- A4. Did it include schedules and procedures for the quarterly visual assessment of storm water discharges? **Y / ~~N~~**
- A5. If benchmark monitoring is required, does the SWP3 describe how and when that will be done? **Y / ~~N~~ / NA**

Comments:

A – It is being updated to reflect changes that have been made.

A4 – It is very detailed and involves many departments.

A5 – The NPDES permit requires regular monitoring at outfalls 601 and 002.

Inspection records:

- B. Were inspection records available? **Y / ~~N~~**

Comments:

The inspection notes could include more descriptions of what was observed and what actions were deemed necessary.

Site Observations:

- C. Are materials stored exposed to weather?

Y / N

If Yes, list materials.

Corn and corn products they produce are generally not exposed, but fugitive by-products of production do get on paved and roof areas where they are washed into the storm water system. Dumpsters of waste and by-products are not always completely sheltered from the weather and housekeeping is an issue at these collection/accumulation points.

- D. Are there any structural storm water management practices used onsite? Examples include grassed swales, permeable pavement, inlet filters, detention ponds, engineered wetlands, mulch berms, silt fence, rain gardens .

Y / N / Not sure

Load-out vacuums are used for areas where waste and by-products are known to accumulate. They are looking to expand their reach.

They have a screen filter on the maintenance building drain.

- E. Number of outfalls from site/number inspected:

4 / 2

- G. Did any show evidence of pollutants discharged in the storm water?

Y / N

If yes, describe:

Facility is generally clear of trash and debris that could end up in the receiving stream.

- H. Other observations/comments:

We did not get up onto any rooftops to look for accumulations of materials.

Operation of the new street sweeper is performed by DTZ (an industrial facilities maintenance company). The sweeper was obtained under a lease-to-own arrangement.

I think there is still opportunity to better utilize the sweeper/vacuum system.

See inspection letter for more detailed findings.