COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5

Purpose: Clean Water Act National Pollutant Discharge Elimination System (NPDES) Compliance Evaluation Inspection

Facility:
Ardagh Glass, Inc.
524 East Center Street
Dunkirk, Indiana 47336

Dates of Inspection: March 13 - 14, 2024

EPA Inspectors:
Val Dooling, Environmental Engineer, (312) 886-7167
Dean Maraldo, Physical Scientist, (312) 353-2098

IDEM Inspector:
Mary Armacost, Pretreatment Coordinator

Facility Representatives:
Teresa Fouch, EHS Manager
Ray Ostrowski, Corporate Environmental Engineer
Jay King, Facilities Maintenance Supervisor
Richard M. Tomicek, VP, Environmental Compliance

Report Prepared By:
Val Dooling, Environmental Engineer
EPA Inspector Signature and Date:

Dooling, Valerie
Digitally signed by Dooling, Valerie
Date: 2024.05.02 15:25:51 -05'00'

Approver Name and Title:
Ryan J. Bahr, Section 2 Supervisor
Water Enforcement and Compliance Assurance Branch
Approver Signature and Date:

Bahr, Ryan
Digitally signed by Bahr, Ryan
Date: 2024.05.02 16:09:00 -05'00'

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I. INTRODUCTION

The purpose of the report is to describe, evaluate and document Ardagh Glass, Inc.'s compliance with the Clean Water Act (CWA) and the National Pretreatment Categorical Effluent Guidelines.

II. BACKGROUND

On March 13-14, 2024, EPA conducted a Clean Water Act Compliance Evaluation Inspection at the Ardagh Glass, Inc. (Ardagh) Facility located at 524 East Center Street in Dunkirk, Indiana, which manufactures commercial glass containers for food and beverage customers. Ardagh is an industrial user of the City of Dunkirk Wastewater Treatment Plant, which holds National Pollutant Discharge Elimination Permit (NPDES) IN0021491. Ardagh also holds NPDES Permit IN0061816 and Indiana Department of Environmental Management (IDEM) Industrial Wastewater Pretreatment Permit INP000201.

IDEM Permit INP000201 lists the outfall that discharges combined wastewater to the City of Dunkirk as "Outfall 001"and NPDES Permit IN0061816 lists "Outfall 001" as a different location which is authorized to discharge stormwater, furnace quench water and non-contact cooling water ultimately to Big Lick Creek. To avoid confusion, for the remainder of this inspection and corresponding report, the outfalls listed in Permit IN0061816 are named "Outfall 1" and "Outfall 2" and the combined wastewater discharge point to the City of Dunkirk listed in IDEM Permit INP000201 is named "combined wastewater discharge point".

III. OPENING CONFERENCES

Inspector Dean Maraldo, IDEM Inspector Mary Armacost and I arrived at Ardagh Facility on March 13, 2024 at 2:15pm and met with Teresa Fouch, EHS Manager. During the opening conference, Ms. Fouch was present in person and Ray Ostrowski, Corporate Environmental Engineer, was present on a speaker phone. I presented my credentials to Ms. Fouch and requested whether any information that would be discussed was considered Confidential Business Information. I explained the purpose and scope of the inspection and then began a discussion of the facility. At 3:30pm, IDEM and EPA Inspections left the facility and agreed to return at 8:00am the following day.

On March 14, 2024, Inspectors Maraldo, Armacost and I arrived at Ardagh Glass at 8:05am and met in person with Jay King, Facilities Maintenance Supervisor, and Richard M. Tomicek, VP, Environmental Compliance, as well as Ms. Fouch and Mr. Ostrowski. I also presented my credentials to Messrs. Ostrowski, King, and Tomicek and requested whether any discussions would be considered Confidential Business Information. Ardagh representatives explained that Ardagh's glass making process is universal, but their glass cooling process is proprietary; however, it is outside the scope of this inspection. Photographs collected of wastewater generation and treatment do not include Ardagh's proprietary glass cooling process.

IV. FACILITY DISCUSSION

The following Facility Discussion is a combination of information obtained during both March 13 and March 14th discussions.

Ms. Fouch explained that press and blow glass manufacturing of amber and flint glass containers began in this location in 1889 and that the current site is leased from the City of Dunkirk. The site has been purchased by different companies throughout its history. Ardagh purchased the company St. Gobain, who previously operated in the facility in 2012. Ardagh employes over 400 employees split over three shifts which runs 24 hours per day, every day. According to facility representatives, it has the fastest beer bottle making individual section (IS) machine which makes 786 bottles per minute.

Mr. Ostrowski explained the facility has a hot end and cool end sections and estimates that 95% of the wastewater is generated at the hot end with the remaining 5% used for hydrostatic testing of shatterability. The following is a brief description of the hot end line. The facility has two natural gas oxy-fuel furnaces which produce flint (clear) and amber (brown) glass food containers. Furnace 1 has five flint shops and Furnace 2 has three amber shops. The furnace is charged with cullet, which is recycled or broken glass, and proportioned virgin materials, consisting of sand, soda ash, carbon, dolomite, electrostatic precipitate dust among other materials. The percentage of cullet to virgin materials varies depending on the product and the market fluctuations. The furnace is above 2300 degrees Fahrenheit (F), and electrodes ensure that the molten glass is maintained at consistent temperature. Shearing cuts molten glass into identical gobs which are sent to an IS forming machine for molding. Hot end coater adds poly-coat, or duracote, to formed bottles as a basecoat then an annealing lehr reheats the glass containers to strengthen according to specific integrity standards.

The two furnaces are continuously operating and have been producing glass since their initial installation. A cold rebuild is extremely rare, which requires the furnaces to be completely shut down and occurs every 8-12 years. All maintenance performed on the furnace is hot repair which occurs when the furnace is still operating. Quality issues can arise if the molten glass temperature varies by five degrees. If a hotspot is discovered (could be due to metals or contaminants and could damage the charger), first air will be used to cool and if that doesn't work then cooling water will be used. Recently, Furnace 2 had an emergency hot bottom repair.

Furnace 1 was installed in 1993 and has once had a cold rebuild in 2012 and has a cold rebuild scheduled later this year in 2024. Furnace 2 was installed in 1998 and had its cold rebuild in 2011. The previous owners had a consent decree in 2014 to control sulfur dioxide and nitrogen oxides and after purchasing the operations, Ardagh installed semi-dry electrostatic precipitator scrubbers to remove particulates and sulfur compounds.

Mr. Ostrowski explained how process water is treated: Incoming water is mainly well water (approximately 400,000 gallons per day (gpd)) and city water from Dunkirk (approximately 50,000 (gpd) is also used. Well water is first processed with iron removal and then half of the

water is softened prior to reblending with treated city water. Treated water is stored in a water tower which supplies water to the industrial processes. City water goes through a water softener process and then is used as potable sanitary and is also stored in cooling towers, to be used as cooling water for compressors, electrodes and other heat exchangers. According to a flow diagram, the Ardagh facility uses water in the following processes and in the approximate amounts: cullet quench water (300,000 gpd), scrubber mist (50,000 gpd), non-contact cooling (42,000 gpd), shear lubricant (15,000 gpd), sanitary (9500 gpd), floor and mold wash (6000 gpd), cooling towers (5000 gpd), air compressor condensate blowdown (1500 gpd) and hydrostatic bottle testing (300 gpd).

Wastewater discharged to the City of Dunkirk is bled from a pretreatment system that collects wastewater from cullet quench water, shear lubricant, floor and mold wash, and hydrostatic testing. The pretreatment process begins with collection of process wastewater in the basement trench, then through a grit chamber to the sump where it will be pumped to the wastewater treatment building, called the "water barn". Enzymes for hydrocarbon, biochemical oxygen demand (BOD) and chemical oxygen demand (COD) degredation, and nutrients are added. Wastewater is pumped into one of two oil water separators and then into a two-chambered aeration basin with aerated enzyme biological treatment. The aeration basin is level controlled and will either be recycled as cullet quench water or bled to the wastewater discharge point. Combined wastewater entering the municipal sewer consists of pretreatment system discharge (330,000 gpd) combined with sanitary (9500 gpd), cooling tower blowdown (2500 gpd), iron removal backwash (2000 gpd), main water softener backwash (1000 gpd), and air compressor condensate blowdown (1500 gpd).

I asked how much recirculated water is bled to the municipal sewer or reused in process and Ms. Fouch answered that the amount of processing water depended on the production needs. While glass manufacturing is continuously occuring, some of the glass is product and some is cullet to be recycled. A larger quantity of water is used when the equipment is producing cullet to keep the cullet chute to the basement cool to prevent molten glass from sticking to the sides. While amber lines are always making the same product, the flint lines will change approximately once per day. During production ramp up, when cullet is produced, more recycled water is consumed and less wastewater is discharged to the municipal sewer than during full production.

An emergency bypass has been built into the pretreatment system to bypass the oil water separators, since that is slowest process. The previous practice to most quickly reduce flooding was to open the bypass if there was any basement flooding. Since IDEM inspection in November 2023, the emergency bypass has been locked and Ardagh's new policy is that management must be called prior to unlocking, which has not occurred since adding the lock. Also, since IDEM inspection, Mr. King, took over maintenance and implemented changes such as cleaning out trenches, walls and equipment and grit chambers which are expected to eliminate basement flooding. Since implementing these new practices, the basement has not had issues with flooding.

The oil water separator has augers which remove sludge to thickening tanks. Liquids from the thickening tanks return to the pretreatment system prior to the oil water separator using a manual valve. Another change implemented after November 2023, is that the facilities team will daily blow out the augers and weekly isolate one filter and remove solids. The sludge thickening tanks are serviced by a contractor, Crystal Clean, and at the same time, it will remove the floating oil scum from the aeration basin.

I asked what pollutants of concern would expect to be in cullet, particularly if trace metals were a concern. Mr. Ostrowski answered that possibly some trace contaminants could be in raw materials present and cullet has a small percentage of lead. However, metals pose a qualtiy issue and could damage the furnace with a hotspot, so a magnet removes metals prior to entering the furnace. Mr. Ostrowski informed me that shear, swab and machine oil was also expected to be present to be in wastewater. Swab oil is a releasing agent for the mold, which are brass or cast iron, and each mold must be lubricated every 20 minutes and would be present in the floor wash. The mold swab oil is graphite based, and it will volatilize upon contact with the hot molds and deposit on surfaces and floor. Since any oil that contacts product must be animal fat based to be food safe and swab oil is petroleum based the first few bottles are contaminated and are recycled as cullet. Once per quarter, and usually around December holidays the machines and floors are pressure washed. The equipment is black from swab oil deposition, and it is expected that swab oil is present during this washing. Shear water, reverse osmosis water which contacts shears, is expected to contain shear oil. The oil must be used to keep molten glass from sticking to the cutting edge. Many machines also use 20 weight machine oil in Lincoln automatic lubricators.

I asked if Ardagh was aware of any issues at Dunkirk WWTP and Mr. Ostrowski replied that he was aware of an oil and grease issue in the past and that Ardagh paid for removal of 2200 gallons from a large tank and two biobags of sludge from the Dunkirk WWTP. The letter from Dunkirk, Indiana City Attorney describing this 2023 incident is included as Appendix E. He thought that this event occurred before some of the adjustments to maintenance which have occurred since November 2023.

Mr. Ostrowski stated that chlorides in the wastewater were most likely due to water softening. There is a large water softener used for the water tower/cooling tower and also smaller water softeners around the facility. Brine water at 20 ppm is used during media regeneration as sodium replaces hard water and the chloride is discharged in backwash to the pretreatment system. According to Ms. Fouch, Ardagh used approximately 700,000 pounds (lbs) of salt in 2022 and 1,000,000 pounds of salt in 2023. Ardagh hired a consultant in November 2023 to perform an elution study for the efficiency of its water softeners to maximize efficiency and add flow meters to construct a mass balance. Mr. Ostrowski stated by maximizing water softeners it would potentially reduce chlorides; however, the study did not determine the amount of chlorides which would be in the effluent when the water softeners were operating at maximum efficiency.

Another change that Ardagh recently undertook was an efficiency project to install new chillers for the hydrostatic testing tanks which would recirculate cooling water instead of using one pass water. This change ended up in a reduction of 86,000 gallons per day water usage.

Ardagh is also trying to determine where phosphates originated in its processes and have determined that the surfactants for floor wash, IS machines wash, salt cakes and virgin materials do not have phosphate.

V. FACILITY SITE VISIT

On March 14, 2024 at 10:43 AM, EPA, IDEM and Ardagh representatives began walking around the facility.

The stormwater areas visited are hot reject cullet flint pile, visitors parking lot, flint and amber cullet piles, ground surrounding near pretreatment water barn, water treatment, and the fire suppression tank.

The pretreatment areas visited are aeration basin, water barn including oil water separators, bypass and bleed valve, combined wastewater sample point, and the water treatment building.

The production areas visited are basement wastewater collection, first floor amber IS machine and Furnace 2 in hot end, and mezzanine duracote mixing area.

Immediately outside the office is the hot flint cooling area, where flint cullet from the basement is cooled prior to moving it to the cullet pile near the parking lots. Two stormwater access points are near the hot flint cullet cooling pile (Photo 1). According to Mr. King, the square stormwater drain has been removed from stormwater piping and now discharges to the sanitary sewer. The second manhole, which is mostly closed by a metal plate does have a small access opening that could allow stormwater to pass (Photo 2). I asked whether this manhole also drains to the sanitary sewer. Mr. Ostrowski replied that it drains to the stormwater outfall. Mr. King told me that their cleaning practice is to seal the storm sewer off at the outfall end and backflush the pipes towards a vacuum which would collect the backflush water and send it to the pretreatment system. After completing the rest of the site visit, Mr. Maraldo and I returned to this area during a rain event and noted flow towards and into the square drain (Photo 35).

We continued walking through the parking area and cullet piles. I noted cullet covering and overtopping concrete blocks next to and spilling over into the visitors parking area (Photo 3). I also noted two covered structures in the cullet storage area but the flint and amber cullet piles where significantly larger than the covered structures (Photos 3-5). At the end of the site visit, Mr. Maraldo and I returned and observed significant flow entering two different storm drains located in the visitor's parking area (Photos 33-34).

Next, we continued to the industrial wastewater pretreatment area called the water barn. Two aeration basins run in parallel with four aerators in each basin. According to Mr. King, usual operation procedure is to have one aerator on. At the time of the inspection, I noted that one

aerator was operating in each basin. I observed floating scum buildup on west aeration basin, black flecks floating in the aeration basin and a black scum line on the basin at the water's edge. Mr. Ostrowski noted that the floating scum is vacuumed out by Crystal Clean but they do not clean the scum off the back of the basin, only remove any accumulated floating scum. Inside the water barn, two oil water separators (Photos 13-14), two sludge thickener tanks, and enzymes and nutrient additons (Photos 9-10) are located. Mr. Ostrowski showed the valve to bypass the oil water separators and I observed that it was locked and a sign was present (Photo 12).

After treatment wastewater is recirculated as cullet cooling water, any additional wastewater beyond what was used passes through the bleed valve. The valve is manually adjusted to keep the levels in the aeration basin and the recirculating water steady. I observed that the valve was reading at 60% open during inspection (Photo 8). There is a sample point just beyond the bleed valve used for internal dosing. I observed a logbook and Mr. King stated that samples were collected for internal process control (Photo 11) and not for regulatory compliance.

We walked to the sample hut where there is a manhole for combined wastestream (Photo 15) and an autosampler (Photo 16). The autosampler is new, as of January 2024, but was not collecting samples at the time of inspection. I saw that there was no thermometer in the autosampler, and that the autosampler screen did not provide a temperature reading on its screen. The temperature of the combined wastestream and flow are documented and at the time of the inspection the temperature was reading 67.4 degrees Faherenheit and the flow meter was reading 269 gallons per minute. Mr. Ostrowski told me that CF Environmental is contracted to collect the sample and their procedure was to set up the autosampler the day before so that a 24 hour composite sample would be collected. He was not sure whether CF Environmental would also check the sample temperature at the time of collection.

While walking outside of the sample hut and towards the employee parking lot, I observed a portable pump located near a stormwater drain (Photo 17). Mr. King stated that this pump was necessry to prevent the parking lot from flooding, since stormwater would accumulate in this area.

We walked to the building that houses the water softener and iron removal treatment for process water sent to the watertower. Brine water tank is stored outside of the building and underroof (Photo 18). Mr. King identified that he would "fluff" the iron removal sand media with pressurized air. At the time of the inspection, I observed that orange water was sitting on the floor. I noticed a drip on the iron removal treatment which had a panel installed to move the water from hitting the treatment tank and instead fall onto the floor (Photo 19). In the same building, near the entry, I noted a drain (Photo 20). When I asked where this drain leads to, Mr. King replied that if the building was flooded it would drain to the sanitary sewer, but the small amount of sitting water that I observed would not reach this drain.

We next went to the basement of the processing building, and viewed how wastewater is collected prior to entering the pretreatment system. In the basement, various porous

dumpsters are placed under chutes which collect hot cullet and discharge cullet cooling water to the floor (Photo 21). Cullet dumpsters are transferred to the hot cullet cooling pile outside via forklift. The floor also has two secondary containment dikes under the furnaces and at the time of the inspection one containment area was partially full of water (Photo 22). A pump had been installed in the containment area and was pumping the water to the basement floor (Photo 23). The floor is sloped and Mr. Ostrowski identified the location of the grit chambers where all wastewater on the floor would flow towards (Photo 24). Due to the hazards of falling cullet, we did not view the grit chambers.

We next went to the processing floor (directly above the basement) where the IS machnies are located (Photos 25-28). We viewed the gob sheer location where sheer oil is used (Photo 25). We observed swab oil (Photo 27) being applied to molds and volatilizing. We noted the drains for cooling water which is collected in the basement (Photo 26). Mr. King identified the drains that would be used for floor cleaning (Photo 28). I observed a black residue on the floor and equipment, and Mr. Ostrowski told me that this was in part due to volatlized swab oil.

We next went to the furnace floor directly above the processing floor. We observed the Furnace 2 and its forehearth with chargers (Photo 29). Mr. Ostrowski identified the location where a hot repair had recently occurred and the drains that would be used during the hot repair (Photo 30).

We next observed the duracote applied onto flint bottles and Mr. Ostrowski informed me that any excess duracote is discharged to the basement to the pretreatment system. We then walked to the mezzanine where concentrated duracote was stored and mixed. I observed secondary containment surrounding this area, which included a small water softener unit, brine tank and mixer (Photo 31). The duracote mixer must be drained once a month through a drain that also flows to the basement. (Photo 32).

Once we finished at the processing building, a rain event had occurred and Inspector Maraldo and I viewed the stormwater drains next to the visitors parking lot (Photos 33-34) and I observed significant ponding and inflow. We also observed stormwater flow through the hot cullet cooling pile (Photo 35) towards the drain.

We then concluded the site visit at 1:01 PM.

VI. CLOSING CONFERENCE

I began a closing conference at 1:15PM. The following are the areas of concern discussed during the closing conference.

1. The national pretreatment standards at 403.5 prohibits discharges that introduce into a POTW any pollutant(s) which cause Pass Through or Interference. Chlorides are used by Ardagh in its water treatment process and discharged through the combined wastestream to the Dunkirk POTW. Dunkirk POTW has exceeded its NPDES Permit final chloride effluent limits.

2. The national pretreatment standards at 403.5 prohibits discharges that introduce into a POTW any pollutant(s) which cause Pass Through or Interference. Oil and grease are used by Ardagh in its industry process and discharged through combined wastestream to the Dunkirk POTW, including the events described in Appendix E. Dunkirk POTW has identified floating oil and grease in its chlorine contact chamber prior to its outfall.

3. Cullet piles outside of cover and outside of concrete walls. Stormwater monitoring and non-numerical effluent limits in Permit IN0061816 Part D.4 list minimizing exposure to precipitation and good housekeeping measures to keep exposed areas orderly. The best management practice (BMP) for the cullet piles and waste cullet piles is to contain cullet piles in cullet bunkers and maintain good housekeeping around area according to Ardagh's Contingency, Emergency, and Spill Prevention Plan (CESPP) Appendix Table H-3 Exposed Significant Materials.

4. According to sampling results submitted through DMRs the following effluent limitations from Permit IN0061816 Part I.A were exceeded:

Date	Outfall	Parameter	Monitoring Type	Permit Limit	Sample Value
10/2021	001	Oil and Grease	Monthly Average	10.0 mg/l	11.45 mg/l
11/2021	002	Temperature	Daily Max	73.0 °F	75.0 °F
06/2022	001	Temperature	Daily Max	93.0 °F	99.5 °F
12/2022	001	Temperature	Daily Max	60.0 °F	63.1 °F
01/2024	001	Temperature	Daily Max	53.0 °F	75.2 °F

5. While sample collection was not occuring at the time of the inspection, no temperature probe was located in the combined wastewater autosampler to verify the sample holding temperature.

6. Prior to November 2023, the oil water separator bypass was used to expedite wastewater treatment prior to discharging to the Dunkirk POTW.

7. Portable pump located at edge of parking lot which discharges stormwater to grassy area is not identified in Stormwater Pollution Prevention Plan (SWPPP).

I concluded the inspection at 1:56 PM and EPA and IDEM Inspectors left the facility.

Documents Received from Ardagh:

Hardcopy received during the Inspection:

- Safety Data Sheet (SDS) for Delo 400 XLE SAE 15W-40 Heavy Duty Motor Oil
- Material Safety Data Sheet (MSDS) for floor cleaner 6905 Manufactured by ChemStation
- SDS for Swab lubricant Kleenmold 170
- MSDS for floor cleaner Product MJ540 Manufactured by Tomco Chemicals
- Heritage-Crystal Clean workorder 00-00PAGM7 for January 4, 2024
- Heritage-Crystal Clean workorder 00-00PBXHG for January 11, 2024
- Heritage-Crystal Clean workorder 00-00PD945 for January 18, 2024
- Heritage-Crystal Clean workorder 00-00PESL2 for January 26, 2024
- Heritage-Crystal Clean workorder 00-00PH75X for February 2, 2024
- Heritage-Crystal Clean workorder 00-00PJH9W for February 8, 2024
- Heritage-Crystal Clean workorder 00-00PJLPJ for February 9, 2024
- Heritage-Crystal Clean workorder 00-00PL2JG for February 16, 2024
- Heritage-Crystal Clean workorder 00-00PMGCS for February 23, 2024
- Workorder 826951609 clean basement trench on February 15, 2024
- Workorder 826951179 clean basement trench tank 2 on February 20, 2024
- Workorder 826870762 iron filtration flush on March 31, 2023
- Workorder 826875650 finish 4th iron ore vessel and chlorine junk pumps on April 19, 2023
- CESPP Appendix Table H-3 Exposed significant materials including potential pollutants

Electronic documents received via email:

- CESPP including SWPPP and Slug Control Plan requirements
- Dated photo of bypass lock installed
- City of Dunkirk Violation of Wastewater Discharge Permit Letter
- Ardagh Dunkirk Violation Letter Request for Additional Time Letter
- Ardagh Dunkirk Violation Response to City Violation Letter
- Ardagh Glass Response to Dunkirk Wastewater Permit Violation Letter
- Dunkirk CY23 Hazardous Waste Biennial Report 2024 - 0223
- Hazardous chemical list 3-18-2024
- Water softener salt purchase amounts for 2022 and 2023
- Duracote Safety Data Sheet
- Ardagh wastewater pretreatment facility manual
- Ardagh monthly monitoring reports for 2021 - 2023
- Ardagh discharge monitoring reports for 2021 - 2023

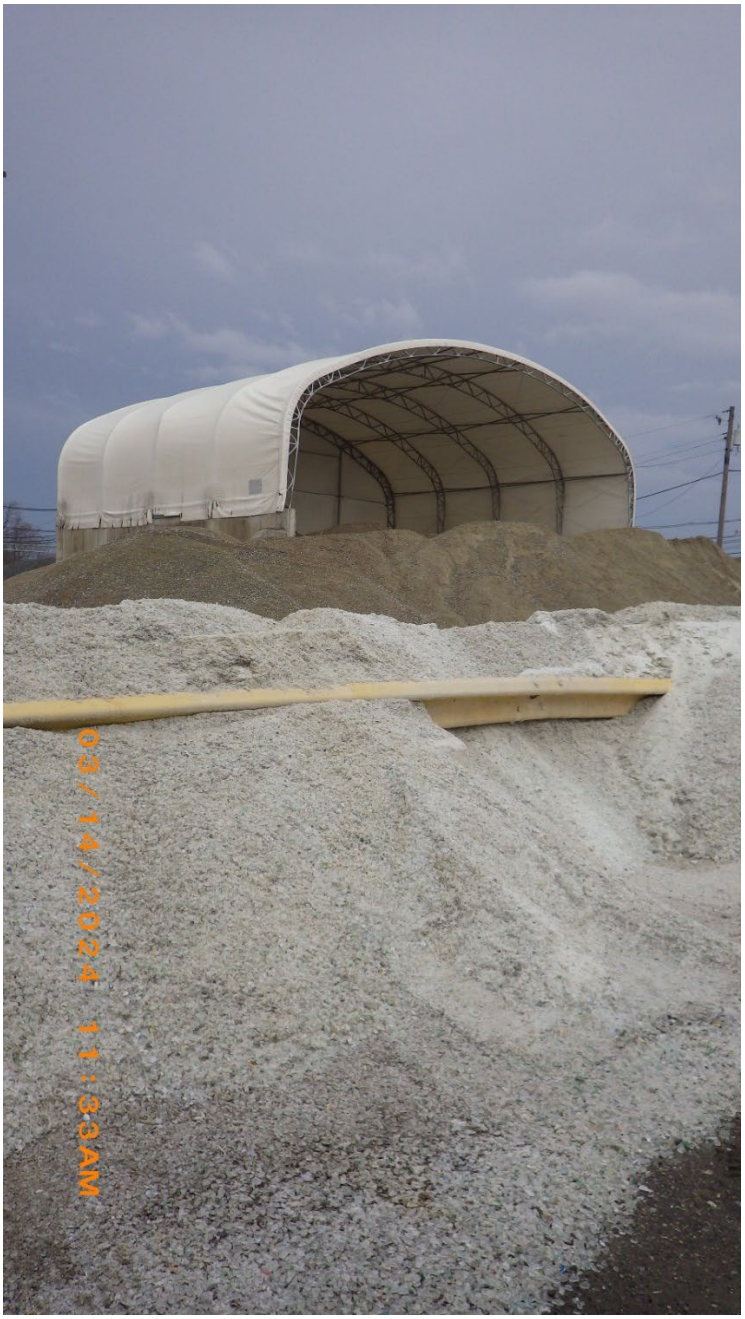
Appendix A: Inspection Photo Log

Ardagh Glass
EPA Inspection 03/14/2024
All photos taken by Val Dooling, Environmental Engineer, U.S. EPA
Camera: RICOH WG-4 GPS
Times listed in Eastern Time Zone

1: ARDA0377
Description: Hot flint cullet cooling pile. Square storm grate in front of the cullet pile is connected to the sanitary sewer and the round manhole at bottom right is connected to the storm sewer.
Location: Cullet cooling piles
Date/Time: 03/14/2024 11:30AM

2: ARDA0378
Description: Round manhole with open access hole next to the hot flint cullet cooling pile from Photo 1. Mr. King stated that the manhole is equipted with sock filters to prevent broken glass from reaching the outfall. The procedure is to periodically pressure backwash the storm sewers starting near the outfall and collect into a vaccuum truck.
Location: Hot cullet cooling piles
Date/Time: 03/14/2024 11:30AM

3: ARDA0379
Description: Yellow barriers demarcate the visitors parking lot located next to flint cullet pile. Cullet has overflowed and covered a concrete block wall which is located behind the yellow barriers. In rear right, the amber covered enclosure is visable and on the right the flint covered enclosure is visable and cullet is seen inside and outside of both enclosures.
Location: Cullet piles
Date/Time: 03/14/2024 11:32AM



4: ARDA0380
Description: View of same enclosure and yellow barrier from the Visitor's parking lot as Photo 3. Flint cullet is in foreground and amber cullet is in rear ground.
Location: Cullet piles
Camera Direction:
Date/Time: 03/14/2024 11:33AM

5: ARDA0381
Description: View of same two enclosures as Photo 3 from different angle. Flint cullet pile is on left and amber cullet is on right. A yellow concrete wall can be seen on the bottom left with the flint cullet on top and outside of the concrete wall.
Location: Cullet piles
Date/Time: 03/14/2024 11:35 AM

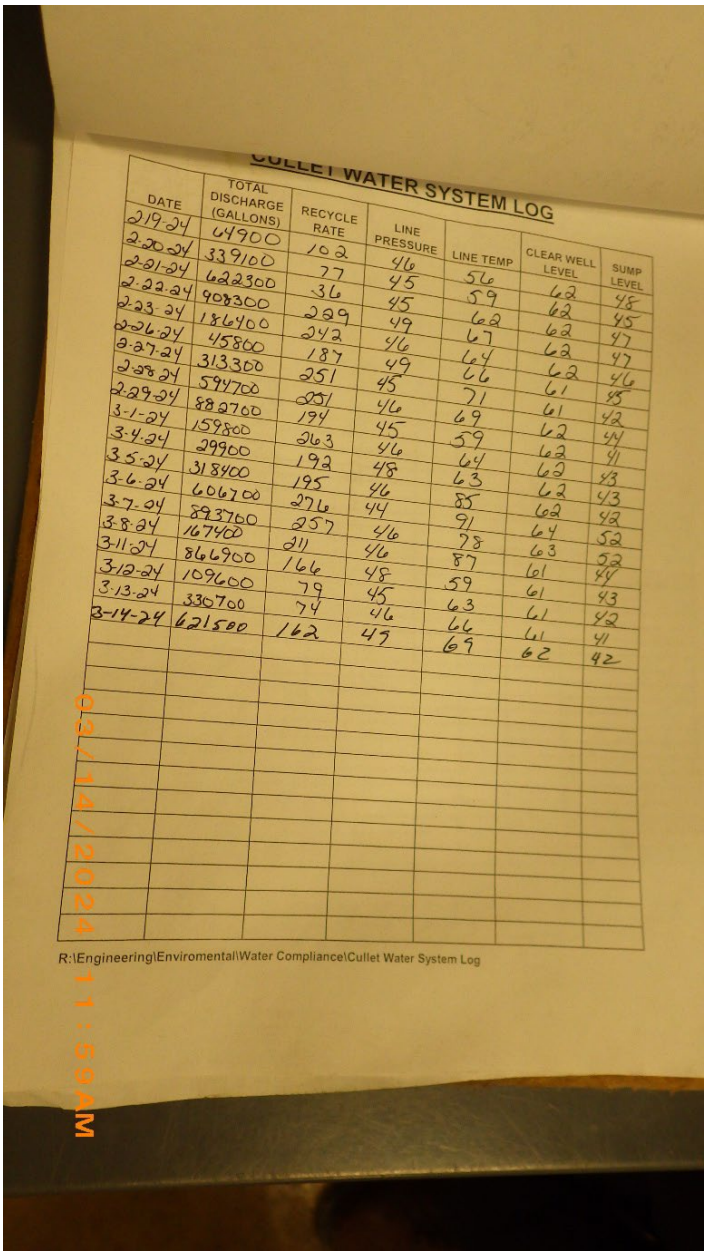
6: ARDA0382
Description: West aeration basin with floating scum visable in corner. Note some black flecks floating in the aeration basin near the scum. Black scum line can be seen builtup on the edge of the aeration basin.
Location: Water barn
Date/Time: 03/14/2024 11:39AM

7: ARDA0383
Description: West aeration basin with black scum line.
Location: Water barn
Date/Time: 03/14/2024 11:41AM

8: ARDA0384
Description: Bleed value open at 60 percent. This can be manually adjusted to keep the levels in the aeration basin and the recirculating water steady. The industrial wastewater discharge occurs through this bleed valve.
Location: Water barn
Date/Time: 03/14/2024 11:47AM

9: ARDA0385
Description: Enzymes and nutrients for hydrocarbon degredation which are added to the wastewater in the aeration basin.
Location: Water barn
Date/Time: 03/14/2024 11:47AM

10: ARDA0386
Description: Enzymes for fats, oils and grease (FOG), hydrocarbon and chemical oxygen demand (COD) degredation that are added to the pretreatment wastewater. Mr. King stated that the amount added is 2 bags of each.
Location: Water barn
Date/Time: 03/14/2024 11:49 AM



11: ARDA0387
Description: Log book next to sample tap downstream of bleed valve. The samples collected are process controls for the pretreated industrial wastewater prior to combining with domestic and cooling water to form combined wastewater.
Location: Water barn
Date/Time: 03/14/2024 11:59 AM

12: ARDA0388
Description: Locked oil water separator bypass valve with a sign that indicates it is locked and to call manager. According to Ms. Fouch the lock and sign were installed November 10, 2023.
Location: Water barn
Date/Time: 03/14/2024 11:59 AM

13: ARDA0389
Description: Two oil water separators in green and two oil thickeners on back left. Crystal clean will periodically collect the thickener waste. Mr. King stated that maintenance is to spray the augers on the oil water separators daily.
Location: Water barn
Date/Time: 03/14/2024 12:02 PM

14: ARDA0390
Description: View of the top of oil water separators and oil thickeners in rear.
Location: Water barn
Date/Time: 03/14/2024 12:02 PM

15: ARDA0391
Description: View into open vault of the combined wastestream and Parshall flume used for flow monitoring. An autosampler collects regulatory samples at this point.
Location: Sample hut
Date/Time: 03/14/2024 12:07 PM

16: ARDA0392
Description: View into autosampler which was not collecting a sample at the time of inspection. Note, thermometer is not present and tubing is not aligned with the sample collection jug.
Location: Sample hut
Date/Time: 03/14/2024 12:10 PM

17: ARDA0393
Description: Portable pump set up near edge of paved parking lot to remove pooled stormwater and relocate to the grass yard.
Location: Parking lot
Date/Time: 03/14/2024 12:15 PM

18: ARDA0394
Description: Water softener brine tank located outside and underroof.
Location: Water treatment building
Date/Time: 03/14/2024 12:19 PM

19: ARDA0395
Description: Iron removal sand filter located in water treatment building. Mr. King described the process of fluffing the sand media in the tank at the center. At the time of inspection, a panel was placed on top of the piping (top right) which would relocate a drip to the floor and not onto the pipe. At the time of the inspection, I observed orange water on the floor (bottom left).
Location: Water treatment building
Date/Time: 03/14/2024 12:22 PM

20: ARDA0396
Description: Drain in water treatment room which discharges to the sanitary sewer. Nalco controls determines ratio of city water and well water that the water tower receieves for use in industrial processes.
Location: Water treatment building
Date/Time: 03/14/2024 12:23 PM

21: ARDA0397
Description: Cullet cooling water discharging in the basement and, while not pictured, hot cullet will also fall into the dumpsters. Wastewater flows through the holes in the dumpsters to the basement floor and is directed to the grit chamber for entry in the pretreatment system. Forklifts systematically discard cullet in dumpsters to the hot cullet pile for cooling. I observed sand and broken glass also on the basement floor.
Location: Basement in hot end of processing building
Camera Direction:
Date/Time: 03/14/2024 12:28 PM

22: ARDA0398
Description: View inside the secondary containment wall into the flooded glass containment area. A hose was located in the flooded contaimnent area and discharging water onto the basement floor.
Location: Basement in hot end of processing building
Date/Time: 03/14/2024 12:30 PM

23: ARDA0399
Description: View of hose from Photo22 discharging water from glass containment area onto the basement floor.
Location: Basement in hot end of processing building
Date/Time: 03/14/2024 12:31 PM

24: ARDA0400
Description: Basement floor with wastewater, sand, and glass. Mr King indicated that the grit chamber is located under the metal plates in the center of the photgraph. Due to the hazards of falling cullet, inspectors did not view the grit chamber up close.
Location: Basement in hot end of processing building
Date/Time: 03/14/2024 12:32 PM

25: ARDA0401
Description: View looking up at sheet as orange gobs are cut and fall onto the IS machine (below and outside of photo). I observed sheer water, which contains sheer oil, falling along with the gobs.
Location: Ground floor in hot end of processing building
Date/Time: 03/14/2024 12:38 PM

26: ARDA0402
Description: Funnel and chute which collects and transfers process cullet water to basement. The funnels are connected to the pipe discharging wastewater from Photo 21.
Location: Ground floor in hot end of processing building
Date/Time: 03/14/2024 12:38 PM

27: ARDA0403
Description: Swab oil and swabs used to lubricate molds.
Location: Ground floor in hot end of processing building
Date/Time: 03/14/2024 12:39 PM

28: ARDA0404
Description: Floor drains on main floor under IS machines. Mr. King explained that when the floors are washed the water discharges to the basement through these floor drains.
Location: Ground floor in hot end of processing building
Date/Time: 03/14/2024 12:40 PM

29: ARDA0405
Description: Side of charger with visable molten glass in charger. The short end of the rectangler charger is visable where ingredients are added to the furnace. Electrodes along the long end of the charger keep the molten glass at an even temperature.
Location: Furnance level of hot end of processing building
Date/Time: 03/14/2024 12:45 PM

30: ARDA0406
Description: Drain under long end of the same charger as Photo 29. Cooling water used to cool the charger during hot rebuild is discharged through this drain to the basement.
Location: Furnance level of hot end of processing building
Date/Time: 03/14/2024 12:47 PM

31: ARDA0407
Description: Duracote (also called poly-coat) water softener and reverse osmosis system and excess chemical stored in diked area on mezzanine level. Mr. Ostrowski explained that duracote allows the label to propserly adhere to the bottles.
Location: Duracote mixing area
Date/Time: 03/14/2024 12:56 PM

32: ARDA0408
Description: Drain located on the side of the Duracote mixer which is loctaed outside the picture. Monthly the mixer is drained and is discharged to the basement and the pretreatment system.
Location: Duracote mixing area
Date/Time: 03/14/2024 12:58 PM

33: ARDA0409
Description: Drain in visitors parking lot. The stormwater flows from the surrounding parking areas and pools into this part of the parking lot. I observed a deep pool of stormwater and rapidly swirling water as the storwmwater was entering this drain. The flint culllet is in rear. Same visitor's parking area as in Photo 3.
Location: Visitor's parking area
Date/Time: 03/14/2024 1:08 PM

34: ARDA0410
Description: A second drain in the visitors parking lot. This is a different drain than the one in Photo 33. This is the same area though and the same area as photo 3.
Location: Visitor's parking area
Date/Time: 03/14/2024 1:08 PM

35: ARDA0411
Description: Hot cullet cooling pile. This square drain discharges to the pretreatment system and the round manholes discharge to the stormwater drain as documented in Photos 1-2.
Location: Hot flint cullet pile
Date/Time: 03/14/2024 1:09 PM

Appendix B: Aerial image of Ardagh Glass Inc. Dunkirk Facility

Note: Aerial images obtained from Ardagh's CESPP Figure 2 and attributed to Google Earth. Images do not represent conditions observed and are only to be used as reference.

Appendix C: IDEM Pretreatment Permit No INP000201 Part I

STATE OF INDIANA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AUTHORIZATION TO DISCHARGE UNDER THE
INDUSTRIAL WASTEWATER PRETREATMENT PROGRAM

INDUSTRIAL WASTEWATER PRETREATMENT (IWP) PERMIT

In accordance with 327 IAC 5-21 and IDEM's permitting authority under IC 13-15, **Ardagh Glass Inc.** (hereinafter referred to as the permittee) is authorized to discharge, from the facility located at 524 East Center Street, Dunkirk, Indiana, into the **City of Dunkirk Publicly Owned Treatment Works** (POTW), in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Parts I and II hereof.

EFFECTIVE DATE: September 1, 2021

EXPIRATION DATE: August 31, 2026

NOTE: In order to receive authorization to discharge beyond the date of expiration, the permittee must submit a renewal IWP permit application to the Industrial NPDES Permit Section in the Office of Water Quality, no later than one hundred and eighty (180) days prior to the date this permit expires. Failure to do so will result in expiration of the authorization to discharge.

Issued on _August 11, 2021_ for the Indiana Department of Environmental Management.

Jerry Dittmer, Chief
Permits Branch
Office of Water Quality

PART I

(A) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

(1) During the period beginning on the effective date of this permit, the permittee is authorized to discharge from Outfall 001[1][2]. Outfall 001 is located at the monitoring manhole prior to discharge to the City of Dunkirk. Such discharge shall be limited and monitored by the permittee as specified below:

Table 1

	Discharge Limitations			Monitoring Requirements	
Parameter [3]	Daily Maximum	Monthly Average	Units	Measurement Frequency [5]	Sample Type [4]
Flow [6]	Report	Report	MGD	Daily	24-Hr. Total
Oil & Grease	100 [8]	Report	mg/l	1 X Monthly	Grab
TSS	Report [8]	Report	mg/l	1 X Monthly	24-Hr. Composite
BOD	Report [8]	Report	mg/l	1 X Monthly	24-Hr. Composite
Chloride	Report	Report	mg/l	1 X Monthly	24-Hr. Composite
Copper	Report	Report	mg/l	2 X Yearly	24-Hr. Composite
Ammonia (as N)	Report	Report	mg/l	2 X Yearly	24-Hr. Composite
Phosphate	Report	Report	mg/l	2 X Yearly	24-Hr. Composite
Molybdenum	Report	Report	mg/l	2 X Yearly	24-Hr. Composite

Table 2

	Quality or Concentration			Monitoring Requirements	
Parameter	Daily Minimum	Daily Maximum	Units	Measurement Frequency	Sample Type
pH [7]	5.5 [8]	9.5 [8]	s.u.	1 X Weekly	Grab

[1] Outfall 001 shall be designated as the combined wastestreams at the point of discharge to the POTW.

[2] The discharge shall not exceed the local limits in the Sewer Use Ordinance upon entering the POTW.

[3] All metals shall be analyzed as Total Recoverable Metals.

[4] A "24-hour composite sample" means a sample consisting of at least 3 individual flow-proportional samples of wastewater, consisting of aliquots withdrawn throughout the 24-hour discharge period. The aliquots may be: (i) uniform aliquots withdrawn at uniform flow intervals; (ii) flow-proportional aliquots withdrawn at uniform time intervals; or (iii) for batch discharge, uniform aliquots withdrawn from uniform batch volumes. A flow-proportioned composite sample may be obtained by:

(1) recording the discharge flow rate at the time each individual sample is taken,
(2) adding together the discharge flow rates recorded from each individuals sampling time to formulate the "total flow" value,
(3) the discharge flow rate of each individual sampling time is divided by the total flow value to determine its percentage of the total flow value,
(4) then multiply the volume of the total composite sample by each individual sample's percentage to determine the volume of that individual sample which will be included in the total composite sample.

Alternatively, a 24-hour composite sample may be obtained by an automatic sampler on an equal time interval basis over a twenty-four hour period provided that a minimum of 24 samples are taken and combined prior to analysis. The samples do not need to be flow-proportioned if the permittee collects samples in this manner.

[5] Parameters that are to be monitored twice per year shall be reported during the months of June and December. If, however, two other months are more appropriate, the permittee may request to report in two alternate months, or the State may require the permittee to report during two alternate months.

[6] The flow must be measured and recorded using valid flow measurement devices, not estimated. The flow monitoring device must be calibrated at least once every twelve (12) months.

[7] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.

[8] Based on local ordinance [City of Dunkirk Ordinance, No. 2012-2 (adopted 2/27/2012)]. Note: TSS and BOD in excess of 200 mg/l may be subject to local surcharge.

(2) ADDITIONAL DISCHARGE PROHIBITIONS

The permittee shall not allow the introduction of the following into the POTW from any location, including Outfall 001:

(a) A pollutant from any source of nondomestic wastewaters that could pass through or cause interference with the operation or performance of the POTW.

(b) A pollutant that could create a fire or explosion hazard in the POTW, including waste streams with a closed cup flashpoint of less than 140° F degrees Fahrenheit (60° C) using the test methods in 40 CFR 261.21.

(c) A pollutant that could cause corrosive structural damage to the POTW, including a discharge with pH lower than five (5.0), unless the POTW is specifically designed to accommodate such a discharge.

(d) A solid or viscous pollutant in an amount that could cause obstruction to the flow in a sewer or other interference with the operation of the POTW.

(e) A pollutant, including an oxygen demanding pollutant (such as biochemical oxygen demand) released in a discharge at a flow rate or pollutant concentration that could cause interference in the POTW.

(f) Heat in an amount that could:

(1) inhibit biological activity in the POTW and result in interference or damage to the POTW; or

(2) exceed 40° C or 104° F at the POTW treatment plant unless the commissioner, upon request of the POTW, approves alternate temperature limits.

(g) Petroleum, oil, non-biodegradable cutting oil, or products of mineral oil origin in an amount that could cause interference or pass through.

(h) A pollutant that could result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.

(i) A trucked or hauled pollutant, except:

(1) with the permission of the POTW; and

(2) when introduced to the POTW at a discharge point designated by the POTW.

(3) AFFIRMATIVE DEFENSE

The permittee shall have an affirmative defense in any action brought against the permittee alleging a violation of the prohibitions established in Part I.A.2 of this permit if the permittee can demonstrate that:

(a) it did not know or have reason to know that its discharge, alone or in conjunction with a discharge from another source, would cause pass through or interference; and

(b) a local limit designed to prevent pass through or interference in accordance with Part I.A.2 of this permit:

(1) was developed for each pollutant in the permittee's discharge that caused pass through or interference, and the permittee was in compliance with each such local limit directly prior to and during the pass-through or interference; or

(2) was not developed for the pollutant that caused the pass through or interference, and the permittee's discharge, directly prior to and during the pass through or interference, had not changed substantially in nature or constituents from its usual discharge condition when the POTW was regularly in compliance with the applicable:

(A) NPDES permit requirements; and

(B) requirements for sewage sludge use or disposal, in the case of interference.

(B) DEFINITIONS

(1) Daily Discharge

The total mass of a pollutant discharged during the calendar day or, in the case of a pollutant limited in terms other than mass pursuant to 327 IAC 5-2-11(e), the average concentration or other measurement of the pollutant specified over the calendar day or any twenty-four (24) hour period that reasonably represents the calendar day for the purposes of sampling.

(2) Daily Maximum (Discharge) Limitation

The maximum allowable daily discharge for any calendar day.

(3) Monthly Average Discharge (Average Monthly Discharge)

The total mass or flow-weighted concentration of all daily discharges sampled or measured during a calendar month on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such month.

(4) Monthly Average (Discharge) Limitation

The highest allowable average monthly discharge for any calendar month.

(5) Interference

(a) "Interference" means a discharge that, alone or in conjunction with a discharge or discharges from other sources inhibits or disrupts the:

(1) treatment processes or operations;

(2) sludge processes; or

(3) selected sludge:

(A) use; or

(B) disposal methods;

of a POTW.

(b) The inhibition or disruption under subsection (a) must:

(1) cause a violation of a requirement of the POTW's NPDES permit, including an increase in the magnitude or duration of a violation; or

(2) prevent the use of the POTW's sewage sludge or its sludge disposal method selected in compliance with the following statutory provisions, regulations, or permits issued thereunder or more stringent state or local regulations:
(A) Section 405 of the Clean Water Act (33 U.S.C. 1345).

(B) The Solid Waste Disposal Act (SWDA) (42 U.S.C. 6901), including:

(i) Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA); and

(ii) the rules contained in a state sludge management plan prepared pursuant to Subtitle D of the SWDA (42 U.S.C. 6941).

(C) The Clean Air Act (42 U.S.C. 7401).

(D) The Toxic Substances Control Act (15 U.S.C. 2601).

(6) Pass-through

"Pass through" means a discharge proceeding through a POTW into waters of the state in quantities or concentrations that, alone or in conjunction with a discharge or discharges from other sources, are a cause of a violation of any requirement of the POTW's NPDES permit, including an increase in the magnitude or duration of a violation.

(7) Pretreatment requirements

"Pretreatment requirements" means any substantive or procedural requirement related to pretreatment, other than a pretreatment standard, imposed on an industrial user.

(8) Pretreatment standards

"Pretreatment standards" means:

(a) state pretreatment standards as established in 327 IAC 5-18-8;

(b) pretreatment standards for prohibited discharges, as established in 327 IAC 5-18-2; and

(c) national categorical pretreatment standards incorporated by reference in 327 IAC 5-2-1.5.

(9) Publicly Owned Treatment Works ("POTW")

A treatment works as defined by Section 212(2) of the Clean Water Act owned by the State or a municipality (as defined by Section 502(4) of the Clean Water Act), except that it does not include pipes, sewers or other conveyances not connected to a facility providing treatment. The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or compatible industrial wastes. The term also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant. "POTW" also means the municipality , as defined in Section 502(4) of the Clean Water Act, that has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

(C) MONITORING AND REPORTING

(1) Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the entire permitted discharge.

(2) Reporting

The permittee shall submit monitoring reports to the Indiana Department of Environmental Management and the City of Dunkirk containing results obtained during the previous month and shall be submitted no later than the 28th day of the month following each completed monitoring period. The first report shall be submitted by the 28th day of the month following the month in which this permit becomes effective. These reports shall include, but not necessarily be limited to, the Discharge Monitoring Report (DMR) and the Monthly Monitoring Report (MMR). All reports shall be submitted electronically by using the NetDMR application, upon registration, receipt of the NetDMR Subscriber Agreement, and IDEM approval of the proposed NetDMR Signatory. Access the NetDMR website (for initial registration and DMR/MMR submittal) via CDX at: https://cdx.epa.gov/.

If the City of Dunkirk is agreeable to receiving an electronic version of the monthly reports, copies can be sent to the City of Dunkirk via NetDMR. An acceptable email address for the City of Dunkirk must be provided to IDEM's Compliance Data Section. Any non-NetDMR reports sent to the City of Dunkirk shall be sent to the following:

Certified Operator
City of Dunkirk
131 South Main Street
Dunkirk, Indiana 47336

The permittee shall also comply with the applicable reporting requirements of 40 CFR 403.12.

(3) Monitoring Results

Requirements for test procedures shall be as follows:

(a) Test procedures identified in 40 CFR 136 shall be utilized for pollutants or parameters listed in that part, unless an alternative test procedure has been approved under 40 CFR 136.5.

(b) Where no test procedure under 40 CFR 136 has been approved, analytical work shall be conducted in accordance with the most recently approved edition of "Standard Methods for the Examination of Water and Wastewater", published by the American Public Health Association (APHA) or as otherwise specified by the commissioner in the IWP permit.

(c) Notwithstanding subdivision (a), the commissioner may specify in a permit the test procedure specified in a standard or effluent limitation guideline.

(4) Recording of the Monitoring Results

For each measurement or sample taken pursuant to the requirements of this permit, including the additional monitoring described under Part I(C)(5), below, the permittee shall maintain records of all monitoring information and monitoring activities, including:

(a) The date, exact place and time of sampling or measurement;

(b) The person(s) who performed the sampling or measurements;

(c) The date(s) analyses were performed;

(d) The person(s) who performed the analyses;

(e) The analytical techniques or methods used; and

(f) The results of such measurements and analyses.

(5) Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monthly Monitoring Report and the Discharge Monitoring Report. Such increased frequency shall also be indicated.

(6) Records Retention

(a) All records of monitoring activities and results required by this permit (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records) shall be retained at the permitted facility for a minimum of three (3) years. The three-year period shall be extended:

(1) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or

(2) as requested by the commissioner.

(b) The permittee shall maintain and make available to IDEM, the regional administrator, and the City of Dunkirk personnel, records of disposal of all wastewater generated at the site. Such records shall include, but not be limited to, flow monitoring records, flow calibration records, and the volume and destination of all wastewater hauled off-site.

(7) Additional Reporting Requirements

(a) In accordance with 327 IAC 5-16-5(g), all categorical and noncategorical industrial users shall notify the POTW immediately of all discharges that could cause problems to the POTW, including any slug loadings as defined by 40 CFR 403.5(b).

(b) In accordance with 327 IAC 5-16-5(h)(2), if sampling performed by an industrial user indicates a violation, the industrial user shall notify the control authority within twenty-four (24) hours of becoming aware of the violation. The industrial user shall also repeat the sampling and analysis and submit the results of the repeat analysis to the control authority within thirty (30) days after becoming aware of the violation.

Where the control authority has performed the sampling and analysis in lieu of the industrial user, the control authority shall perform the repeat sampling and analysis unless it notifies the industrial user of the violation and requires the industrial user to perform the repeat analysis. Resampling is not required if the control authority performs sampling at the industrial user:

(1) at a frequency of at least once per month; or

(2) between the time when the initial sampling was conducted and the time when the industrial user or the control authority receives the results of this sampling.

(D) REOPENING CLAUSE

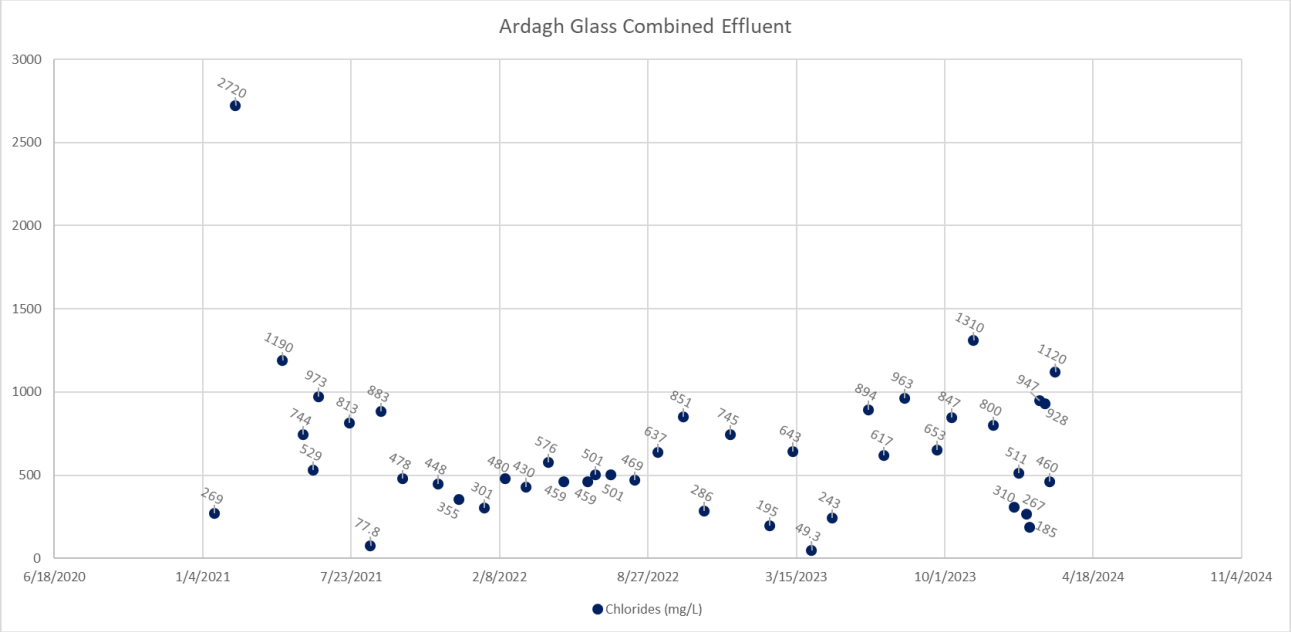
This permit shall be modified, or, alternatively, revoked and reissued, to comply with any applicable effluent limitation or standard issued or approved under Section 307(b) of the Clean Water Act, if the effluent limitation or standard so issued or approved:

(1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

(2) controls any pollutant not limited in the permit.

The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the Act then applicable.

Appendix D: Concentration of chlorides (mg/l) in Ardagh Glass' combined wastestream effluent



Graph of Chlorides (mg/l) concentration values at combined Wastewater Discharge Point obtained from Monthly Monitoring Reports for from required by IDEM Industrial Discharge Permit ILP000201

Appendix E: City of Dunkirk Violation of Wastewater Discharge Permit Letter

HINKLE, RACSTER & SCHEMENAUR
PROFESSIONAL CORPORATION
121 W. HIGH STREET
PORTLAND, INDIANA 47371
TELEPHONE (260) 726-8104
FACSIMILE (260) 726-9113
*Licensed in Indiana & Ohio

LON R. RACSTER
lrr@hrslegal.com
WILLIAM W. HINKLE
bill@hrslegal.com
WESLEY A. SCHEMENAUR*
wes@hrslegal.com

WAYNE W. HINKLE
(1906-2000)

August 29, 2023

Teresa Fouch
ARDAGH GROUP
524 E Center St.
Dunkirk, IN 47336

RE: VIOLATION OF WASTEWATER DISCHARGE PERMIT

SENT VIA CERTIFIED MAIL AND ELECTRONIC MAIL

Dear Ms. Blankenship:

I am the attorney for the City of Dunkirk, Indiana. I write to you ahead of a planned meeting between the City and Ardagh on August 31st regarding a violation by Ardagh Group of its wastewater discharge permit with the City of Dunkirk. A recent IDEM inspection of the City's wastewater treatment facility revealed a number violations of the City's NPDES Permit. An investigation by the City has indicated that Ardagh Group has violated the City's sewer use ordinance in violation of its wastewater discharge permit. The City has determined that Ardagh is in Significant Noncompliance as defined by section 51.222 of the Sewer Use Ordinance.

A summary of the ordinance violations identified by IDEM as it relates to Ardagh's discharge permit are as follows:

§51.019(B) Prohibited Discharge Standards: The City's most recent inspection by IDEM revealed a presence of substances in violation of this section of the Sewer Ordinance at its POTW. Specifically, significant levels of oil and grease, phosphorus, and chlorides have been detected and are causing a pass-through event. In addition, solid or viscous substances in amounts which will cause obstruction of the flow in a sewer constitutes a violation of the Sewer Ordinance. The City's High Street sewer must be cleaned out periodically due to the presence of these substances that obstruct the flow to the PTOW. A preliminary investigation by the City has revealed that these substances originated at Ardagh Group.

§51.015(A)(2) Sewer Connections: The City's most recent IDEM inspection has revealed that its PTOW has reached 90% of its capacity and that Ardagh Group's discharge into the sewer system accounts for over 50% of the plant's capacity. A preliminary

investigation by the City has revealed that Ardagh may be in violation of its discharge permit by failing to disconnect an outside catch basin in the cullet yard from its sanitary sewer. In addition, Ardagh's permit states that its sanitary sewer discharge is approximately 348,000 gallons per day. This is inaccurate compared to monitoring reports that show an average of 400,000 gallons to 450,000 gallons per day is being discharged.

51.085 (A-D) Reports of Potential Problems: In the case of any discharge, including, but not limited to, accidental discharges, discharges of a nonroutine, episodic nature, a noncustomary batch discharge, or a slug load, that may cause potential problems for the POTW, the user shall immediately telephone and notify the Superintendent of the incident. This would include shutdowns, repairs, cleaning, and maintenance of machinery and equipment that is different from normal process water. Backwash water from softening systems is included as a slug load with potential to cause a pass-through event. Ardagh has failed to abide by this requirement causing several parameter violations at the POTW.

51.037(A-D) Accidental Discharge/Slug Control Plans: Ardagh's softening system needs a slug control plan to address, at a minimum, the following: Description of discharge practices, including nonroutine batch discharges, description of stored chemicals and procedures for immediately notifying the POTW of any accidental or slug discharge, as required by 51.085.

A copy of IDEM's inspection summary dated June 21, 2023 detailing these violations is enclosed herewith and incorporated by reference.

The above-described violations are not all encompassing of the potential issues concerning Ardagh's wastewater discharge permit. However, this is an attempt to reach a resolution of these matters to the satisfaction of the City and IDEM. The City has a number of remedies available to it under its sewer use ordinance. Violations of Ardagh's wastewater discharge permit could subject it to sanctions including but not limited to administrative fines and disconnection from the sewer system.

Section 51.050 requires a user to submit information on the nature and characteristics of its wastewater within ten days of request. Consider this correspondence such a request and please contact the Superintendent in order to further discuss Ardagh's violation of its permit. In addition, section 51.222 requires a response from Ardagh to the charges set out herein. The City will evaluate its response and if compliance is not achieved, formal enforcement action will be initiated.

If you have additional questions, please feel free to contact me or the City of Dunkirk.

Very truly yours,

HINKLE, RACSTER & SCHEMENAUR

Wesley A. Schemenaur
Attorneys for City of Dunkirk

WAS:
Enclosure
CC: City of Dunkirk

Appendix F: Ardagh Glass Response to Dunkirk Wastewater Permit Violation Letter

ArdaghGroup

www.ardaghgroup.com

Ardagh Glass Inc.
524 E. Center Street
Dunkirk, IN 47336
T: 765-768-7891
F: 765-768-1273

Via Certified Mail: No. 7019 1640 0000 8690 6162
Return Receipt Requested

October 6, 2023

Mr. Wesley Schemenaur
Attorney for City of Dunkirk
Hinkle, Racster & Schemenaur
121 W. High Street
Portland, IN 47371

RE: Ardagh Glass Inc. - Dunkirk, IN Facility
Response to August 29, 2023 Notice

Dear Mr. Schemenaur:

We appreciate the additional time provided to respond to your August 29, 2023 letter and the issues the City raised about our wastewater discharge. As we indicated to Mayor Robbins during the City's visit to the Dunkirk plant on August 31, 2023, Ardagh is committed to being compliance with all City Sewer Use Ordinances and our wastewater discharge permit. Further, it is our desire to work with the City to help the Dunkirk Wastewater Treatment Plant (WWTP) meets its discharge requirements.

With regard to the issues raise under Prohibited Discharge Standards, there are three (3) separate parameters which we address separately.

Oil & Grease

Ardagh's wastewater treatment system is designed to remove Oil & Grease (O&G). There has been no exceedance of Ardagh's 100 mg/l O&G permit limit have occurred. We recognize that visual inspections of downstream structures indicate that some O&G does pass through our treatment system. To further improve the operations of the system and further minimize O&G discharges, Ardagh has done the following:

- Increased cleaning of drain trenches in the basement,
- Daily rinse down of the oil/water separator baffles,
- Regular vacuuming of oil & floating scum off aeration basin,
- Ensuring enzymes are properly applied.

Additionally, Ardagh has committed to provide the Dunkirk WTTP staff with documentation of all waste oil and oily water removed from our wastewater treatment system (i.e., Crystal Clean shipments).

Phosphorus

Phosphorus is not present in Ardagh's glass making process in any significant quantity and, do discharge sample results show that it is not a major component of the Dunkirk's plant wastewater makeup. In fact, we believe phosphorus in the plant effluent is likely lower than rest of the community's wastewater discharge. That being said, Ardagh is committed to identifying and reducing ancillary uses of phosphates

at the facility.

Chlorides
As has been discussed with both the City wastewater personnel and IDEM staff, chlorides in our wastewater discharge are primarily from the well water softening system. Use of well water at the plant is an essential part of the operations. To be usable, the well water must be filtered for iron and softened. The plant does not have a chlorides limit on it discharge Ardagh is committed to studying the problem, including gathering more frequent chloride samples, looking at alternative disposal options for the briny regeneration wastewater from the softening system, alternative softening technologies, and potential chloride removal technologies.

On the issue of sewer connections and wastewater discharge volumes, Ardagh understands the significance of the Dunkirk's plants sewer discharge, both in terms of volume and makeup, to the Dunkirk WTTP. The facility has made significant progress since 2021 in reducing its discharge volume. Specifically, between June 2023 and June 2021, Dunkirk staff have reduced wastewater discharges by 23% (see attachment). Since then, the plant has established a ISO140001 target to further reduce its discharge volume to an average of 348,000 gpd. The principal water reduction project currently underway is the installation of four thermal tank chillers use to chill water used to test glass containers as part of our quality control program. One unit has been placed into service while the three remaining chiller units have been delayed due to wiring issues. We anticipate these units to be in service by the end of October.

With regard to the outside catch basin in the cullet yard being a potential noncompliance, as mentioned in the Hinkle, Racster & Schemenaur letter dated August 29, 2023, , it is our understanding that, since IDEM's September 25, 2023 visit to the Dunkirk plant, this stormwater drain should remain routed to the basement and be treated by Ardagh's wastewater treatment system. IDEM's Facility Inspection Report dated September 27, 2023 stated "*IDEM inspectors believe that this particular drain should remain connected to the process wastewater collection system due to the large amount of fine particulates that are located in the yard. Replumbing this drain to the stormwater collection system would possibly cause unintended and damaging impacts to the receiving stream.*" As a result, we consider the issue of the potential violation associated with the cullet yard drain to be closed. Ardagh will investigate other potential sources of stormwater infiltration as part of the process to reduce our wastewater discharge.

After further discussions with City personnel, Ardagh better understands the expectations on the notification of discharges that may cause potential problems to the WWTP. Towards this end, Ardagh has exchanged contact information with key personnel in both organizations, identified key personnel responsible for making telephone calls to notify the WWTP of upset conditions and posted signage in the wastewater treatment building. Additionally, Ardagh has locked a diverter valve that allows excess water from the basement to go directly to the aeration basin (see attached photo). The valve can only be unlocked by a supervisor and upon notification to the City.

Ardagh does take exceptions to some of the list of items such as shutdowns, repairs, cleaning and machine maintenance, as certain of these actives do not increase wastewater discharge or have the potential to cause problems for the WWTP. We do recognize, being the WWTP's largest user, the

necessity to provide as much notice as possible to the City of any activity that significantly increases discharge volume or wastewater quality.

Ardagh is working on the Slug Control plan requested by the City and asks for additional time to develop, review and approve a plan that not only addresses potential discharges from the water softening system, but includes potential accidental discharges from any operation at the Ardagh facility. When complete, the plan will meet the requirements as required by 51.085. We anticipate submitting the plan by November 30, 2023.

Please contact Teresa Fouch, EHS Manager at (765) 768-5234 and Teresa.fouch@ardaghgroup.com or Ray Ostrowski, Corporate Environmental Engineer at (224) 382-8728 & raymond.ostrowski@ardaghgroup.com with any questions regarding this response or any other wastewater issues you may have.

Sincerely,

Aaron Wine
Plant Manager

cc: R. Tomicek
T. Fouch
R. Ostrowski
T. Sibbitt

Enclosures