

April 27, 2020

ATTN: Shaun Banner

Cardinal FG

515 Cardinal Parkway

Durant, OK 74701

Re: Renewal Industrial Wastewater Discharge Permit, Permit number Durant-05-05-04-03

Dear Mr. Banner,

Please find enclosed a copy of the renewal permit for Cardinal FG for the period of July 1, 2020 through June 30, 2025.

An application to renewal of this permit was received 4/2/2020.

If you have any questions or would like to discuss any aspect of this permit, please call the Pretreatment Department at (580) 924-3416

Sincerely,

George McAusland

City of Durant

Pretreatment Coordinator

Cc: James Dalton, Assistant City Manager

INDUSTRIAL WASTEWATER DISCHARGE PERMIT

Permit No. Durant-05-05-04-03

Facility Name: **Cardinal FG**
Location Address: **515 Cardinal Parkway, Durant, OK 74701**
Mailing Address: **515 Cardinal Parkway, Durant, OK 74701**
Telephone: **(580) 924-2412**

Cardinal FG is hereby authorized to discharge industrial wastewater from the above identified facility and through the outfalls identified herein into the City of Durant sewer system in accordance with the conditions set for in this permit. Compliance with this permit does not relieve the permittee of its obligations to comply with any or all applicable pretreatment regulations, standards, requirements, or laws that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit constitutes a violation of the City of Durant Industrial Pretreatment Waste Ordinance Number 1590.

This permit shall become effective on **July 1, 2020**, and shall expire at midnight on **June 30, 2025**.

If the permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for a renewal permit in a minimum of 90 days prior to the expiration date.

By: _____

George McAusland, Pretreatment Coordinator

By: _____

James Dalton, Assistant City Manager

In effect on the 1st day of July 2020.

Part 1 – EFFLUENT LIMITATIONS

- A. During the period of July 1, 2020, through June 30, 2025, the permittee is authorized to discharge process and sanitary wastewater to the City of Durant sewer system from the outfalls listed below.

<u>Outfall</u>	<u>Description</u>
05	Outfall 05 shall be the 4 foot sanitary sewer line that connects to the City’s sewer system 250 feet east of the northeast corner of the warehouse.

- B. During the period of July 1, 2020, through June 30, 2025 the discharge from outfall 05 shall, at all times, be in compliance with the City of Durant local discharge limitations set forth in this permit.

DISCHARGE LIMITATIONS

	CONCENTRATION/OTHER UNITS (mg/l unless specified otherwise)
Parameters	INSTANTANEOUS MAXIMUM ALLOWABLE DISCHARGE LIMITS
Cadmium	0.008
Chromium	0.47
Copper	0.39
Lead	0.108
Nickel	0.31
Zinc	0.6
Silver	0.18
Mercury	0.00032
Arsenic	0.028
Selenium	0.0105
Antimony	5.97
Cyanide	1.31
Molybdenum	0.408
Oil and Grease	200
Temperature	110 degrees F
pH	Between 6.0 s.u. and 10.0 s.u.

NOTE : See fact sheet for explanation of limits. Limits have not been set for BOD and TSS. Cardinal is still subject to surcharges listed in Ordinance 1590 for BOD and TSS. These are stricter requirements than those of our Ordinance 1590 would allow, but Cardinal is having no trouble meeting those requirements at this time , so they will not be adjusted within the permit.

Part 2 – MONITORING REQUIREMENTS

- A. It will be the sole responsibility of Cardinal FG to maintain the sampling port.
- B. If, based upon information available there is reason to suspect the presence of any toxic or hazardous pollutant listed in Table II, III, or V, or any other pollutant, known or suspected to adversely affect the City of Durant Wastewater Treatment Plant, monitoring for those pollutants shall be added.
- C. From the period beginning on the effective date of the permit until June 30, 2025, the permittee shall monitor Outfall 05 for the following parameters, at the indicated frequency:

MONITORING REQUIREMENTS

Parameter	Monitoring Frequency	Type
BOD5	Monthly	24-hr Composite
Oil and Grease	Monthly	Grab
TSS	Monthly	24-hr Composite
pH	Monthly	Grab
Cadmium	Monthly	24-hr Composite
Chromium	Monthly	24-hr Composite
Copper	Monthly	24-hr Composite
Lead	Monthly	24-hr Composite
Nickel	Monthly	24-hr Composite
Zinc	Monthly	24-hr Composite
Silver	Monthly	24-hr Composite
Mercury	Monthly	24-hr Composite
Arsenic	Monthly	24-hr composite
Selenium	Monthly	24-hr Composite
Antimony	Monthly	24-hr Composite
Cyanide	Monthly	Grab
Molybdenum	Monthly	24-hr Composite
Temperature	Monthly	24-hr Composite

Part 3 – REPORTING REQUIREMENTS

A. Monitoring Reports

Monitoring results shall be reported monthly. The reports are due by the fifteenth (15th) day of the following month in which the samples were collected. The first report is due July 15, 2020. The report shall indicate the nature and concentration of all pollutants in the effluent for which sampling and analyses were performed during the calendar month preceding the submission of each report. The report shall also have measured or estimated flows discharged daily to the City of Durant. The City of Durant Industrial Pretreatment Program Self-Monitoring Report shall be used to report all data.

Reports will be deemed submitted on the date postmarked. For reports, which are not mailed, postage prepaid, into a mail facility serviced by the U.S. Postal Service, the date of receipt of the report shall govern. For emailed reports, the date of submission time stamped to the email shall govern, as long as all documents are scanned into a single file and attached in the email.

B. Reporting Address

All reports required by this permit shall be submitted to the following address or email:

ATTN: George McAusland

City of Durant

Pretreatment Coordinator

1222 Davis Rd

Durant, OK 74701

Email: pretreatment@durant.org

C. Frequency Changes

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures prescribed in 40 CFR Part 136 or amendments thereto, or otherwise approved by the EPA or as specified in this permit, the results of such monitoring shall be included in any calculations of actual daily maximum or monthly average pollutant discharge and results shall be reported in the monthly report submitted to the City of Durant. Such increased monitoring frequency shall also be indicated in the monthly report.

D. Automatic Resampling

If the results of the permittee's wastewater analysis indicate that a violation of this permit has occurred, the permittee must:

1. Inform the City of Durant of the violation within 24 hours of becoming aware of the violation; and
2. Repeat the sampling and pollutant analysis and submit, in writing, the results of this second analysis within 30 days of becoming aware of the first violation.

E. Reports of Potential Problems

1. In case of any discharge including, but not limited to, accidental discharges, discharges of a non-routine, episodic nature, a non-customary batch discharge, or a slug discharge which may cause potential problems for the POTW (including violation of pretreatment standards), the permittee shall immediately notify the City of Durant of the incident. During normal business hours the City of Durant should be notified by telephone at (580) 924-3416. The City of Durant Police Department should be notified by telephone at (580) 924-3737 or by pager at (580) 920-3019 after 3:30 pm Monday through Friday or weekends and holidays. The notification shall include the location of discharge, date and time thereof, type of waste, including concentration and volume, and corrective actions taken. The permittee's notification of accidental release in accordance with this section does not relieve the permittee of other reporting requirements that arise under local, State, or Federal laws.

Within five days following an accidental discharge, the permittee shall submit to the City of Durant a detailed written report. This report shall specify:

- a. Description and cause of the upset, slug load or accidental discharge, the cause thereof, and the impact on the permittee's compliance status. The description should also include location of the discharge, type, correction, and volume of waste.
- b. Duration of noncompliance, including exact dates and times of noncompliance and, if the noncompliance is continuing, the time by which compliance is reasonably expected to occur.

F. Signature Requirements

1. All reports submitted by the Industrial User shall be signed by an official of the Industry, which has the authority to do so and include a certification statement as follows:
"I certify under penalty of law that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Part 4 – STANDARD CONDITIONS

Section A GENERAL CONDITIONS

1. Severability

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

2. Duty to Comply

The permittee must comply with all conditions of the permit. Failure to comply with the requirements of this permit may be grounds for enforcement proceedings including civil litigation, criminal penalties, injunctive relief, and summary abatement.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize any adverse impact to the Publicly Owned Treatment Works resulting from noncompliance with any effluent limitation specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge,

4. Permit Modification

This permit may be modified for good cause including, but not limited to, the following:

- a. To incorporate any new or revised Federal, State, or local pretreatment standards or requirements;
- b. To address significant alterations or additions to the permittee's operation, processes, or wastewater volume or character since the time of wastewater discharge permit issuance;
- c. A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;
- d. Information indicating that the permitted discharge poses a threat to the City of Durant collection and treatment system, POTW personnel or the receiving waters;
- e. Violation of any terms or conditions of the permit;
- f. Misrepresentation or failure to fully disclose all relevant facts in the permit application or in any required reporting;
- g. Revision of or a grant of variance from categorical pretreatment standards pursuant to 40 CFR 403.13;
- h. To correct typographical or other errors in the permit; or
- i. To reflect transfer of the facility ownership and/or operation to a new owner/operator

5. Permit Revocation

This permit may be revoked for the following reasons:

- a. Failure of the permittee to notify of significant changes to the wastewater prior to the changed discharge;
- b. Failure of the permittee to provide prior notification of changed conditions;
- c. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application;
- d. Falsifying self-monitoring reports;
- e. Tampering with monitoring equipment;
- f. Refusing to allow timely access to the facility premises and records;
- g. Failure to meet effluent limitations;
- h. Failure to pay fines;
- i. Failure to pay sewer charges;
- j. Failure to meet compliance schedules;
- k. Failure to complete a wastewater survey or the wastewater discharge permit application;
- l. Failure to provide the advanced notice of the transfer of a permitted facility;
- m. Violation of any pretreatment standard or requirement, or any terms of the permit or the City of Durant Industrial Pretreatment Waste Ordinance (Ordinance No. 1590)

6. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or Local laws or regulations.

7. Permit Transfer

This permit may be reassigned or transferred to a new owner and/or operator only if the permittee gives at least ninety (90) days advance notice to the City of Durant Pretreatment Coordinator, and the Pretreatment Coordinator approves the permit transfer. The notice to the Pretreatment Coordinator must include a written certification by the new owner and/or operator which:

- a. States that the new owner/operator has no immediate intent to change the facility's operations and processes;
- b. Identifies the specific date on which the transfer is to occur; and
- c. Acknowledges full responsibility for complying with this permit.

8. Dilution

The permittee shall not increase the use of potable or process water or, in any way, attempt to dilute an effluent as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

9. Definitions

- a. Daily Maximum – The maximum allowable discharge of pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where daily maximum limitations are expressed in terms of concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.
- b. Composite sample – A sample that is collected over time, formed either by continuous sampling or by mixing discrete samples. The sample may be composited either as a time composite sample : composed of discrete sample aliquots collected in one container at constant time intervals providing representative samples irrespective of stream flow; or as a flow proportional composite sample : collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each sample aliquot as the flow increases while maintaining a constant time interval between the aliquots.
- c. Grab sample – A sample that is taken from a wastestream on a one-time basis without regard to the flow in the wastestream and without consideration of time.
- d. Instantaneous Maximum Concentration – The maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composite sample collected, independent of the industrial flow rate and duration of the sampling event.
- e. Monthly average – The arithmetic mean of values for effluent samples collected during a calendar month or specified 30-day period (as opposed to a 30 day window).
- f. Upset – Means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee, excluding such factors as operational error, improperly designed or inadequate treatment facilities, or improper operation and maintenance or lack thereof.
- g. Bypass – Means the intentional diversion of wastes from any portion of a treatment facility.

10. General Prohibitive Standard

The permittee shall comply with all the general prohibitive discharge standards in the City of Durant Industrial Waste Ordinance (Ordinance 1590). Namely, the industrial user shall not discharge the following substances to the POTW:

- a. Pollutants which create a fire or explosive hazard in the municipal wastewater collection and POTW, including, but not limited to wastestreams with a closed-cup flash point of less than 140 degrees F (60 degrees C) using test methods specified in 40 CFR 261.21;
- b. Any wastewater having a pH of less than 6.0 or more than 10.0, or otherwise causing structural damage to the POTW or equipment, or endangering City personnel;

- c. Solid or viscous substances in amounts which will cause obstruction of the flow resulting in interference, but in no case solids greater than one quarter of an inch(0.25) or (0.635 centimeters) in any dimension;
 - d. Any wastewater containing pollutants, including oxygen demanding pollutants (BOD, etc.), released in a single discharge at a flow rate and/or pollution concentration which, either singly or by interaction with other pollutants, will cause interference with either the POTW; or any wastewater treatment or sludge process, or which will constitute a hazard to humans or animals;
 - e. Any wastewater having a temperature greater than 110 degrees F (43.3 degrees C), or which will inhibit biological activity in the treatment plant resulting in interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104 degrees F (40 degrees C);
 - f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through;
 - g. Any pollutants which 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;
 - h. Any trucked or hauled pollutants except at discharge points designated by the Pretreatment Coordinator in accordance with the City of Durant Industrial Pretreatment Waste Ordinance (Ordinance 1590);
 - i. Any noxious or malodorous liquids, gases, or solids, or other wastewater which, either singly, or by interaction with other wastes, are sufficient to create a public nuisance, a hazard to life, or to prevent entry into the sewers for maintenance and repair;
 - j. Any wastewater, which imparts color, which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent thereby violating the City of Durant OPDES permit;
 - k. Any wastewater containing radioactive wastes or isotopes except as specifically approved by the pretreatment coordinator in compliance with applicable State and Federal regulations;
 - l. Storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, unless specifically authorized by the pretreatment coordinator;
 - m. Any sludges, screenings, or other residues from the pretreatment of industrial wastes;
 - n. Any medical wastes, except as specifically authorized by the pretreatment coordinator in a wastewater discharge permit;
 - o. Any wastewater causing the treatment plant's effluent to fail a toxicity test; and/or
 - p. Any wastes containing detergents, surface active agents, or other substances which may cause excessive foaming in the POTW.
11. Compliance with Applicable Pretreatment Standards and Requirements

Compliance with this permit does not relieve the permittee from its obligations regarding compliance with any and all local, State and Federal pretreatment standards and requirements including such standards or requirements that may become effective during the term of this permit.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

Upon reduction of efficiency of operation, or loss or failure of all or part of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with this permit, control its production or discharges (or both) until operation of the treatment facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

3. Bypass of Treatment Facilities

- a. Bypass is prohibited unless it is unavoidable to prevent loss of life, personal injury, or severe property damage and no feasible alternative exists.
- b. The permittee may allow a bypass to occur which does not exceed effluent limitations, if and only if, it is also for essential maintenance to assure efficient operation and the permittee shall notify the City of Durant Pretreatment Department of such bypasses.
- c. Notification of bypass:
 - I. Anticipated bypass: If the permittee knows in advance of the need for bypass, it shall submit prior written notice, at least 10 days before the date of the bypass, to the City of Durant Pretreatment Department.
 - II. Unanticipated bypass: The permittee shall notify the City of Durant and submit a written notice to the pretreatment coordinator within five (5) days, This report shall specify:
 - A. A description of the bypass, and its cause, including its duration;
 - B. Whether the bypass has been corrected (if not, a time table detailing the expected time to correct); and
 - C. The steps being taken to reduce, eliminate, and prevent a reoccurrence of the bypass.

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act, or any other State or Federal regulations.

SECTION C – MONITORING AND RECORDS

1. Representative Sampling

Samples and measurements taken as required by this permit shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit, unless otherwise specified, before the effluent joins or is diluted by any other wastestreams, body of water, or substance. All equipment used for sampling and analysis must be routinely calibrated, inspected, and maintained to ensure their accuracy. Monitoring points shall not be changed without notification and the approval of the City of Durant Pretreatment Coordinator.

2. Flow Measurement

If flow measurement is required by this permit, the appropriate flow measurement devices and/or methods consistent with approved scientific practices shall be selected and used to ensure accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Analytical Methods to Demonstrate Continued Compliance

All sampling and analysis required by this permit shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto, otherwise approved by EPA, or as specified in this permit. All samples analyzed shall be done by a laboratory approved by the City of Durant.

4. Inspection and Entry

The permittee shall allow the City of Durant Pretreatment Department or authorized representative, or an authorized representative of the Environmental Protection Agency (EPA) or the State of Oklahoma, upon presentation of credentials and other documents as required by law, to;

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment);
- d. Sample or monitor, for the purpose of assuring permit compliance, any substance or parameters at any location; and

- e. Inspect any production, manufacturing, fabricating, or storage area where pollutants, regulated under this permit, could originate, be stored, or be discharged to the wastewater system.
5. Retention of Records
- a. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application.

This period may be extended by request of the City of Durant at any time.

- b. All records that pertain to matters that are subject of special orders or any enforcement or litigation activities brought by the City of Durant shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitations with respect to any and all appeals have expired.
6. Record Contents

Records of sampling and analyses shall include:

- a. The date, exact place, time, and method of sampling or measurements, and sample preservation techniques or procedures;
 - b. Who performed the sampling and measurements;
 - c. The dates the analyses were performed;
 - d. Who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses
7. Falsifying Information

Knowingly making any false statements on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate is a crime and may result in the imposition of criminal sanctions.

SECTION D – ADDITIONAL REPORTING REQUIREMENTS

1. Planned Changes

The permittee is required to notify the City of Durant of any planned significant changes to the permittee's operations or system, which might alter the nature, quality, or volume of its wastewater at least 30 days before the change.

2. Anticipated Noncompliance

The permittee shall give advanced notice to the City of Durant of any planned changes in the permitted facility of activity, which may result in noncompliance with permit requirements.

3. Duty to Provide Information

The permittee shall furnish to the City of Durant, within ten (10) working days any information which the City of Durant may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with permit. The permittee shall also, upon request, furnish to the City of Durant within five (5) days copies of any records required to be kept by this permit.

4. Signatory requirements

All applications, self-monitoring reports, or information submitted to the City of Durant must contain the following certification statement and be signed by an authorized representative of the permittee:

“I certify under penalty of law that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

5. Operating Upsets

Any permittee that experiences an upset in operation that places the permittee in a temporary state of noncompliance with the provisions of either this permit or with the City of Durant Industrial Pretreatment Waste Ordinance (Ordinance 1590) shall inform the City of Durant Pretreatment Department immediately of becoming aware of the upset at (580) 924-3416. The City shall be notified at (580) 924-3737 or pager (580) 920-3019 after 3:30pm Monday through Friday or weekends or holidays.

A written follow-up report of the upset shall be filed by the permittee with the City of Durant Pretreatment Department within five (5) days. The report shall specify:

- a. Description of upset, the cause(s) thereof and the upset's impact on the permittee's compliance status;
- b. Duration of noncompliance, including exact dates and times of noncompliance, and if not corrected, the anticipated time the noncompliance is expected to continue; and
- c. All steps taken or to be taken to reduce, eliminate, and prevent recurrence of such an upset.

The report must also demonstrate that the treatment facility was being operated in a prudent and workmanlike manner.

A documented and verified operating upset shall be an affirmative defense to any enforcement action brought against the permittee for violations attributable to the upset.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil and/or criminal penalties for noncompliance under the City of Durant Industrial Pretreatment Waste Ordinance (Ordinance 1590) or State or Federal laws or regulations.

7. Penalties for Violations of Permit Conditions

Any violation of this permit or the City of Durant Industrial Pretreatment Waste Ordinance (Ordinance 1590) is punishable by a fine of not more than one thousand (\$1000) dollars per violation per day. Each violation will be evaluated by the Enforcement Response Plan set forth by the City of Durant Pretreatment Program. These penalties shall be in addition to any other cause of action for personal injury or property damage available under State law.

PART 5 – REOPEN CLAUSE

1. This permit may be reopened and modified to incorporate any new or revised requirements contained in a National Categorical Pretreatment Standard.
2. This permit may be reopened or modified to incorporate any new or revised requirement resulting from the Pretreatment Department reevaluation of any local limits established for this permit.
3. This permit may be reopened for modification to incorporate any new or revised requirement developed by the Pretreatment Department as necessary to ensure POTW compliance with applicable sludge management requirements promulgated by EPA (40 CFR 503).
4. This permit may be reopened and modified for any typographical errors.

Applicant Activity

The Cardinal FG Company is a glass producing company located on Highway 70 West of Durant, Oklahoma at 515 Cardinal Parkway, Durant, Oklahoma. The process is as follows:

Float glass is produced by first melting silica sand, soda ash(sodium carbonate), limestone (calcium carbonate), dolomite (calcium magnesium carbonate), "salt cake" (sodium sulfate), Nepheline, cullet (broken glass), iron, and carbon. These raw materials are unloaded using a below-grade hopper located in an enclosed steel building. The materials are transported from the unloading hopper to storage bins using a bucket elevator. From the storage bins, the raw materials are weighed and mixed with water in the mixer located in the batch house.

Cullet is a product of the float glass process. Rejected glass is crushed at the end of the process line and conveyed back to an enclosed steel building where it is stored. A front-end loader is used to transport cullet from the cullet barn to another below-grade crusher at which point it is crushed and transported to build storage bins. Cullet that is produced during an emergency may not be put back in the process.

The cullet is conveyed to the emergency cullet pad for storage before it is disposed of. In addition to cullet produced within the facility, Cardinal brings cullet in from customers by truck. The trucks dump the cullet directly into the cullet barn.

The raw materials are conveyed to a hopper scale for weighing and mixing. The mix is then conveyed to a bin in the main building for loading into the furnace. A gas fired furnace melts the batch materials, as they are continuously loaded into the furnace using the batch charger.

Molten glass is discharged from the furnace onto a bath of molten tin. The glass floats on top of the tin, forming the "ribbon". Tools in the bath are used to control the thickness and width of the ribbon. Rollers at the end of the bath pull the ribbon off the tin as the glass cools.

The ribbon proceeds to the Lehr where it is cooled by using air. When the glass has cooled to form a solid, it is scored and "snapped" into the desired dimensions. At this point, any undesirable glass can be crushed and sent back to the furnace as cullet. The good glass is packed on painted steel racks or slings and shipped out to Cardinal customers.

A percentage of the glass produced on the float line will be made into tempered glass on the tempering line located in the same building. In this process the glass is washed, heated to just below the softening temperature and then rapidly cooled. The water used to wash the glass is recirculated through the system.

Water used in grinding the edges of glass prior to tempering is pumped through a closed system. The water used in grinding runs into a cement pit in the floor next to the tempering line. The water is pumped from the bottom of the pit, through a filter and used again for grinding. There are drains around the grinding area for use during maintenance and emergencies.

Water used in washing glass prior to tempering is pumped through a closed loop system. City water coming into the system is run through a deionizer and water softener before being delivered to one of 4 washer basins. The water is then pumped over the glass to wash any foreign matter off the surface of the glass. The water is reclaimed in a system of trenches so that it can be filtered and returned to the washer basin. There are drains around the washing area for use during maintenance or for emergencies.

Fact Sheet

1. Information Sources

- 40 CFR Parts 136, 403, and 426
- City of Durant Ordinance 1590 (City of Durant Industrial Pretreatment Waste Ordinance)
- Industrial Wastewater Discharge Permit Application received from Cardinal FG

2. Underlying Principles

- The Cardinal FG Company is considered to be a Categorical Industrial User of the Durant Publicly Owned Treatment Works based on 40 CFR Part 426.

- There are no limits set forth for Glass Manufacturers under 40 CFR Part 426 for new sources. Therefore, under part 1(b) limits are set forth from the City of Durant Pretreatment Ordinance 1590 and monitoring requirements are monthly.

3. Industrial Pretreatment Activities

- Cardinal FG has been monitored for pretreatment activities since 2015, and has had no issues with significant noncompliance to date.