Ohio | Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

Re: Notice of Violation
Hardin County
Durez Corporation
NPDES Permit

March 1, 2012

Mr. William H. Bazell
Manufacturing Manager
Durez Corporation – Kenton Plant
13717 U.S. Route 68 South
Kenton, Ohio 43326

Dear Mr. Bazell:

On February 15, 2012, Thomas Poffenbarger and I conducted a National Pollutant Discharge Elimination System (NPDES) Permit Compliance Inspection at the Durez Corporation – Kenton Plant. Mr. Dale Miller and Mr. Chris Coak were present and provided information on operation and maintenance of the waste water treatment system. The inspection included an interview, a tour of the waste water treatment plant (WWTP), and observation of the final effluent outfall at Taylor Creek.

Process

The facility makes different types of phenol resins. The raw materials for production are placed in kettles and a catalyst is added to produce the chemical reaction. The process creates a distillate that needs to be removed. If the production is for tackifier, the distillate will be sent directly to the EQ basin for treatment at the waste water plant. If the production is for the other phenol resin products, the distillate will be sampled for phenol. If it is high in phenol and can be reused for production, it will be sent to the 2043 tank for reuse. If it does not meet the requirements for reuse, it will be sent to the 2051 holding tank. At the 2051 tank, it will be tested for hazardous or non-hazardous waste by checking the flash point. If it is non-hazardous, it will be solidified and sent to a solid waste landfill. If the material does not pass the flash point test, it is pumped into containers and stored by the 63 sump. The operator will feed the distillate into the 63 sump to be pumped to the EQ basin for treatment.

Storm Water

On the south side of the site where the molding manufacturing plant was removed, storm water flows into catch basins and then flows directly to a lagoon. On the north side of plant where the tank farm and active resin producing area are located, the storm water flows to the 63 sump pit. The contents of the 63 sump pit are pumped to the EQ basins; but, can also be pumped to two storage tanks by the sump area during high flows. The tank farm that stores the raw materials for production has concrete secondary containment around the material holding tanks. When the

secondary containment fills with rain water, it is sampled to verify that the WWTP can handle the water, and then it is pumped out of the containment to the storm drains that flow to the 63 sump pit.

Several catch basins on site were observed having a buildup of sediment around them. The area around the catch basins should be cleaned and maintained. The requirement for preventive maintenance can be found in Part IV 3(b.) of the NPDES permit.

WWTP

There are three tanks in the EQ basin. Tank 6403 receives the "clean" water from the storage lagoon. The 6401 tank receives the 63 sump waste water and had a red tint during the inspection. The middle tank 6402 is used as a buffer tank and receives the tackifier distillate directly and mixtures of the clean water and 63 sump waste water. All three basins have mixers. During the cold months, the discharge from EQ is sent to a heat exchanger to warm the water prior to entering the mix tank. In the mix tank, ammonia and phosphoric acid are added to provide nutrients to the waste water to promote bacteria growth for treatment. The waste water then flows to the aeration tank. Dissolved Oxygen (D.O.) probes and a new nitrogen probe have been installed in the tank. The tank appeared to have an orange/brown color with brown foam on top. Sludge from the tank is wasted to an aerobic digester that was black in color. From the aeration tank, the flow goes to a clarifier inside the treatment building. The weirs on the clarifier appeared to have a heavy buildup of solids. From the clarifier, waste water goes to the sand filter then through a carbon filter to the final discharge. The final discharge appeared clear with no noticeable odor.

It was also noted the final effluent outfall sign has been installed. The sign needs to contain the information noted in Part II, Item L. of the NPDES permit. It was noted that no contact telephone number was included on the sign. The sign should also face the stream.

Sludge from the aerobic digester is sent to a plate and frame press. The sludge is pressed and deposited into a 30 yard container. The container is removed twice a day and sent to a sanitary landfill as non-hazardous waste. The waste water from the press drains into the building floor drains then to the lagoon.

The sanitary waste for the facility is treated by a small trickling filter plant. The plant has a holding tank, clarifier, a trickling filter with larger rock media, and final clarifier/chlorine contact tank. There was no flow going through the trickling filter plant during the inspection. It appeared that the waste water was frozen in the primary clarifier.

Compliance

A review of the discharge monitoring reports (DMRs) from May 2011 to February 2012 shows that there have been several effluent limit violations. The specific instances of noncompliance are enclosed on a separate sheet.

It was also noted that the January toxicity test showed 100% mortality on the test organisms at the final outfall and for the Near-field acute toxicity and for the Far-field seven day chronic toxicity. The cause of the toxicity was not identified. A follow up toxicity sample showed less than 5% affected. Since a cause was not able to be identified, it is recommended that the facility initiate a toxicity reduction evaluation (TRE). Information for conducting a TRE can be found at the following website:

http://www.epa.gov/npdes/pubs/wet_industrial_tre_manual.pdf

Our completed inspection report is enclosed for your records. If you have any comments or questions, please contact me at 419-373-3053.

Sincerely,

Ryan Gierhart
Division of Surface Water

/jlm

Enclosures

ec: Inspection Tracking

OhioEPA

State of Ohio Environmental Protection Agency
Northwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding

Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
2IF00002	OH0006769	2/15/2012	C	S	2

Section B: Facility Data

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Durez Corporation – Kenton Plant 13717 U S Route 68 South Kenton, Ohio 43326	9:00 AM	February 1, 2012
	Exit Time	**Permit Expiration Date**
	12:00 PM	January 31, 2017
Name(s) and Title(s) of On-Site Representatives	**Phone Number(s)**	
Mr. Marvin D. Miller, EH&S Manager Mr. Chris Coak, WWTP Operator	419-675-5393 419-675-5300	
Name, Address and Title of Responsible Official	**Phone Number**	
Mr. William H. Bazell, Manufacturing Manager Durez Corporation – Kenton Plant 13717 U S Route 68 South Kenton, Ohio 43326	419-675-5303	

Section C: Areas Evaluated During Inspection
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

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

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

Final Discharge was clear with no noticeable odor.

Storm water catch basins should be cleaned and maintained.

The facility should look into causes of toxicity and look at implementing a toxicity reduction evaluation(TRE)

Inspector	Reviewer
Ryan Gierhart 2/27/2012	Thomas Poffenbarger 2/23/12
Ryan Gierhart Date Division of Surface Water Northwest District Office	Thomas Poffenbarger, P.E. Date Water Quality Engineer II/Unit Supervisor Division of Surface Water

Sections E thru K: Complete on all inspections as appropriate
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

(a) Correct name and mailing address of permittee	Y
(b) Correct name and location of receiving waters.....	Y
(c) Product(s) and production rates conform with permit application (Industries).....	Y
(d) Flows and loadings conform with NPDES permit.....	Y
(e) Treatment processes are as described in permit application...	Y
(f) New treatment process(es) added since last inspection.....	N
(g) Notification given to State of new, different or increased discharges.....	Y
(h) All discharges are permitted.....	Y
(i) Number and location of discharge points are as described in permit.....	Y

Comments/Status:

Section F: Compliance

(a) Any significant violations since the last inspection.....	N
(b) Permittee is taking actions to resolve violations.....	N
(c) Permittee has a compliance schedule.....	N
(d) Compliance schedule contained in	
(e) Permittee is meeting compliance schedule.....	N/A

Comments/Status:

Ammonia Violations in June and August.

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

(a)	Standby power available.....generator ☐ or dual feed ☐.....	N
(b)	Adequate alarm system available for power or equipment failures..	Y
(c)	All treatment units in service other than backup units.....	Y
(d)	Wastewater Treatment Works classification (OAC 3745-7).....	II
(e)	Operator of Record holds unexpired license of class required by permit..... Class:	N
(f)	Copy of certificate of Operator of Record displayed on-site.....	N
(g)	Minimum operator staffing requirements fulfilled (OAC 3745-7)...	Y
(h)	Routine and preventative maintenance scheduled/performed...	Y
(i)	Any major equipment breakdown since last inspection.....	N
(j)	Operation and maintenance manual provided and maintained.....	Y
(k)	Any plant bypasses since last inspection.....	Y
(l)	Regulatory agency notified of bypasses..... On MORs ☐ and/or Spill Hotline (1-800-282-9378) ☒	Y
(m)	Any hydraulic and/or organic overloads since last inspection.....	Y

Record Keeping:

(a)	Log book provided.....	Y
(b)	Format of log book (i.e. computer log, hard bound book) Computer	
(c)	Log book(s) kept onsite (in an area protected from weather).....	Y
(d)	Log book contains the following:	
	I. Identification of treatment works.....	N
	II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7.....	N
	III. Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs).....	Y
	IV. Laboratory results (unless documented on bench sheets)...	Y
	V. Identification of person making log entries.....	Y
(d)	Has the operator of record submitted written notification to the permittee, Ohio EPA and (if applicable) any local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred.....	Y

Section G: Operation & Maintenance (con't)

Collection System:

(a)	Percent combined system: %	
(b)	Any collection system overflows since last inspection..... (CSO ☐ and/or SSO ☐)	N/A
(c)	Regulatory agency notified of overflows (SSOs).....	N/A
(d)	CSO O&M plan provided and implemented.....	N/A
(e)	CSOs monitored and reported in accordance with permit.....	N/A
(f)	Portable pumps used to relieve system.....	N/A
(g)	Lift station alarms provided and maintained.....	N/A
(h)	Are lift stations equipped with permanent standby power or equivalent.....	N/A
(i)	Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection.....	N/A
(j)	Any complaints received since last inspection of basement flooding	N/A
(k)	Are any portions of the sewer system at or near capacity.....	N/A

Comments/Status:

Section H: Sludge Management

(a) Sludge management plan (SMP)
Submitted date: Approval #: Not submitted ☐ N/A ☒

(b) Sludge management plan current..... N/A
(c) Sludge adequately disposed..... Y
(Method:Landfilled)
(d) If sludge is incinerated, where is ash disposed of
(e) Is sludge disposal contracted..... Y
(Name:Allied Waste / Cherokee Run Landfill)
(f) Has amount of sludge generated changed significantly since last inspection..... N
(g) Adequate sludge storage provided at plant.....Y
(h) Land application sites monitored and inspected per SMP..... N/A
(i) Records kept in accordance with State and Federal law..... Y
(j) Any complaints received in last year regarding sludge..... N
(k) Is sludge adequately processed (digestion, pathogen control)..... N/A

Comments/Status:

Sludge is aerobically digested then sent through a plate/frame press with a polymer being added. The wastewater from the press drains from building drains to the lagoon. The sludge is contained in a 30 yard container that is hauled offsite twice daily.

Section I: Self-Monitoring Program

Flow Measurement:

(a) Primary flow measuring device operated and maintained..... Y
Type of device: Ultrasonic & Parshall flume ☒ Ultrasonic & Weir ☐ Weir ☐
Calculated from influent ☐ Other ☐(Specify:)

(b) Calibration frequency adequate ..... Y
(Date of last calibration: 9/1/2010)
(c) Secondary instruments operated and maintained..... Y
(d) Flow measurement equipment adequate to handle full range of flows..... Y
(e) Actual flow discharged is measured..... Y
(f) Flow measuring equipment inspection frequency
☒Daily ☐Weekly ☐monthly ☐other

Comments/Status:

Flow meter is calibrated monthly by maintenance.

Section I: Self-Monitoring Program (con't)

Sampling:

(a) Sampling location(s) are as specified by permit..... Y
(b) Parameters and sampling frequency agree with permit..... Y
(c) Permittee uses required sampling method..... Y
(see GLC page 5 and 8)
(d) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e, continuous monitoring instrumentation, calibration and maintenance records)..... Y

Laboratory:

General

(a) Do you have written Standard Operating Procedures (SOP's) for all analysis performed onsite ..... N
(b) Do SOP's include the following if applicable:

- Title
- Scope and Application
- Summary
- Sample Handling and Preservation
- Interferences
- Apparatus and Materials
- Reagents
- Procedure
- Calculations
- Quality Control
- Maintenance
- Corrective Action
- Reference (Parent Method)

Note: SOP's are required per Standard Methods 1020A and states "Standard operating procedures are to be used in the laboratory in sufficient detail that a competent analyst unfamiliar with the method can conduct a reliable review and/or obtain acceptable results."

(c) EPA approved analytical testing procedures used for all analysis (40 CFR 136.3, see GLC page 8). Y
(d) If alternate analytical procedures are used, proper approval has been obtained..... N/A
(e) Analyses being performed more frequently than required by permit. N
(f) If (e) is yes, are results in permittee's self-monitoring report..... N/A

Quality Control/Quality Assurance

(g) Quality assurance manual provided and maintained..... Y
(h) Satisfactory calibration and maintenance of instruments/equipment. Y
(see score from GLC page 7)
(i) Results of latest USEPA quality assurance performance sampling program: ☐ Satisfactory ☐ Marginal ☐ Unsatisfactory
Date:

(j) Commercial laboratory used..... Y

Parameters analyzed by commercial lab: All parameters required by the permit.

Lab name: Alloway

Comments/Status:

If any sampling at the final outfall 001 is performed more frequently than required by the NPDES permit it needs to be reported in the EDMR system.

Section J: Effluent/Receiving Water Observations

Outfall Number	Outfall sign in place?	Oil sheen	Grease	Turbidity	Foam	Solids	Color	Other
001	Yes							

Comments/Status:

Discharge clear with no noticeable odor.

Section K: Multimedia Observations

(a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
(b) Do you notice staining or discoloration of soils, pavement or floors.. Y
(c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
(d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... N
(e) Do you notice any unusual odors or strong chemical smells..... N
(f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... N

If any of the above are observed, ask the following questions:

(1) What is the cause of the condition?
(2) Is the observed condition or source a waste product?
(3) Where is the suspected contaminant normally disposed?
(4) Is this disposal permitted?
(5) How long has the condition existed and when did it begin?

Comments/Status:

Storm water catch basins should be kept clean and maintained.

Get New Data

Permit No	Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
2IF00002*LD	June 2011	001	00610	Nitrogen, Ammonia (NH3	30D Conc	1.5	10.105	6/1/2011
2IF00002*LD	June 2011	001	00610	Nitrogen, Ammonia (NH3	30D Qty	1.8	3.81517	6/1/2011
2IF00002*LD	June 2011	001	00610	Nitrogen, Ammonia (NH3	1D Conc	2.25	39.5	6/10/2011
2IF00002*LD	June 2011	001	00610	Nitrogen, Ammonia (NH3	1D Qty	2.72	14.9507	6/10/2011
2IF00002*LD	August 2011	001	00610	Nitrogen, Ammonia (NH3	30D Conc	1.5	3.2	8/1/2011
2IF00002*LD	August 2011	001	00610	Nitrogen, Ammonia (NH3	30D Qty	1.8	2.4224	8/1/2011
2IF00002*LD	August 2011	001	00610	Nitrogen, Ammonia (NH3	1D Conc	2.25	12.8	8/12/2011
2IF00002*LD	August 2011	001	00610	Nitrogen, Ammonia (NH3	1D Qty	2.72	9.6896	8/12/2011