



State of Ohio Environmental Protection Agency
Southwest District

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Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

October 6, 2009

Mr. Clint Herring
INEOS ABS (USA) Corporation
365 Three Rivers Parkway
Addyston, Ohio 45001

Re: **INEOS ABS (USA) Corp. – OH0009946;1IF00001*JD – CEI**
NOTICE OF VIOLATION

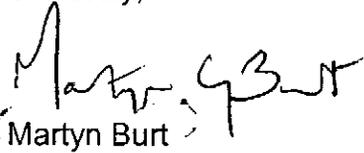
Dear Mr. Herring:

On September 24, 2009, Marianne Piekutowski of this office met with Jessica Reece and conducted a NPDES Compliance Evaluation Inspection (CEI) at INEOS ABS (USA) Corporation. The purpose of this inspection was to evaluate compliance with the terms of the NPDES permit. Please note that the report, by its format, tends to highlight negative areas.

As indicated in the attached CEI report, some areas received a Satisfactory rating. Two areas received a rating of Marginal. These reasons are included in the attached write up.

Thank you for the time extended during your inspection. If you would have any questions, please contact Ms Piekutowski at this office at 937.285.6108.

Sincerely,



Martyn Burt
Environmental Supervisor
Division of Surface Water

Enclosures

Cc: Jessica Reece, INEOS ABS (USA) Corp.





State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report

| Section A: National Data System Coding | | | | | |
|--|-------------|----------------|-----------------|-----------|---------------|
| Permit # | NPDES# | Month/Day/Year | Inspection Type | Inspector | Facility Type |
| OH0009946 | 11F00001*JD | 9/24/2009 | C | S | 2 |

| Section B: Facility Data | | |
|---|-----------------|------------------------|
| Name and Location of Facility Inspected | Entry Time | Permit Effective Date |
| INEOS ABS Corporation 356 Three Rivers Parkway Addyston, Ohio 45501 | 10:00 | 8/1/2004 |
| | Exit Time | Permit Expiration Date |
| | 2:00 | 1/31/2008 |
| Name(s) and Title(s) of On-Site Representatives | Phone Number(s) | |
| Jessica Reece/WWTP Engineer | 513.467.2321 | |
| Name, Address and Title of Responsible Official | Phone Number | |
| Clint Herring, Plant Manager INEOS ABS (USA) Corporation 356 Three Rivers Parkway Addyston, Ohio 45501 | 513.467.2400 | |

| Section C: Areas Evaluated During Inspection | | | | | |
|---|--------------------------|----|---------------------------|----|-------------------------|
| (S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated) | | | | | |
| S | Permit | NA | Flow Measurement | NA | Pretreatment |
| S | Records/Reports | NA | Laboratory | NA | Compliance Schedule |
| M | Operations & Maintenance | M | Effluent/Receiving Waters | S | Self-Monitoring Program |
| S | Facility Site Review | NA | Sludge Storage/Disposal | NA | Other |
| NA | Collection System | | | | |

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

See attached report.

| Inspector | Reviewer |
|--|--|
| | |
| Date: 10/6/09 | Date: 10/6/09 |
| Marianne Piekutowski Division of Surface Water Southwest District Office | Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office |

Permit # : OH0009946
NPDES #: 11F00001*JD

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)..... NA
- (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..... N
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

The biofilter still has not been added. The facility got a PTI extension for 12 months. The materials to begin construction are on-site. Waiting on the consent decree to install.

Section E: Permit Verification

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

Comments/Status:

a) There were three spills (caustic, solids, acrylonitrile) through 002 since the last inspection.
c) The facility has sampled for the hexachlorobutadiene. The data is showing this is not present in the sampling even at the low detection level. The low level mercury sampling is also showing up at zero.

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

- (a) Standby power available.....generator **X** or dual feed Y
- (b) Adequate alarm system available for power or equipment failures.. Y
- (c) All treatment units in service other than backup units..... Y
- (d) Operator holds unexpired license of class required by permit..... NA
 Class: 2 shifts/7 days per week
- (f) Routine and preventative maintenance schedule/performed on time..... Y
- (g) Any major equipment breakdown since last inspection..... N
- (h) Operation and maintenance manual provided and maintained..... Y
- (i) Any plant bypasses since last inspection..... N
- (j) Regulatory agency notified of bypasses..... NA
 On MORs and/or Spill Hotline (1-800-282-9378)
- (k) Any hydraulic and/or organic overloads since last inspection..... Y

Collection System:

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

Comments/Status:

Treatment Works: a) There is a dual feed into the facility and a generator at waste treatment.
 c) Spare clarifier that is not using for treatment. New temperature probe installed for 002.
 f) Preventative maintenance done by waste treat operators as well as in plant system. The PM program was modified to be more efficient. Tasks now assigned to a certain shift.
 k) There were BOD violations in April 2009. One was daily and one was average. There was a pH violation in September 2009 at outfall 002. Ohio EPA was notified.

Section H: Sludge Management

- (a) Sludge management plan (SMP)
Submitted date: 1992 Approval #: Not submitted N/A
- (b) Sludge management plan current..... Y
(c) Sludge adequately disposed..... Y
(Method: Landfill to Rumpke)
(d) If sludge is incinerated, where is ash disposed of NA
(e) Is sludge disposal contracted..... Y
(Name: Rumpke- Hughes Road)
(f) Has amount of sludge generated changed significantly since
last inspection..... Y
(g) Adequate sludge storage provided at plant..... Y
(h) Land application sites monitored and inspected per SMP..... NA
(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)..... NA

Comments/Status:

c) Updated sludge profile for Rumpke.
f) The amount of sludge generated is down. This is due to less flow and less hold tank cleanouts. In addition a VDF pump was installed so chemical addition more efficient so less sludge.
j) The odor complaints were with waste treat not sludge. The number of community complaints were down this year.

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 X
Calculated from influent Other X (Specify: **Magmeter 001**) **002**
- (b) Calibration frequency adequate Y
(Date of last calibration: 9/21/09 *Done Quarterly*)
(c) Secondary instruments operated and maintained..... NA
(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
X Daily Weekly monthly other

Comments/Status:

b) A new temperature probe was installed for 002.

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
- (d) Sample collection procedures are adequate..... Y
 - (i) Samples refrigerated during compositing..... Y
 - (ii) Proper preservation techniques used..... Y
 - (iii) Containers and sample holding times prior to analysis conform with 40 CFR 136.3..... Y
- (e) 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
- (f) Adequate records maintained of sampling date, time, location, etc.. Y

Laboratory:

General

- (a) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
- (b) If alternate analytical procedures are used, proper approval has been obtained..... NA
- (c) Analyses being performed more frequently than required by permit. Y
- (d) If (c) is yes, are results in permittee's self-monitoring report..... Y
- (e) Commercial laboratory used..... Y

Parameters analyzed by commercial lab:

TSS, BOD, NH3, Toxicity, pH for 001 & 002, LLHg, BNA, VOCs, LL Hexachlorobutadiene

Lab name:

Cardinal Labs (Contract out WET, BNA, LL Hg and Hexachlorobutadiene to Alloway)

Quality Control/Quality Assurance

- (f) Quality assurance manual provided and maintained..... Y
- (g) Satisfactory calibration and maintenance of instruments/equipment. Y
- (h) Adequate records maintained..... Y
- (i) Results of latest USEPA quality assurance performance sampling program: X Satisfactory Marginal Unsatisfactory

Date: 8/14/09 – TRC is only parameter done on-site. Satisfactory rating.

Comments/Status:

Sampling

d)(ii) – Facility receives pre-preserved bottles from Cardinal Labs.

Laboratory

f) Did an audit of Cardinal Lab when initially went to them. Do send blanks, spikes, duplicates and standards. Got DMRQA results from both Cardinal and Alloway.

Section J: Effluent/Receiving Water Observations

| Outfall Number | Oil sheen | Grease | Turbidity | Visible Foam | Visible Floating Solids | Color | Other |
|----------------|-----------|--------|-----------|--------------|-------------------------|-------|-------|
| 001 | NA | NA | NA | NA | NA | NA | NA |
| 002 | N | N | N | N | N | N | N |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Comments/Status:

Outfall 001 uses a diffuser. Not visible from surface.
 Outfall 002 was clear.

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.. N
- (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:

e) The sauerkraut-type odor notified in past inspections was not as intense on the day of the inspection. This was down at the aeration tanks, secondary DAF and the manhole prior to discharge to the diffuser. There was a slight musty wastewater odor.

Permit # : OH0009946
NPDES # : 11F00001*JD

INEOS ABS (USA) CORPORATION
NPDES COMPLIANCE EVALUATION INSPECTION
DATE OF INSPECTION: September 24, 2009

ITEMS FOR DISCUSSION:

The inspection is being conducted to review compliance at the facility. There were releases to the Ohio River during the past year, and two BOD violations, one daily and one monthly and one pH violation. In addition, the ammonia levels did exceed the values in Part II of the facility's NPDES permit.

COMPLIANCE EVALUATION:

The facility had the following permit violations in the past 12 months:

Outfall 11F00001001

| <i>Parameter</i> | <i>Code</i> | <i>Date</i> | <i>Reported</i> | <i>Units</i> | <i>Permit Limit</i> |
|------------------|-------------|-------------|-----------------|--------------|---------------------|
| BOD | 00310 | 04/21/09 | 105 | mg/L | 69 mg/L |
| BOD | 00310 | 04/2009 | 32.6666 | mg/L | 26 mg/L |

This inspection report will be the Notice of Violation for these violations. The facility provided the required 24 hour notification with the reason the violations. The daily BOD violation resulted in the monthly exceedance. The flow levels were low enough to be in compliance with the loading limits.

Outfall 11F00001002

| <i>Parameter</i> | <i>Code</i> | <i>Date</i> | <i>Reported</i> | <i>Units</i> | <i>Permit Limit</i> |
|------------------|-------------|-------------|-----------------|--------------|---------------------|
| pH | 00400 | 09/16/09 | >9.0 | SU | 9.0 SU |

The pH violation was associated with a possible caustic discharge from the process area to outfall 002. The facility was still investigating and determining the causes and fixes for this violation. There have been new pH testing procedures put into place for testing the water in diked area prior to discharge to prevent this from recurring.

In addition, on the following dates, flow measurements could not be taken because the Ohio River inundated the flow meter: December 27, 2008, February 14, 2009, and May 7-12, 2009. There was a frequency violation for pH for the week of January 22, 2009. The sample was taken on January 29, 2009. Finally, on January 20, 2009, a composite sample was not taken for TSS, BOD and NH3 because the sampler tubing froze. The facility has

installed insulation and heat tracing to prevent this from recurring.

Since the last inspection, there have been three additional releases from the facility. These included an acrylonitrile release reported on January 7, 2009. In the final spill reports, it appears that additional acrylonitrile (estimated as a total of 33 pounds) was release January 20 through 22, 2009 from the soil underneath the diked area. This was eventually released through outfall 002. The second release was on March 10, 2009. Sludge being wasted from the secondary clarifier was misrouted to the outfall 002. Approximately 660 gallons was discharged. It was re-routed back to waste treatment. The third release was on May 15, 2009. It was approximately one gallon of caustic from the boiler house was discharged to the "clean" water sewer tributary to outfall 002.

This letter will serve as the Notice of Violation for these events.

Because of the effluent violations and spills, the facility received a rating of marginal for Effluent/Receiving Waters.

OBSERVATIONS:

The coatings on the interior and exteriors of the tanks and clarifiers throughout waste treatment were peeling. The facility should consider recoating the tanks to protect them against corrosion. This is on the maintenance schedule in 2011. This would include both of the aeration tanks and the #2 tank used for emergency storage. Because of this, the facility will receive a Marginal rating for Operation & Maintenance.

The aeration tanks are being operated at a higher pH and MLSS. The sauerkraut-type odors were not as strong as in previous inspections. A musty odor was noted at the aeration tanks. The final DAF had no appreciable odor on the day of the inspection. The facility tries to maintain a four to eight foot sludge blanket in the secondary clarifiers. This will vary.

The facility has a pilot-scale biofilter being used. The current PTI for the installation of the full-scale biofilter for odors had a 12 month extension granted. This will expire in December 2009. The facility had planned to have the installation started by this point, but held off due to concerns related to the consent order regarding air issues. Construction will be started prior to the expiration date of the PTI. It will be on-going through 2010 and 2011. The materials needed to construct the biofilter are already on-site. Covers are going to be placed on the aeration tanks in 2011.

The air compressor was started on C-4 (equalization tank). Since the facility is no longer producing the weatherable materials, foaming is not an issue. By using the air compressor to add air to the wastewater in the tank, the odors from this tank have been reduced because the wastewater does not become anaerobic. This had been occurring for

INEOS ABS (USA) Corporation
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approximately three weeks at the time of the inspection.

The outfalls were observed. Outfall 001 is underwater with a diffuser. Outfall 002 was flowing through the weir to the Ohio River.

The facility mothballed the 7 CWD (coagulation, wash, and dry) process. Now, just the 10 CWD is being used. This was initially supposed to be completed in January 2009, but was finally completed in April/May 2009. As mentioned earlier, the facility is no longer producing a weatherable resin. Because of these process changes, there has been less sludge generated from waste treatment and from tank dumps.

The facility had two months where the ammonia exceeded either the daily or average target ammonia concentrations spelled out in Part II.M of the NPDES permit. On June 17, 2009, the daily ammonia concentration was 193 mg/L. This was over the number of 185 mg/L in Part II.M for the daily maximum. The values started to decrease around June 19, 2009. The monthly average value was not exceeded for this month. The second event was in August 2009. On August 26, 2009, the daily ammonia concentration was 195 mg/L. The ammonia numbers started to decrease on August 30, 2009, but the target monthly average of 105 mg/L was exceeded. The monthly average was 106.4 mg/L. The values started to decrease in September. The facility is still trying to determine why this is happening. There has been an increase in the amount of ammonia in the influent so that would also result in a corresponding increase in the effluent since there is no additional treatment. The values have been lower in September so the facility should stay below the average target value. The acrylonitrile alarms have been going off at the flume where the wastewater enters the treatment plant. The facility is also looking at the BOD levels in the wastewater. The collection system and what is going into the collection system are being investigated to see if this is having any impact on the treatment system.

Divers inspected outfall 001 on July 17, 2009.

RECOMMENDED ACTION

INEOS should consider recoating the tanks and equipment in wastewater treatment to prevent corrosion from the wastewater from damaging the equipment. There has been additional peeling of the coatings. The facility needs to prevent corrosion of the metal in the treatment tanks.

