



REGION 5

CHICAGO, IL 60604

Jeremy Stubbs
Thorn Creek Basin Sanitary District
700 West End Ave
Chicago Heights, Illinois 60411

Subject: February 24 – 27, 2025 Pretreatment Compliance Inspection Report for the Thorn Creek Basin Sanitary District

Dear Mr. Stubbs:

Please find enclosed a copy of the inspection report generated as a result of the pretreatment compliance inspection of the Thorn Creek Basin Sanitary District, conducted by the U.S. Environmental Protection Agency from February 24 – 27, 2025. The purpose of the inspection was to conduct a review of the District's pretreatment program implementation. During the inspection, EPA observed several areas of concern; these are listed in the enclosed report. Please provide a written response to the areas of concern identified in the report within 30 days. In your response, please include a description of actions taken to correct any issues documented in the inspection report. Your response should be submitted electronically to and r5pretreatment@epa.gov and to dooling.valerie@epa.gov. Where it is infeasible to submit electronically, you may mail the information to:

Val Dooling, WECAB, EPA Region 5
77 W. Jackson Blvd. (WC-15J)
Chicago, Illinois 60604-3590

If you have any questions or concerns regarding this letter, or the inspection report, please contact Val Dooling at 312-886-7167 or at dooling.valerie@epa.gov.

Sincerely,

Bahr, Ryan

Digitally signed by Bahr,
Ryan
Date: 2025.04.22
16:17:29 -05'00'

Ryan J. Bahr, Section 2 Supervisor
Water Enforcement and Compliance Assurance Branch

Enclosure

Pretreatment Compliance Inspection: Thorn Creek Basin Sanitary District

Control Authority Name and Address

Thorn Creek Basin Sanitary District
700 West End Ave
Chicago Heights, Illinois 60411

Responsible Official

Jeremy Stubbs, Technical Services Director

Inspection Participants

Jeremy Stubbs, Technical Services Director
Christa Rieger, Laboratory Director and Pretreatment Coordinator
Val Dooling, Lead Inspector
Sophie Bazan, Assistant Inspector

Inspector Signature and Date: VALERIE DOOLING Digitally signed by VALERIE DOOLING
Date: 2025.04.21 10:55:19 -05'00'

Inspector:

Val Dooling, Environmental Engineer
Water Enforcement and Compliance Assurance Branch

Approver Signature and Date Bahr, Ryan Digitally signed by Bahr, Ryan
Date: 2025.04.22 16:17:15 -05'00'

Approver Name & Title:

Ryan J. Bahr, Section 2 Supervisor
Water Enforcement and Compliance Assurance Branch

Contents

SECTION 1.0: INTRODUCTION	1
SECTION 2.0: SITE BACKGROUND AND PRELIMINARY REVIEW.....	1
SECTION 3.0: SUPPLEMENTAL DATA REVIEW/INTERVIEW	1
<i>A. Pretreatment Program Modification:</i>	<i>2</i>
<i>B. Legal Authority:.....</i>	<i>2</i>
<i>C. IU Characterization:</i>	<i>2</i>
<i>D. Control Mechanism Evaluation:.....</i>	<i>2</i>
<i>E. Application of Pretreatment Standards and Requirements</i>	<i>2</i>
<i>F. Compliance Monitoring:</i>	<i>3</i>
<i>G. Enforcement:</i>	<i>3</i>
<i>H. Data Management/Public Participation:</i>	<i>3</i>
SECTION 4.0: FILE REVIEWS	3
4.1 IU Identification this table, the	3
4.2 Facility Information	4
4.3 IU Evaluation	6
A. Issuance of IU Control Mechanism.....	6
B. Application of IU Pretreatment Standards:	8
E. IU Compliance Status	10
SECTION 5.0: INDUSTRIAL USER SITE VISITS	12
SECTION 6.0: SUMMARY OF FINDINGS.....	15
A. Areas of Concern.....	15
B. General Comments	16

Appendix I: Photo Log

Appendix II: TCBSD Script for Industrial User Operators

SECTION 1.0: INTRODUCTION

The U.S. Environmental Protection Agency conducted a Federal Pretreatment Compliance Inspection (PCI) of Thorn Creek Basin Sanitary District (TCBSD) from February 24 – 26, 2025. The purpose of the inspection was to evaluate the procedures and implementation of TCBSD's pretreatment program. Special Condition 8 of TCBSD's National Pollutant Discharge Elimination System (NPDES) Permit IL0027723 requires TCBSD to operate its approved pretreatment program. The pretreatment program was approved on June 19, 1985.

EPA's inspection consisted of:

1. Review of requested submittals prior to on-site inspection.
2. Interviews and discussion with TCBSD staff.
3. Industrial User (IU) file reviews; and
4. Site visits at IUs.

On February 24, 2025, at 10:05 am, EPA Inspectors, Val Dooling and Sophie Bazan arrived at the TCBSD office in Chicago Heights, Illinois. We met Jennifer Hindel, P.E., Executive Director, Jeremy Stubbs, Technical Services Director, and Christa Rieger, Laboratory Director and Pretreatment Coordinator. For the remainder of the inspection, Jennifer Hindel was not present. EPA Inspectors showed their inspector credentials to Jeremy Stubbs and Christa Rieger and I asked whether any information was considered Confidential Business Information (CBI). Mr. Stubbs responded that some of the IU files contained CBI; however, per the scope of the inspection, it was deemed not necessary for us to review any CBI.

SECTION 2.0: SITE BACKGROUND AND PRELIMINARY REVIEW

Mr. Stubbs told me that the TCBSD has six municipalities within its boundary: Chicago Heights, Crete, Homewood, Park Forest, South Chicago Heights and Steger. TCBSD serves a population of approximately 90,000. The collection system is separated and there is a wet weather facility in Homewood for inflow and infiltration and a lagoon storage for sludge. The 2020 NPDES Permit is the most recent one with an expiration date of September 30, 2025, and TCBSD is currently working on permit renewal.

TCBSD owns and operates one wastewater treatment plant at 700 West End Avenue in Chicago Heights, Illinois. The average design flow is 15.9 million gallons per day (MGD) and actual design flow is 14.8 MGD. The treatment plant consists of fine screening, grit removal, primary clarification, secondary aeration and secondary clarification, nitrifying conventional activated sludge (suspended-growth aeration with tertiary clarification), sand filtration, post aeration, and disinfection.

SECTION 3.0: SUPPLEMENTAL DATA REVIEW/INTERVIEW

A. Pretreatment Program Modification:

TCBSD received its latest NPDES Permit effective October 1, 2020 and expires September 23, 2025. TCBSD's most recent local limits evaluation was approved by EPA in September 2021.

B. Legal Authority:

TCBSD serves six cities and is independent of any municipality. Anyone in the boundary of the sanitary district falls under the Ordinance and it is not necessary to have Intergovernmental Agreements. The authority to implement and enforce pretreatment standards and requirements are located in the Pretreatment and Sewer Use Ordinance, Title III of 1977 NPDES Permit and the Clean Water Act.

C. IU Characterization:

TCBSD has ten significant industrial users, including seven categorical industrial users and three noncategorical industrial users. Nine additional noncategorical industrial users are also regulated.

TCBSD's definition of significant industrial user is consistent with the language in the Federal regulations. TCBSD has purchased an Illinois Manufacturing Guide subscription, and it also uses reviews of newspapers, water billing records, and building permits among other methods to identify new industrial users. It maintains an industrial waste database and conducts surveys on an annual basis. Based on the results of the survey, TCBSD may schedule a site visit to evaluate operation and determine if effluent sampling is required.

D. Control Mechanism Evaluation:

The individual permits for SIUs have a maximum term of 5 years and include:

- Statement of duration
- Statement of non-transferability
- Effluent limits
- Self-monitoring requirements
- Statement of applicable civil and criminal penalties

E. Application of Pretreatment Standards and Requirements

TCBSD has technically evaluated the following pollutants:

- | | | |
|-----------------------------------|-------------------|------------------------|
| · Arsenic | · Cyanide | · Selenium |
| · Barium | · Fluoride | · Silver |
| · BOD | · Iron | · Temperature |
| · Boron | · Lead | · TKN |
| · Cadmium | · Manganese | · Total Oil and Grease |
| · Chloride | · Mercury | · TSS |
| · Chromium (total and hexavalent) | · Molybdenum | · TTO |
| · COD | · NH ₃ | · Zinc |
| · Copper | · Nickel | · Manganese |
| | · pH | · Mercury |

F. Compliance Monitoring:

TCBSD performs compliance monitoring according to its pretreatment requirements with inspections once per year and sampling at least one full working week annually for the full range of pollutants listed under the local limits with some pollutants sampled on a more frequent basis. IUs with chronic violations may have their permits amended to increase sampling frequencies. TCBSD performs self-monitoring and semi-annual monitoring for many of its IUs. Testing results are generated by the control authority and sent monthly to the facilities. Some IUs also have self-monitoring in addition to those that TCBSD will perform. Those are required to submit records each month.

G. Enforcement:

TCBSD's definition of significant non-compliance is consistent with EPA's definition.

The Enforcement Response Plan is part of the TCBSD's Ordinance. It also utilizes compliance plans for IUs that have had chronic effluent exceedances.

H. Data Management/Public Participation:

CBI is maintained securely. FOIA requests are addressed by a FOIA officer and handled expeditiously. TCBSD utilized a data management system to track pretreatment implementation and enforcement activities. Public notification is through monthly public TCBSD board meetings. Public comment period is held at the beginning of each meeting.

I. Resources:

TCBSD allocates resources for legal assistance, permitting, inspections, sample collection, sample analysis, data analysis, review and response, enforcement, and administration amounting to 3.5 full time equivalents. It has sampling equipment and vehicle for field monitoring.

SECTION 4.0: FILE REVIEWS

4.1 IU Identification

IU Permit Number	IU Name	IU Type	Avg total flow (gpd)	Avg process flow (gpd)	Visited During Audit?	Reviewer	Categorical Pretreatment Standard
470001500	Winpak Portion Packaging Inc	CIU	25044	22630 non-contact cooling; 24 contact cooling	No	Valerie Dooling	40 CFR 463 Plastics Molding and Forming Point Source Category

470001026	Essential Chemical USA, LLC (Solvay USA Inc.)	Non-Categorical SIU	853,200	780,200	No	Sophie Bazan	
470001032	Phibro Animal Health Corporation	CIU	333,000		Yes	Valerie Dooling	40 CFR 439 Pharmaceutical Manufacturing Point Source Category
470001064	Chicago Heights Steel	CIU	19,500	16,600	Yes	Sophie Bazan	40 CFR 420 Iron and Steel Manufacturing Point Source Category

4.2 Facility Information

Winpak Portion Packaging, Inc
3345 Butler Ave
Chicago Heights, IL 60411

Winpack Portion Packaging, Inc is a manufacturer of plastic portion cups used as food containers. Rate of production is estimated annually 18.9 billion cups. The industry began operation in 1964. There are 175 employees working over two shifts for 24 hours, for 365 days per year. The facility uses a pelletizer to convert plastic flake to pellet form by heating and extruding polypropylene and polystyrene. The pellets fall into a bath of water to cool and are then removed, but the water bath sometimes overfills and drains into the sewer.

There are two separate cooling water systems, chilled and tower. Both systems are treated with chemicals to control corrosion, scale, and biological fouling of heat exchangers. The chilled system is closed loop with minimal evaporations and does not blowdown to the sewer. The tower system is open loop with water loss due to evaporation and blow down to the sewer. TCBSD considers the facility's discharge as regulated under 40 CFR 463 Subpart A - Contact cooling and heating water for plastic molding and forming point source category and 403 requirements. All discharged wastewater is non-contact cooling through heat exchangers except for the pelletizer. There are no pretreatment devices or processes for treating wastewater. The facility has a continuous discharge and has three outfalls to the TCBSD sewer system.

Essential Chemical USA, LLC (Solvay USA Inc.)
1020 State St
Chicago Heights, Illinois 60411

Essential Chemical USA, LLC manufactures amorphous precipitated silica in a batch reaction between sodium silicate solution and sulfuric acid. The reaction precipitates the silica product, and it is filtered to separate, then reliquefied, and dried to a white micropearl powder. Process wastewater is a combination of filter press filtrate and wash water that contains a by-product, sodium sulfate, which is discharged continuously via sanitary sewer to TCBSD. There are two wastewater discharge connections to the sewers.

Phibro Animal Health Corporation
400 state street
Chicago Heights, Illinois 60411

The facility has been in operation since 1981 under Alpharma and then Zoetis LLC and was purchased by Phibro in 2024. Phibro Animal Health Corporation operates 24 hours a day, 365 per year. It manufactures Bacitracin Methylene Disalicylate (BMD) which is used as an antibacterial feed additive for supplementing rations for livestock. BMD is made through fermentation through a complex with Methylene Disalicylic Acid (MDA) which is also made at the facility. The MDA reacts with salicylic acid and formalin in diluted sulfuric acid. After the reaction is complete the slurry is filtered and remaining crystals are washed and solubilized with caustic soda.

Process wastewater is generated in multiple areas: from liquid ring vacuum pump during filtration and equipment flushing; from wash and steam cycles; and from the soluble area through equipment washing. Wastewater from these areas is neutralized and then transferred to the wastewater pretreatment system. Additionally, a monthly wash of the Deccox area, a non-antibiotic medication, also creates small amount of wastewater which not sent to the pretreatment system but is sent directly to the sanitary sewer.

The current pretreatment system only began operating in 2017. In the pretreatment system, the wastewater is sent to mix tanks where the pH is adjusted before it is discharged to the sanitary sewer. There is a flow meter in the pretreatment building that is for categorical flow determination. The categorical flow is the majority (96%) of total flow. There is one outfall which discharges to the TCBSD sanitary sewer continuously. Samples are collected at a manhole in the sampling building which is a combination of process and sanitary flows. Total flow and pH are also measured at that location.

Chicago Heights Steel
211 E Main St
Chicago Heights, Illinois 60411

Chicago Heights Steel has been in operation since 1985, but the facility has operated for much longer. The facility hot rolls steel railroad rails and billets to make fence posts, signposts, and merchant bars. The process is to reheat rails in a furnace and then transfer through a series of electrically driven roll stands that shape and stretch the rails into the desired shape. Process water is used to cool the steel mill stands and descale the material. There is one continuous process discharge outfall and ten domestic outfalls to TCBSD sewer system.

4.3 IU Evaluation

A. Issuance of IU Control Mechanism

The IUs were issued or reissued an individual control mechanism with a statement of duration of five years. The control authority has not issued general control mechanisms.

Individual control mechanism contents

Statement of duration (≤ 5 years)

- For this category, no issues of concern were identified during the inspection.

Statement of non-transferability

- For this category, no issues of concern were identified during the inspection.

Applicable effluent limits (local limits, categorical standards, Best Management Practices)

- For this category, no issues of concern were identified during the inspection.

Self-monitoring requirements

Identification of pollutants to be monitored

- For this category, no issues of concern were identified during the inspection.

Process for seeking a waiver for pollutant not present or expected to be present (for CIUs only)

- The process for seeking a waiver is not in the Phibro Animal Health Corporation permit, but the language is present in the sewer use ordinance for seeking a waiver for cyanide, mercury, phenol, organics listed under EPA Method 608, 624, and 625.

Sampling frequency

- For this category, no issues of concern were identified during the inspection.

Has the POTW reduced the IU's monitoring requirements for pollutants not present or expected to be present?

- For this category, no issues of concern were identified during the inspection.

Sampling locations/discharge points

- For this category, no issues of concern were identified during the inspection.

Sample types (grab or composite)

- For this category, no issues of concern were identified during the inspection.

Reporting requirements (including all monitoring results)

- For this category, no issues of concern were identified during the inspection.

Record-keeping requirements

- For this category, no issues of concern were identified during the inspection.

Notification requirements

Notice of slug loading

- For this category, no issues of concern were identified during the inspection.

Notification of spills, bypasses, upsets, etc.

- The IU permits for Winpak Portion Packaging Inc, Essential Chemical USA, LLC, Chicago Heights Steel and Phibro Animal Health Corporation state that the report can be provided within seven days. The regulation requires that a follow-up report must be provided within five (5) days according to 40 CFR 403.17(c) and 403.16(c)(3).

Notification of significant change in discharge

- For this category, no issues of concern were identified during the inspection.

24-hour notification of violation/resample requirement

- The IU Permits for Winpak Portion Packaging Inc, Essential Chemical USA, LLC, Chicago Heights Steel and Phibro Animal Health Corporation lists that if any samples violate the terms of the Permit, the permittee must take another sample within 30 days, but the requirement to notify the CA within 24 hours is not present in the permits.

Statement of applicable civil and criminal penalties

- For this category, no issues of concern were identified during the inspection.

Compliance Schedules

- For this category, no issues of concern were identified during the inspection.

Requirements to control slug discharges; determined by the POTW to be necessary

- For this category, no issues of concern were identified during the inspection.

Issuance of General Control Mechanisms

- For this category, no issues of concern were identified during the inspection.

B. Application of IU Pretreatment Standards:

IU Categorization

Calculation and application of categorical standards

- For this category, no issues of concern were identified during the inspection.

Classification by category/subcategory

- For this category, no issues of concern were identified during the inspection.

Classification as new/existing source

- For this category, no issues of concern were identified during the inspection.

Application of limits for all regulated pollutants

- For this category, no issues of concern were identified during the inspection.

Classification of nonsignificant CIU

- For this category, no issues of concern were identified during the inspection.

Application of local limits

- For this category, no issues of concern were identified during the inspection.

Application of Best Management Practices

- For this category, no issues of concern were identified during the inspection.

Calculation and application of production-based standards

- For this category, no issues of concern were identified during the inspection.

Calculation and application of CWF or FWA

- For this category, no issues of concern were identified during the inspection.

Application of most stringent limit

- For this category, no issues of concern were identified during the inspection.

C. CA Compliance Monitoring

Sampling (once a year, except as otherwise specified)

- For this category, no issues of concern were identified during the inspection.

If a POTW has waived monitoring for CIU: Sample waived pollutant(s) at least once during the term of the control mechanism

- For this category, no issues of concern were identified during the inspection.

If a POTW has reduced an IU's reporting requirements: Sample and analyze IU discharge at least once every 2 years

- For this category, no issues of concern were identified during the inspection.

Sampling at frequency specified in approved program

- TCBSD samples the local limits for Winpak Portion Packaging Inc, Essential Chemical USA, LLC, Phibro Animal Health Corporation, and Chicago Heights Steel and does not require that IU take any additional samples or submit reports for these parameters. However, for the local limits that TCBSD samples and analyzes, it is performed once per year for three consecutive days and not performed in different halves of the year (semi-annual) sampling. Categorical industrial users that require semi-annual reports in June and December according to 403.12(e) or non-categorical significant industrial users that require semi-annual sampling according to 403.12(h) do not have the required sampling frequency.
- In addition to the local limits, some IU Permits do require that the IUs sample and analyze additional parameters at a different frequency. Those IUs that have their own sampling requirements will submit to TCBSD semi-annual monitoring reports of their own results.

Documentation of sampling activities

- For this category, no issues of concern were identified during the inspection.

Analysis for all regulated parameters

- For this category, no issues of concern were identified during the inspection.

Appropriate sampling techniques and analytical methods (40 CFR Part 136)

- Essential Chemical USA, LLC and Chicago Heights Steel sample and analyze hexavalent chromium as a grab sample rather than a composite sample as required by 40 CFR 403.12(g)(3).

Inspection (once a year, except as otherwise specified)

- For this category, no issues of concern were identified during the inspection.

If a POTW has determined a discharger to be a NSCIU:

- For this category, no issues of concern were identified during the inspection.

If a POTW has reduced an IU's reporting requirements: Inspect at least once every 2 years

- For this category, no issues of concern were identified during the inspection.

Inspection at frequency specified in approved program

- For this category, no issues of concern were identified during the inspection.

Documentation of inspection activities

- For this category, no issues of concern were identified during the inspection.

Evaluation of need for slug discharge control plan

- For this category, no issues of concern were identified during the inspection.

D. CA Enforcement Activities

Identification of discharge violations

- There is no record of the CA identifying the following exceedances by Phibro Animal Health Corporation:

Date	Parameter	Permit Limit (mg/L)	Reported Value (mg/L)
8/16/2022	TKN	90	110
8/16/2022	COD	1050	1304
8/17/2022	TKN	90	105
8/17/2025	COD	1050	1164
8/18/2025	COD	1050	1132

Identification of monitoring/reporting violations

- For this category, no issues of concern were identified during the inspection.

Identification of compliance schedule violations

- For this category, no issues of concern were identified during the inspection.

Calculation of SNC

- For this category, no issues of concern were identified during the inspection.

Publication of SNC

- For this category, no issues of concern were identified during the inspection.

Adherence to approved ERP

- For this category, no issues of concern were identified during the inspection.

Escalation of enforcement

- For this category, no issues of concern were identified during the inspection.

E. IU Compliance Status

Sampling by IU at frequency specified in control mechanism/regulations

- For this category, no issues of concern were identified during the inspection.

Analysis by IU of all required pollutants in accordance with appropriate sampling techniques and analytical methods

- For this category, no issues of concern were identified during the inspection.

Submission by IU of BMR/90-day report

- For this category, no issues of concern were identified during the inspection.

Periodic self-monitoring reports submitted by IU

- For this category, no issues of concern were identified during the inspection.

Reporting by IU on all required pollutants

- For this category, no issues of concern were identified during the inspection.

IU signatory/certification of reports

- For this category, no issues of concern were identified during the inspection.

Annual certification by NSCIUs

- For this category, no issues of concern were identified during the inspection.

Submission by IU of compliance schedule reports by required dates

- For this category, no issues of concern were identified during the inspection.

IU notification within 24-hours of becoming aware of discharge violations including slug loading or accidental spill

- For this category, no issues of concern were identified during the inspection.

Resampling/reporting by IU within 30 days of knowledge of violation

- For this category, no issues of concern were identified during the inspection.

Notification by IU of hazardous waste discharge

- For this category, no issues of concern were identified during the inspection.

IU submission/implementation of slug discharge control plan

- For this category, no issues of concern were identified during the inspection.

Slug discharge control plan contains procedures for immediately notifying the POTW of slug discharges

- For this category, no issues of concern were identified during the inspection.

Notification by IU of significant changes in discharge

- For this category, no issues of concern were identified during the inspection.

Noncompliance with reporting requirements (but not SNC)

- For this category, no issues of concern were identified during the inspection.

Noncompliance with discharge limits (but not SNC)

- For this category, no issues of concern were identified during the inspection.

SNC for chronic violations

- For this category, no issues of concern were identified during the inspection.

SNC for TRC

- For this category, no issues of concern were identified during the inspection.

SNC for pass through or interference

- For this category, no issues of concern were identified during the inspection.

SNC for any discharge causing imminent endangerment to human health, welfare or to the environment

- For this category, no issues of concern were identified during the inspection.

SNC for failure to meet, within 90 days after the schedule date, a compliance schedule construction milestone contained in a local control mechanism or enforcement order

- For this category, no issues of concern were identified during the inspection.

SNC for failure to provide, within 45 days after the due date, required reports

- For this category, no issues of concern were identified during the inspection.

SNC for failure to accurately report noncompliance

- For this category, no issues of concern were identified during the inspection.

SNC for other violations

- For this category, no issues of concern were identified during the inspection.

SECTION 5.0: INDUSTRIAL USER SITE VISITS

Phibro Animal Health Corporation

Val Dooling and Sophie Bazan met with Jeremy Stubbs and Christa Rieger (TCBSD Representatives) at Phibro Animal Health Corporation (Phibro) at 10:30 am on February 27, 2025, and met with Ellen Brady, Senior Manager Environmental Health and Safety. EPA Inspectors showed their inspector credentials to Ms. Brady, and I asked whether any information that would be discussed was considered Confidential Business Information (CBI). She replied that there was not. I explained the purpose and scope of the inspection then we began a discussion of the facility.

Ms. Brady described the facility as manufacturer of poultry antibiotics. Bacitracin Methylene Disalicylate (BMD) is the final product made through fermentation with flour as the raw product. Wastewater generated in the process is discharged through a pretreatment facility. The pretreatment facility was built around 8 years ago due to high solids being discharged in the facility's wastewater. At that time, operational changes were also made to help eliminate the high solids. In November 2024, the facility was purchased by Phibro, previously it was operating as Zoetis. Ms. Brady described fermentation as operating 24/7 whereas dry operations, which do not discharge wastewater, as operating 5 days per week in two shifts. The wastewater treatment plant is also run 24/7. Production has been steady, and she did not expect any changes to the wastewater.

The pretreatment facility consists of a lift station to a 350,000-gallon equalization tank which is usually kept around 60% full. From the tank the wastewater goes through a 2-stage pH adjustment. There is a flow meter that is just for wastewater exiting the pretreatment system. After the pretreatment system, sanitary and other flows join prior to entering the sanitary sewer. A second flow meter for all combined wastestreams and a duplicate autosampler collects samples of the combined wastewater prior to entering the district's sewer.

Ms. Rieger requested information on air pollution control equipment, hazards, anticipated changes, and pollution prevention programs. Ms. Brady described pollution control devices onsite as bag houses for dust control. She told us that the facility has a separate generator just for the pretreatment system in case of power outages. The facility also holds an NPDES Stormwater Permit for Industrial Activities, along with SWPPP, SPCC plan and dust control plans. Any hazardous waste generated is mainly from laboratories and is sent out by a wastewater contractor. If larger amount of wastewater is generated through the cleaning of tanks by a spill, it would be contained and also sent out by the same contractor. Additionally, non-contact cooling water is also discharged to the pretreatment system since it had previously just been discharged to the sewer, but the facility had encountered pH exceedances due to chemical additions to the cooling water.

Ms. Rieger reviewed records on site of the last year of manifests for hazardous and non-hazardous waste shipments, analytical reports from the last year, records of communication between TCSD and the facility, and Safety Data Sheets (SDS) of chemicals used onsite.

At 11:20 we finished the discussion and began the site visit.

The site visit consisted of quality control and other labs which discharge hazardous waste, which is then collected and shipped out by a contractor. In the same building, we viewed the hazardous waste room and I observed a spill kit nearby.

In the main process building we started at the Methylene Disalicylic Acid (MDA) fermenter area, and soluble area, and nearby storage of raw materials for MDA fermentation. We also viewed chiller room, sterilizer, water softeners, six fermenters, dry area, and evaporation and drying areas. All these areas drain to the pretreatment system, with exception of the dry area, which does not have a discharge.

Next, we viewed the pretreatment building and a large blue equalization tank located outside. Inside the building we observed two pH adjustment tanks, a process flow meter, pH meter and second redundant pH meter which both monitor the categorical wastestream. The operator uses a SCADA system to operate the pretreatment system and collects categorical pH readings hourly. We then went to the combined flume building where the combined wastewater sample is collected. At this location, we observed the installed autosampler and redundant autosampler used for sample collection of the combined wastestream.

We completed the site visit at 12:20pm and left the facility.

Chicago Heights Steel

Val Dooling and Sophie Bazan met with Jeremy Stubbs and Christa Rieger at Chicago Heights Steel at 1:40 pm on February 27, 2025, and then met with Chicago Heights Steel representative Mark Giblin, Supervisor, Engineer and Environmental Safety. EPA Inspectors showed their inspector credentials to Mr. Giblin, and I asked whether any information that would be discussed was considered Confidential Business Information (CBI). He replied that there was not. I explained the purpose and scope of the inspection then we began a discussion of the facility.

Mr. Giblin explained that the facility recycles steel railroad rails into studded t-posts and highway posts through hot rolling. In the process, railroad rails are graded and sorted into usability. Rails that can be rerolled are reheated in a furnace until the steel is pliable, it is split into three components and then each component is rolled through eight housings of rolls. The rolled posts are air cooled, and fabricated, and painted before being packaged and shipped. There are approximately 240 employees and it operates 6 days a week with one 6am – 4pm shift and one day with a second shift. Mr. Giblin told me that the facility has had roughly the same process onsite since 1897 with an upgrade of rough rollers in the 1950s and of finishing rollers in 2005.

The only process wastewater is generated as cooling water during the heating and rolling processes. The cooling water is a closed loop system with settlement basin and makeup water is added or wastewater is discharged depending on levels. The settlement basin has two chambers with two oil water separators. There is a four-stage manifold with 100-micron filter to remove solids prior to discharging wastewater to TCBSD. The control authority does all effluent monitoring for Chicago Heights Steel.

Ms. Rieger requested information on air pollution control equipment, hazards, anticipated changes, and pollution prevention programs. She also reviewed the previous year's onsite records, manifests for non-hazardous waste shipments, analytical reports, records of communication between TCSD and the facility and SDS of chemicals used onsite.

At 2:20pm we finished the discussion and began the site visit. The site visit consisted of walkthrough of the cooling water treatment then the production areas.

We started at the sort yard, where Mr. Giblin described which rails would be rolled onsite and which would be resold as rail or as scrap. We viewed the manhole where TCBSD collects combined effluent samples (Photo 9). We saw the four-stage filter manifold, which Mr. Giblin stated was changed out every other day. We then walked to the two-chamber settling pond (Photos 10-12) with two oil water separators (Photo 12). Mr. Giblin explained that mill scale is settled out then excavated once a week into a nearby pile and sold. I saw an excavator and the pile of mill scale on the ground adjacent to the manifold housing. The oil water separator is also routinely cleaned out by a contractor.

We next walked through the process where rails are broken to size then transported by crane magnets and aligned to enter the furnace at the identical position. The furnace is hot enough to recrystallize but not melt the steel. A water-cooled peel bar pushes the charged rail out of the furnace and through a splitter which separates the rail into three components. Both the peel bar and rollers are watercooler and generate process wastewater. Each of the three pieces goes through eight rollers, first rough rollers then fine which apply pressure to compress the steel into a thinner, longer piece. The pieces air cooled and cold sheared to product length.

We also walked through other areas of production that did not generate process wastewater: painting, fabrication, hole punching, and packaging. We also walked through general maintenance where the rollers are custom milled.

We completed the site visit at 4:35pm and left the facility.

SECTION 6.0: SUMMARY OF FINDINGS

A. Areas of Concern

40 C.F.R. Part	File Reviews	Report Section
403.8(f)(1)(iii)(B)(4)	The process for seeking a waiver is not in the Phibro Animal Health Corporation permit.	4.3 A
40 CFR 403.17(c) and 403.16(c)(3)	40 CFR 403.17(c) and 403.16(c)(3) both say that if the notification is given orally, a follow up report must be provided within five (5) days. The IU permits for Winpak Portion Packaging Inc, Essential Chemical USA, LLC, Chicago Heights Steel and Phibro Animal state that the report can be provided within seven days.	4.3 A
403.12(g)(2)	The IU Permits for Winpak Portion Packaging Inc, Essential Chemical USA, LLC, Chicago Heights Steel, and Phibro Animal Health Corporation lists that if any samples violate the terms of the Permit, the permittee	4.3 A

	must take another sample within 30 days, but the requirement to notify the CA within 24 hours is not present in the permits.	
403.12(e) & 403.12 (H)	The CA samples for Winpak Portion Packaging Inc, Essential Chemical USA, LLC, Phibro Animal Health Corporation, and Chicago Heights Steel so that the IU does not have to take any samples, but the CA only samples once per year for three consecutive days. It does not have sampling in different halves of the year (semi-annual) sampling.	4.3 C
403.12(g)(3)	Essential Chemical USA, LLC and Chicago Heights Steel sample and analyze hexavalent chromium as a grab sample rather than a composite sample as stated in 40 CFR 403.12(g)(3).	4.3 C
403.8(f)(2)(vii)	There is no record of the CA identifying some exceedances by Phibro Animal Health Corporation.	4.3 D

B. General Comments

TCBSD had multiple examples of utilizing enforcement avenues provided by its Enforcement Response Plan to identify IUs in SNC, respond with publication and notice of violation and escalate to a compliance plan to achieve full compliance with the IU's permitted effluent limits.

TCBSD is regulating Winpak's effluent under 40 CFR 463 Subpart A - Contact cooling and heating water for plastic molding and forming point source category. The effluent is listed as primarily non-contact cooling water with approximately 24 gallons per day is process wastewater but the discharge does not include contact cooling water discharge. TCBSD may reconsider whether this IU is best regulated under its current category or as a non-significant categorical IU or as a non-categorical IU.

Appendix A
Thorn Creek Basin Sanitary District
EPA Inspection February 24-27, 2025
All photos taken by Sophie Bazan, Physical Scientist, U.S. EPA
Camera: Canon PowerShot SX230 HS



1: IMG_0162

Description: MDA synthesis tanks with floor drain that discharges to the pretreatment system.

Location: Phibro Fermentation Building

Camera Direction: East

Date/Time: 2/27/2025 11:33



2: IMG_0163

Description: Soluble area that is surrounded by a brick berm, which is broken in parts. Floor is sloped towards a floor drain that is inside the berm and also outside of the berm. The floor drain discharges to the pretreatment system.

Location: Phibro Fermentation Building

Camera Direction: South

Date/Time: 2/27/2025, 11:33



3: IMG_0164

Description: Fermenter tank with steam discharged into a floor drain which discharges to the pretreatment system.

Location: Phibro Fermentation Building

Camera Direction: Northwest

Date/Time: February 2/27/2025, 11:41

Thorn Creek Basin Sanitary District- NPDES IL0027723
Pretreatment Compliance Inspection
February 24 – 27, 2025

Thorn Creek Basin Sanitary District (TCBSD) Script

Call (708) 754-0525, Extension 88 within 60 minutes of out-of-range pH
Call Ellen Brady or Chase Phillips if Thorn Creek can not be reached.

If the grab sample confirms a pH reading below 5.5:

My name is _____ and I am calling from Phibro in Chicago Heights. At
(your name)

Approximately _____ on _____ the pH reading at our outfall was below 5.5.
(time) (date)

The pH reading remained below 5.5 from _____ until _____ or for
(time) (time)

Approximately _____ minutes. The lowest pH reading registered during this
(number of minutes)

time period was _____. A Phibro supervisor or manager will call back with more
(lowest pH reading)

details on the low pH reading. If you have any questions before then, you may contact me at 708-754-2508. Thank You.

If the grab sample confirms a pH reading above 8.0:

My name is _____ and I am calling from Phibro in Chicago Heights. At
(your name)

Approximately _____ on _____ the pH reading at our outfall was above 8.0.
(time) (date)

The pH reading remained above 8.0 from _____ until _____ or for
(time) (time)

Approximately _____ minutes. The highest pH reading registered during this
(number of minutes)

time period was _____. A Phibro supervisor or manager will call back with more
(highest pH reading)

details on the high pH reading. If you have any questions before then, you may contact me at 708-754-2508. Thank You.

1/30/2025

02/27/2025 11:49

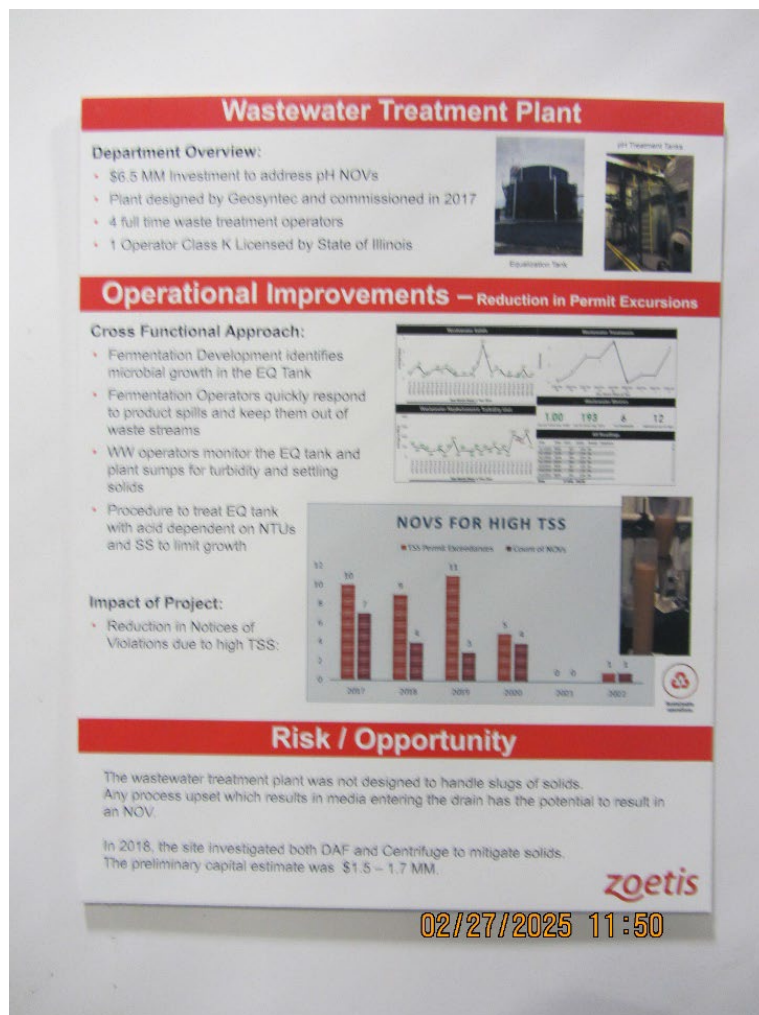
4: IMG_0165

Description: Blank sheet used by pretreatment operators that includes contact information and a script to notify TCBSD of emergency spills and pH exceedances. See Appendix B.

Location: Phibro Water Treatment Building

Camera Direction: down

Date/Time: 2/27/2025, 11:49



5: IMG_0166

Description: Sign at the pretreatment system building which describes the purpose and design of the pretreatment system. The sign indicates that the plant was constructed for \$6.5 million in 2017 to address pH notice of violations which were issued by TCBSD, and it also resulted in a reduction of TSS notice of violations issued by TCBSD as well.

Location: Phibro Water Treatment Building

Camera Direction: East

Date/Time: 2/27/2025, 11:50



6: IMG_0167

Description: Flow meter and pH meter and redundant pH meter in the left of the photo where the categorical pH reading is taken.

Location: Phibro Water Treatment Building

Camera Direction: South

Date/Time: 2/27/2025, 11:53



7: IMG_0168

Description: Two treatment tanks (foreground) and day tanks (background) used for pH neutralization as part of the pretreatment system.

Location: Phibro Water Treatment Building

Camera Direction: Southwest

Date/Time: 2/27/2025, 11:54



8: IMG_0169

Description: Redundant autosamplers used for effluent sampling at the combined wastestream.
TCBSD will bring in their own autosampler when it is collecting its own samples.

Location: Phibro Effluent Building

Camera Direction: South

Date/Time: 2/27/2025, 12:01



9: IMG_0170

Description: Chicago Heights Steel Sampling Point and flume.

Location: Chicago Heights Steel

Camera Direction: Down

Date/Time: 2/27/2025, 14:35



10: IMG_0171

Description: Water flume at the start of cooling water settling pond with scale and oil and grease on surface of water.

Location: Chicago Heights Steel

Camera Direction: Northeast

Date/Time: 2/27/2025, 14:44



11: IMG_0172

Description: Cooling water settling basin downstream of the flume. Scale is visible along walkway. Oil water separators are on top of concrete banks on far right and left sides and extended reach skimmers are visible on the surface of the water.

Location: Chicago Heights Steel

Camera Direction: South

Date/Time: 2/27/2025, 14:45



12: IMG_0173

Description: Oil water separator at top and skimmers along the left of the settling basin. The concrete wall of the basin has black oil staining.

Location: Chicago Heights Steel

Camera Direction: Southeast

Date/Time: 2/27/2025, 14:45



13: IMG_0174

Description: Rails entering furnace.

Location: Chicago Heights Steel

Camera Direction: Southwest

Date/Time: 2/27/2025, 14:50



14: IMG_0175

Description: Water cooling peel bar used to push charged rail from the furnace onto rollers. Cooling water drains to the pretreatment system.

Location: Chicago Heights Steel

Camera Direction: Northeast

Date/Time: 2/27/2025, 14:54



15: IMG_0176

Description: Cooling water capture on back of peel bar.

Location: Chicago Heights Steel

Camera Direction: down

Date/Time: 2/27/2025, 14:56



16: IMG_0177

Description: Charged rail moving through three water cooled roughing rollers. Cooling water is collected in the floor drains and is sent to the pretreatment system.

Location: Chicago Heights Steel

Camera Direction: Northeast

Date/Time: 2/27/2025, 15:01

Appendix B

Thorn Creek Basin Sanitary District (TCBSD) Script

**Call (708) 754-0525, Extension 49 within 50 minutes of out-of-range pH
Call Ellen Brady or Chace Phillips if Thorn Creek can not be reached.**

If the grab sample confirms a pH reading below 5.5:

My name is _____ and I am calling from Phibro in Chicago Heights. At
(your name)

approximately _____ on _____ the pH reading at our outfall was below 5.5.
(time) (date)

The pH reading remained below 5.5 from _____ until _____ or for
(time) (time)

approximately _____ minutes. The lowest pH reading registered during this
(number of minutes)

time period was _____. A Phibro supervisor or manager will call back with more
(lowest pH reading)

details on the low pH reading. If you have any questions before than, you may contact me at 708-757-2593.

Thank You.

If the grab sample confirms a pH reading above 9.0:

My name is _____ and I am calling from Phibro in Chicago Heights. At
(your name)

approximately _____ on _____ the pH reading at our outfall was above 9.0.
(time) (date)

The pH reading remained above 9.0 from _____ until _____ or for
(time) (time)

approximately _____ minutes. The highest pH reading registered during this
(number of minutes)

time period was _____. A Phibro supervisor or manager will call back with more
(highest pH reading)

details on the high pH reading. If you have any questions before than, you may contact me at 708-757-2593.

Thank You.