Pennsylvania Department of Environmental Protection

Northwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Application Type	**Renewal**	Application No.	**PA0222844**
Facility Type	**Industrial**	APS ID	**1124490**
Major / Minor	**Minor**	Authorization ID	**1504230**

Applicant and Facility Information

Applicant Name	**Ellwood Ind Facility Co.**	Facility Name	**Ellwood Ind Facility Oxygen Plant**
Applicant Address	700 Moravia Street	Facility Address	700 Moravia Street
	New Castle, PA 16101-3950		New Castle, PA 16101
Applicant Contact	Richard Schochet	Facility Contact	Richard Schochet
Applicant Phone	(724) 658-6515	Facility Phone	(724) 658-6515
Client ID	133781	Site ID	518728
SIC Code	2813	Municipality	New Castle City
SIC Description	Manufacturing - Industrial Gases	County	Lawrence
Date Application Received	October 23, 2024	EPA Waived?	Yes
Date Application Accepted	October 23, 2024	If No, Reason	

Purpose of Application: NPDES Permit Renewal.

Summary of Review

Ellwood Industrial Facility Co. (EIFC) has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES Permit. The permit was last reissued on April 03, 2020 and became effective on May 1, 2020. The permit expired on April 30, 2025 but the terms and conditions of this permit have been extended since that time.

Based on the review, it is recommended that the permit be drafted.

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		*Jinsu Kim* Jinsu Kim / Environmental Engineering Specialist	September 26, 2025
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	September 29, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.031
Latitude	40º 59' 29.0"	Longitude	-80º 21' 13.7"
Quad Name	New Castle South	Quad Code	1103
Wastewater Description:	IW Process Effluent without ELG (Wastewater from vacuum pump seals, water softener backwash, and air compressor condensate)		
Receiving Waters	Shenango River (WWF)	Stream Code	35482
NHD Com ID	130032346	RMI	0.29
Drainage Area	1037	Yield (cfs/mi^2)	0.1489
Q_{7-10} Flow (cfs)	154.4	Q_{7-10} Basis	See below.
Elevation (ft)	798	Slope (ft/ft)	
Watershed No.	20-A	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBS)		
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status	Final 04/01/2001	Name	Shenango River
Nearest Downstream Public Water Supply Intake	PA American Water		
PWS Waters	Beaver River	Flow at Intake (cfs)	450
PWS RMI	12.5	Distance from Outfall (mi)	7.8

The discharge is to Shenango River at RM 0.29. A drainage area upstream of the discharge point is estimated to be 1037 sq.mi. according to USGS StreamStats available at https://streamstats.usgs.gov/ss/.

USGS StreamStats produced a Q7-10 flow of 41.5 cfs at the discharge point. However, the fact sheet developed for the last permit renewal includes a calculated Q7-10 flow based on the New Castle TDS Study. This calculation is as follows:

Combine calculated Q7-10 for Shenango R @ WQN 909 (Grant Street Bridge) and Connoquenessing Cr at mouth and divide by the combined drainage areas of those sites. Multiply the yield by the drainage area at the discharge point. [(146+8)/(792+242)] x 1037 = 154.4 cfs

Per 25 Code Chapter 93.9w, Shenango River is classified as warm water fishery. Shenango River at the discharge point is impaired for PCBs for fish consumption use as a result of unknown source. A Total Maximum Daily Load (TMDL) was developed in 2001 to address PCB and chlordane impairment on Shenango River. A more detailed information will be discussed later in this fact sheet.

The fact sheet developed for the last permit renewal indicates the nearest downstream public water supply intake is PA American Water Company located on Beaver River approximately 7.8 miles from the discharge point. Given the nature and distance, the discharge is not expected to affect the water supply intake.

Treatment Facility Summary

EIFC owns and operates an oxygen generation plant generating oxygen for its steelmaking process (SIC Code 2813) During its industrial process, EIFC generates wastewater from vacuum pumps seals, softener backwash and air compressor. About total of 0.031 MGD of wastewater is generated. Wastewater generated from this facility is discharged to Shenango River via Outfall 001. Stormwater from the plant building rooftop is discharged to Shenango River via Outfall 002.

Compliance History

Summary of DMRs:	A summary of past 12-month DMR data is presented on the next page.
Summary of Inspections:	05/30/2024: DEP conducted a routine inspection and no violations were identified at the time of inspection.
Other Comments:	Since the last permit reissuance, the facility had a number of permit violations in 2021, all of them were associated with sample collections less frequent than required (see below)

Date	Description	Parameter
4/29/2021	Sample collection less frequent than required	pH
4/29/2021	Sample collection less frequent than required	Temperature (deg F)
11/29/2021	Sample collection less frequent than required	Flow
11/29/2021	Sample collection less frequent than required	pH
11/29/2021	Sample collection less frequent than required	Temperature (deg F)

DEP's database shows there is no open violation associated with this facility or permittee.

Effluent Data

DMR Data for Outfall 001 (from August 1, 2024 to July 31, 2025)

Parameter	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24
Flow (MGD) Average Monthly	0.022	0.023	0.023	0.024	0.024	0.022	0.023	0.024	0.025	0.025	0.025	0.019
pH (S.U.) Daily Minimum	8.23	8.15	7.7	8.07	7.8	8.03	8.03	8.07	8.09	8.15	8.09	8.18
pH (S.U.) Daily Maximum	8.25	8.2	8.12	8.15	8.4	8.15	8.09	8.17	8.1	8.17	8.13	8.20
Temperature (ºF) Daily Maximum	102	95	98	95	90	88	92	97	96	97	99	100

Existing Effluent Limits and Monitoring Requirements

The table below summarizes effluent limits and monitoring requirements specified in the existing permit.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	2/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	2/month	Grab
Temperature (ºF)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	2/month	I-S

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	.031
Latitude	40º 59' 31.00"	**Longitude**	-80º 21' 11.00"

Wastewater Description: IW Process Effluent without ELG

Technology-Based Limitations

Outfall 001 receives wastewater from vacuum pumps seals, softener backwash and air compressor. These non-contact cooling water, backwash and miscellaneous wastewater is not subject to any federal ELGs. The existing pH effluent limits will continue to be included in the permit per state effluent standards found in 25 Pa Code Chapter 95.2(1). Given the nature of wastewater, it is not oil-bearing wastewater; as a result, effluent standard for Oil and Grease found in 25 Pa Code Chapter 95.2(2) is not applicable.

Water Quality-Based Limitations

No WQM 7.0 model will be utilized for non-contact cooling water and backwash for CBOD5 and NH3-N as they are not pollutants of concern.

Non-contact cooling water is generally considered a heated wastewater and is subject to a reasonable potential analysis through DEP's Thermal Limits Spreadsheet. However, DEP previously determined that such analysis is not needed given that, according to the fact sheet developed during the last permit renewal, there is a significant dilution available in the receiving stream. For this renewal, DEP's Thermal Limits Spreadsheet was utilized to confirm that no WQBELs are required. The spreadsheet output shows 110 °F throughout the year; showing that no WQBELs are required. The spreadsheet is attached to this fact sheet. The requirement to monitor for effluent temperature will continue to be included in the permit.

Because the source of water is city water, softener backwash does not likely contain heavy metals. Given the nature of wastewater, no reasonable potential analysis for toxic pollutants has been conducted.

Other Considerations

Flow Monitoring
Flow monitoring remains unchanged and is also required by 25 PA Code §§ 92a.27 and 92a.61.

Chemical Additive
The application includes sodium chloride as a chemical additive. It is used as city water softener (seal water) at a rate of 100 lbs/day. The facility has been approved to use this chemical in the past; therefore, no further chemical additive analysis will be performed. However, Part C condition for chemical additive will newly be included in the permit in case the facility wishes to increase the rate or introduce any new chemical additives.

TMDL
Shenango River TMDL was finalized in 2001 to address fish tissue contaminants as a result of PCBs and chlordane. However, the TMDL does not include this facility as the potential source of PCB and chlordane and no wasteload allocations have been developed for this facility. As such, no further requirement will be developed at this time. In case the TMDL is revised to include any wasteload allocations for this facility, DEP may reopen this permit to include such requirements.

Outfall 002
Outfall 002 receives stormwater drained from the roof-top of the plant building. DEP has previously recognized that the facility is eligible for no-exposure. The application also confirms stormwater runoff is not exposed to industrial activity and equipment is stored inside of the building. The current NPDES permit does not include Part C standard stormwater condition. This condition is required regardless of whether the facility is eligible for no-exposure/non-monitoring as the condition requires the implementation of proper BMPs and development of the PPC plan. This standard condition will be included in the permit without any stormwater monitoring requirement.

PFAS Monitoring
DEP has consistently developed PFAS monitoring requirements in NPDES permits for those industrial waste facilities generating process wastewater. Given the nature of wastewater generated from this facility (i.e., condensate/non-contact

cooling water and water treatment backwash), they are not considered process wastewater; therefore, no PFAS monitoring requirement will be included in the permit.

Anti-Backsliding
Pursuant to 40 CFR § 122.44(l)(1), all proposed permit requirements addressed in this fact sheet are at least as stringent as the requirements implemented in the existing NPDES permit.

Class A Wild Trout Streams
No Class A Wild Trout Fishery is impacted by this discharge.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

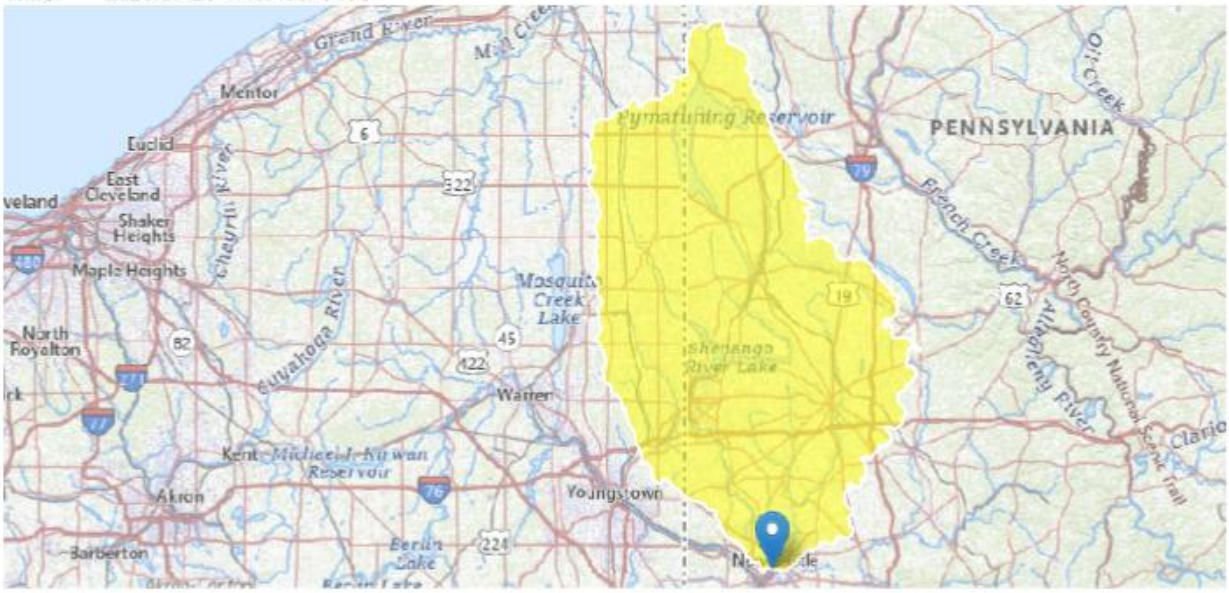
Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	2/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	2/month	Grab
Temperature (ºF)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	2/month	I-S

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

StreamStats Report

Region ID: PA
Workspace ID: PA20250925210641283000
Clicked Point (Latitude, Longitude): 40.99130, -80.35405
Time: 2025-09-25 17:07:08 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1037	square miles
ELEV	Mean Basin Elevation	1121	feet

General Disclaimers

Parameter values have been edited, computed flows may not apply.

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1037	square miles	2.26	1400
ELEV	Mean Basin Elevation	1121	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	72.4	ft^3/s	43	43
30 Day 2 Year Low Flow	101	ft^3/s	38	38
7 Day 10 Year Low Flow	41.5	ft^3/s	66	66
30 Day 10 Year Low Flow	52.3	ft^3/s	54	54
90 Day 10 Year Low Flow	75.1	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.29.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

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Instructions | *Inputs*

Facility: **Ellwood Industiral Facility Co. Oxygen Plant**

Permit No.: **PA0222844**

Stream Name: **Shenango River**

Analyst/Engineer: **Jinsu Kim**

Stream Q7-10 (cfs)*: **154.4**

Outfall No.: **001**

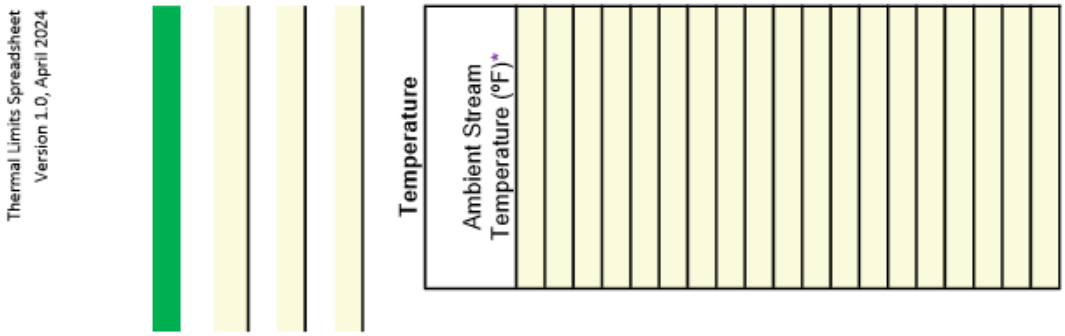
Analysis Type*: **WWF**

Facility Flows

Semi-Monthly Increment	Intake (Stream) (MGD)*	Intake (External) (MGD)*	Consumptive Loss (MGD)*	Discharge Flow (MGD)
Jan 1-31		0.031	0	0.031
Feb 1-29		0.031	0	0.031
Mar 1-31		0.031	0	0.031
Apr 1-15		0.031	0	0.031
Apr 16-30		0.031	0	0.031
May 1-15		0.031	0	0.031
May 16-31		0.031	0	0.031
Jun 1-15		0.031	0	0.031
Jun 16-30		0.031	0	0.031
Jul 1-31		0.031	0	0.031
Aug 1-15		0.031	0	0.031
Aug 16-31		0.031	0	0.031
Sep 1-15		0.031	0	0.031
Sep 16-30		0.031	0	0.031
Oct 1-15		0.031	0	0.031
Oct 16-31		0.031	0	0.031
Nov 1-15		0.031	0	0.031
Nov 16-30		0.031	0	0.031
Dec 1-31		0.031	0	0.031

Stream Flows

Q7-10 Multipliers (Default Shown)	PMF	Seasonal Stream Flow (cfs)	Downstream Stream Flow (cfs)
3.2	1.00	494.08	494.13
3.5	1.00	540.40	540.45
7	1.00	1080.80	1080.85
9.3	1.00	1435.92	1435.97
9.3	1.00	1435.92	1435.97
5.1	1.00	787.44	787.49
5.1	1.00	787.44	787.49
3	1.00	463.20	463.25
3	1.00	463.20	463.25
1.7	1.00	262.48	262.53
1.4	1.00	216.16	216.21
1.4	1.00	216.16	216.21
1.1	1.00	169.84	169.89
1.1	1.00	169.84	169.89
1.2	1.00	185.28	185.33
1.2	1.00	185.28	185.33
1.6	1.00	247.04	247.09
1.6	1.00	247.04	247.09
2.4	1.00	370.56	370.61


Thermal Limits Spreadsheet
Version 1.0, April 2024
Temperature
Ambient Stream Temperature (°F)*

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Thermal Limits Spreadsheet
Version 1.0, April 2024

Instructions | *WWF Results*

Recommended Limits for Case 1 or Case 2

Semi-Monthly Increment	**WWF** Target Maximum Stream Temp. (°F)	**Case 1** Daily WLA (Million BTUs/day)	**Case 2** Daily WLA (°F)
Jan 1-31	40	N/A -- Case 2	110.0
Feb 1-29	40	N/A -- Case 2	110.0
Mar 1-31	46	N/A -- Case 2	110.0
Apr 1-15	52	N/A -- Case 2	110.0
Apr 16-30	58	N/A -- Case 2	110.0
May 1-15	64	N/A -- Case 2	110.0
May 16-31	72	N/A -- Case 2	110.0
Jun 1-15	80	N/A -- Case 2	110.0
Jun 16-30	84	N/A -- Case 2	110.0
Jul 1-31	87	N/A -- Case 2	110.0
Aug 1-15	87	N/A -- Case 2	110.0
Aug 16-31	87	N/A -- Case 2	110.0
Sep 1-15	84	N/A -- Case 2	110.0
Sep 16-30	78	N/A -- Case 2	110.0
Oct 1-15	72	N/A -- Case 2	110.0
Oct 16-31	66	N/A -- Case 2	110.0
Nov 1-15	58	N/A -- Case 2	110.0
Nov 16-30	50	N/A -- Case 2	110.0
Dec 1-31	42	N/A -- Case 2	110.0