

**Brunner Island, LLC
REGULATORY DELIVERABLE
SUBMITTAL COVER SHEET**

Date:	February 29, 2024	Transmittal No.:	BI-42-2024.02.29.v.1
DOCUMENT DESCRIPTION:	Brunner Island notification of discharge channel 6-degree temperature rate-of-change (ROC) as described in Paragraph 42 of the Consent Decree entered on November 8, 2019 and in the NPDES Permit No. PA0008281, Part C, Section VI. See attached letter for incident report.		
CONSENT DECREE REFERENCE:	Paragraph No.:	42	
BRIEF DESCRIPTION OF OUTLINED REQUIREMENT:	With regard to the thermal discharge from Outfall 001, any time Brunner notifies the Department of a temperature change during a unit shut down in which the heat source is removed from the discharge channel and which results in a 6-degree Fahrenheit change of temperature during a one-hour period, Brunner shall notify Citizens by email at approximately the same time it notifies the Department as required by Part C, Section VI of Brunner's NPDES Permit. The Department will post this information on the Department's internet site within a reasonable amount of time after receipt by the Department. Within 3 hours and again within 24 hours of recording of a 6-degree Fahrenheit or greater one-hour temperature change, Brunner shall commence a visual inspection from the water's edge, starting at the water intake, upstream of the discharge channel, and ending at the 5000-foot compliance point to assess the impact of the temperature change on fish. The first inspection need not be performed by trained personnel and shall be performed to get an initial location and approximate number of obviously distressed and/or dead fish. Within 10 business days thereafter, Brunner shall submit a report to the Department setting forth: the reasons for the temperature excursion; steps that will be taken to prevent a reoccurrence; and, the results of the visual inspections including the location of, and approximate number of, visibly distressed and/or dead fish.		
RECIPIENT(S):			
NAME:		ORGANIZATION:	
Maria Bebenek		PA DEP Clean Water Program	
Lisa Widawsky Hallowell (email: lhallowell@environmentalintegrity.org)		EIP	
Dante Mack (email: dmack@environmentalintegrity.org)		EIP	
Summer Kunkel		PA DEP Clean Water Program	
Thomas Weissinger		Talen Energy	
Brunner Island, LLC Contact Name:		Kathleen Locke	
Brunner Island, LLC Contact Phone:		(717) 268-1531	
Mailing Address:		Street Address:	
Brunner Island, LLC P. O. Box 221 York Haven, PA 17370		Brunner Island, LLC 1400 Wago Road Mt. Wolf, PA 17347	



• Environmental Professional
Brunner Island SES • Talen Generation, LLC
PO Box 221 • York Haven, PA 17370-0221

VIA ELECTRONIC MAIL

March 06, 2024

Ms. Summer Kunkel
PA Department of Environmental Protection
Clean Water Program
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200

**BRUNNER ISLAND, LLC – DISCHARGE CHANNEL 6 DEGREE RATE OF CHANGE
NOTIFICATION [NPDES PERMIT NO. PA0008281, PART C, SECTION VI]**

Dear Ms. Kunkel:

This letter serves as a follow-up communication regarding a report to the PADEP Southcentral Region Emergency Number on Friday, March 1, 2024, at approximately 01:00 am for Brunner Island, LLC, located at 1400 Wago Road, Mt. Wolf, PA 17347.

Description of Incident:

At approximately 22:45 pm on Thursday, February 29th, 2024, the Brunner Island discharge channel exhibited a greater than 6°F per hour rate of change (ROC) during a Unit 1 boiler trip. A discharge channel maximum ROC of -10.7°F per hour was observed. Operators were immediately dispatched to visually inspect the shoreline between the plant's water intake and the discharge channel and observed no evidence of dead or distressed fish. The initial notification of the event was made by phone to the PADEP Southcentral Region 24 hr Emergency Response Center at 01:00 am on March 1, 2024. Mark Tlumach, of the PADEP, arrived onsite by 02:45 hours March 1, 2024, and performed an inspection with a Brunner Island Operations escort (see attachment). Mr. Tlumach did not observe any dead or distressed fish during his inspection.

At the time of the ROC, the ambient air temperature was approximately 35°F with winds out of the W at 5 mph.

Normandeau Associates, (Normandeau), was contacted by email, Friday, March 1, 2024, at approximately 04:45 am and asked to perform a fish check. Normandeau arrived onsite by 09:10 am the same day. Normandeau inspected the plant water intake area, the heated discharge channel, the confluence of the discharge channel with the river and the downstream shoreline. The inspection concluded by 11:05 am. Normandeau summarized the inspection observations in an email report (see attachment). Weather conditions during the inspection were fair to partly cloudy skies, with an air temperature ranging 38-43°F with light winds. Normandeau observed no dead or distressed fish in any of the inspected areas.

Cause of Incident:

On February 29, 2024, at 22:45 hours, Unit 1 tripped by design controls, due to sudden loss of steam drum (boiler water) level. It is suspected that two control valves on the feedwater system went closed in unison, then similarly reopened, interrupting the flow of water to the steam drum. Critical control points, such as drum level, are extremely sensitive and are engineered to immediately re-position valves, trip the unit, or de-energize equipment, primarily for safety, to protect personnel and to conservatively preserve the equipment from damage. At the time of the Unit 1 trip, Brunner Island had no other units in service.

Steps Taken or Planned to Reduce, Eliminate and Prevent the Recurrence of the Incident:

- An investigation is ongoing to determine what caused the feedwater valves to go closed (then reopen), as this was not an intentional operation. It is possible that the control air system and or the specific air supply lines to the feedwater control valves lost pressure for reasons yet to be discovered, and the position of the pneumatic control valves responded accordingly. The existing boiler control systems performed exactly as designed when drum level became erratic to ensure a safe and controlled shut down on February 29, 2024. Unit 1 was able to quickly restart following the trip and continued to operate through Friday night, March 2, 2024 (when released by PJM) without this problem recurring.

Results of Visual Inspections:

- The visual inspection of the discharge channel by operations personnel at approximately 11:30 pm on Thursday, February 29, 2024, revealed no evidence of impact to fish.
- The visual inspection of the discharge channel by Mark Tlumach, PADEP, Safe Drinking Water Program, at approximately 02:45 am on Friday, March 1, 2024, revealed no evidence of impact to fish.
- Normandeau's inspection at 9:30 am, March 1, 2024, of the intake area, the discharge channel, the confluence of the discharge channel with the river, and the riverbank for one mile downstream of the discharge area revealed no evidence of distressed or negatively impacted fish.

Should you have any questions regarding this report, please call me at (717) 268-1531 or email Kathleen.locke@talenergy.com.

Sincerely,



Kathleen S Locke
Environmental Professional

Enclosures; (Attachments)

Cc: Maria Bebenek PA DEP - SCRO
Thomas S. Clisham TALEN (BRUPT)
Thomas Black TALEN (BRUPT)
Kate Locke TALEN (BRUPT)
Michael Sharp TALEN (CORP)
Megan Toomey TALEN (CORP)
Thomas Weissinger TALEN (CORP)
Dave Paulin TALEN (CORP)
Bonnie Barnett Faegre Drinker Biddle & Reath, LLP
Lisa Hallowell EIP (lhallowell@environmentalintegrity.org)
Dante Mack EIP (dmack@environmentalintegrity.org)

ATTACHMENTS:

INITIAL EMAIL NOTIFICATION TO CITIZENS (EIP) (03/01/2024)

PADEP INSPECTION REPORT (Onsite Inspection) (03/01/2024)

**NORMANDEAU ASSOCIATES EMAIL REPORT OF SITE INSPECTION
(03/01/2024)**

Locke, Kathleen

From: Black, Thomas
Sent: Friday, March 1, 2024 5:31 AM
To: Lisa Widawsky Hallowell; aruss@environmentalintegrity.org
Cc: Dante Mack; Paulin, David J; Kunkel, Summer; Weissinger, Thomas; Clisham, Thomas; Bebenek, Maria; Toomey, Megan A; Locke, Kathleen; Moyer, Michael D; Black, Thomas
Subject: Brunner Island Discharge Channel Exceedance 2/29/2024

Good Morning,

At approximately 22:45 hours, February 29th, 2024 the Brunner Island discharge channel exhibited a greater than 6 degree per hour rate of change during a Unit 1 trip. A discharge channel rate of change of a maximum of -10.67 degrees F per hour was observed. The shift supervisor on duty called PADEP Southcentral Regional 24-hour Emergency Response at 01:00 hours to report the greater than 6 degree F rate of change per hour and received a call back from PADEP shortly thereafter. Site personnel conducted an initial inspection of the channel at the time of the event and did not observe the presence of dead or stressed fish. Mark Tlumach, from PADEP, arrived onsite at 02:45 to observe the channel and also did not observe any dead or stressed fish. Normandeau Associates has been contacted to conduct an inspection of the discharge channel and shoreline south of the channel and is expected to arrive onsite by 07:00.

A follow up 10-day letter will be sent to the DEP and to the Citizens (EIP) as required.

Thomas Black

Operations Manager – Brunner Island | Talen Energy

thomas.black@talenenergy.com

Office: 717-266-7523 | Mobile: 443-340-0342

**PA DEP – EMERGENCY RESPONSE
 INCIDENT REPORT**

INCIDENT			
Brief Description:	Report of temperature exceedence in Brunner Island Power Plant discharge channel		
Incident Date & Time:	March 1 st , 2024 at 01:30		
Weather Conditions:	Clear with temaratures in the mid 20's.		
LOCATION			
County:	York County		
Municipality:	Mount Wolf Borough		
Address / Directions:	1400 Wago Rd, York Haven PA 17370		
Latitude / Longitude:	Lat: 40.094310	Lon: -76.697130	Data Source: GPS
POTENTIAL RESPONSIBLE PARTY			
Contact Person:			
Company / Organization:	Brunner Island Power Plant		
Address:	1400 Wago Rd, York Haven PA 17370		
Phone Number:			
PROPERTY OWNER / FACILITY CONTACT			
Contact Person:	Kate Locke		
Company / Organization:	Brunner Island Power Plant - Environmental Specialist		
Address:	1400 Wago Rd, York Haven PA 17370		
Phone Number:	410-917-1193		
INSURANCE COMPANY INFORMATION			
Contact Person:			
Company:			
Phone Number:			
Policy Number:			
TRANSPORTATION RELATED INFORMATION			
Carrier Contact Person:			
Carrier Company:			
Carrier Address:			
Carrier Phone Number:			
License Plate:	Truck / Tractor:	Trailer:	DOT:
Police Report:	Police Dept.:	Report #:	
CLEANUP CONTRACTOR			
Contact Person:			
Company / Organization:			
Address:			
Phone Number:			
DEP Emerg. Contract:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Estimated Cost: \$
OTHER AGENCIES INVOLVED			
Agency	Contact Person	Phone Number	

OBSERVATIONS / REMARKS

Mark Tlumach (DEP Emergency Responder) was dispatched by Duty Officer Summer Kunkel at about 01:30, to respond to a report of a temperature exceedence in Brunner Island Power Plant discharge channel, located in York Haven, PA.

Arrival on scene was roughly 02:50. I met with Mike Moyer (Operations Superintendent) and was told that Unit #1's power supply tripped, causing the plant to discharge water into the discharge channel that was over their 6-degree limit for normal operations. The power plant was discharging water that was approximately 10 degrees (+/-) colder than usual, for roughly an hour and a half. This is of special concern, as the discharge channel discharges directly into the Susquehanna River. Operating outside of the temperature limits could lead to temperature shock to the aquatic life, especially fish living in/around the channel.

Initial observations were as follows:

1. Five (5) sites were visited around the channel itself. None of the sites visited showed clear evidence of a fish kill.
2. Some small fish were observed to be swimming and did not appear to be distressed. No dead fish were observed. I had walked downstream past the channel and observed roughly 100 yards of riverbank in either direction (Picture #1).
3. The power plant is bringing in an independent contractor during the day (03/01/2024) to investigate further.
4. An oil boom (Picture #2) was observed near the mouth of the channel. Mike mentioned that it was for a small oil release from a pump leak a few weeks ago. No oil sheen was visible on the surface of the water at the time of the response.

Departure from the scene was roughly 04:10.

DEP INCIDENT TYPE						
<input type="checkbox"/> Air Contamination	<input type="checkbox"/> Land Contamination / Waste	<input type="checkbox"/> Mining Incident	<input type="checkbox"/> Oil or Gas Well Incident			
<input type="checkbox"/> Radioactive Material	<input type="checkbox"/> Storage Tank Incident	<input type="checkbox"/> Water Contamination	<input type="checkbox"/> Water Supply Contamination			
<input checked="" type="checkbox"/> Other or Non-DEP Incident: Temperature Exceedance						
RELEASE TYPE						
<input type="checkbox"/> Discharge / Release	<input type="checkbox"/> Dumping / Disposal	<input type="checkbox"/> Fire Related				
<input type="checkbox"/> None	<input type="checkbox"/> Spill	<input type="checkbox"/> Unknown				
<input type="checkbox"/> Other:						
MEDIA AFFECTED						
<input type="checkbox"/> Air	<input type="checkbox"/> Land	<input checked="" type="checkbox"/> Surface Water	<input type="checkbox"/> Ground Water			
		<input type="checkbox"/> Within Facility Only	<input type="checkbox"/> None			
Waterway:	Susquehanna River		<input type="checkbox"/> Affected <input checked="" type="checkbox"/> Threatened			
Side of Stream Affected:	<input type="checkbox"/> None / Unknown	<input checked="" type="checkbox"/> Left Descending Bank	<input checked="" type="checkbox"/> Right Descending Bank			
Public Water Supply:			<input type="checkbox"/> Affected <input type="checkbox"/> Threatened <input type="checkbox"/> Notified			
Public Sewage Treat.:			<input type="checkbox"/> Affected <input type="checkbox"/> Threatened <input type="checkbox"/> Notified			
Endangered Species Impacted:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	Species:				
Endangered Species Habitat Impacted:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	Species:				
Migratory Bird Impacted:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	Species:				
Cultural Resource Impacted:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	Type:				
SUBSTANCES(S) INVOLVED						
Substance	CAS Number	Lowest Published Exp. Limit	Total Amt. Involved	Amt. Released	Amt. Recovered	
SOURCE OF MATERIAL						
<input type="checkbox"/> Above Ground Storage Tank	<input type="checkbox"/> Highway – Cargo	<input type="checkbox"/> Highway – Fuel / Fluids	<input checked="" type="checkbox"/> Industrial / Commercial			
<input type="checkbox"/> Mining / Quarry	<input type="checkbox"/> None	<input type="checkbox"/> Oil / Gas Well	<input type="checkbox"/> Pipeline			
<input type="checkbox"/> Railway (Train)	<input type="checkbox"/> Residential / Community	<input type="checkbox"/> Underground Storage Tank	<input type="checkbox"/> Unknown			
<input type="checkbox"/> Vessel (Boat)	<input type="checkbox"/> Other:					
MONITORING RESULTS						
Air Monitoring:	%LEL:	%O ₂ :	VOC:	CO:	H ₂ S:	Other:
Radiation:	<input type="checkbox"/> Gamma (Nal Detector)		<input type="checkbox"/> Alpha/Beta/Gamma (Pancake Detector)			
Water Quality:	pH:	DO:	Conductivity:	Chlorine:	Temp:	
Instrument(s) Used:						
Other Monitoring Conducted:						
SAMPLE INFORMATION						
Sample(s) Collected:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Sample Description(s):						
DEP MATERIALS / EQUIPMENT USED (Sorbents, Test Strips, Meters, etc.)						
iPhone, ER Truck, Boots, DEP Jacket.						
DEP RESPONDER INFORMATION						
Name		Title		Phone		
Mark Tlumach		Sanitarian		717-439-1348		
Mileage: 86+			Response Time: 4			
PROGRAM REFERRAL (For Information and/or Follow up)						
Program	Staff Notified	Date	Via			
Clean Water	Summer Kunkel	03/01/2024	<input checked="" type="checkbox"/> Email <input type="checkbox"/> Phone <input type="checkbox"/> In Person			
			<input type="checkbox"/> Email <input type="checkbox"/> Phone <input type="checkbox"/> In Person			

MAPS / PHOTOGRAPHS / ATTACHMENTS





Photo #1 – Mouth of Channel



Photo #2 – Oil Boom Across the Mouth of the Channel

Locke, Kathleen

From: Locke, Kathleen
Sent: Monday, March 4, 2024 7:50 AM
To: Locke, Kathleen
Subject: Normandeu Report for Brunner Island U1 trip / request for Fish Check Friday March 1

From: Travis Tacelosky <ttacelosky@normandeu.com>
Sent: Friday, March 1, 2024 3:14 PM
To: Locke, Kathleen <Kathleen.Locke@talenergy.com>
Cc: Angelica Mullins <amullins@normandeu.com>
Subject: RE: Brunner Island U1 trip / request for Fish Check Friday March 1

[External Email]

Good afternoon Kate,

This morning, 3/1/2024, you reached out to Normandeu Associates Inc. (NAI) via e-mail around 4:45 am that Unit 1 had tripped which resulted in a temperature variance in the discharge canal. NAI mobilized later in the morning to come and perform a river/channel inspection and fish check in the vicinity of Brunner Island.

Below are the results from today's channel inspection:

NAI Investigator(s): Travis Tacelosky and Angelica Mullins.
Starting air temp: 38°F
Susquehanna River Flow: 66800 cfs (arrival) to 67200 cfs (finish) via USGS Marietta
Approximate time duration of inspection: 0920 to 1105
Amount of stressed/dead fish observed: NONE

NAI arrived at the guard shack around 0910 to check in and received the key to access the area below the confluence of the discharge channel and Susquehanna River.

From 0920-0936: We arrived at the upstream unit 1 & 2 intake. We observed no dead/stressed fish in this area or out in the river. Water clarity was poor with an olive/brownish tint to the water. Estimated 1.5'-2' of surface visibility from the intake deck observation points. We then walked down to the downstream unit 3 intake. No dead or stressed fish were observed here, though note a Flathead Catfish skeleton was observed on the docks that may have died during higher flows and got caught here.

From 0940 to 0944: We arrived at the unit 3 discharge canal. No dead or stressed fish were observed here. A discharge of water was occurring at the time of observation. A temperature reading was taken- 7.0°C (44.6°F).

From 0948-0955: We arrived at the intake debris bypass pond area. No dead or stressed fish were observed in the pond or through the stream sections out of the discharge outfalls. An ambient river temperature reading was taken- 6.9°C (44.42°F).

From 0958-1008: We arrived at platform downstream of the unit 1 & 2 discharge. No dead or stressed fish were observed in this section of the discharge channel. Water clarity was similar to other areas of inspection. A water temperature was taken- 18°C (64.4°F).

From 1012 to 1020: We arrived at the cooling towers. No dead or stressed fish were observed within in the shoreline areas. Note surface foam/film from the velocity of the discharges were present on slack water areas of inspection.

From 1024 to 1036: We arrived at the confluence of the discharge channel and the Susquehanna River. We walked up towards the cooling towers and back, with no dead or stressed fish observed. We took a water temperature (at the confluence) and got 12.0°C (53.6°F).

From 1040 to 1105 we walked the remainder the shoreline down to the powerline. No dead or stressed fish were observed out in the river or along the shoreline/snags. One last temperature reading was taken 11.8°C (53.24°F). Water visibility was poor akin to other areas of inspection.

At this point our inspection was concluded we returned to the guard shack to sign out for the day and return badges and the gate key.

If you have any questions or require any clarification, please do not hesitate to contact me.

Thank you and have a great day!

Travis E. Tacelosky
Fisheries Scientist II

Normandeau Associates, Inc.

1854 Lancaster Pike; PO Box 111

Peach Bottom, PA 17563

717-207-8835 (direct) 717-824-7048 (cell)



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