

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

Date:	December 07, 2024	Transmittal No.:	BI-42-2024.12.07.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 Stawiarski		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	



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

VIA ELECTRONIC MAIL

December 11, 2024

Ms. Summer Stawiarski
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. Stawiarski:

This letter serves as a follow-up written communication, regarding an incident reported to the PADEP Southcentral Region Emergency Number on Saturday, December 7, 2024, at approximately 06:15 hrs for Brunner Island, LLC, located at 1400 Wago Road, Mt. Wolf, PA 17347.

Description of Incident:

At approximately 04:52 hrs on Saturday, December 7, 2024, the Brunner Island discharge channel exhibited a greater than 6°F per hour rate of change (ROC) during a Unit 2 boiler trip. A discharge channel maximum ROC of ~7.7°F per hour was observed. Operators were dispatched to perform the first of two visual inspections. They observed one dead fish. The initial notification of the event was made by phone to the PADEP Southcentral Region 24 hr Emergency Response Center at 6:15 hrs December 7, 2024.

At the time of the ROC, the ambient air temperature was approximately 31°F with winds out of the SW at 8 mph.

Normandeau Associates, (NAI), was contacted by email, Saturday, December 7, 2024, at approximately 07:13 hrs and asked to perform a fish check. NAI arrived onsite by 11:09 hrs the same day to perform the second of two visual inspections. NAI 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 13:15 hrs. NAI summarized the inspection observations in an email report (see attachment). Weather conditions during the inspection were sunny, with overcast cloudy skies, and an air temperature of 35°F with light winds. NAI observed no negatively impacted fish in any of the inspected areas.

Cause of Incident:

On December 7, 2024, at about 04:28 hrs, Unit 2 tripped at minimum load while switching fuels from coal to natural gas. Leading up to the trip, Brunner Island was intentionally transitioning from 100% coal firing to 100% natural gas, and utilizing a period where boiler combustion was being supported by both fuels. This temporary condition would have enabled the Station to completely empty the indoor coal bunker storage (silos) while the unit continued to run. As U2 reduced load, the coal feed was interrupted, and the “no coal on belt” alarm resulted in an upset boiler firing condition that led to a boiler trip by design controls. Fuel interruptions during operation can put the boiler into an unstable swing and commonly results in a Unit trip. Lack of fuel on the coal belt can be caused by wet, frozen, or otherwise non-flowable coal. Critical control points and devices, such as fuel inputs to the steam boiler, 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. A high energy system such as a powerplant has numerous controls, and many are tied together to work in cascading sequences. At the time of the Unit 2 trip, Brunner Island Unit 3 was also running, and continued to operate throughout the event.

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

Power plant components and equipment are continuously subject to normal wear and tear, sometimes not presenting issues until they are required for use. Coal systems are maintenance intensive and can be difficult to adequately address during periods of inconsistent use, yielding unpredictable performance. Unit outages are planned, and fuel system issues can be appropriately addressed for problems that are known, but Unit reliability can depend on many factors, such as the severity of issues, availability of replacement parts, or grid conditions that influence PJM’s decisions regarding unit dispatch and fuel selection. In this specific case for BIU2, coal that had been left in the bunker silos following an unforeseen shutdown last season, was identified as problematic this season, and in attempting to empty the silos to prevent future challenges, the Unit tripped. Unit 2 was released by PJM and has been offline since the trip.

Results of Visual Inspections:

- During the initial visual inspection of the intake area, the discharge channel, and the downstream shoreline by Operations personnel at approximately 05:00 hrs on Saturday, December 7, 2024, one dead fish was observed. Whether or not this fish was impacted by the ROC is not known.
- NAI’s visual inspection, (see attachment), beginning at 11:09 hrs, December 7, 2024, revealed no evidence of negatively impacted fish.

ATTACHMENTS:

INITIAL EMAIL NOTIFICATION TO CITIZENS (EIP) (12/07/2024)

**NORMANDEAU ASSOCIATES (NAI) EMAIL REPORT OF SITE
INSPECTION (12/07/2024)**

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

Sincerely,

A handwritten signature in cursive script that reads "Kathleen S. Locke". The signature is fluid and extends across the width of the page.

Kathleen S Locke
Environmental Professional

Attachments: Notification to Citizens Email
NAI Visual Inspection Report Summary Email

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)
	Ed Werkheiser	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)

Locke, Kathleen

From: Moyer, Michael D
Sent: Saturday, December 7, 2024 9:00 AM
To: Abel Russ; Bebenek, Maria; Paulin, David J; Toomey, Megan A; Weissinger, Thomas; Stawiarski, Summer; Lisa Widawsky Hallowell; Dante Mack
Cc: Harner, Jason; Black, Thomas; Clisham, Thomas; Locke, Kathleen; Moyer, Michael D; Devine, Michael J
Subject: Brunner Island Discharge Channel Exceedance 12/7/2024

Good morning,

At approximately 04:52 hours, December 7th, 2024, the Brunner Island discharge channel exhibited a greater than 6-degree F per hour rate of change during a Unit 2 shutdown. A discharge channel rate of change of more than -7.7 degrees F per hour was observed. The shift supervisor on duty called PADEP Southcentral Regional 24-hour Emergency Response at 06:15 hours to report the greater than 6-degree F rate of change per hour and left a message. Dave Linton did call back to acknowledge the left message. Site personnel conducted an initial inspection of the channel at the time of the event and observed 1 dead fish. A follow up inspection was performed again and there were no additional dead or distressed fish observed. Normandeau Associates has been contacted to conduct an inspection of the discharge channel and shoreline south of the channel and is expected to arrive later today.

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

Locke, Kathleen

From: Travis Tacelosky <ttacelosky@normandeau.com>
Sent: Saturday, December 7, 2024 4:27 PM
To: Moyer, Michael D; Locke, Kathleen
Cc: Black, Thomas; Hirneisen, Hunter; Devine, Michael J; Mike Martinek; Steve Adams
Subject: RE: Brunner Island Unit 2 Shutdown and Request for Fish Check December 7th, 2024

[External Email]

Good afternoon, Mike and Kate,

In response to your request for inspection for this morning, 12/7/2024, please see the fish check inspection summary report below:

Normandeau Associates Inc. (NAI) Investigator: Travis Tacelosky
Weather conditions: Overcast skies; approximately 35°F air temperature
Susquehanna River flow: 34.87 ft; 16,700 cfs via USGS Marietta
Number of stressed or dead fish observed: NONE OBSERVED

I arrived at the guard shack to sign in and pick up the gate key to access the confluence area of the discharge channel and Susquehanna River around 1109 am.

I made my way over to the intake areas around 1116 am. I didn't observe any stressed or dead fish near any of the intake areas. Water clarity was very good- clear to bottom in shallower areas and 4' or more (est.) in deeper spots around the intake and out in the river.

I then went down to the intake debris discharge pond around 1130 am. No dead or stressed fish were observed in this area. A water temperature of the river was taken here- 0.9 °C (33.62 °F).

I made my way to inspect the discharge channel around 1146. I did not observe any dead or stressed fish within the discharge canal, on either shoreline, snags or on any structures within the channel. Water clarity was like the intake areas. I took a water temperature reading, which was 1.3°C (34.34 °F)

I then went to the Unit 3 discharge around 1205 pm. There were no dead or stressed fish up in that area. A water temperature was taken- 21.4°C (70.52 °F).

I then arrived at the cooling tower areas around 1210 pm to inspect the discharge channel from a different vantage point. No dead or stressed fish were observed from this area down to the confluence.

After completing inspection of the discharge channel, I arrived at the confluence to the Susquehanna River around 1227 pm. I took a water temperature reading here and got 19.9 °C (67.82 °F). I continued my inspection down the shoreline towards the power transmission tower. I did not observe any dead or stressed fish among any shoreline areas or out in the river. Water visibility was relative to other areas of the inspection.

Arriving at the powerline tower and observing no dead or stressed fish, the inspection was concluded. I notified Brunner Island staff the results of the inspection and I returned to the guard shack to return my badge and the gate key around 01:15 pm.

If you have any questions about this report or need any clarification, please do not hesitate to reach out to me.

Thank you and have a great day.

Travis E. Tacosky
Fisheries Biologist

Normandeau Associates, Inc.

1854 Lancaster Pike; PO Box 111

Peach Bottom, PA 17563

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



Excellence Through Employee Ownership

From: Moyer, Michael D <Michael.Moyer.II@talenergy.com>

Sent: Saturday, December 7, 2024 7:13 AM

To: Steve Adams <sadams@normandeau.com>; Travis Tacosky <ttacosky@normandeau.com>

Cc: Locke, Kathleen <Kathleen.Locke@talenergy.com>; Black, Thomas <Thomas.Black@talenergy.com>; Hirneisen, Hunter <Hunter.Hirneisen@talenergy.com>; Locke, Kathleen <Kathleen.Locke@talenergy.com>; Devine, Michael J <Michael.Devine.2@talenergy.com>

Subject: Brunner Island Unit 2 Shutdown and Request for Fish Check December 7th, 2024

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Good morning,

Brunner Island performed a controlled shutdown this morning, but in doing so, exceeded the 6F ROC in the discharge channel.

Brunner Island would like to request a fish check this morning of the area near the discharge canal and for 5000' downstream.

Please acknowledge this notification. I will pre-authorize your arrival at Security Gate A and let them know you may require a key.

Like always, I appreciate knowing when you get on/off the water for safety reasons.

Thanks,

Mike

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