

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

Date:	January 30, 2026	Transmittal No.:	BI-42-2026.01.30.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	
Vincent Bregman (email: vbregman@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

February 6, 2026

Ms. Summer Stawiarski
Pennsylvania 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 follow-up written communication, as required by Part A.III.C.4.b.(ii) of the above referenced permit (and paragraph 42 of the Consent Decree), regarding an incident reported to the PADEP Southcentral Region Emergency Number on Friday, January 30, 2026, at approximately 10:12 AM EST for Brunner Island, LLC, located at 1400 Wago Road, Mt. Wolf, PA 17347.

Description of Incident:

At approximately 8:58 AM EST on Friday, January 30, 2026, the Brunner Island discharge channel exhibited a greater than 6°F per hour rate of change (ROC) during a Unit 3 boiler trip. A discharge channel maximum ROC of $\geq -20.0^\circ\text{F}$ per hour was observed and the unit was restarted once the issue that caused the trip was remedied. Operators were dispatched to perform the first of two visual inspections. They observed no dead fish. The initial notification of the event was made by phone, to the PADEP Southcentral Region 24-Hour Emergency Response Center at 10:12 AM EST January 30, 2026.

At the time of the ROC, the ambient air temperature was approximately 9°F with winds out of the NW at 20 miles per hour (mph) according to Weather Underground for Mt. Wolf, PA. Significant snow cover from a recent winter storm event, river icing, tenacious frigid temperatures and windchills continued to persist and directly contributed to the Unit 3 trip event. This unusual and abnormally harsh condition was the result of a cold air mass, (polar vortex), that had settled over much of the United States. Temperature data obtained from York County Airport showed that the period covering January 28 through January 30 established new record low temperatures at that monitoring station dating back to September 1997. During this three-day period, temperatures were more than 20°F colder than average, preventing snow and ice from melting.

Brunner Island contacted Normandeau Associates (NAI) by email and text, Friday, January 30, 2026, at approximately 9:12 AM EST, requesting a fish check. At approximately 11:14 AM EST on Friday, NAI inspected the plant water intake area, the heated discharge channel, the confluence of the discharge channel with the river and the downstream shoreline. Preliminary results of the NAI inspection were texted to Kate Locke, who then contacted Shawn Lesitsky at PADEP to provide details regarding the cause of U3's trip and to inform him of the presence of dead fish. The entire NAI inspection concluded by 1:20 PM EST. NAI summarized the inspection observations in the attached report. Weather conditions during the NAI inspection were sunny with ambient air temperatures between 10-14°F with NW winds at about 13-15 mph. NAI observed 76 affected fish during their inspection, including 71 dead and five distressed fish. Mr. Lesitsky of the PADEP arrived onsite at approximately 2:15 PM EST accompanied by Ms. Rachael L. Turner-Diaz, of the Pennsylvania Fish & Boat Commission, and performed an additional inspection, noting the presence of an estimated 200 or more fish, (many minnows), impacted.

Cause of Incident:

On January 30, 2026, at about 08:58 AM EST, Unit 3 tripped when the water in the sensing line to the deaerator storage tank level transmitter presumably froze due to exposure to ambient conditions over multiple days of historically extreme cold weather. As a result, the erroneous value tripped the boiler feed booster pumps. Subsequently, through interconnected controls, Unit 3 came offline. Unit 3 was operating at full load at the time of the trip, at about 775 MW, as dispatched by PJM for electrical grid reliability. Critical control points and devices, such as deaerator storage tank 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. 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 3 trip, Unit 2 continued to generate.

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

Most generating stations in our region of the United States are designed as indoor facilities, surrounded by a boiler house structure and heated from within. Brunner Island was designed as an outdoor station, with all equipment, piping, and associated components wound in heat trace and layers of insulation for freeze-protection but otherwise exposed to ambient conditions. The deaerator storage tank level sensing line, (approximately 80 feet in length), was heat traced and similarly protected, all but a 2-inch section that passed unseen through a wall into a heated instrument cabinet. When the water inside the sensing line froze, level indication was lost. Once water flow was re-established through the sensing line, the level detection was restored and indicated properly. The existing heat trace was secured, (wrapped tightly), to the 2 inches of exposed sensing line, then spray foam / mineral wool insulation was wrapped around the entrance of the instrument cabinet to prevent future freezing of the sensing line.

Results of Visual Inspections:

- During the initial visual inspection of the intake area, the discharge channel, and the downstream shoreline by Operations personnel immediately following the event at 08:58 AM EST on Friday, January 30, 2026, no dead or distressed fish were observed.

- NAI's visual inspection, (see attachment), beginning at 11:14 AM EST, January 30, 2026, revealed 71 dead fish and five additional distressed fish.
- The PADEP inspection, (accompanied by the Pennsylvania Fish & Boat Commission), beginning at approximately 2:15 PM EST, January 30, 2026, revealed more than 200 dead 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

Attachments: Initial Email Notification to Citizens (EIP)
NAI Visual Inspection Report Summary

Cc:	Maria Bebenek	PA DEP - SCRO
	Thomas S. Clisham	TALen (BRUPT)
	Thomas Black	TALen (BRUPT)
	Kate Locke	TALen (BRUPT)
	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)
	Vincent Bregman	EIP (vbregman@environmentalintegrity.org)

ATTACHMENTS:

INITIAL EMAIL NOTIFICATION TO CITIZENS (EIP) (01/30/2026)

**NORMANDEAU ASSOCIATES (NAI) REPORT OF SITE INSPECTION
conducted 01/30/2026**

Locke, Kathleen

From: Black, Thomas
Sent: Friday, January 30, 2026 12:52 PM
To: aruss@environmentalintegrity.org; Bebenek, Maria; Black, Thomas; Clisham, Thomas; Dante Mack; Harner, Jason; Lisa Widawsky Hallowell; Locke, Kathleen; Paulin, David J; Summer Stawiarski (sustawiars@pa.gov); Toomey, Megan A; Weissinger, Thomas; Werkheiser, Edward
Subject: Brunner Island Discharge Channel Exceedance 1/30/2026

Good morning,

At approximately 08:58 hours, on January 30th, 2026, the Brunner Island discharge channel exhibited a greater than 6-degree F per hour rate of change during a Unit 3 trip. A discharge channel rate of change of -20 degrees F per hour was observed. The shift supervisor on duty called PADEP Southcentral Regional 24-hour Emergency Response at 10:12 hours to report the greater than 6-degree F rate of change per hour. 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.

Normandeau Associates was contacted at 09:13 and arrived onsite at 11:10 to conduct an inspection of the discharge channel and shoreline south of the channel.

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

Tom Black

Plant Manager – Brunner Island | Talen Energy

thomas.black@talenenergy.com

Office: 717-266-7510 | Mobile: 443-340-0342



February 2, 2026

Talen Energy Supply, LLC
Brunner Island LLC
1400 Wago Road
Mount Wolf, PA 17347

Re: Inspection report for Brunner Island Unit 3 Trip- Fish Observations: January 30, 2026

Dear Ms. Kathleen Locke,

On the morning of Friday, January 30, 2026, Talen Energy contacted Normandeau Associates Inc. (NAI) via email and telephone at approximately 09:12 am for a request for a fish check/discharge canal inspection due to a Unit 3 trip, which resulted in a 6-degree (Fahrenheit) temperature exceedance in the Brunner Island discharge canal. NAI then immediately mobilized personnel and equipment and departed for the inspection.

NAI arrived at Brunner Island Electric Steam Station (BISES) Gate A at approximately 11:10 am. NAI signed in with the security guard and received site guest badges and the required gate key for the confluence of the discharge canal and Susquehanna River.

NAI first arrived at the upstream Unit 1 & 2 intakes around 11:14 am. Icy conditions akin to a prior inspection previously done in the week on January 26, 2026 were observed in shoreline areas and out in the river. No dead or stressed fish were observed. Similar observations were made for the downstream Unit 3 intake.

At around 11:30 am, NAI arrived at the intake debris kickback pond. No dead or stressed fish were observed there. Water clarity was reportedly clear. A water temperature reading was taken - 5.6°C (42.08°F).

NAI then went to inspect the upper sections of the Brunner Island discharge canal. At 11:39 am, NAI arrived downstream of the Unit 1 and 2 outfall area, on the east side of the discharge channel. No dead or stressed fish were observed in the area, out in the channel or in nearby east shoreline areas. Water clarity was clear to bottom in shallower areas. A water temperature was taken on the east shoreline – 24.4°C (75.92°F).

NAI then arrived over at the Unit 3 discharge outfall to observe the upper discharge channel at approximately 11:49 am. An active water discharge was occurring; no steam was observed. No dead or stressed fish were observed. A water temperature reading was taken- 0.9°C (33.62°F).

NAI then moved onward with the remainder (west side) of the discharge canal around 11:56 am. Arriving at the cooling tower (CT) intake screens on the west side of the discharge channel, NAI observed numerous deceased and/or stressed fish (*figures 1-3*). An approximate count of 70 fish was observed and recorded. Fish were not retrievable due to access and safety. Fish were not always easily identifiable due to distance. Among the observed fish, approximately 20 fish were sunfish (various *Lepomis* spp.) and Rock Bass (*Ambloplites rupestris*), 20 fish were Smallmouth Bass (*Micropterus dolomieu*), 20 fish were various shiner/minnow species and the remaining fish were Channel Catfish (*Ictalurus punctatus*). It was not clearly evident if all fish were recently affected or if any may have been residual fish from a prior inspection conducted on January 26, 2026. Fish were also observed immediately downstream of the cooling tower discharge, on the west side of the

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discharge canal (figures 4 & 5). Water clarity was clear to bottom, except in some of the deepest parts nearest the intakes or in mid-channel areas.

At 12:24 pm, NAI arrived downstream of the discharge canal, at the old public parking lot/confluence of the Susquehanna River. A water temperature reading was taken- 6.6°C (43.88°F). More fish were observed in the confluence area, primarily around the shoreline (figures 6-8). A total count of six fish was observed: two Northern Hogsuckers (*Hypentelium nigricans*) with one collected dead and the other observed stressed; one stressed Rock Bass; two stressed Spottfin Shiners (*Cyprinella spiloptera*) and one stressed Shield Darter (*Percina peltata*). The deceased Northern Hogsucker measured 249mm total length (TL). The remaining fish that were in a state of distress were not measured to avoid extended handling.

NAI then arrived at the power transmission tower (approximately 5000' downstream of the discharge canal) at 12:32 pm and worked upriver to encompass the remainder of the transect. No fish were observed in shoreline areas down from the immediate confluence areas and no fish were visibly evident further out in the river. Water visibility was clear akin to other areas of inspection. Most of the western shoreline areas were unimpeded by any surface ice.

At this point, NAI concluded the inspection for the day. NAI then returned the gate key and guest badge to the guard and were off-site by about 1:20 pm. NAI notified Talen Energy personnel about the results of the inspection. NAI was notified that the Pennsylvania Department of Environmental Protection (PADEP) would be on-site for a follow-up inspection shortly after.

Concluding notes:

-Approximately 76 fish were observed to be affected. Approximately 71 were observed to be dead and exactly five fish were observed to be stressed (i.e. exhibiting lethargy, loss of equilibrium and/or sideways swimming).

-A YSI Pro 20 was used to record water temperature.

-Air temperatures for the duration of the inspection were between 10°F to 14°F with northwest winds of 13-15 mph. Skies were sunny. Thick and abundant snow was present.

-This fish check/channel inspection was conducted by NAI staff members Julia Burkheimer and Marisa Argentino.

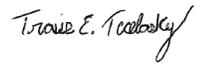
-Due to the icy river and hazardous conditions present, this inspection was done entirely on foot and not with the aid of a boat (either during this time or as a follow-up inspection). The widespread amount of surface ice moving downriver would have made navigating to the reaches of the discharge canal impossible, or at least very difficult and dangerous. Available boat ramps to NAI (Bainbridge and Falmouth-both on the east side of the river) may have been affected by snow and/or ice, which may have had made launching hazardous and difficult.

-Prior to departing for fish checks, NAI staff members will discuss standard safety protocols amongst each other and are encouraged to not take any unnecessary risks during their inspections. With the thick snow and ice present, special attention was made to ensure proper footing when navigating to various inspection areas and to avoid areas of an elevation drop, where the snow could hide interstitial spaces and potentially lead to falls and/or injury. NAI staff members will report river conditions (i.e. ice/flows/winds) and inspection results to each other to see if a follow-up with a boat or more crew members is safe and/or viable.

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

Thank you,

Travis Tacelosky



Fisheries Scientist
Normandeau Associates Inc.

Office Phone:(717) 207-8835
ttacelosky@normandeau.com

Photos and Figures



Figure 1- Various dead fish near the BISES cooling tower (CT) intake screens.



Figure 2- Deceased fish upstream of the CT intakes. Water conditions were notably shallow and clear.



Figure 3- Channel Catfish (*Ictalurus punctatus*) and various sunfish observed in nearby shallow areas.



Figure 4- Downstream of CT discharge.

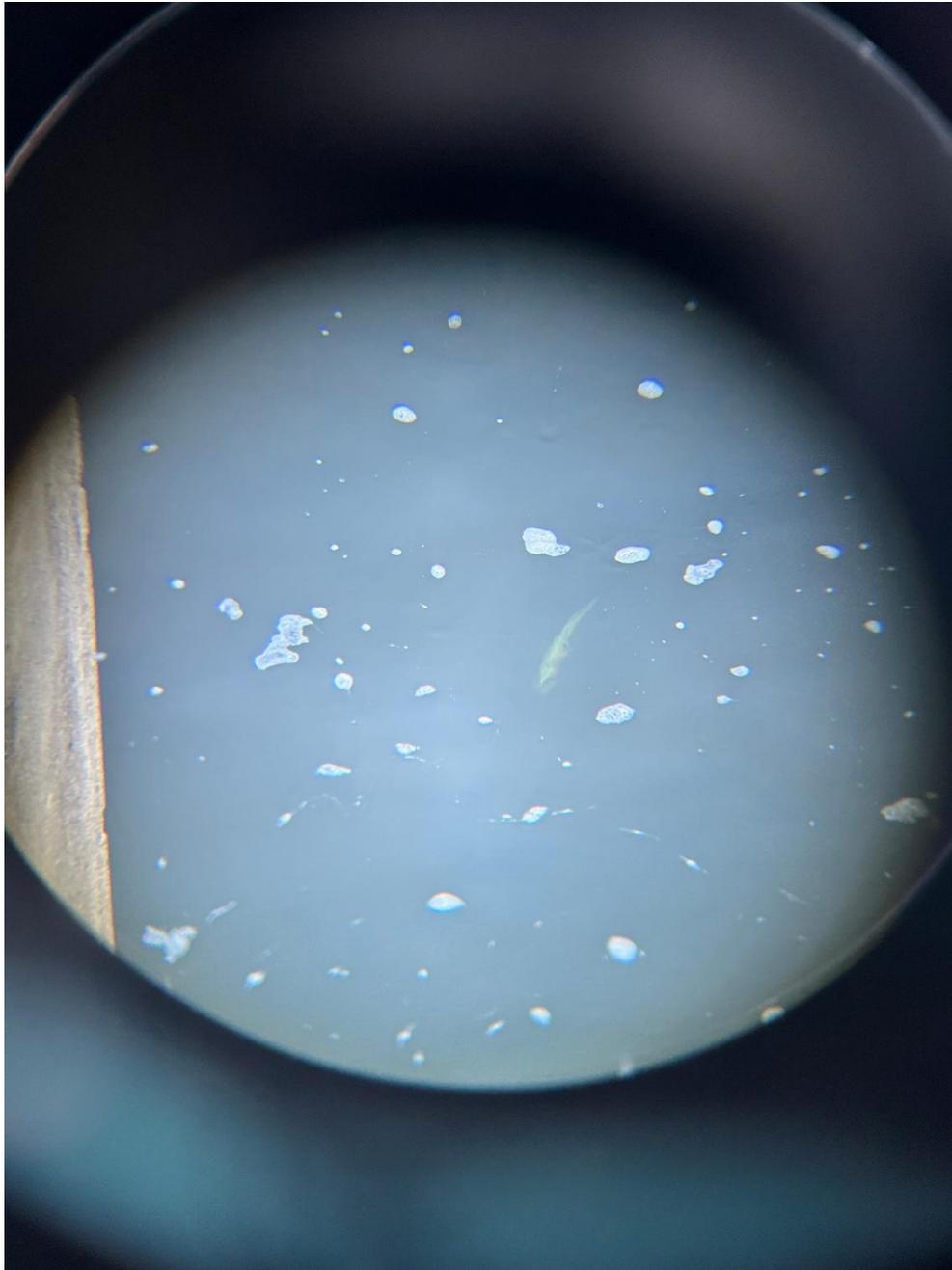


Figure 5- Affected fish observed downstream of CT discharge, via use of binoculars.



Figure 6- Deceased Northern Hogsucker (*Hypentelium nigricans*). TL=249mm



Figure 7- Northern Hogsucker observed stressed and exhibiting uncoordinated swimming.



Figure 8- Spotfin Shiner (*Cyprinella spiloptera*) observed stressed, released after identification and handling.