

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

<b>Date:</b>		<b>Transmittal No.:</b>	
<b>DOCUMENT DESCRIPTION:</b>			
<b>CONSENT DECREE REFERENCE:</b>		Paragraph No.:	
<b>BRIEF DESCRIPTION OF OUTLINED REQUIREMENT:</b>			
<b>RECIPIENT(S):</b>			
<b>NAME:</b>		<b>ORGANIZATION:</b>	
<b>Brunner Island, LLC Contact Name:</b>			
<b>Brunner Island, LLC Contact Phone:</b>			
<b>Mailing Address:</b>  Brunner Island, LLC P. O. Box 221 York Haven, PA 17370		<b>Street Address:</b>  Brunner Island, LLC 1400 Wago Road Mt. Wolf, PA 17347	



John Forbes • Plant General Manager – Brunner Island SES • Talen Generation, LLC  
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December 18, 2019

Mr. Anthony L. Rathfon  
Waste Management Program Manager  
PA Department of Environmental Protection  
South Central Regional Office  
909 Elmerton Avenue  
Harrisburg, PA 17110

**BRUNNER ISLAND, LLC – DISPOSAL AREA 8 INTERIM MEASURES PLAN**

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Dear Mr. Rathfon:

Enclosed is the Disposal Area 8 Interim Measures Plan, for Brunner Island, LLC, located at 1400 Wago Road, Mt. Wolf, PA 17347. This document is required per Paragraph 17 of the Consent Decree signed on July 31, 2019 and entered on November 8, 2019.

Should you have any questions regarding this report, please call Marcia Thiess at (717) 268-1531 ([marcia.thiess@talenenergy.com](mailto:marcia.thiess@talenenergy.com)), or Andrey Lernerman (technical contact) at (610) 601-0289 ([andrey.lernerman@talenenergy.com](mailto:andrey.lernerman@talenenergy.com))

Sincerely,

A handwritten signature in blue ink that reads "John Forbes". The signature is fluid and cursive, with the first name "John" being larger and more prominent than the last name "Forbes".

John Forbes  
Plant General Manager

Enclosures

Cc: Marcia Thiess            TALEN (BRUPT)  
Tom Weissinger            TALEN (CORP)



Andrey Lernerman • Sr. Environmental Professional • Talen Generation, LLC  
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December 18, 2019

**John Forbes** | Plant General Manager  
Brunner Island SES  
PO Box 221  
York Haven, PA 17370-0221

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**Re: Brunner Island LLC- Disposal Area 8 Interim Measures Plan**

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In accordance with Consent Decree dated 7/31/2019 and entered by the court on November 8, 2019 (Civil Action No. 1:19-cv-03124-CCC and Civil Action No. 1:19-cv-01329-JEJ) Section VIII Paragraph 17; Brunner Island LLC (Brunner), proposes to make the following improvements and modification to the Area 8 landfill:

**FLOW METER IMPROVEMENTS**

Install magnetic flow meters to measure flow from the leachate collection and detection zones. Magnetic flow meters will replace the currently installed “paddle wheel” flow meters which are prone to fouling, often resulting in erroneous measurements. Runtime meters will be used as a redundant method to confirm flow measurements. The accurate tracking of flow from the leachate collection and leachate detection zone will allow Brunner to better understand the extent, if any, of loading of the constituents of concern (COCs) into the leachate detection zone. Flow data collected from the magnetic flow meters can be used to help develop the Landfill Operations and Improvements plan which, if necessary, will further address COCs in the detection zone.

**PUMP IMPROVEMENTS**

Replace existing leachate collection and detection zone pumps with pumps capable of handling larger volumes of solids. Pump water level controls will be programmed to maximize the efficiency of the pumps. Current pumps are prone to fouling resulting in periods of time when leachate pumping is ceased or slowed. As leachate accumulates in the leachate collection zone, head pressure on the liner is increased. Increased head pressure on the liner can cause or intensify potential leachate permeation through the liner. Increased residence time of water in the collection zone may also produce greater concentrations of COCs. The reduction of pump-down time caused by pump fouling may reduce the water-to-waste contact time, in effect, lowering the concentrations of leachate. Likewise, consistently pumping down liquid from the collection zone will minimize head pressure and may reduce the risk of leakage. Since the leachate collection zone is a potential source of liquid to the

detection zone, a reduction in volume and concentration of leachate in the collection zone may help to minimize or eliminate potential leakage to the detection zone.

#### INSPECTION & POTENTIAL REPAIR OF SUMP PIPE LINER PENETRATION

Area 8 is designed to contain and pump for treatment any leachate generated in the landfill. Leachate is generated when stormwater interacts with the waste in the landfill. Leachate drains to the landfill's sump, located at the northeast corner of the currently constructed cell. The landfill leachate system is separated into two zones, consisting of a leachate collection zone and a leachate detection zone. Any leaks that may occur through the primary liner system liner (collection zone) are captured in the leachate detection zone and pumped for treatment.

The 18-inch diameter sump pipe for pump 3 and a 4-inch diameter cleanout pipe were installed on top of two geocomposite drainage layers which were placed on the clay subbase and a one inch thick HDPE sheet stock. The pipes were covered with AASHTO #3 stone and another layer of geocomposite to protect the geosynthetic clay liner from puncture or tearing. The slope of the two pipes transition from flat within the sump area to sloped as the pipes extend upgradient towards the leachate riser vault. As the two pipes extend upgradient towards the vault, they penetrate the landfill's geosynthetic clay liner and primary 60-mil textured HDPE liner. The liner penetrations can increase the potential/risk for leakage due to the number of welds required to create the boot around the pipe and liner.

Brunner proposes to expose and visually inspect the liner penetrations and "boots" around the 18-inch diameter sump pipe and the 4-inch diameter cleanout pipe located at the northeast corner of Area 8. Any discovered tears or damaged welds will be repaired to help ensure that liquid is unable to migrate down to the leachate detection zone from this pipe penetration.

Brunner does not anticipate a need for a permit modification for the above-mentioned improvements and modifications and plans to implement them within nine months after written approval of this plan by the PADEP (Department.) Upon implementation of the above-mentioned improvements and modifications, Brunner will monitor flow from the leachate collection and detection zone for a period of one year to determine the effectiveness of the improvements and to determine if additional measures are required.

Sincerely,

Andrey Lernerman