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February 5, 2026

Coordinator of the Energy Facility Siting Board
89 Jefferson Boulevard
Warwick, RI, 02888

Subject: Rhode Island Department of Health Advisory Opinion on EFSB Docket No. SB-2025-01

Dear State of Rhode Island Energy Facility Siting Board,

The Narragansett Electric Company (TNEC) filed an application with the Energy Facility Siting Board (EFSB) to construct a new U-170 Line, rebuild of the existing B23 Line, and the expansion of the Woonsocket Substation. This work is designed to improve the resilience of the power infrastructure in Northwest Rhode Island. The Rhode Island Department of Health (RIDOH) was directed to examine the potential public health impacts of the proposed TNEC project. Our examination included a determination of the potential:

1. Human health implications of the power frequency, electric, and magnetic fields associated with the construction and operation of the proposed facility changes.
2. Impacts on the quality of drinking water associated with the construction and operation of the proposed facilities.
3. Occupational health risks posed by contaminated soil, sediment, and surface water in the path of the powerline.

RIDOH has examined the application provided to the EFSB by TNEC, the available scientific literature regarding health effects of magnetic fields, information regarding the drinking water infrastructure, and historic land use records. Based on our analysis, RIDOH has reached the following conclusions:

1. Magnetic fields generated by the power cables are too weak to impact health.
2. The planned project will not impact drinking water infrastructure or protection areas.
3. The proposed power line passes through land impacted by two USEPA Superfund sites.

RIDOH also recommends the following:



State of Rhode Island

1. Cables should be installed as planned with proper shielding in accordance with the submitted plans.
2. The line should be installed in the planned location, where it does not interfere with drinking water infrastructure or protection areas.
3. TNEC must comply with all ELURs and requirements from RIDEM and EPA to protect worker safety and prevent the spread of contamination.

In the next sections, each stage of the analysis is described in more detail.

Background:

TNEC proposed the construction of a new 115 kV transmission line between the Woonsocket Substation in North Smithfield and the Nasonville Substation in Burrillville, the expansion of the Woonsocket Substation in North Smithfield, and the rebuild of the existing B23 115 kV transmission line between the Nasonville Substation and West Farnum Substation. The project will use the existing right-of-way occupied by the existing B23 line. The construction is designed to address violations of the distribution planning criteria that were identified in the 2022 Northwest Rhode Island Study. This will reduce overloads in the event of an outage and improve overall system reliability and resilience. Detailed information about this project can be found in the publicly available [application](#).

RIDOH Analysis:

1. Health Concerns Relating to Magnetic Fields Generated by Power Cables

Magnetic fields created by the power cables are not expected to impact health. The magnetic fields generated by the power cables have an estimated magnetic field of 1.9-23 mG at peak loading (measured at the edge of the right of way). Neither Rhode Island nor the federal government have health-based standards for exposure to magnetic fields. The International Commission on Non-Ionizing Radiation Protection and the Institute of Electrical and Electronic Engineers have established that steady magnetic fields ranging 1,000,000 to 4,000,000 mG are safe for the general public. The magnetic fields generated by this project are far below these values. The cable produces magnetic fields that are closer to the Earth's (which is about 512 mG). RIDOH does not expect magnetic fields from the power cables to impact health given their extremely low strength.

2. Impacts on the Quality of Drinking Water

This project is not expected to impact drinking water. The planned route of the proposed power cables does not intersect with the protection areas of any groundwater wells (Figure 1). The planned route of the cable will not interact with drinking water infrastructure or wellhead protection areas.

3. Occupational Exposure to Contaminated Soil, Sediment, and Water During Construction



RIDOH analyzed land use records to determine whether any potential sources of soil contamination exist in the areas where construction will take place. The proposed path of the powerline intersects with land impacted by the Landfill and Resource Recovery (L&RR) and Western Sand and Gravel Superfund sites (Figure 1). Contamination at these sites has impacted surface and groundwater quality, sediments, and soil in the area. Soil and groundwater in the area is contaminated with volatile organic compounds, metals, and per- and polyfluorinated alkyl substances (PFAS). There is also a stream near the L&RR site that sampling has shown to be contaminated with PFAS and 1,4-dioxane. With footings and excavations expected to be greater than 20 feet into the subsurface, workers may be exposed to contaminated groundwater, surface water, sediment, and soils. TNEC must comply with all Environmental Land Use Restrictions (ELURs) and Soil Management Plans in the areas where excavations are taking place (per EPA's requirement). Lots 11, 67, 68, 81, 82, 83, 88, 89, and 90 and Plat 7, Lot 9 have ELURs that need to be strictly followed. EPA's letter dated 1/15/26 outlines the documentation required to work safely in these conditions. TNEC must submit the documentation and ensure compliance to protect worker health and prevent the spread of contamination (per EPA's requirement).

Communication and coordination with EPA, RIDEM, and additional parties may be warranted to not interrupt site operations and pilot studies. TNEC should apprise both the USEPA Superfund Section, RIDEM, and the potentially Responsible Parties associated with the Western Sand and Gravel and Landfill Resource and Recovery Superfund sites of the planned activities. Workers should take precautions when interacting with all site media (i.e. soil, groundwater, sediment, surface water, etc.). Health risks depend on a variety of factors, but proper management of potentially contaminated environmental media can effectively minimize health risks.

Conclusions and Recommendations:

Based on our analysis, RIDOH has reached the following conclusions:

1. Magnetic fields generated by the power cables are too weak to impact health.
2. The planned project will not impact drinking water infrastructure or protection areas.
3. The proposed power line passes through land impacted by two USEPA Superfund sites.

RIDOH also recommends the following:

1. Cables should be installed as planned with proper shielding in accordance with the submitted plans.
2. The line should be installed in the planned location, where it does not interfere with drinking water infrastructure or protection areas.
3. TNEC must comply with all ELURs and requirements from RIDEM and EPA to protect worker safety and prevent the spread of contamination.



Sincerely,

A handwritten signature in black ink that reads "Jerome M. Larkin" with a long horizontal flourish extending to the right.

Jerome Larkin, MD
Director
Rhode Island Department of Health



State of Rhode Island

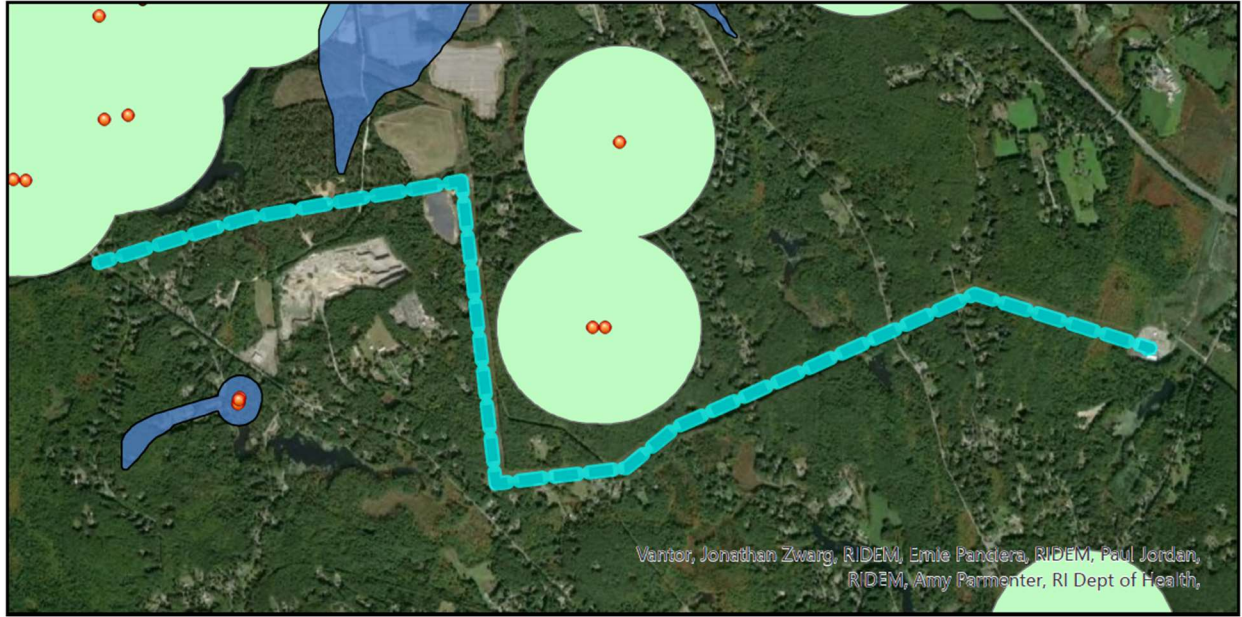


Figure 1: Planned route of the cable with respect to wellhead protections in the area. The planned route of the cable is shown as the segmented teal line. Orange dots are wells. Wellhead protection areas are shown in bright green circles or blue shapes.



Proposed Power Line Path in Burrillville and Superfund National Priorities List Sites

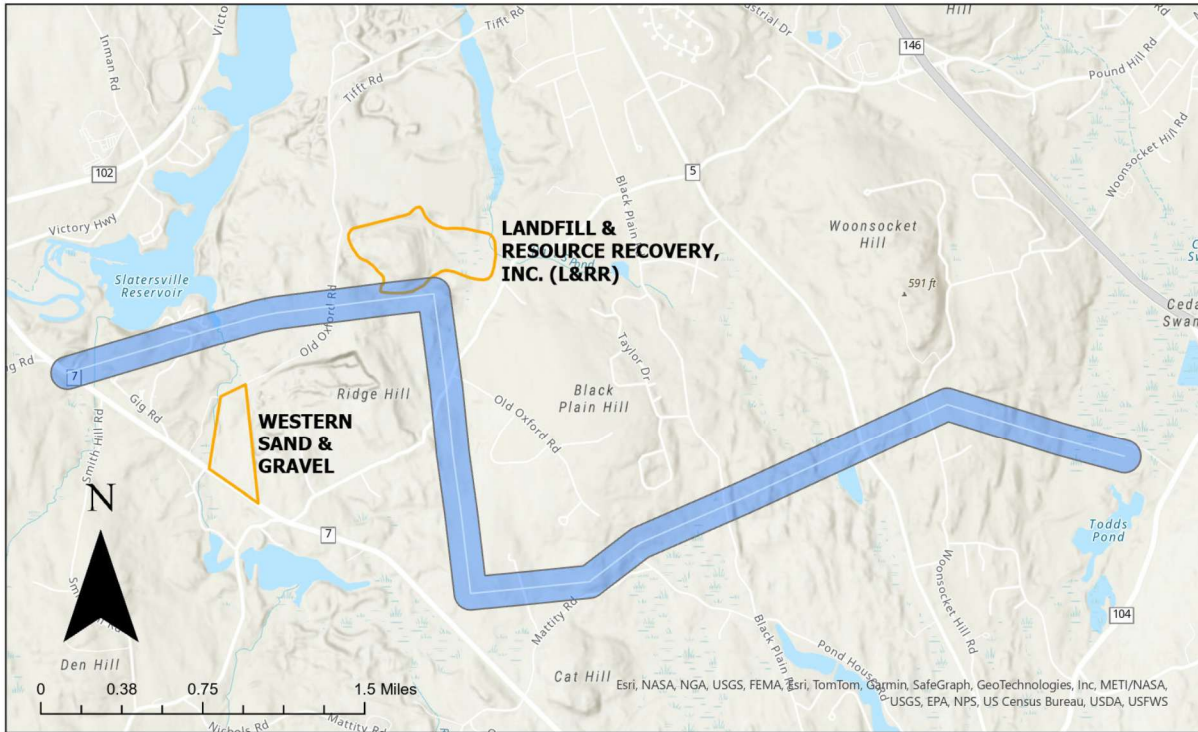


Figure 2: Proposed path of the power line with respect to National Priority List (Superfund) sites in the area. The blue line represents a 400-foot buffer around the proposed path of the powerline. Western Sand & Gravel and Landfill & Resource Recovery Superfund Sites are outlined in yellow and labelled on the map.

