(61)

Public Service of New Hampshire

PSNH Energy Park
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The Northeast Utilities System

John M. MacDonald
Vice President - Operations

August 16, 2002

Mr. John King
US EPA - Region 1
Office of Ecosystem Protection (CPE)
NPDES Permit Unit
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Subject: Schiller Station NPDES Permit No. 0001473
Unit 4 Intake Structure

Dear Mr. King:

EPA has previously determined that the circulating water intake structures at Schiller Station employ the best technology available for minimizing adverse environmental impact. In accordance with Part I, Section A.1.f. of the Schiller Station NPDES Permit, PSNH is requesting approval to modify the intake structure of Unit 4. Partly because the actual intake box is located approximately 30 feet offshore, the unit has historically impinged a higher rate of lobsters than the other two operating units. To help mitigate lobster impingement, PSNH proposes to install a steel framed fiberglass screen across the intake structure along the bottom of the river. The screen will attach to the existing trash rack guides with 2-inch angle iron and will extend approximately four feet up from the river bottom. The screen interior will be constructed of 1-1/2-inch fiberglass mesh, anchored by two 3-inch stainless steel corner posts. The following drawings are enclosed to show the project details:

- 9900-1: Location of Existing Intake Structures
- 544-36: Design and Proposed Modifiction to Unit 4 Intake

In addition to this change, PSNH requests approval to remove a second set of trash racks located within the actual screenhouse. In this interior location, there is no easy method to clean debris from the racks due to a lack of accessibility. These inner racks are a redundant feature and were made obsolete by the presence of the outer trash racks referenced above. Any material that passes by the outer trash racks is captured by the finer mesh rotating screens positioned downstream. The efficiency of the generating unit will be improved by the removal of the racks as cooling water will not be impeded as the racks become blocked. The following drawings are enclosed to show details of the racks:

- 592-B-3: Inner Trash Racks Location
- 592-B-10: Trash Racks Design

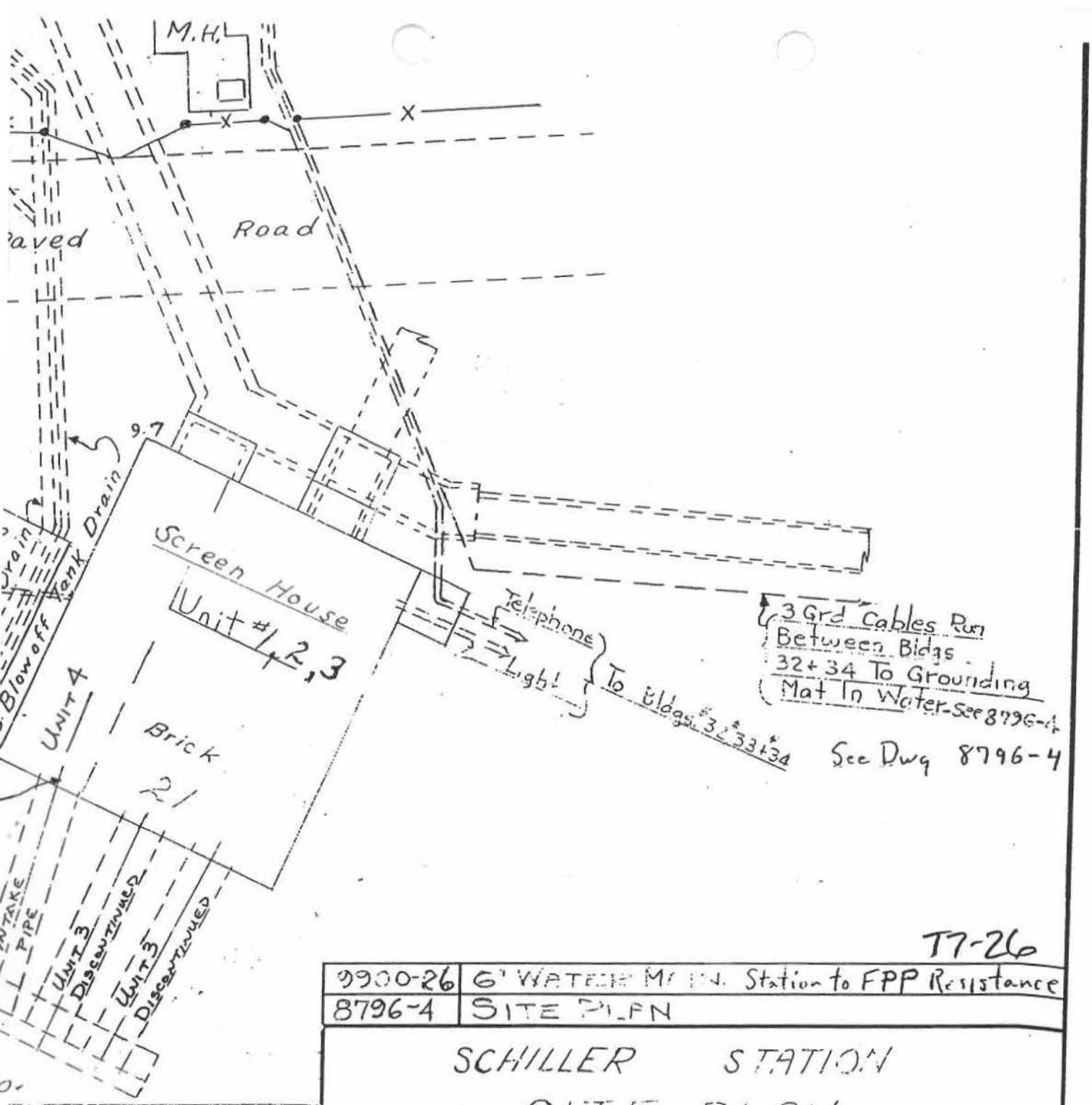
PSNH plans to perform this work when the unit is taken off-line for an annual outage this coming October. Please contact Allan Palmer, Senior Engineer, at 603-634-2439 to discuss this proposal further.

Very truly yours,

John M. MacDonald
Vice President - Operations

Enclosures

cc: Jeffrey G. Andrews - NHDES



T7-26

9900-26	6" WATER MAIN Station to FPP Resistance
8796-4	SITE PLAN

SCHILLER STATION

SITE PLAN

AND LOCATION OF EXISTING UTILITIES

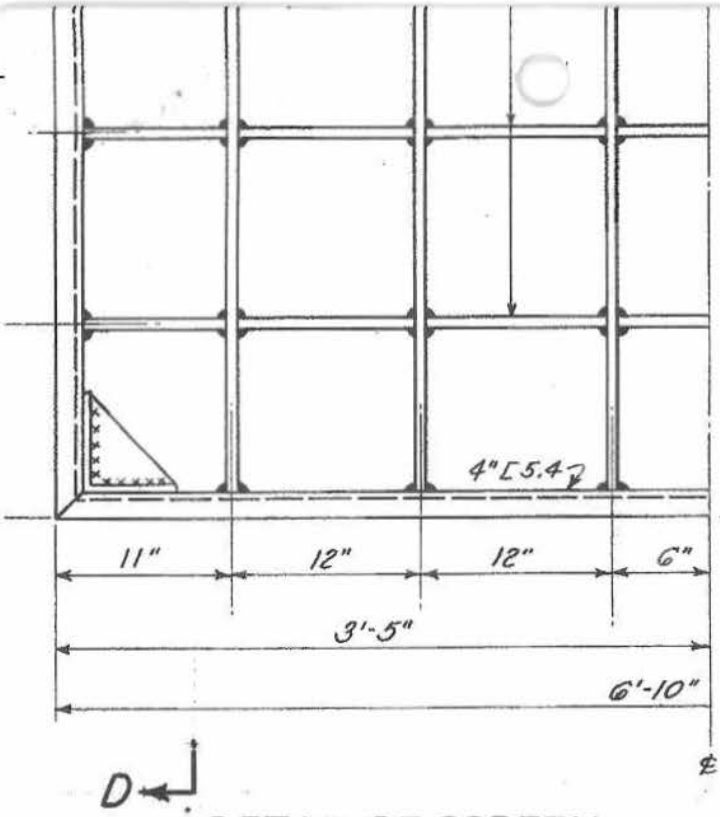
LOCATED (8796-4)	4-21-53	
	1-23-53	ATL
Notes	9-25-53	
N	DATE	CHKD.

CHKD. E. Whittier

APPR. J. E. Lyons

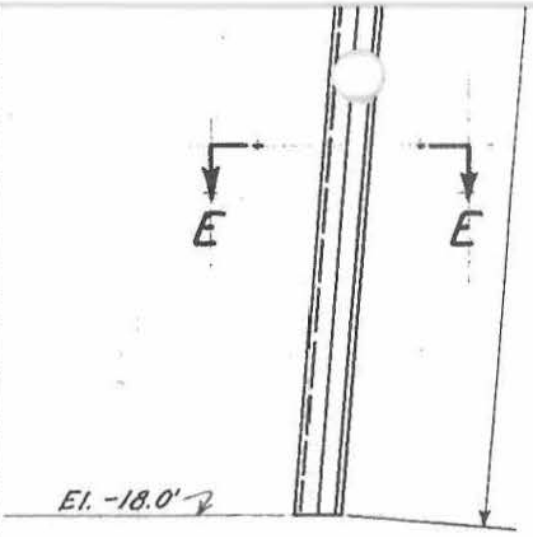
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE 1" = 20' DATE 11-14-52

9900-1



DETAIL OF SCREEN

SCALE: 1"=1'-0"

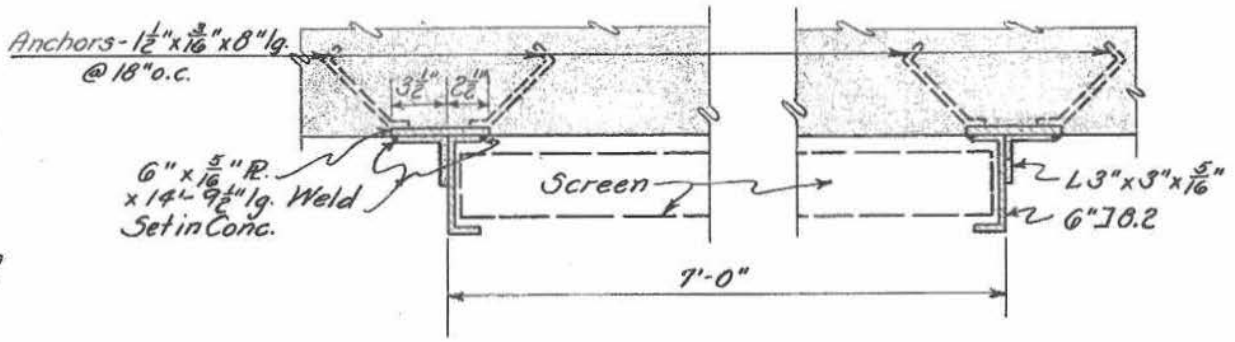


DETAIL OF SCREEN GUIDES

SCALE: $\frac{1}{2}$"=1'-0"

3 REQ'D AS SHOWN

3 REQ'D OPP. HAND.



SECTION E-E

SCALE: 1"=1'-0"

MERCURY UNIT POWER PLANT

T7-3

TRASH RACK	8/12/02	
	7-14-48	B.W.F.
	6-29-48	
	4-25-48	
VISION	DATE	CHKD

DETAILS OF INTAKE PIPES SCREEN HOUSE

PORTSMOUTH STEAM PLANT

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

Y.F.
Y.F.
M.

CHKD. _____

APPR. _____

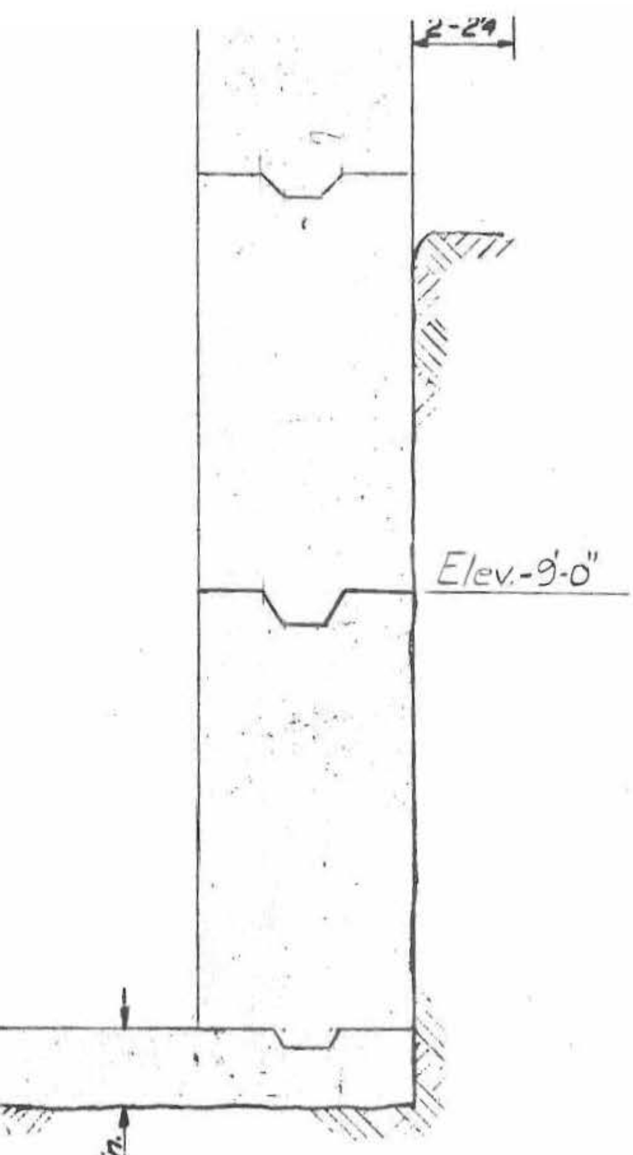
NEPSCO SERVICES, INC.
ENGINEERING DEPARTMENT

SCALE SHOWN DATE 6-21-48

544-36

unless otherwise noted.

8. All elevations are based on U.S.G.S. Datum. Zer at Mean Sea Level



-C

NOTES

1. This is one of a set of two drawings, s also Dwg No. 592-B-4.
2. For location of pipe sleeves at Elev. 9 see screen manufacturer's drawing.
3. All concrete outlined on this drawing to have a minimum compressive strength of 5000 psi at th end of 28 days.
4. For details of miscellaneous steel items indicated on this drawing see Dwg. No. 592-B-10, except as noted otherwise.
5. Floor at Elev. 9'-0" to have a 1½" bonded finish.
6. For General Excavation Notes, see Dwg. 592-B-2

NOTE WELL

At locations where new concrete is placed adjacent existing concrete, the surfaces of the existing concrete at the construction joints shall be prep by scrubbing with wire brushes until the aggreg is exposed in a bright, clean condition, then co with a thin layer of neat cement grout immediat prior to the placing of the new concrete.

T7-8

HKM 4-6-51 HG 4-5-51 4/5/51	PUBLIC SERVICE CO OF NH SCHILLER STATION PROJEC
	JACKSON & MORELAND, ENGINEERS **BOSTON — NEW YO**
N.H. 1951	SCREEN HOUSE SUBSTRUCTURE CONCRETE OUTLINE — PLANS & SECTIONS
MA	RECORD NUMBER 4592 | SCALE Unless otherwise Noted ¼ IN.= 1 FOOT | 592 - B - 3

DA 592-7

NOTES

1. For General Notes see Dwg 592-B-3
2. For miscellaneous steel specifications see Dwg 592-B-50
3. For additional miscellaneous steel see Dwgs 592-B-3, 592-B-4, & 592-B-9.

T7-

PUBLIC SERVICE CO. OF N. H.		PORTSMOUTH,
PROJECT NO. 2		SCHILLER STA
JACKSON & MORELAND, ENGINEERS	BOSTON	— NEW YO

SCREEN HOUSE
MISCELLANEOUS STEEL

RECORD NUMBER	SCALE	
4592	as noted IN.= 1 FOOT	592-B-10

DA-592-2