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NSB NEW LONDON
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GENERAL PERMIT TRANSMITTAL AND REGISTRATION FORMS FOR THE DISCHARGE
OF WATER TREATMENT WASTEWATER FROM THE PURE WATER FACILITY AND THE
POWER PLAN WATER SOFTNERS NSB NEW LONDON CT

4/1/1997

HRP ASSOCIATION, INC

**GENERAL PERMIT
TRANSMITTAL AND REGISTRATION FORMS
FOR THE DISCHARGE OF
WATER TREATMENT WASTEWATER
FROM THE PURE WATER FACILITY AND
THE POWER PLANT WATER SOFTENERS**

CONTRACT N62472-95-D-1448

**NAVAL SUBMARINE BASE NEW LONDON
ROUTE 12 AND CRYSTAL LAKE ROAD
GROTON, CONNECTICUT**

HRP #NAV-0096.FE

APRIL 1997

PREPARED BY:

**MICHAEL D. ERRICKSON
PROJECT ENGINEER**

**CHARLES L. LEONARD
PROJECT ENGINEER**

**JOSEPH MAGDOL, P.E.
SENIOR PROJECT MANAGER**

Submitted to:

**Mr. Lewis Riess
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway
Lester, PA 19113-2090**

**Mr. Keith Chrisman
Environmental Department
Naval Submarine Base New London
P.O. Box 39
Groton, CT 06349-5039**

Submitted by:

**HRP Associates, Inc.
Engineering & Geology
167 New Britain Avenue
Plainville, CT 06062**

General Permit Registration Form for Water Treatment Wastewater

Please complete this form in accordance with the instructions in order to ensure the proper handling of your registration. Print or type unless otherwise noted. You must submit the permit application transmittal form and the registration fee along with this form.

| | |
|-----------------|-------|
| DEP USE ONLY | |
| Application No. | _____ |
| Permit No. | _____ |
| Facility I.D. | _____ |

Part I: Registration Type

Enter a check mark in the appropriate box identifying the registration type.

- A new general permit registration;
- A discharge previously authorized by an individual State or NPDES permit;
Provide Permit No. SP0000915

Part II: Registration Information

Please provide the applicant/registrant's name as indicated on the transmittal form

Applicant/Registrant: Commanding Officer, Naval Submarine Base New London

When a facility or activity is owned by one person or municipality but is leased or in some other way the legal responsibility of another person or municipality (the operator) it is the operator's responsibility to submit any applications required under this section. (Section 22a-430-4-(a)(3)).

Operator: Department of Navy, Naval Submarine Base New London

Mailing Address: P.O. Box 00

City/Town: Groton State: CT Zip Code: 06349-5000

Business Phone: (860) 449-5133 ext. _____ Fax: (860) 449-2653

Contact: Suzanne Berkman Title: Environmental Department Head

Facility or Site Owner: Department of Navy, Naval Submarine Base New London

Mailing Address: P.O. Box 00

City/Town: Groton State: CT Zip Code: 06349-5000

Business Phone: (860) 449-5133 ext. _____ Fax: (860) 449-2653

Contact: Suzanne Berkman Title: Environmental Department Head

Part II: Registration Information (continued)

List primary contact for departmental correspondence and inquiries. (If other than the applicant.)

Name: Environmental Department

Mailing Address: P.O. Box 39

City/Town: Groton State: CT Zip Code: 06349-5039

Business Phone: (860) 449-5192 ext. _____ Fax: (860) 449-4899

Contact: Keith Chrisman Title: Environmental Engineer

List attorney or other representative if applicable.

Name: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Business Phone: () _____ ext. _____ Fax: () _____

Contact: _____ Title: _____

List any engineer(s) or other consultant(s) employed or retained to assist in preparing the registration or to design, construct or operate the water treatment wastewater activity. Please enter a check mark if additional sheets are attached.

Name: HRP Associates, Inc.

Mailing Address: 167 New Britain Avenue

City/Town: Plainville State: CT Zip Code: 06062

Business Phone: (860) 793-6899 ext. _____ Fax: (860) 793-6871

Contact: Joseph Magdol, P.E. Title: Senior Project Manager

Services Provided: Sampling and application forms

Part III: Site Information

1. Name of facility, if applicable Naval Submarine Base New London

Street Address and/or Geographical Description Route 12 & Crystal Lake Road

City or Town Groton

Part IV: Activity Information

1. Discharge Serial Number 001C - Mixed Media Bed Regeneration

Average Daily Flow 5,900 gpd Maximum Daily Flow 11,800 gpd

Design Flow 17,700

Date Discharge Began or Will Begin 6/93

Average Number of hours per day or per event of the discharge 0.83 hrs.

Maximum Number of hours per day or per event of the discharge 1.7 hrs.

2. For batch, intermittent, or seasonal discharges, indicate the duration and frequency of the discharge.
One of the three mixed media bed units are regenerated a maximum of every 12 hours, depending on water usage on the base. More than one of the units can be used at a time, and no more than two are expected to be regenerated on any given day.

3. Description of each specific activity or each process generating the discharge.
The mixed media beds are utilized as a secondary water treatment unit after the carbon filters for producing pure water for use in the submarines and the power plant boilers.

4. Identification of all types of wastes generated by each process producing a discharge.
The mixed media bed regeneration includes discharges of backwash and final rinse wastewaters to the sanitary sewer.

5. For discharges to a POTW

a. Name and location of POTW Groton Design Flow of POTW 5 MGD

6. For discharges to a surface water body: Name of receiving stream N/A

7. A detailed description of the type of treatment system installed to treat the discharge.
A neutralization tank is utilized to treat the chemical wastes during the intermediate regeneration steps. Only steps 1 and 13 (the backwash and final rinse) are discharged to the sanitary sewer. Steps 2-12 are treated in the neutralization tank.

8. A brief description of the BMP's to be implemented by the permittee to minimize the adverse environmental affects of activities covered under this general permit.
N/A

Part IV: Activity Information

1. Discharge Serial Number 001D - Neutralization

Average Daily Flow 5,500 gpd Maximum Daily Flow 14,500 gpd

Design Flow 18,500 gpd

Date Discharge Began or Will Begin 6/93

Average Number of hours per day or per event of the discharge 0.5 hrs

Maximum Number of hours per day or per event of the discharge 1.0 hrs

2. For batch, intermittent, or seasonal discharges, indicate the duration and frequency of the discharge.
The discharge lasts approximately one half hour and occurs when a mixed bed is regenerated, usually two to six three times per month but a maximum of once every twelve hours.

3. Description of each specific activity or each process generating the discharge.
The discharge is generated from the neutralization of the regeneration wastewater from the mixed media beds.

4. Identification of all types of wastes generated by each process producing a discharge.
Neutralized regeneration wastewater.

5. For discharges to a POTW

--a. Name and location of POTW Groton Design Flow of POTW 5 MGD

6. For discharges to a surface water body: Name of receiving stream N/A

7. A detailed description of the type of treatment system installed to treat the discharge.
None

8. A brief description of the BMP's to be implemented by the permittee to minimize the adverse environmental affects of activities covered under this general permit.
N/A

Part IV: Activity Information

1. Discharge Serial Number S032 - Power Plant Water Softeners

Average Daily Flow 14,200 gpd Maximum Daily Flow 24,225 gpd

Design Flow 24,225 gpd

Date Discharge Began or Will Begin 1970

Average Number of hours per day or per event of the discharge 6.5 hrs.

Maximum Number of hours per day or per event of the discharge 9.5 hrs.

2. For batch, intermittent, or seasonal discharges, indicate the duration and frequency of the discharge.
Currently, one of the two power water softeners must be regenerated approximately every 12 hours and the other every 48-72, hours depending on water usage. The regeneration of a unit takes a maximum of 7.0 hours.

3. Description of each specific activity or each process generating the discharge.
The power plant softeners remove hardness from the incoming town of Groton potable water by ion exchange in order to soften the water for use in the boilers.

4. Identification of all types of wastes generated by each process producing a discharge.
The power plant softener regeneration results in four discharges to the sanitary sewer: a backwash, a brine rinse, a fast flush, and a final rinse. All are included in the flows listed above on this page.

5. For discharges to a POTW

a. Name and location of POTW Groton Design Flow of POTW 5 MGD

6. For discharges to a surface water body: Name of receiving stream N/A

7. A detailed description of the type of treatment system installed to treat the discharge.
None

8. A brief description of the BMP's to be implemented by the permittee to minimize the adverse environmental affects of activities covered under this general permit.
N/A

Part V: Certifications

The registrant and the individual(s) responsible for actually preparing the registration must sign this part. A registration will be considered incomplete unless all signatures asked for are provided. If the registrant is the preparer, please mark N/A in the spaces provided for the preparer.

"I certify under penalty of law that I have read and understand all the conditions of the general permit for Water Treatment Wastewater (WTW) discharges issued on May 1, 1995, that all requirements for authorization under this general permit are met for all discharges which are subject of this registration, and all terms and conditions of this general permit are being met for all discharges which have been initiated and are the subject of this registration. This document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained in this registration is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingly making false statements."

Signature of Registrant

Date

Suzanne Berkman

Name of Registrant (print or type)

Environmental Department Head

Title (if applicable)

Joseph Magdol

Signature of Preparer

Date

4/23/97

Joseph Magdol, P.E.

Name of Preparer (print or type)

Senior Project Manager

Title (if applicable)

Please enter a check mark if additional signature blocks are attached.

Part VI: Supporting Documents

The supporting documents outlined below must be submitted with the registration form.

1. Plan of the site showing at least the boundaries of the site, the exact location of any drinking water wells on the site, the location of discharges covered under this general permit, the monitoring locations, the treatment systems and the location of wetlands and watercourses as defined by sections 22a-28 and 22a-38 of the General Statutes.
2. For discharge(s) to surface water or ground water, an 8 1/2" by 11" copy of applicable sections of a United States Geological Survey (USGS) quadrangle map, with a scale of 1:24,000, showing the exact location of the discharge, specifying the longitude and latitude of the discharge to within the closest 15 seconds, and including the name of the USGS map. N/A
3. For discharges to a POTW initiated after the effective date of the Water Treatment Wastewater General Permit, the attached POTW certification. N/A
4. The attached Professional Engineer Certification.
5. For any discharge initiated on or before the effective date of this general permit, which does not comply with the treatment and control requirements contained in Section 5(a)(6) as of the effective date of the general permit for Water Treatment Wastewater, a report detailing all such conditions or terms which are not being complied with, and a schedule of modifications or facility upgrades required to meet any such term or condition. N/A
6. A plan for minimizing the use of copper if the registrant utilizes a water supply reservoir and copper compounds are used, or intended to be used in the water supply reservoir. Such plan shall take into account, at a minimum, an assessment of nutrient loadings in the watershed, the amount of copper needed to control algae, intake levels, and opportunities for recycling the wastewater stream and shall include a plan for monitoring algae and using copper sulfate only when needed to control algae. N/A

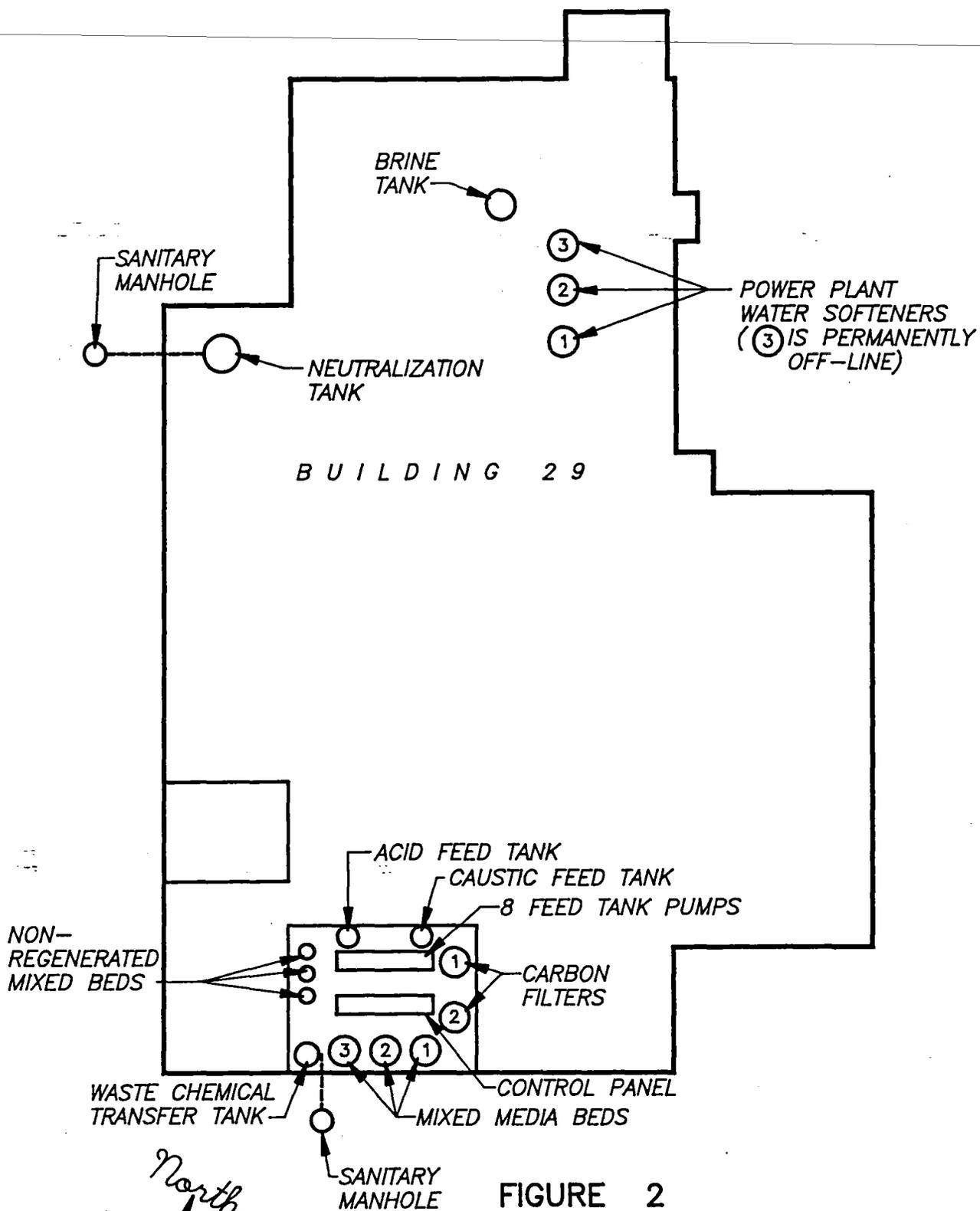


FIGURE 2
BUILDING 29
NAVAL SUBBASE NEW LONDON
GROTON, CONNECTICUT
HRP # NAV0096.FE
NOT TO SCALE

POTW Certification

For discharges to a POTW initiated after the effective date of the Water Treatment Wastewater General Permit, the following certification is required from the registrant:

"I certify that (1) the information outlined below has been submitted to the appropriate POTW authority, and (2) the registrant has received written certification signed by the appropriate POTW authority that it has received and reviewed the information outlined below and has authorized the discharge to the POTW, and (3) such information and written certification has been submitted with this registration;

- (i) an analysis of the impact of the discharge on the hydraulic capacity of the receiving POTW, including but not limited to the receiving sewerage system, force mains, pumping stations;
- (ii) the rate, frequency, and time period that the WTW will be discharged to the POTW;
- (iii) wastewater characteristics;
- (iv) provisions for the controlled discharge of WTW to the receiving POTW, including but not limited to equalization, limiting hydraulic loading, or limiting the total suspended solids loading;
- (v) the impact of the discharge of WTW on POTW sludge generation and handling, and any potential alteration of the character of the sludge which may render it unsuitable for further treatment by anaerobic/aerobic digestion, high temperature/pressure and chemical oxidation, sludge dewatering, and composting; or unsuitable for ultimate disposal by incineration, landfilling, or land application;
- (vi) the ratio of flow of WTW in relation to total influent to the POTW; and
- (vii) any other information necessary to ensure that such discharge will not adversely impact the performance of the POTW and cause any violation of their discharge permit, or render the sludge generated at the POTW unsuitable for landfilling, land application, or incineration.

Signature of Registrant

Date

Name of Registrant (print or type)

Title (if applicable)

PROFESSIONAL ENGINEER CERTIFICATION

The following certification, signed by a professional engineer licensed to practice in Connecticut:

- (i) For any discharge which has not been initiated, created, or maintained as of the date of the registration is submitted:

"I certify that in my professional judgement proper operation and maintenance of any systems installed to treat the discharge(s) which are subject of this registration will ensure that all effluent limitations and other conditions in the general permit for the discharge of WTW issued on May 1, 1995 are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based on my review of engineering reports and plans and specifications describing (1) the proposed discharges and (2) any proposed treatment system for the wastewaters to be discharged. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.

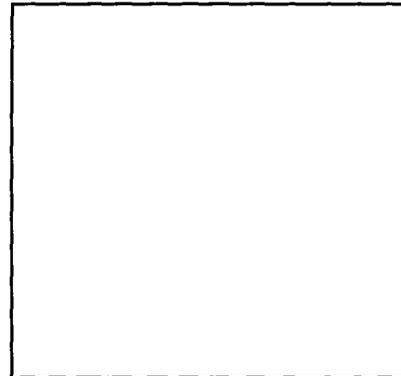
Signature of Professional Engineer

Date

Name of Professional Engineer

P.E. Number

Affix P.E. Stamp here



- (ii) For any discharge other than those specified in paragraph (i) above:

"I certify that in my professional judgement all discharge(s) which are the subject of this registration comply with all conditions of the general permit for the discharge of WTW issued on May 1, 1995, including but not limited to all effluent limitations in Section 5(b) of such general permit and proper operation and maintenance of any systems installed to treat such discharge(s) will ensure that all effluent limitations and other conditions in such general permit are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based

(PROFESSIONAL ENGINEER CERTIFICATION continued)

in part on my review of analyses of a minimum of three effluent samples collected, preserved, handled and analyzed in accordance with 40 CFR Part 136, which samples were representative of the discharge(s) during standard operating conditions, were taken within the previous 12 months, at least one week apart, and were of the type(s) specified in Section 5(c)(5) of the general permit for WTW discharges issued on May 1, 1995, and were analyzed for the parameters specified in Section 5(c) of such general permit. In the case of discharges of WTW less than 5000 gallons per day maximum daily flow, this certification may be based on review of analyses from one effluent sample collected, preserved, handled, and analyzed as specified in the previous sentence. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

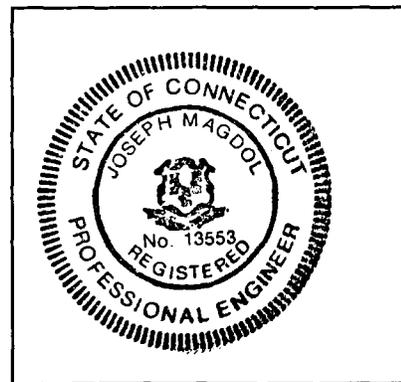
Joseph Magdol
Signature of Professional Engineer

4/23/97
Date

Joseph Magdol, P.E.
Name of Professional Engineer

13553
P.E. Number

Affix P.E. Stamp here



(PROFESSIONAL ENGINEER CERTIFICATION continued)

(iii) In addition, for a discharge to a POTW:

"I certify that in my professional judgement all the requirements for discharges to a POTW in Sections 4 and 5 of the General Permit for Water Treatment Wastewater have been met and the registrant is authorized to discharge to the POTW."



Signature of Professional Engineer

4/23/97
Date

Joseph Magdol, P.E.
Name of Professional Engineer

13553
P.E. Number

Affix P.E. Stamp here

