

5090  
Ser 18000/1480  
August 23, 1993

↪ Mr. Francis E. McVey, Superintendent  
Brunswick Sewer District  
10 Pine Tree Road  
Brunswick, Maine 04011

Dear Mr. McVey:

As part of the Remedial Action at Sites 1 and 3 and the Eastern Plume at Naval Air Station Brunswick (NAS Brunswick), in Brunswick, Maine, contaminated groundwater is to be collected and treated on-site. The treated groundwater is proposed to be discharged to the base's existing sanitary sewer which enters the Brunswick Sewer District's system and will ultimately be discharged to the Androscoggin River through the Brunswick Sewer District's wastewater treatment facility.

At this time, NAS Brunswick formally requests a discharge agreement with the Brunswick Sewer District for treated groundwater from the NAS Brunswick groundwater treatment facility. This request includes a summary of the issues and responses raised over the past year regarding the discharge of treated groundwater to the Brunswick Sewer District's system.

#### HISTORY OF DISCUSSION

October 1, 1992-TRC Meeting

Mr. Francis McVey attended the October 1, 1992 meeting of the Technical Review Committee (TRC) at NAS Brunswick. At the meeting Mr. McVey identified that prior to the Brunswick Sewer District's acceptance of the treated groundwater effluent the Sewer District's Board of Trustees required additional information regarding the decision making process which lead to the proposal for discharging to the District's sewer system. Additionally, the District identified that they proposed to contract Woodard & Curran Inc. of Portland, ME to evaluate possible impacts of accepting the treated groundwater on the District's treatment facility performance and worker safety.

October 26, 1992-Brunswick Sewer District's Board of Trustees Regular Monthly Meeting

At the invitation of the Brunswick Sewer District, representatives of NAS Brunswick, Navy Northern Division Naval Facilities Engineering Command, and ABB Environmental Services, Inc. met with the Brunswick Sewer District Board of Trustees on October 26, 1992 during the District's regular monthly meeting. Mr. James Shafer of the Northern Division Naval Facilities Engineering Command, introduced the remedial action project noting that the recommendation to discharge to the Brunswick Sewer District system is based on community interest and participation in the remedial action process. Mr. William J. Weber of ABB Environmental Services, Inc. gave a detailed technical presentation of the project.

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Additional information was requested by the Board of Trustees consisting of the following:

A list of discharge options already investigated was to be provided.

Documentation of the reasons for which any of these options was abandoned and confirmation that these obstacles are in fact not negotiable with the regulatory agencies.

Further investigation and documentation of the feasibility of total or partial re-use of the treated groundwater for on-site or off-site process-type operations, and on-site treatment and discharge of treated groundwater to the Androscoggin River or Harpswell Cove.

October 7, 1992

ABB-ES submitted a preliminary evaluation of pretreatment requirements to Mr. Henri J. Vincent, P.E. of Woodard & Curran Inc., for his use in Woodard & Curran Inc.'s evaluation. Included in the submittal was estimated contaminant concentrations from the combined extraction wells from Sites 1 and 3 and the Eastern Plume, and proposed effluent limits.

March 3, 1993

In response to the Brunswick Sewer District Board of Trustees concerns expressed in October 1992, the Navy submitted a written Technical Memorandum presenting the evaluation of discharge options for treated groundwater from Sites 1 and 3 and the Eastern Plume. The Technical Memorandum summarized the evaluation of: direct discharge of treated groundwater to Mere Brook, Androscoggin River, and Harpswell Cove; and reinjection of treated groundwater at two locations upgradient of Sites 1 and 3. The evaluation was based on environmental and social acceptability, schedule impact on the remediation program, and costs. Based on this analysis and the remedial goals for the Installation Restoration Program at NAS Brunswick, these options were not considered practical alternatives to the discharge to the Brunswick Sewer District's treatment facility.

April 13, 1993

Francis McVey of Brunswick Sewer District transmitted Woodard & Curran Inc.'s "Evaluation of NASB Groundwater Impacts on Brunswick Sewer District Phase I" (February 1993). In the transmittal letter, Brunswick Sewer District identified that "recommendations contained in the evaluation will be required of (the) project."

April 23, 1993

Francis McVey notified James Shafer in writing that the District's Board of Trustees had voted to accept the Navy's proposal to discharge treated groundwater to the District's sanitary sewer facilities. The acceptance was made contingent on the satisfaction of the following conditions:

1. Discharge of proposed flows to District facilities will occur in accordance with a written contractual agreement, the terms and conditions of which will be agreeable to the District.
2. Approval by the District is conditioned upon the project securing necessary approvals by USEPA, MEDEP, and the local citizens group, as well as any other federal, state, or local bodies having jurisdiction over the project.
3. Groundwater extraction, treatment, and monitoring facilities are to be constructed and operated in substantial agreement with representations made by the Navy and its consultants at the October 1992 presentation to the District.
4. Recommendations and conclusions contained in the report on the technical evaluation performed by Woodard & Curran Inc. will be implemented prior to discharge to District facilities.
5. Discharge of the treated groundwater to District facilities is accepted on the same basis by which the District accepts any municipal wastewater flows, and will be administered accordingly without regard to either quantity or content of flow.
6. Terms and conditions of the agreement will be subject to review and renewal at five year intervals.

The Navy's responses to these conditions are as follows:

1. Agreed.
2. Required approval for the Remedial Design has been obtained from USEPA and MEDEP has concurred. The local citizens group has not commented on the approved Remedial Design but have been kept informed through the TRC meetings.
3. Agreed.
4. The Woodard & Curran recommendations have been addressed in the May 12, 1993 letter from James Shafer to Francis McVey.
5. Agreed.

6. Agreed.

May 12, 1993

James Shafer transmitted to Mr. McVey a letter summarizing ABB-ES' review of the recommendations in the Woodard & Curran Inc. report dated February 1993. The review discussed Woodard & Curran Inc.'s recommendations and responded to them.

PROPOSED DISCHARGE LIMITS

The proposed discharge limits for the treated groundwater effluent as measured at the discharge of the UV Oxidation unit are:

<u>Contaminant</u>	<u>Effluent Concentration (mg/L)</u>	<u>Sample type</u>
1,1-Dichloroethane	0.094	grab
1,1-Dichloroethene	0.007	grab
1,2-Dichloroethylene	0.070	grab
Tetrachloroethylene	0.005	grab
1,1,1-Trichloroethane	0.750	grab
1,1,1-Trichloroethylene	0.005	grab
Dichloromethane	0.005	grab
Vinyl Chloride	0.002	grab
Arsenic	0.050	grab
Chromium	0.010	grab
Lead	0.015	grab
Nickel	0.078	grab
Zinc	0.200	grab
Ph	6.0-8.0	continuous min/max
Turbidity	50 ntu	continuous min/max

The above parameters will be reported to the District on a monthly basis.

The treated groundwater effluent flow rate is anticipated to be 120 gallons per minute (gpm) for the first year of operation and 90 gpm for the remaining years of operation. The groundwater treatment facility is expected to become operational in October 1994. The operating life of the facility is estimated at between 14 to 75 years. The actual operating life is dependent on the effectiveness of the groundwater extraction system on the Eastern Plume and remedial activities at the source areas.

Wastewater discharge from the treatment plant will be metered at the existing metering pit at Route 24. Payment to the District will be based on metered flow and existing rate structures. No distinction will be made between the groundwater treatment plant discharge and other wastewater flows.

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The District will be permitted access to the treatment facility and its records upon request.

Please review this information and contact me to begin the process of preparing the discharge agreement.

Sincerely,

T. E. BRUBAKER  
Commander, CEC, U. S. Navy  
Public Works Officer  
By direction of  
the Commanding Officer