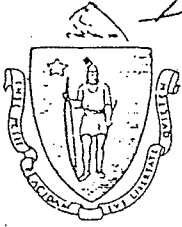


Appendix 2-1

**Draft Memorandum on Sewer Phasing Evaluation and
Implementation Schedule, November 2008**

1980 GROUNDWATER DISCHARGE PERMIT



OFFICE OF THE DIRECTOR

Discharge Permit

The Commonwealth of Massachusetts

Water Resources Commission
Division of Water Pollution Control

110 Tremont Street, Boston 02108

April 30, 1980

H. Lester Sherman, Jr., Chairman
Water Pollution Control Department
Post Office Box 314
Hyannis, Massachusetts 02601

Re: Subsurface Discharge
Permit 0-21
Hyannis WWTP
Barnstable

Dear Mr. Sherman:

In response to your application submitted on behalf of the Town of Barnstable for a permit to discharge into the ground a treated effluent from an on-site wastewater treatment facility on Bearses Way in Hyannis designed to treat wastes from the Village of Hyannis, after due public notice and no objections to the issuance of the permit having been received, I am therefore issuing the permit effective this date.

Very truly yours,

Thomas C. McMahon
Director

TCM/WAS/rew

cc (w/enclosure):

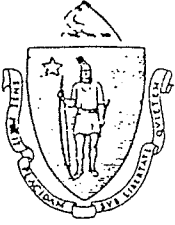
- Abraham Michaels, Superintendent, Department of Public Works, New Town Hall, Main Street, Hyannis 02601
- Paul T. Anderson, Regional Environmental Engineer, Department of Environmental Quality Engineering, State Hospital, Lakeville 02346
- Mr. Peter Churchill, Whitman & Howard, Inc., 45 William Street, Wellesley 02181
- Ms. Donna L. B. D'Amore, Camp Dresser & McKee Inc., One Center Plaza, Boston 02108

RECEIVED

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MAY 15 1980

DEPT. OF PUBLIC WORKS
TOWN OF BARNSTABLE

BY _____



OFFICE OF THE DIRECTOR

The Commonwealth of Massachusetts

Water Resources Commission
Division of Water Pollution Control

110 Tremont Street, Boston 02108

DISCHARGE PERMIT

Name and Address of Applicant: Town of Barnstable, Water Pollution Control Department,
397 Main Street, (P.O. Box 314), Hyannis, Massachusetts 02601

Application No. 0-21

Date of Application February 28, 1978

Permit No. 0-21

Date of Issuance April 30, 1980

Date of Expiration April 30, 1985

AUTHORITY FOR ISSUANCE

Pursuant to authority granted by Chapter 21, Sections 26-53 of the Massachusetts
General Laws, as amended, the following permit is hereby issued to:

Town of Barnstable, Water Pollution Control Department, (hereinafter called the "permittee")
authorizing discharges from an on-site wastewater treatment facility on Bearses Way,
Hyannis, designed to treat wastes from the Village of Hyannis with discharge to the ground,
such authorization being expressly conditional on compliance by the permittee with all terms
and conditions of the permit hereinafter set forth.

This permit shall become effective on the date of the Director's signature and shall expire on
April 30, 1985

Thomas C. McMahon, Director
Division of Water Pollution Control

4/30/80
Date

I. SPECIAL CONDITIONS

A. Effluent Limits

The permittee is authorized to discharge into the ground from the wastewater treatment facilities for which this permit is issued a treated effluent whose characteristics, within one month after start-up of the facilities and continuing thereafter, shall not exceed the following values:

<u>Effluent Characteristic</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Maximum Day</u>
Flow, Cu, M/day (MGD)	4.2	-	-
Biochemical Oxygen Demand 5-day, 20°C	30	.45	50
Total Suspended Solids (mg/l)	30	45	50
Settleable Solids (ml./l.)	-	0.1	0.3
Total Coliform Bacteria (#/100 ml.)	1000	2000	2000
Chlorine Residual, (mg/l)	1.0	-	-

- a) The pH of the effluent shall not be less than 6.0 nor greater than 9.0 at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.
- b) The total chlorine residual of the effluent shall not result in any demonstrable adverse effect on the groundwater or violate any water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards, the permittee being so notified.
- c) The discharge shall not cause a violation of the water quality standards of the receiving waters.
- d) The monthly average concentration of BOD and total suspended solids in the discharge shall not exceed 15 percent of the monthly average concentrations of BOD and total suspended solids in the influent into the permittee's wastewater treatment facilities.
- e) When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the permitted flow limitation, the permittee shall submit to the permitting authorities projected loadings and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

B. Monitoring and Reporting

- 1) The permittee shall monitor and record the quality and quantity of discharge at the sampling station immediately following the chlorining contact chamber according to the following schedule and other provisions:

<u>Parameter</u>	<u>Minimum Frequency of Analysis</u>	<u>Sample Type</u>
Flow	✓ daily	Daily Avg., Max., Min.
BOD	2 x wk.	24 hr. - Comp.
TSS and Total Solids	2 x wk.	24 hr. - Comp.
Settleable Solids	1 x d	Grab
Total Coliform	2 x wk.	Grab
pH	1 x d	Grab
Chlorine Residual	1 x d	Grab
Total Phosphorus as P	1 x month	24 hr. - Comp.
Nitrates as N	1 x month	24 hr. - Comp.
DO	1 x d	Grab
NH ₃ as N	1 x month	24 hr. - Comp.

- 2) The locations of nine(9) observation wells in the vicinity of the treatment facility are shown on the map and described in the tabulation appended to and made a part of this permit. The permittee shall monitor, record and report the quality of water in the observation wells according to the following schedule and other provisions:

Chloride	1 x monthly
Copper	1 x monthly
Iron	1 x monthly
Manganese	1 x monthly
Nitrate-Nitrogen	1 x monthly
Sodium	1 x monthly
Sulfate	1 x monthly
pH	1 x monthly

- 3) Any grab sample or composite sample required to be taken less frequently than daily shall be taken during the period of Monday through Friday inclusive. Eight hour composites and grab samples shall be taken between 8:00 a.m. and 6:00 p.m.
- 4) The permittee shall submit all reports on an acceptable form, properly filled in and signed, on the fifteenth of every month, beginning 30 days after start-up of the permitted facilities, to the Regional Engineer, DWPC, P.O. Box 537, N. Pembroke 02358 and to the Regional Environment Engineer, DEQE, State Hospital, Lakeville 02346

II. GENERAL CONDITIONS

- 1)
 - a) All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties as provided for in Section 42 of the State Act. Facility modifications, additions, and/or expansions that increase the plant capacity must be reported to the Director, and this permit then modified or reissued to reflect such changes. No change in the facility discharge that will result in new or increased discharges of pollutants from such treatment system may be made unless reported to and approved by the Director. This permit may be modified accordingly. In no case are new connections, increased flows, or significant changes in influent quantity or quality permitted that will cause violation of the effluent limitations specified herein.

- 2) After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
 - a) Violation of any terms or conditions of the permit;
 - b) Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; and
 - c) A change in conditions or the existence of a condition which requires either a temporary or permanent reduction or elimination of the authorized discharge.

- 3) The permittee shall permit the Director, and other duly authorized Division personnel upon the presentation of proper credentials:
 - a) To enter upon permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b) To have access to and copy any records required to be kept under the terms and conditions of this permit;
 - c) To inspect any monitoring equipment or monitoring method required in this permit; or

- d) To sample at any intake, wastewater treatment facility, and/or discharge.
- 4) In the event of any change in control or ownership of facilities from which the authorized discharges originate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Director. Succeeding owners or controllers shall be bound by all the conditions of this permit, unless and until a new or modified permit is obtained.
- 5) All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the Division's "Rules and Regulations for Operation and Maintenance of Sewerage Systems and Waste Treatment Facilities," as most recently amended, and the Division of Environmental Health's "Manual of Procedure - Sewage Treatment Plants with Subsurface Sewage Disposal," as most recently amended, which regulations are hereby incorporated into and made a part of this permit. The permittee shall at all times maintain in good working order and operate as efficiently as possible any facilities or system of control installed or utilized to achieve compliance with the terms and conditions of this permit.
- 6) The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; nor does it authorize or relieve the permittee of any liability for any injury to private property or any invasion of personal rights; nor any infringement of Federal, State, or local laws or regulations; nor does it waive the necessity of obtaining any local assent required by law for the discharge authorized herein.
- 7) This permit shall be subject to such monitoring requirements as may be reasonably required by the Director, including the installation, use, and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The permittee shall provide the Director with periodic reports on the proper reporting form of monitoring results obtained by a permittee pursuant to the monitoring requirements contained herein. The permittee shall maintain records of all information resulting from any monitoring activities required herein. Any records of monitoring activities and results shall include for all samples:
- The date, exact place and time of sampling;
 - The dates and times analyses were performed;
 - Who performed the sampling and analyses;
 - The analytical techniques/methods used, including sampling, handling, and preservation techniques; and

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- e) The results of each such analysis. Any records of monitoring activities and results including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records, shall be retained for a minimum of three years. This period shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Director.
- 8) All information and data provided by an applicant or a permittee identifying the nature and frequency of a discharge shall be available to the public without restriction. All other information (other than effluent data) which may be submitted by an applicant in connection with a permit application or which may be furnished by a permittee in connection with required periodic reports shall also be available to the public unless the applicant or permittee is able to demonstrate that the disclosure of such information or particular part thereof to the general public would divulge methods or processes entitled to protection as trade secrets in accordance with the provisions of M. G. L., c. 21, § 27 (7). Where the applicant or permittee is able to so demonstrate, the Director shall treat the information or the particular part (other than effluent data) as confidential and not release it to any unauthorized person. Such information may be divulged to other officers, employees, or authorized representatives of the Commonwealth or the United States Government concerned with the protection of public waters or water supplies.
- 9) All reports and communications required hereunder are to be made or sent to the Director of the Division of Water Pollution Control.
- 10) The provisions of this permit are severable, and the invalidity of any condition or subdivision thereof shall not make void any other condition or subdivision thereof.
- 11) Reporting and Monitoring

- a) Quality Control

The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at regular intervals to ensure accuracy of measurements or shall ensure that both activities will be conducted. Samples shall be representative of the volume and quality of effluent discharged over the sampling and reporting period.

- 1) The permittee shall provide the above records and shall demonstrate the accuracy of the flow measuring device upon request of the Director. The permittee shall identify the effluent sampling point used for each discharge.

- 2) The permittee shall analyze any additional samples as may be required by the Director to ensure analytical quality control.
- 3) If this permittee monitors any pollutant more frequently than is required by this permit, he shall also provide the results of such monitoring to the Director.

b) Sampling and Analysis

The sampling, preservation, handling, and analytical methods used must conform to the following approved test procedures. However different but equivalent methods are allowable if they receive the prior written approval of the Director.

- 1) Standard Methods for the Examination of Water and Wastewaters, 13th Edition, 1971, American Public Health Association, New York, New York 10019;
- 2) A.S.T.M. Standards, Part 23, Water; Atmospheric Analysis, 1970; American Society of Testing and Materials, Philadelphia, Pennsylvania 19103; or
- 3) Methods for Chemical Analysis of Water and Wastes, April 1971, Environmental Protection Agency Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, Ohio 45268.

c) Reporting

The results of the above mentioned requirements shall be reported as required in Special Condition B. The permittee shall include in this report any previously approved non-standard methods used. Permanent elimination of a discharge should be brought to the attention of the Director within 15 days by a special written notification. A written report should be submitted if there have been any modifications in the waste collection, treatment, and disposal facilities; changes in operational procedures; or other significant activities which alter the nature and frequency of the discharge or otherwise concern the conditions of this permit.

12) Certification of Reports

All reports shall be signed by the chief operator of the treatment facility and

- a) In the case of corporation, by a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the permit originates;

- b) In the case of a partnership, by a general partner;
- c) In the case of a sole proprietorship, by the proprietor;
- d) In the case of a municipal, State, or other public facility, by either a principal executive officer or ranking elected official.

13) Oil Discharges

There shall be no discharge of harmful quantities of oil, as defined pursuant to the Massachusetts Water Quality Standards, including (1) any subsequent amendments or revisions made thereto, or (2) any more restrictive limitations which may be imposed otherwise by law or regulation. The authorization of this permit does not preclude the institution of any legal action nor relieve the permittee from any liabilities, penalties, or responsibilities established by Section 311 of the Federal Act, by Massachusetts General Laws c. 21, §§ 27 (14), and 42 as amended, and the Massachusetts Rules for the Prevention and Control of Oil Pollution in the Waters of the Commonwealth, by any subsequent amendments thereto, or by any superseding Federal or State legislation.

14) Other Materials

Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:

- a) They are not
 - 1) Designated as toxic or hazardous under provisions of the Massachusetts General Laws c. 21, §§ 57, 58 and the Division of Water Pollution Control Hazardous Waste Regulations
 - 2) Known to be hazardous or toxic by the permittee, except that such materials may be discharged in certain limited amounts with the written approval of, and under special conditions established by the Director or his designated representatives, if the substance will not pose any imminent hazard to the public health or safety;
- b) The discharge of such materials will not violate applicable water quality standards; and
- c) The permittee is not notified by the Director to eliminate or reduce the quantity of such materials entering the watercourse.

15) Solids Disposal

Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in such a manner as to prevent entry of such materials or leachate therefrom into navigable waters or their tributaries.

16) Non-Compliance

In the event the permittee is unable to comply with any of the conditions of this permit, due, among other reasons, to:

- a) Breakdown or maintenance of waste treatment equipment (biological and physical-chemical systems including, but not limited to, all pipes, transfer pumps, compressors, collection ponds or tanks from the segregation of treated or untreated wastes, ion exchange columns, or carbon adsorption units),
- b) Accidents caused by human error or negligence, or
- c) Other causes, such as act of nature,

the permittee shall provide the Director with the following information in writing within five days after commencement of such occurrence:

- 1) Cause of non-compliance;
- 2) A description of the non-complying discharge including its impact upon the receiving waters;
- 3) Anticipated time the condition of non-compliance is expected to continue, or if such condition has been corrected, the duration of the period of non-compliance;
- 4) Steps taken by the permittee to reduce and eliminate the non-complying discharge; and
- 5) Steps to be taken by the permittee to prevent reoccurrence of the condition of non-compliance.

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from non-compliance with any effluent limitation specified in this permit, including, such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance, whether or not such non-compliance is due to factors beyond his control, such as equipment breakdown, electric power failure, accident, or natural disaster.

17) Emergency Action - Electric Power Failure

The permittee shall indicate in writing to the Director within 30 days of the effective date of this permit that, in the event the primary source of electric power fails, the permittee will provide an alternative source of power for the operation of its treatment facilities in accordance with a schedule to be established by the Director which will become part of this permit. The alternate power supply, whether from a generating unit located at the plant site or purchased from an independent source of electricity, must be separate from the existing power source used to operate the waste treatment facilities. If a separate facility located at the plant site is to be used, the permittee shall certify in writing to the Director when the facility is completed and prepared to generate power.

18) Bypasses

The diversion or bypass of any discharge from waste treatment facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit is prohibited, except

- 1) Where unavoidable to prevent loss of life or severe property damage, or
- 2) Where excessive storm drainage or runoff would damage any facilities necessary for compliance with the terms and conditions of this permit.

The permittee shall immediately notify the Director in writing of each such diversion or bypass in accordance with the procedure specified above for reporting non-compliance.

19) Reapplication

If the permittee desires to continue to discharge after the expiration of this permit, it shall reapply on the application forms then in use at least 180 days before this permit expires.

20) Definitions

For purposes of this permit, the following definitions shall apply:

<u>Director</u>	Director of the Massachusetts Division of Water Pollution Control
<u>Division</u>	Massachusetts Water Resources Commission Division of Water Pollution Control Third Floor 110 Tremont Street Boston, Massachusetts 02108
<u>Mean</u>	The mean value is the arithmetic mean unless used for fecal or total coliform, which would be geometric mean.
<u>Grab Sample</u>	An individual sample collected in a period of less than 15 minutes.
<u>Composite Sample</u>	A sample consisting at a minimum of grab samples taken hourly during the period specified in the section on Monitoring and Reporting and combined proportional to flow, or a sample continuously collected proportional to flow over that same time period.
<u>Monthly Average</u>	The average of a minimum of twelve composite samples taken on twelve separate days, or at least one grab sample per day, taken on twelve separate days, as required for the parameter being reported within a calendar month.
<u>Instantaneous Maximum</u>	A value not to be exceeded in any grab sample.
<u>Average</u>	The arithmetic mean of values taken at the frequency required for each parameter over the specified period. For total and/or fecal coliforms, the average shall be computed as the geometric mean.
<u>Federal Act</u>	The Federal Water Pollution Control Act, as amended, (P. L. 92-500)

Incompatible
Pollutant

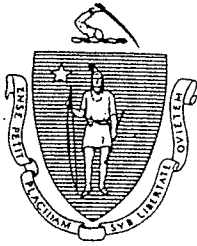
Any pollutant, other than biochemical oxygen demand, suspended solids, pH, fecal coliform bacteria, or additional pollutants identified in the permit, which the treatment works was not designed to treat and does not remove to a substantial degree.

The following abbreviations, when used, are defined below:

Cu. M ³ /day or M ³ /day	Cubic meters per day
mg/l	milligrams per liter
ug/l	micrograms per liter
kgpd or kg/day	kilograms per day
Temp. °C	temperature in degrees Centigrade
Temp. °F	temperature in degrees Fahrenheit
TNFR or TSS	total nonfilterable residue or total suspended solids
DO	dissolved oxygen
BOD	five-day biochemical oxygen demand unless otherwise specified
TKN	total Kjeldahl nitrogen as nitrogen
NH ₃ -N	ammonia nitrogen as nitrogen
lb/day	pounds per day
Total P	total phosphorus as phosphorus
COD	chemical oxygen demand
TOC	total organic carbon
Surfactant	surface-active agent

pH	a measure of the hydrogen ion concentration
PCB	polychlorinated biphenyl
CFS	cubic feet per second
MGD	million gallons per day
Oil & Grease	hexane extractable material
Total Coliform	total coliform bacteria
Turb.	turbidity measured in Jackson Candle Units (JTU)
Fecal Coliform	total fecal coliform bacteria
ml/l	milliliter(s) per liter
ml	milliliter(s)
SU	standard units
NO ₃ -N	nitrate nitrogen as nitrogen
NO ₂ -N	nitrite nitrogen as nitrogen
NO ₂ &NO ₃	combined nitrite and nitrate nitrogen as nitrogen
Cl ₂	total residual chlorine

1990 DRAFT GROUNDWATER DISCHARGE PERMIT



Brian Donahoe
Director

The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

Department of Environmental Protection

Division of Water Pollution Control

One Winter Street, Boston, Mass. 02108

RECEIVED
DEPT. OF PUBLIC WORKS
TOWN OF BARNSTABLE
BY _____

2155

November 6, 1990

NOV 14 1990

Thomas J. Mullen, Superintendent
Department of Public Works
Town of Barnstable
Hyannis, MA 02601

Dear Mr. Mullen:

The attached draft groundwater discharge permit is, as you will notice, very similar to one we sent you Sept. 13, 1989. At this time, we intend to issue the permit which has been held in abeyance for far too long.

In answer to some of your comments regarding the original draft, please consider the following:

1. The eventual flow of 4.2 mgd for the facility is based upon current knowledge of hydraulics and physical limitation of the site. If further study indicates greater or lesser capacity, the next groundwater permit can reflect that figure. Permits are only issued for five years, and assuming the schedule on the draft is adhered to, construction of an improved facility would not be completed until this permit expires, and a new one is pending.
2. If you have suggestions regarding the appropriate monitoring wells to be used in the permit, please indicate those you feel are suitable.
3. The plant uses chlorine for disinfection of the effluent at the present time. This is primarily because the discharge is not subsurface but to sand beds which can produce an aerosol effect. If other methods of disinfection are preferable to the town, they can be incorporated into a subsequent permit, after study and recommendation.
4. The implementation schedule included in the permit was developed in conjunction with the Bureau of Municipal Facilities and represents a realistic approach for the Town. If the Town disagrees, they have the right to appeal the permit upon issuance. The town is required to prepare an environmental impact report for the MEPA office, but MEPA has determined that we can issue a groundwater discharge permit prior to completion of an EIR.

5. The permit contains specific water quality parameters to which the discharge must conform. The permit does not require that an upgradient well meet class I standards- that is not within the purview of this permit process.

In summary, please consider that the permit is issued for only a five year period.

The requirements are not final and unchangeable, and in fact, the permit may be revised/modified at any time for just cause.

If you have any further questions regarding the draft permit please call Clinton Watson of my staff at 617-292-5693.

Very truly yours,



Brian Donahoe
Director

cc: DEP/DWPC, SERO
Board of Health, Town Hall, 397 Main St., Hyannis, MA 02061
DEP/BMF, Boston, Attn: Bob Cady

BD/CW/yg
wp2/mullen

**DRAFT
FOR REVIEW ONLY**

DISCHARGE PERMIT

Name and Address of Applicant: Town of Barnstable, Water Pollution
Control Facility, DPW, 367 Main St., Hyannis, MA 02601

Application No.: 0-21

Date of Application: 2-06-84

Permit No.: _____

Date of Issuance: _____

Date of Expiration: _____

AUTHORITY FOR ISSUANCE

Pursuant to authority granted by Chapter 21, Sections 26-53 of the Massachusetts General Laws, as amended, the following permit hereby issued to:

Town of Barnstable, Department of Public Works

(hereinafter called "the permittee"), authorizing discharges from an on-site wastewater treatment facility on Bearses Way, Hyannis, to the ground, such authorization being expressly conditional on compliance by the permittee with all terms and conditions or the permit hereinafter set forth.

This permit shall become effective on the date of the Director's signature and shall expire on _____.

**DRAFT
FOR REVIEW ONLY**

Brian Donahoe, Director
Division of Water Pollution Control

Date

I. SPECIAL CONDITIONS

A. Effluent Limits

The permittee is authorized to discharge into the ground from the wastewater treatment facilities for which this permit is issued a treated effluent whose characteristics, within one month after start-up of the facilities and continuing thereafter, shall not exceed the following values:

1. Prior to treatment system improvements:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>
Flow, million gallons per day	2.7 mgd
Biochemical Oxygen Demand, 5 day 20°C	30 mg/l
Total Suspended Solids	30 mg/l
Settleable Solids	0.1 ml/l
Fecal Coliform Bacteria	200/100 ml
Chlorine Residual	1.0 mg/l
Total Dissolved Solids	1000 mg/l
Chlorides	250.0 mg/l
Nitrate Nitrogen	15.0 mg/l
Total Nitrogen	15.0 mg/l

2. After treatment system improvements:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>
Flow, million gallons per day	4.2
Biochemical Oxygen Demand, 5 day 20°C	30 mg/l
Total Suspended Solids	30 mg/l
Settleable Solids	0.1 ml/l
Fecal Coliform Bacteria	200/100 ml
Chlorine Residual	1.0 mg/l
Total Dissolved Solids	1000 mg/l
Chlorides	250.0 mg/l
Nitrate Nitrogen	10.0 mg/l
Total Nitrogen	10.0 mg/l

- (a) The pH of the effluent shall not be less than 6.5 nor greater than 8.5 at any time.
- (b) The discharge of the effluent shall not result in any demonstrable adverse effect on the ground water or violate any water quality standard that has been promulgated.

- (c) The monthly average concentration of BOD and total suspended solids in the discharge shall not exceed 15 percent of the monthly average concentrations of BOD and total suspended solids in the influent into the permittee's wastewater treatment facilities.
- (d) When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the permitted flow limitation, the permittee shall submit to the permitting authorities projected loadings and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

B. Monitoring and Reporting

- 1) The permittee shall monitor and record the quality and quantity of effluent at the sampling station immediately following the chlorine contact chamber according to the following schedule and other provisions:

<u>Parameter</u>	<u>Minimum Frequency of Analysis</u>		<u>Sample Type</u>
<u>Flow</u>	Daily	Daily Avg., Max., Min.	
<u>BOD</u>	2 x weekly	24 hour composite	
<u>TSS and Total Solids</u>	2 x weekly	24 hour composite	
<u>Settleable Solids</u>	* 1 x daily	Grab	
<u>Fecal Coliform</u>	2 x weekly	Grab	
<u>pH</u>	1 x daily	Grab	
<u>Chlorine Residual</u>	1 x daily	Grab	
<u>Total Phosphorous as P</u>	1 x monthly	24 hour composite	
<u>Nitrate Nitrogen</u>	2 x monthly	24 hour composite	
<u>NH3 as Nitrogen</u>	2 x monthly	24 hour composite	
<u>Total Nitrogen</u>	2 x monthly	24 hour composite	
<u>Dissolved Oxygen</u>	1 x daily	Grab	
<u>Chloride</u>	2 x weekly	Grab	
<u>Total Dissolved Solids</u>	2 x weekly	24 hour composite	
<u>Sodium</u>	2 x weekly	Grab	
<u>Total Volatile Organic Compounds (EPA Method #624)</u>	1 x weekly	Grab	

- 2) The permittee shall monitor and report the quality of ground water in existing monitoring wells BA-1,2,3; BB-1,2,3,; BC-11; BD-1 and BE-11(as shown on the accompanying map) according to the following schedule and other provisions:

Specific Conductance	1 x monthly
Ammonia Nitrogen	1 x monthly
Chloride	1 x monthly
Copper	1 x monthly
Iron	1 x monthly
Manganese	1 x monthly
Nitrate-Nitrogen	1 x monthly
Sodium	1 x monthly
Sulfate	1 x monthly
pH	1 x monthly
Total Phosphorus	1 x annually
Total Trihalomethanes (EPA Method #624)	1 x annually
Total Volatile Organics (EPA Method #624)	1 x annually
MBAS	1 x annually
Static Water Level	1 x monthly

- 3) Any grab sample or composite sample required to be taken less frequently than daily shall be taken during the period of Monday through Friday inclusive. Eight hour composites and grab samples shall be taken between 8:00 a.m. and 6:00 p.m. All composite samples shall be taken over the operating day.

The permittee shall submit all reports on an acceptable form, properly filled and signed, on the fifteenth day of every month, beginning thirty days after the issuance of this permit, to the Regional Director, Department of Environmental Protection, Southeast Regional Office, Lakeville Hospital, Lakeville, MA 02346 and to the Director, Department of Environmental Protection, Division of Water Pollution Control, One Winter Street, Boston, MA 02108.

C. Implementation Schedule

- 1) The permittee shall engage a registered professional engineer by December 30, 1990 to prepare engineering plans to improve effluent quality from the wastewater treatment system to meet the discharge limitations listed in A.2 "Effluent Limits" above.
- 2) By September 1, 1992, the permittee shall submit for review a preliminary engineering report detailing improvements to the existing treatment system necessary to meet the effluent limits contained in A-2 above. This preliminary engineering report shall provide detailed information on reasons for selecting the proposed method for treatment plant improvements, the costs associated with such improvements, steps which must be taken to secure money for the improvements and a complete project schedule.

- 3) By September 1, 1993, the permittee shall submit for approval final plans and specifications for improvements to the existing treatment system necessary to meet the effluent limits contained in section A-2 above.
- 4) By December 30, 1993, the permittee shall begin construction of the improvements to the existing treatment system in accordance with the approved plans and specifications.
- 5) By December 30, 1995, the permittee will have completed all necessary improvements to the treatment system to meet effluent limits as shown in A-2 above and to attain operational level.
- 6) Should the completed facility be incapable of meeting the effluent limits specified in paragraph A-2 above or if the Division determines that additional treatment is necessary to protect downgradient public water supplies, the permit will be modified to include, as appropriate, new effluent limits and/or and implementation schedule for additional facilities.

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SPS #9

PART II GENERAL PERMIT CONDITIONS

The following conditions apply to all permits:

1 No discharge authorized in the permit shall result in a violation of the Massachusetts Surface Water Quality Standards (314 CMR 4.00) or the Massachusetts Ground Water Quality Standards (314 CMR 6.00), or any amendments thereto. Upon promulgation of any amended standard, this permit may be revised or amended in accordance with such standard and 314 CMR 2.10 and 3.12 or 5.12. For purposes of determining compliance with ground water quality standards, a violation of the ground water quality standards, and the discharge permit, will be determined to occur when any parameter measured in any downgradient well exceeds the applicable criteria listed in 314 CMR 6.06. In those cases where it is shown that a measured parameter exceeds the applicable criteria listed in 314 CMR 6.06 at the upgradient monitoring well, a violation of the ground water quality standards and the discharge permit will be determined to occur when it is shown that a measured parameter in any downgradient well exceeds the level of that same measured parameter in the upgradient well for the same sampling period.

2 Duty to comply. The permittee shall comply at all times with the terms and conditions of the permit, 314 CMR, the State Act and all other applicable state and federal statutes and regulations.

3 Standards and prohibitions for toxic pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Federal Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

4 Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and equipment installed or used to achieve compliance with the terms and conditions of the permit, and in accordance with 314 CMR 12.00.

5 Duty to halt or reduce activity. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or discharges of both until the facility is restored or an alternative method of treatment is provided. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

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6 Power Failure. In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- (a) provide an alternative power source sufficient to operate the wastewater control facilities; or
- (b) halt, reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

7 Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any adverse impact on human health or the environment resulting from non-compliance with the permit.

8 Duty to provide information. The permittee shall furnish to the Director within a reasonable time any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine whether the permittee is complying with the terms and conditions of the permit.

9 Inspection and entry. The permittee shall allow the Director or his authorized representatives to:

- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records required by the permit are kept;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (c) Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit; and
- (d) Sample or monitor at reasonable times for the purpose of determining compliance with the terms and conditions of the permit.

10 Monitoring. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Monitoring must be conducted according to test procedures approved under 40CFR Part 136 unless other test procedures are specified in the permit.

11 Record keeping. The permittee shall retain records of all monitoring information including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and all records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

Records of monitoring information shall include:

continued

- (a) The date, exact place, and time of sampling or measurements;
- (b) The individual(s) who performed the sampling or measurement;
- (c) The date(s) analyses were performed;
- (d) The individual(s) who performed the analyses;
- (e) The analytical techniques or methods used; and
- (f) The results of such analyses.

12 Prohibition of bypassing: Except as provided in 314 CMR 3.19(13), bypassing is prohibited and the Director may take enforcement action against a permittee for bypassing, unless the discharge is to a surface water and:

- (a) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- (c) The permittee submitted notice of the bypass to the Director:
 1. In the event of an anticipated bypass at least ten (10) days in advance, if possible; or
 2. In the event of an unanticipated bypass as soon as the permittee has knowledge of the bypass and no later than twenty-four (24) hours after its first occurrence.

13 Bypass not exceeding limitations. The permittees may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if necessary for the performance of essential maintenance or to assure efficient operation of treatment facilities.

14 Permit actions. The permit may be modified, suspended, or revoked for cause. The filing of a request by the permittee for a permit modification, reissuance, or termination, or a notification of planned changes or anticipated non-compliance does not stay any permit condition.

15 Duty to reapply. If the permittee wishes to continue an activity regulated by the permit after the expiration date of the permit, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least one hundred and eighty (180) days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director.

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- 16 Property rights. The permit does not convey any property rights of any sort or any exclusive privilege.
- 17 Other laws. The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State and local laws and regulations.
- 18 Oil and hazardous substance liability. Nothing in the permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Federal Act, and M.G.L.c.21E.
- 19 Removed substances. Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed in a manner consistent with applicable Federal and State laws and regulations including, but not limited to, the State and Federal Acts, the Massachusetts Hazardous Waste Management Act, M.G.L.c.21C, and the federal Resource Conservation and Recover Act, 42 U.S.C. s.6901, et seq. 310 CMR 19.00 and 30.000, and other applicable regulations.
- 20 Reporting requirements.
- (a) Monitoring reports. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) at the intervals specified elsewhere in the permit. If the permittee monitors any pollutant more frequently than required by the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
- (b) Compliance schedules. Reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than fourteen (14) days following each schedule date.
- (c) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility or activity which could significantly change the nature or increase the quantity of pollutants discharged. Unless and until the permit is modified, any new or increased discharge in excess of permit limits or not specifically authorized by the permit constitutes a violation.
- (d) Anticipated non-compliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in non-compliance with permit requirements.

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(e) Twenty-four (24) hour reporting. The permittee shall report any non-compliance which may endanger health or the environment. Any information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.

The following shall be included as information which must be reported within twenty-four (24) hours:

1. Any unanticipated bypass which exceeds any effluent limitation in the permit.
2. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within twenty-four (24) hours.

(f) Other non-compliance. The permittee shall report all instances of non-compliance not reported under 314 CMR 3.19(20)(a), (b) or (e) at the time monitoring reports are submitted. The reports shall contain the information listed in 314 CMR 3.19(20)(e).

(g) Toxics. All manufacturing, commercial, mining, or silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant listed in 314 CMR 3.16 which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

- a. One hundred micrograms per liter (100 ug/l);
- b. Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
- c. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or

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2. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

- (h) Indirect dischargers. All Publicly Owned Treatment Works shall provide adequate notice to the Director of the following:
1. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301, or 306 of the Federal Act if it were directly discharging those pollutants; and
 2. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 3. For purposes of 314 CMR 3.00, adequate notice shall include information on the quality and quantity of effluent introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(i) Information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

21 Signatory requirement. All applications, reports, or information submitted to the Director shall be signed and certified in accordance with 314 C.R. 3.14 and 5.11.

22 Severability. The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.

23 Reopener clause. The Director reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the State or Federal Acts in order to bring all discharges into compliance with said statutes.

24 Approval of plans and specifications for treatment works. All discharges and associated treatment works authorized herein shall be consistent with the terms and conditions of this permit and the approved plans and specifications. Any modification to the approved treatment works shall require written approval of the Director or the Department.

continued

25 Transfer of Permits.

(a) RCRA facilities. Any permit which authorized the operation of a RCRA facility which is subject to the requirements of 314 CMR 8.07 shall be valid only for the person to whom it is issued and may not be transferred.

(b) Transfers by modification. Except as provided in 314 CMR 3.19(25)(a) and (c) a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued or a minor modification made to identify the new permittee.

(c) Automatic transfers. As an alternative to transfers under 314 CMR 3.19(25)(b), any permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Director at least thirty (30) days in advance of the proposed transfer date in 314 CMR 3.19(25)(c)2.

2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

3. The Director does not notify the existing permittee and the proposed new permittee of his intent to modify or revoke and reissue the permit. A modification under 314 CMR 3.19(25) may also be a minor modification. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in 314 CMR 3.19(25)(c)2.

26 Permit Fees.

(a) Any permittee, other than a public entity, required to obtain a surface water or ground water discharge permit pursuant to M.G.L. c.21, s.43 and 314 CMR 3.00 and 5.00, shall be required annually to obtain an inspection certificate from the Division, and submit the information and fee associated therewith in accordance with 314 CMR 2.12.