

NPDES PERMIT

issued to

The Stop and Shop Supermarket Company LLC
1385 Hancock Street,
Quincy, MA 02169

Location Address:

Stop and Shop Supermarket Plaza
NE Corner of Routes 37 and 39 intersection
New Fairfield, CT 06812

Permit ID: CT0030406

Receiving Stream: Ball Pond Brook

Stream Segment Number: CT 6402-00_01

Permit Expires:

SECTION 1: GENERAL PROVISIONS

- (A) This permit is reissued in accordance with section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and section 402(b) of the Clean Water Act, as amended, 33 USC 1251, et. seq., and pursuant to an approval dated September 26, 1973, by the Administrator of the United States Environmental Protection Agency for the State of Connecticut to administer an N.P.D.E.S. permit program.
- (B) The Stop and Shop Supermarket Company LLC, ("Permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to section 22a-430 of the CGS and are hereby incorporated into this permit. Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(10)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) and (l)(2) of section 22a-430-3.

Section 22a-430-3 General Conditions

- (a) Definitions
- (b) General
- (c) Inspection and Entry
- (d) Effect of a Permit
- (e) Duty
- (f) Proper Operation and Maintenance
- (g) Sludge Disposal
- (h) Duty to Mitigate
- (i) Facility Modifications; Notification
- (j) Monitoring, Records and Reporting Requirements
- (k) Bypass
- (l) Conditions Applicable to POTWs
- (m) Effluent Limitation Violations (Upsets)
- (n) Enforcement
- (o) Resource Conservation
- (p) Spill Prevention and Control
- (q) Instrumentation, Alarms, Flow Recorders
- (r) Equalization

Section 22a-430-4 Procedures and Criteria

- (a) Duty to Apply
 - (b) Duty to Reapply
 - (c) Application Requirements
 - (d) Preliminary Review
 - (e) Tentative Determination
 - (f) Draft Permits, Fact Sheets
 - (g) Public Notice, Notice of Hearing
 - (h) Public Comments
 - (i) Final Determination
 - (j) Public Hearings
 - (k) Submission of Plans and Specifications. Approval.
 - (l) Establishing Effluent Limitations and Conditions
 - (m) Case by Case Determinations
 - (n) Permit issuance or renewal
 - (o) Permit Transfer
 - (p) Permit revocation, denial or modification
 - (q) Variances
 - (r) Secondary Treatment Requirements
 - (s) Treatment Requirements for Metals and Cyanide
 - (t) Discharges to POTWs - Prohibitions
- (C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.
- (D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under section 22a-438 or 22a-131a of the CGS or in accordance with section 22a-6, under section 53a-157b of the CGS.
- (E) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Energy and Environmental Protection ("Commissioner"). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner, at least 30 days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the Commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.
- (F) No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the Permittee pursuant to this permit will result in compliance or prevent or abate pollution.
- (G) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- (H) An annual fee shall be paid for each year this permit is in effect as set forth in section 22a-430-7 of the Regulations of Connecticut State Agencies.

SECTION 2: DEFINITIONS

- (A) The definitions of the terms used in this permit shall be the same as the definitions contained in section 22a-423 of the CGS and section 22a-430-3(a) and 22a-430-6 of the RCSA, except for "No Observable Acute Effect Level (NOAEL)" which is redefined below.
- (B) In addition to the above, the following definitions shall apply to this permit:

"----" in the limits column on the monitoring table means a limit is not specified but a value must be reported on the DMR.

"Average Monthly Limit"; means the maximum allowable "Average Monthly Concentration" as defined in section 22a-430-3(a) of the RCSA when expressed as a concentration (e.g. mg/l); otherwise, it means "Average Monthly Discharge Limitation" as defined in section 22a-430-3(a) of the RCSA.

"Critical Test Concentration (CTC)" means the specified effluent dilution at which the Permittee is to conduct a single-concentration Aquatic Toxicity test.

"Daily Concentration" means the concentration of a substance as measured in a daily composite sample, or the arithmetic average of all grab sample results defining a grab sample average.

"Daily Quantity" means the quantity of waste discharged during an operating day.

"Instantaneous Limit" means the highest allowable concentration of a substance as measured by a grab sample, or the highest allowable measurement of a parameter as obtained through instantaneous monitoring.

"In stream Waste Concentration (IWC)" means the concentration of a discharge in the receiving water after mixing has occurred in the allocated zone of influence.

"Maximum Daily Limit", means the maximum allowable "Daily Concentration" (defined above) when expressed as a concentration (e.g. mg/l); otherwise, it means the maximum allowable "Daily Quantity" as defined above, unless it is expressed as a flow quantity. If expressed as a flow quantity it means "Maximum Daily Flow" as defined in section 22a-430-3(a) of the RCSA.

"mg/l" means milligrams per liter.

"NA" as a Monitoring Table abbreviation means "not applicable".

"NR" as a Monitoring Table abbreviation means "not required".

"No Observable Acute Effect Level (NOAEL)" means any concentration equal to or less than the critical test concentration in a single concentration (pass/fail) toxicity test conducted pursuant to section 22a-430-3(j)(7)(A)(i) RCSA demonstrating 90% or greater survival of test organisms at the CTC.

"Quarterly", in the context of a sampling frequency, means sampling is required in the months of March, June, September and December.

"µg/l" means micrograms per liter.

SECTION 3: COMMISSIONER'S DECISION

- (A) The Commissioner, has issued a final determination and found that continuance of the existing system to treat the discharge will protect the waters of the state from pollution. The Commissioner's decision is based on Application No. 201305154 for permit reissuance received on October 24, 2013 and the administrative record established in the processing of that application.
- (B) (1) From the issuance of this permit through and including [LAST DAY OF MONTH, MONTH OF PERMIT REISSUANCE], the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. CT0030406, issued by the Commissioner to the Permittee on April 24, 2009, the previous application submitted by the Permittee on July 2, 2008, and all modifications and approvals issued by the Commissioner or the Commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No. CT0030406, issued by the Commissioner to the Permittee on April 24, 2009.

(2) From [FIRST DAY OF MONTH, MONTH FOLLOWING PERMIT REISSUANCE] until this permit expires or is modified or revoked, the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. CT0030406, issued by the Commissioner to the Permittee on [DATE OF PERMIT ISSUANCE], Application No. 201305154 received by the Department on October 24, 2013, and all modifications and approvals issued by the Commissioner or the Commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No. CT0030406, issued by the Commissioner to the Permittee on [DATE OF PERMIT ISSUANCE].

- (C) The Commissioner 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 Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

- (A) No discharge shall contain, or cause in the receiving stream, a visible oil sheen or floating solids; or, cause visible discoloration or foaming in the receiving stream.
- (B) No discharge shall cause acute or chronic toxicity in the receiving water body beyond any zone of influence specifically allocated to that discharge in this permit.
- (C) The temperature of any discharge shall not increase the temperature of the receiving stream above 85°F, or, in any case, raise the normal temperature of the receiving stream more than 4°F.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- (A) The discharge shall not exceed and shall otherwise conform to the specific terms and conditions listed below. The discharge is restricted by, and shall be monitored in accordance with, the table below:

Table A

Discharge Serial Number: 001-1						Monitoring Location: 1		
Wastewater Description: Treated groundwater from remediation being performed in accordance with a Remedial Action Plan approved by the Commissioner on June 10, 2002 in compliance with Section 22a-134a of the CGS								
Monitoring Location Description: Water Sample Port 3, following all treatment								
Allocated Zone of Influence (ZOI): 789 gph						In stream Waste Concentration (IWC): 57.9%		
PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency ²	Sample Type or measurement to be reported
Aquatic Toxicity, Daphnia pulex NOAEL = 100%	%	NA	NA	NR	NA	NOAEL = 100%	Quarterly	Grab
Aquatic Toxicity, Pimephalas promelas NOAEL = 100%	%	NA	NA	NR	NA	NOAEL = 100%	Quarterly	Grab
Acetone	µg/l	NA	NA	NR	NA	700	Monthly	Grab
cis-1,2 Dichloroethene	µg/l	NA	NA	NR	NA	---	Monthly	Grab
Flow, Instantaneous	Gpm	NA	NA	NR	NA	---	NR	Instantaneous
Flow Rate (Average Daily) ¹	Gpd	26,000	NA	Daily	Total Flow	NA	NR	NA
Oil & Grease, Total	mg/l	NA	NA	NR	NA	10.0	Monthly	Grab
Organics, Total Volatile (EPA Method 624)	µg/l	NA	NA	NR	NA	10.0	Monthly	Grab
pH, Minimum ³	S.U.	NA	NA	NR	NA	6.0	Monthly	Grab
pH, Maximum ³	S.U.	NA	NA	NR	NA	9.0	Monthly	Grab
Tetrachloroethene (Perchloroethylene)	µg/l	NA	NA	NR	NA	8.11	Monthly	Grab
Trichloroethylene	µg/l	NA	NA	NR	NA	---	Monthly	Grab
Vinyl Chloride	µg/l	NA	NA	NR	NA	---	Monthly	Grab

Table Footnotes and Remarks:

Footnotes:

¹ For this parameter, the Permittee shall maintain a record of the total flow for each day of discharge at a readily available location and shall report the Average Daily Flow for each sampling month.

² The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry and the 'Sample Frequency' is more frequent than monthly then the 'Reporting Frequency' is monthly. If the 'Sample frequency' is specified as monthly, or less frequent, then the 'Reporting Frequency' is the same as the 'Sample Frequency'.

³ For pH testing, a minimum of two grab samples shall be tested. The samples shall be taken at least 15 minutes apart.

- (1) All samples shall be comprised of only the wastewater described in this table. Samples shall be collected prior to combination with receiving waters or wastewater of any other type, and after all approved treatment units, if applicable. All samples collected shall be representative of the discharge during standard operating conditions.
- (2) In cases where limits and sample type are specified but sampling is not required by this permit, the limits specified shall apply to all samples which may be collected and analyzed by the Department of Energy and Environmental Protection personnel, the Permittee, or other parties.

SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

(A) Chemical Analysis

- (1) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved by the Environmental Protection Agency pursuant to 40 CFR 136 unless an alternative method has been approved in writing in accordance with 40 CFR 136.4 or as provided in section 22a-430-3(j)(7) of the RCSA. Chemicals which do not have methods of analysis defined in 40 CFR 136 shall be analyzed in accordance with methods specified in this permit.
- (2) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136 unless otherwise specified.
- (3) The value of each parameter for which monitoring is required under this permit shall be reported to the maximum level of accuracy and precision possible consistent with the requirements of this section of the permit.
- (4) Effluent analyses for which quantification was verified during the analysis at or below the minimum levels specified in this section and which indicate that a parameter was not detected shall be reported as "less than x" where 'x' is the numerical value equivalent to the analytical method detection limit for that analysis.
- (5) Results of effluent analyses which indicate that a parameter was not present at a concentration greater than or equal to the Minimum Level specified for that analysis shall be considered equivalent to zero (0.0) for purposes of determining compliance with effluent limitations or conditions specified in this permit.

(B) Acute Aquatic Toxicity Test

- (1) Samples for monitoring of Aquatic Toxicity shall be collected and handled as prescribed in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012).
 - (a) Composite samples shall be chilled as they are collected. Grab samples shall be chilled immediately following collection. Samples shall be held at 4 degrees Centigrade until Aquatic Toxicity testing is initiated.
 - (b) Effluent samples shall not be dechlorinated, filtered, or modified in any way, prior to testing for Aquatic Toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.
 - (c) Chemical analyses of the parameters identified in Section 5 Table A shall be conducted on an aliquot of the same sample tested for Aquatic Toxicity.
 - (i) At a minimum, pH, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Aquatic Toxicity tests, in the highest concentration of test solution and in the dilution (control) water at the beginning of the test and at test termination. If Total Residual Chlorine is not detected at test initiation, it does not need to be measured at test termination. Dissolved oxygen, pH, and temperature shall be measured in the control and all test concentrations at the beginning of the test, daily thereafter, and at test termination.
 - (d) Tests for Aquatic Toxicity shall be initiated within 24 hours of sample collection.

- (2) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (invertebrate) above shall be conducted for 48-hours utilizing neonatal Daphnia pulex (less than 24-hours old)
- (3) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (vertebrate) above shall be conducted for 48-hours utilizing larval Pimephales promelas (1-14 days old with no more than 24-hours range in age).
- (4) Tests for Aquatic Toxicity shall be conducted as prescribed for static non-renewal acute tests in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012), except as specified below.
 - (a) For Aquatic Toxicity Limits and for monitoring only conditions, expressed as an NOAEL value, Pass/Fail (single-concentration) tests shall be conducted at a specified Critical Test Concentration (CTC) equal to the Aquatic Toxicity Limit, or 100% in the case of monitoring only conditions, as prescribed in section 22a-430-3(j)(7)(A)(i) of the Regulations of Connecticut State Agencies, except that five replicates of undiluted effluent and five replicates of effluent diluted to the CTC shall be included.
 - (b) Organisms shall not be fed during the tests.
 - (c) Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.
 - (d) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (plus or minus 5 mg/L) as CaCO₃ shall be used as dilution water in tests with freshwater organisms.
- (5) Compliance with limits on Aquatic Toxicity shall be determined as follows:
 - (a) For limits expressed as an NOAEL value, compliance shall be demonstrated when the results of a valid pass/fail Aquatic Toxicity test indicates there is greater than 50% survival in the undiluted effluent and 90% or greater survival in the effluent at the specified CTC.
- (C) The Permittee shall annually monitor the chronic toxicity of the DSN 001-1 in accordance with the following specifications.
 - (1) Chronic toxicity testing of the discharge shall be conducted annually during July, August, or September of each year.
 - (2) Chronic toxicity testing shall be performed on the discharge in accordance with the test methodology established in "Short term Methods For Estimating The Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms" (EPA-821-R-02-013) as referenced in 40 CFR 136 for Cerio daphnia survival and reproduction and Fathead Minnow larval survival and growth.
 - (3) Chronic toxicity tests shall utilize a minimum of five effluent dilutions prepared using a dilution factor of 0.5 (100% effluent, 50% effluent, 25 % effluent, 12.5 % effluent, 6.25 % effluent, 0 % effluent).
 - (4) Ball Pond Brook water collected immediately upstream of the area influenced by the discharge shall be used as site water control (0% effluent) and dilution water in the toxicity tests.
 - (5) A laboratory water control consisting of synthetic freshwater prepared in accordance with EPA-821-R-02-013 at a hardness of 50±5 mg/l shall be included in the test protocol in addition to the site-water control.
 - (6) Daily composite samples of the discharge and grab samples of the Ball Pond Brook for use as site water control and dilution water shall be collected on: day 0, for test solution renewal on day 1 and day 2 of the test; day 2, for test solution renewal on day 3 and day 4 of the test; and day 4, for test solution renewal on day 5, 6, and 7 of the test. Samples shall not be dechlorinated, pH or hardness adjusted, or chemically altered in any way.
 - (7) All samples of the discharge and the Ball Pond Brook water used in the chronic toxicity test shall, at a minimum, be analyzed and results reported in accordance with the provisions listed in Section 6(A) of this permit for the following parameters:

pH
Hardness
Alkalinity
Conductivity
Chlorine, (Total residual)
Acetone
Tetrachloroethene
Lead (Total recoverable and dissolved)
Vinyl Chloride
Zinc, (Total recoverable and dissolved)

Copper (Total recoverable and dissolved)
Nickel (Total recoverable and dissolved)
Nitrogen, Ammonia (total as N)
Nitrogen, Nitrate (Total as N)
Solids, Total Suspended
cis- 1, 2, Dichloroethene
Trichloroethene
Iron (Total)
Organics, Total Volatile (EPA Method 624)

SECTION 7: REPORTING REQUIREMENTS

- (A) The results of chemical analyses and any aquatic toxicity test required above shall be entered on the Discharge Monitoring Report (DMR), provided by this office, and reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing) at the following address. Except for continuous monitoring, any monitoring required more frequently than monthly shall be reported on an attachment to the DMR, and any additional monitoring conducted in accordance with 40 CFR 136 or other methods approved by the Commissioner shall also be included on the DMR, or as an attachment, if necessary. The report shall also include a detailed explanation of any violations of the limitations specified. The DMR shall be received at this address by the last day of the month following the month in which samples are collected.

Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division (Attn: DMR Processing)
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

- (B) Complete and accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber, LC50 values and 95% confidence intervals for definitive test protocols, and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, including measured daily flow and hours of operation for the 30 consecutive operating days prior to sample collection if compliance with a limit on Aquatic Toxicity is based on toxicity limits based on actual flows described in Section 7, shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and sent to the Bureau of Water Protection and Land Reuse at the following address. The ATMR shall be received at this address by the last day of the month following the month in which samples are collected.

Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity)
Connecticut Department of Energy and Environmental Protection
79 Elm St.
Hartford, CT 06106-5127

- (C) If this permit requires monitoring of a discharge on a calendar basis (e.g. Monthly, quarterly, etc.), but a discharge has not occurred within the frequency of sampling specified in the permit, the Permittee must submit the DMR and ATMR, as scheduled, indicating "NO DISCHARGE". For those Permittees whose required monitoring is discharge dependent (e.g. per batch), the minimum reporting frequency is monthly. Therefore, if there is no discharge during a calendar month for a batch discharge, a DMR must be submitted indicating such by the end of the following month.

- (D) NetDMR Reporting Requirements

- (1) Prior to one-hundred and eighty (180) days after the issuance of this permit, the Permittee may either submit monitoring data and other reports to the Department in hard copy form or electronically using NetDMR, a web-based tool that allows Permittees to electronically submit discharge monitoring reports (DMRs) and other required reports through a secure internet connection. Unless otherwise approved in writing by the Commissioner, no later than one-hundred and eighty (180) days after the issuance of this permit the Permittee shall begin reporting electronically using NetDMR. Specific requirements regarding subscription to NetDMR

and submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

(a) Submittal of *NetDMR Subscriber Agreement*

On or before fifteen (15) days after the issuance of this permit, the Permittee and/or the person authorized to sign the Permittee's discharge monitoring reports ("Signatory Authority") as described in RCSA Section 22a-430-3(b)(2) shall contact the Department at deep.netdmr@ct.gov and initiate the NetDMR subscription process for electronic submission of Discharge Monitoring Report (DMR) information. Information on NetDMR is available on the Department's website at www.ct.gov/deep/netdmr. On or before ninety (90) days after issuance of this permit the Permittee shall submit a signed and notarized copy of the *Connecticut DEEP NetDMR Subscriber Agreement* to the Department.

(b) Submittal of Reports Using NetDMR

Unless otherwise approved by the Commissioner, on or before one-hundred and eighty (180) days after issuance of this permit, the Permittee and/or the Signatory Authority shall electronically submit DMRs and reports required under this permit to the Department using NetDMR in satisfaction of the DMR submission requirement in paragraph (A) of this Section of this permit.

DMRs shall be submitted electronically to the Department no later than the 30th day of the month following the completed reporting period. All reports required under the permit, including any monitoring conducted more frequently than monthly or any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Department as an electronic attachment to the DMR in NetDMR. Once a Permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to the Department. Permittee shall also electronically file any written report of non-compliance described in paragraph (A) of this Section and in the following Section of this Permit as an attachment in NetDMR. NetDMR is accessed from: <http://www.epa.gov/netdmr>.

(c) Submittal of NetDMR Opt-Out Requests

If the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for electronically submitting DMRs and reports, the Commissioner may approve the submission of DMRs and other required reports in hard copy form ("opt-out request"). Opt-out requests must be submitted in writing to the Department for written approval on or before fifteen (15) days prior to the date a Permittee would be required under this permit to begin filing DMRs and other reports using NetDMR. This demonstration shall be valid for twelve (12) months from the date of the Department's approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to the Department using NetDMR unless the Permittee submits a renewed opt-out request and such request is approved by the Department.

All opt-out requests and requests for the NetDMR subscriber form should be sent to the following address or by email at deep.netdmr@ct.gov:

Attn: NetDMR Coordinator
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

SECTION 8: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS

- (A) If any sample analysis indicates that an Aquatic Toxicity effluent limitation in Section 5 of this permit has been exceeded, or that the test was invalid, another sample of the effluent shall be collected and tested for Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing), at the address listed above, within 30 days of the exceedance or invalid test. Results of all tests, whether valid or invalid, shall be reported.

- (B) If any two consecutive test results or any three test results in a twelve month period indicates that an Aquatic Toxicity Limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report to Bureau of Materials Management and Compliance Assurance (Attn: Aquatic Toxicity) for the review and approval of the Commissioner in accordance with section 22a-430-3(j)(10)(c) of the RCSA describing proposed steps to eliminate the toxic impact of the discharge on the receiving water body. Such a report shall include a proposed time schedule to accomplish toxicity reduction and the Permittee shall comply with any schedule approved by the Commissioner.
- (C) The Permittee shall notify the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division, within 72 hours and in writing within thirty days of the discharge of any substance listed in the application but not listed in the permit if the concentration or quantity of that substance exceeds two times the level listed in the application.

This permit is hereby issued on

Michael Sullivan
Deputy Commissioner
Department of Energy and Environmental Protection

MS/OF

WASTEWATER DISCHARGE PERMIT: DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: *The Stop and Shop Supermarket Company LLC*

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0030406

APPLICATION #: 201305154

<u>Mailing Address:</u>					<u>Location Address:</u>						
Street:	1385 Hancock Street				Street:	NE Corner of Routes 37 and 39 intersection					
City:	Quincy	ST:	MA	Zip:	02169	City:	New Fairfield	ST:	CT	Zip:	06812
Contact Name:	Jeff Morgan				DMR Contact	John Brogden					
Phone No.:	(617) 770 7806				Phone No.:	(860) 990 6726					
Contact e-mail:	jmorgan@aholdusa.com				DMR Contact e-mail:	john.brogden@aecom.com					

PERMIT INFORMATION

DURATION 5 YEAR X 10 YEAR 30 YEAR

TYPE New Reissuance X Modification

CATEGORIZATION POINT (X) NON-POINT ()

NPDES (X) PRETREAT () GROUND WATER (UIC) () GROUND WATER (OTHER) ()

- NPDES MAJOR (MA)
- NPDES SIGNIFICANT MINOR or PRETREAT SIU (SI)
- NPDES or PRETREATMENT MINOR (MI) X
- PRETREAT SIGNIFICANT INDUS USER (SIU)
- PRETREAT CATEGORICAL (CIU)

SIC Code 5411

POLLUTION PREVENTION MANDATE ENVIRONMENTAL EQUITY ISSUE

SOLVENT MANAGEMENT PLAN

IS THE FACILITY OPERATING UNDER AN APPROVED SOLVENT MANAGEMENT PLAN? YES NO X (NA)

COMPLIANCE SCHEDULE YES NO X

POLLUTION PREVENTION TREATMENT REQUIREMENT WATER CONSERVATION

WATER QUALITY REQUIREMENT REMEDIATION OTHER

RECENT ENFORCEMENT HISTORY

IS THE PERMITTEE SUBJECT TO A PENDING ENFORCEMENT ACTION? YES NO X

OWNERSHIP CODE

Private X Federal State Municipal (town only) Other public

DEEP STAFF ENGINEER Oluwatoyin Fakilede

PERMIT FEES

<i>Discharge Code</i>	<i>DSN Number</i>	<i>Annual Fee</i>
1090000	001-1	\$4,337.50

FOR NPDES DISCHARGES

Drainage basin Code: 6402

Water Quality Standard: AA

NATURE OF BUSINESS GENERATING DISCHARGE

Two ground water aquifers under the site that The Stop and Shop Supermarket Company LLC is located are contaminated with tetrachloroethylene/perchloroethene and petroleum related compounds, as a result of up gradient gas stations and former dry cleaning activities at the site.

A Form III was filed pursuant to Sections 22a-134 through 22a-134e of the Connecticut General Statutes (“CGS”) on March 8, 2001. A Remediation Investigation Work Plan, dated August 14, 2001, was submitted to the Department and approved by the Commissioner on October 2, 2001. On April 10, 2002, a Remedial Action Plan was submitted that proposed (1) the removal of an estimated 22 cubic yards of contaminated soil and (2) the remediation of the bedrock and intermediate aquifers, utilizing a groundwater withdrawal and treatment system.

The Commissioner approved the Remedial Action Plan on June 10, 2002 in accordance with Section 22a-134a of the CGS. On July 16, 2004, the Department of Environmental Protection issued NPDES Permit No. CT0030406 for the discharge of water from a groundwater treatment system.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

Groundwater is pumped from four extraction/recovery wells into a dense non aqueous phase liquid (DNAPL) water separator. The groundwater is then passed through two parallel bag filters, an air stripping system and finally through three 500-lb carbon filters in series, before it is discharged to Ball Pond Brook via the site’s stormwater system. The Permittee will switch between the two bag filters as maintenance requires.

RESOURCES USED TO DRAFT PERMIT

Federal Effluent Limitation Guideline _____

Performance Standards

Federal Development Document _____

Treatability Manual

Department File Information

Connecticut Water Quality Standards

Anti-degradation Policy

Coastal Management Consistency Review Form

Other – Explain

¹Cervione, M. A., Jr., Melvin, R.L., and Cyr, K.A., 1982, A method for estimating the 7-day, 10-year low flow of streams in Connecticut: Connecticut Water Resources Bulletin 34, 12 p.

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

- X Case by Case Determination using Best Professional Judgment (See Other Comments)
Acetone (MIL); oil and grease, total (MIL); pH (MIL) and organics, total volatile (MIL)

- X In order to meet in-stream water quality (See General Comments)
Aquatic toxicity (MIL); tetrachloroethylene (MIL)

MIL: Maximum Instantaneous Limit

GENERAL COMMENTS

New Albertson, Inc. was the previous Permittee of Permit No. CT0030406. This permit was transferred from New Albertson, Inc. to The Stop and Shop Supermarket Company LLC on April 22, 2010, after receiving a permit transfer registration in accordance with Section 22a-60(b) of the Connecticut General Statutes.

The applicability of "General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Surface Water" to this wastewater was considered during this permit renewal process. However, under section 3(b)(7) of the general permit, a requirement for authorization is that the combined maximum daily flow of all groundwater remediation wastewater generated at such site should not exceed 10% of the 7Q10 flow of the watercourse into which such wastewater is discharged. Since the permitted maximum daily flow significantly exceeded 10% of the 7Q10 of the receiving stream, general permit applicability became infeasible.

During the previous permit renewal process, the Department determined that the discharge covered under this permit may be authorized to a class AA stream because the discharge will not be long term and is necessary for the remediation of a contaminated site within a GAA Groundwater Criteria area that is adjacent to a Drinking Water Supply Watershed. The main pollutant of concern, tetrachloroethylene, is not known to bioaccumulate in aquatic and animal species and the discharge has always met an aquatic toxicity limit of NOAEL = 100%.

*Given that the receiving stream for this discharge has a Class AA Water Quality Criteria, it was determined that aquatic toxicity limits of NOAEL at 100% for both *Daphnia pulex* and *Pimephales promelas* are necessary to protect the receiving stream. Also, consistent with many Connecticut NPDES permits, an annual requirement to analyze the discharge for chronic aquatic toxicity was added.*

The previous permit had the zone of influence for the discharge listed as 5,656 gph and the in-stream waste concentration as 30.3%. In this permit, these were changed to 789 gph and 57.9% respectively. The changes are based on USGS information and DEEP staff's mathematical calculations (see Appendix A).

The need for inclusion of water quality based discharge limitations in this permit was evaluated consistent with Connecticut Water Quality Standards and criteria, pursuant to 40 CFR 122.44(d). Each parameter was evaluated for consistency with the available aquatic life criteria (acute and chronic) and human health (fish consumption only) criteria, considering the zone of influence allocated to the facility where appropriate. The reasonable potential statistical procedures outlined in the EPA Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001) were employed to calculate the need for such limits. Comparison of monitoring data and its inherent variability with the calculated water quality based limits indicates a statistical probability of exceedance of such limits. Therefore, water quality based limit was included in the permit for tetrachloroethylene.

The reasonable potential analysis referenced above showed that limits were not necessary for trichloroethylene and vinyl chloride. However, monitoring requirements were included for these pollutants because a review of influent analytical data from April 2009 to January 2014 showed that cis-1,2-Dichloroethene, trichloroethylene and vinyl chloride were present in the influent, although at very low levels. Reasonable potential analysis was not conducted for cis-1,2-Dichloroethene since there is no water quality criterion for this pollutant.

OTHER COMMENTS

The wastewater treatment system was designed to remove greater than 99.9% of the VOC present in the ground water when properly maintained. The previous permit had a limit of 10 µg/l for volatile organic compounds ("VOC") based on the treatment system capability. Going by the treatment system capability and the influent groundwater quality, which has continually improved since the inception of the remediation project, this permit should have a lower limit than 10 µg/l for VOC. Nevertheless, based on best professional judgment, the Department staff decided to carry forward the limit of 10 µg/l for VOC. This is because there are several compounds categorized as VOC, of which tetrachloroethylene is only one and the calculated water quality based limit for tetrachloroethylene is 8.11 µg/l.

The previous permit had an acetone limit of 700 µg/l based on a 2008 submittal by the applicant's consultant, URS Corporation, entitled "Proposed Acetone Permit Discharge Limit". 700 µg/l is the Groundwater Protection Criterion for acetone established in the Remediation Standard Regulations (RSRs). Since there is no Connecticut or national recommended Surface Water Criterion for acetone, 700 µg/l was incorporated into this permit renewal. 40CFR51.100 (s)(1) excludes acetone from volatile organic compounds, therefore, the proposed limit is not contradictory to the limit of 10 µg/l included for volatile organic compounds.

Based on best professional judgment, a limit of 10 mg/l was included for oil and grease using Section 22a-430-4(s)(2) of the Regulations of Connecticut State Agencies as a guide. This limit would be protective of the waters of the state. Note, though oil and grease has been detected in the ground water, it has never been detected in the discharge to the brook.

Implementation of the Antidegradation Policy follows a tiered approach pursuant to the federal regulations (40 CFR 131.12) and consistent with the Connecticut Antidegradation Policy included in the Connecticut Water Quality Standards (CTWQS). Tier 1 Antidegradation review applies to all permitted discharge activities to all waters of the state. Tiers 1 and 2 Antidegradation reviews apply to all new or increased discharges to high quality waters and wetlands, while Tiers 1 and 3 Antidegradation reviews apply to all new or increased discharges to outstanding national resource waters.

Although this is not a new permit, since the in-stream waste concentration was increased for this discharge, a Tier 1 Antidegradation Evaluation and Implementation Review was conducted to ensure that existing and designated uses of surface waters and the water quality necessary for their protection are maintained and preserved, consistent with CTWQS 2. All narrative and numeric water quality standards, criteria and associated policies contained in the CTWQS are the basis for the evaluation considering the discharge or activity both independently and in the context of other discharges and activities in the affected water body and considering any impairment listed pursuant to Section 303d for the Federal Clean Water Act or any TMDL established for the water body. The Department has determined that the discharge or activity is consistent with the maintenance, restoration, and protection of existing and designated uses assigned to the receiving water body by considering all relevant available data.

The receiving stream, Ball Pond Brook has not been assessed for aquatic life impairments but is listed on the State's 305(b) list of impaired waters. The brook is impaired for its designated use of recreation and the cause of impairment is Escherichia coli. (See Appendix B). A final total maximum daily load (TMDL) analysis has not been completed for the Ball Pond Brook, but even if it has, the groundwater remediation water is not expected to be a contributory source of E. coli to the receiving stream. Therefore, monitoring requirement for E.coli was not included in this permit.

The Department reevaluated the grab sampling for pH. A review of DMR data from January 2011 to February 2015 showed a pH range of 6.9 – 8.6. The Department concluded that the pH of grab samples collected would be representative of the pH of the wastewater discharge. However, this permit now requires the Permittee to test a minimum of two grab samples at least fifteen minutes apart and report the minimum and maximum pH.

On May 11, 2015, a draft permit was e-mailed to Ms. Sydney Neer, the permit's DMR contact and a consultant to The Stop and Shop Supermarket Company LLC. In a response e-mail dated May 29, 2015, Ms. Sydney Neer indicated that the Permittee concurs with the terms and conditions of the draft permit.

SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC NOTICE PERIOD AND THE DEPARTMENT'S RESPONSES

(TBD)

APPENDIX A: WATER QUALITY BASED LIMITS CALCULATION

7Q10 OF THE RECEIVING STREAM

Section 22a-426-4(l) of the Regulations of Connecticut State Agencies states that "The Commissioner may, on a case-by-case basis, establish zones of influence when authorizing discharges to surface waters under sections 22a-430 and 22a-133(k) of the Connecticut General Statutes in order to allocate a portion of the receiving surface waters for mixing and assimilation of the discharge." The zone of influence for the receiving stream is calculated below:

$$\text{Cervione } 7Q10 = 0.67A_{SD} + 0.01A_{till} \text{ (Cervione et al, 1982}^1\text{)}$$

where A_{SD} is the drainage area of the stratified drift and

A_{till} is the drainage area of the till covered bedrock

Drainage area = 2.93 mi² (USGS Connecticut Streamstats)

Drainage area of the stratified drift = 0% of the drainage area (USGS Connecticut Streamstats)

Drainage area of the till covered bedrock = Drainage area – Drainage area of the stratified drift

Therefore, $A_{SD} = 0 \text{ mi}^2$ and $A_{till} = 2.93 \text{ mi}^2$

$$7Q10 = (0.67 \times 0) + (0.01 \times 2.93) = 0.0293 \text{ cfs} \times 26,928 \text{ (conversion factor)} = 788.99 \approx 789 \text{ gph}$$

$$ZOI = 789 \text{ gph} \times 24 \text{ hours} = 18,936 \text{ gpd}$$

$$\text{Dilution Factor} = \frac{AML + ZOI}{AML} = \frac{26,000 + 18,936}{26,000} = 1.728$$

$$IWC = \frac{1}{DF} \times 100\% = \frac{1}{1.728} \times 100\% = 57.86\% \approx 57.9\%$$

¹Cervione, M. A., Jr., Melvin, R.L., and Cyr, K.A., 1982, A method for estimating the 7-day, 10-year low flow of streams in Connecticut: Connecticut Water Resources Bulletin 34, 12 p.

DMR analytical data (April 2011 – February 2015)

Date/Pollutant	Tetrachloroethylene (µg/l)	Trichloroethylene (µg/l)	Vinyl chloride (µg/l)
4/30/2011	1.0*	1.0*	1.0*
5/31/2011	1.0*	1.0*	1.0*
6/30/2011	1.0*	1.0*	1.0*
7/31/2011	1.5	1.0*	1.0*
8/31/2011	2.2	1.0*	1.0*
9/30/2011	2.5	1.0*	1.0*
10/31/2011	1.0*	1.0*	1.0*
11/30/2011	1.0*	1.0*	1.0*
12/31/2011	1.0*	1.0*	1.0*
1/31/2012	1.0*	1.0*	1.0*
2/29/2012	1.0*	1.0*	1.0*
3/31/2012	1.0*	1.0*	1.0*
4/30/2012	1.7	1.0*	1.0*
5/31/2012	1.0*	1.0*	1.0*
6/30/2012	1.5	1.0*	1.0*
7/31/2012	1.0*	1.0*	1.0*
8/31/2012	---	---	---
9/30/2012	1.0*	1.0*	1.0*
10/31/2012	1.0*	1.0*	1.0*
11/30/2012	1.0*	1.0*	1.0*
12/31/2012	1.0*	1.0*	1.0*
1/31/2013	1.0*	1.0*	1.0*
2/28/2013	1.0*	1.0*	1.0*
3/31/2013	1.0*	1.0*	1.0*
4/30/2013	1.0*	1.0*	1.0*
5/31/2013	1.0*	1.0*	1.0*
6/30/2013	1.0*	1.0*	1.0*
7/31/2013	1.0*	1.0*	1.0*
8/31/2013	2.3	1.0*	1.0*
9/30/2013	1.0*	1.0*	1.0*
10/31/2013	1.0*	1.0*	1.0*
11/30/2013	1.0*	1.0*	1.0*
12/31/2013	1.0*	1.0*	1.0*
1/31/2014	1.6	1.0*	1.0*
2/28/2014	---	---	---
3/31/2014	1.0*	1.0*	1.0*
4/30/2014	1.0*	1.0*	1.0*
5/31/2014	1.0*	1.0*	1.0*
6/30/2014	1.0*	1.0*	1.0*
7/31/2014	1.0*	1.0*	1.0*
8/31/2014	1.0*	1.0*	1.0*
9/30/2014	1.0*	1.0*	1.0*
10/31/2014	1.0*	1.0*	1.0*
11/30/2014	1.0*	1.0*	1.0*
12/31/2014	1.0*	1.0*	1.0*
1/31/2015	1.0*	1.0*	1.0*
2/28/2015	---	---	---
$Cv = SD/_{Mean}$	≈ 1.4	≈ 0.8	≈ 0.7

* Reported as below detection on the DMR, but substituted with the laboratory minimum detection levels for the purpose of reasonable potential determination.

CONNECTICUT WATER QUALITY CRITERIA (FRESHWATER)			
	Aquatic Life		Human Health (µg/l)
	Acute (µg/l)	Chronic (µg/l)	
Tetrachloroethylene	5280*	840*	3.3
Trichloroethylene	45000*	---	30
Vinyl chloride	---	---	2.4

*Quality Criteria for Water, 1986 (Gold book)

BALL POND BROOK CONCENTRATION DATA BASED ON THE DATA FROM SEPT. 2009 TO SEPT. 2014	
Tetrachloroethylene	Zero background concentration will be assumed because Ball Pond Brook analytical data showed that these pollutants were non-detect.
Trichloroethylene	
Vinyl chloride	

REASONABLE POTENTIAL EVALUATION					
<i>(This analysis basically compares the projected maximum concentration in the effluent with the applicable water quality standard. When the projected maximum concentration is lower than the waste load allocation, this indicates that there is no potential for the discharge to exceed the water quality criterion. When the projected maximum concentration is higher than the waste load allocation, this indicates that there is potential for the discharge to exceed the water quality criterion and therefore limits are needed in the permit.)</i>					
<i>WLA = Waste load allocation, (QC)_d = Downstream data, (QC)_u = Upstream data and Q_e = the discharge flow (refer to the ZOI calculation above for the downstream and effluent data. Note: For WLA_{health} calculation, harmonic flow was used for Q_u and harmonic flow was assumed to be twice Q_u.)</i>					
	<i>Maximum projected concentration in effluent = Maximum measured concentration in effluent X multiplier in Table 3 – 1 below</i>	$\frac{WLA_{acute}((QC)_d - (QC)_u)}{Q_e}$	$\frac{WLA_{chronic}((QC)_d - (QC)_u)}{Q_e}$	$\frac{WLA_{health}((QC)_d - (QC)_u)}{Q_e}$	<i>Is there reasonable potential to exceed WQC?</i>
Tetrachloroethylene	2.5 X 4.8 = 12	9123.84	1451.52	8.11	Yes
Trichloroethylene	1 X 2.9 = 2.9	77760	---	73.71	No
Vinyl chloride	1 X 2.6 = 2.6	---	---	5.90	No

PERMIT LIMITS CALCULATION (Analysis is based on four samples per sampling month)			
<i>LTA = Long term average, AML = Average monthly limit and MDL = Maximum daily limit</i>			
Tetrachloroethylene	<i>Governing LTA = the lowest of the LTAs = health</i>	<i>AML = WLA_{health} (In accordance with section 5.4.4 of EPA 505/2 – 90 – 001)</i>	<i>MDL = AML X multiplier in the attached Table 5 – 3</i>
		8.11 µg/l	8.11 X 2.03 = 16.46 µg/l

Table 3-1. Reasonable Potential Multiplying Factors: 99% Confidence Level and 99% Probability Basis

Number of Samples	Coefficient of Variation																			
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
1	1.6	2.5	3.9	6.0	9.0	13.2	18.9	26.5	36.2	48.3	63.3	81.4	102.8	128.0	157.1	190.3	227.8	269.9	316.7	368.3
2	1.4	2.0	2.9	4.0	5.5	7.4	9.8	12.7	16.1	20.2	24.9	30.3	36.3	43.0	50.4	58.4	67.2	76.6	86.7	97.5
3	1.4	1.9	2.5	3.3	4.4	5.6	7.2	8.9	11.0	13.4	16.0	19.0	22.2	25.7	29.4	33.5	37.7	42.3	47.0	52.0
4	1.3	1.7	2.3	2.9	3.8	4.7	5.9	7.2	8.7	10.3	12.2	14.2	16.3	18.6	21.0	23.6	26.3	29.1	32.1	35.1
5	1.3	1.7	2.1	2.7	3.4	4.2	5.1	6.2	7.3	8.6	10.0	11.5	13.1	14.8	16.6	18.4	20.4	22.4	24.5	26.6
6	1.3	1.6	2.0	2.5	3.1	3.8	4.6	5.5	6.4	7.5	8.6	9.8	11.1	12.4	13.8	15.3	16.8	18.3	19.9	21.5
7	1.3	1.6	2.0	2.4	2.9	3.6	4.2	5.0	5.8	6.7	7.7	8.7	9.7	10.8	12.0	13.1	14.4	15.6	16.9	18.2
8	1.2	1.5	1.9	2.3	2.8	3.3	3.9	4.6	5.3	6.1	6.9	7.8	8.7	9.6	10.6	11.6	12.6	13.6	14.7	15.8
9	1.2	1.5	1.8	2.2	2.7	3.2	3.7	4.3	5.0	5.7	6.4	7.1	7.9	8.7	9.6	10.4	11.3	12.2	13.1	14.0
10	1.2	1.5	1.8	2.2	2.6	3.0	3.5	4.1	4.7	5.3	5.9	6.6	7.3	8.0	8.8	9.5	10.3	11.0	11.8	12.6
11	1.2	1.5	1.8	2.1	2.5	2.9	3.4	3.9	4.4	5.0	5.6	6.2	6.8	7.4	8.1	8.8	9.4	10.1	10.8	11.5
12	1.2	1.4	1.7	2.0	2.4	2.8	3.2	3.7	4.2	4.7	5.2	5.8	6.4	7.0	7.5	8.1	8.8	9.4	10.0	10.6
13	1.2	1.4	1.7	2.0	2.3	2.7	3.1	3.6	4.0	4.5	5.0	5.5	6.0	6.5	7.1	7.6	8.2	8.7	9.3	9.9
14	1.2	1.4	1.7	2.0	2.3	2.6	3.0	3.4	3.9	4.3	4.8	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2
15	1.2	1.4	1.6	1.9	2.2	2.6	2.9	3.3	3.7	4.1	4.6	5.0	5.4	5.9	6.4	6.8	7.3	7.7	8.2	8.7
16	1.2	1.4	1.6	1.9	2.2	2.5	2.9	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.1	6.5	6.9	7.3	7.8	8.2
17	1.2	1.4	1.6	1.9	2.1	2.5	2.8	3.1	3.5	3.8	4.2	4.6	5.0	5.4	5.8	6.2	6.6	7.0	7.4	7.8
18	1.2	1.4	1.6	1.8	2.1	2.4	2.7	3.0	3.4	3.7	4.1	4.4	4.8	5.2	5.6	5.9	6.3	6.7	7.0	7.4
19	1.2	1.4	1.6	1.8	2.1	2.4	2.7	3.0	3.3	3.6	4.0	4.3	4.6	5.0	5.3	5.7	6.0	6.4	6.7	7.1
20	1.2	1.3	1.6	1.8	2.0	2.3	2.6	2.9	3.2	3.5	3.8	4.2	4.5	4.8	5.2	5.5	5.8	6.1	6.5	6.8

Table 5-3. Multipliers for Calculating Maximum Daily Permit Limits From Average Monthly Permit Limits

To obtain the maximum daily permit limit (MDL) for a bioconcentratable pollutant, multiply the average monthly permit limit (AML) (the wasteload allocation) by the appropriate value in the following table.

Each value in the table is the ratio of the MDL to the AML as calculated by the following relationship derived from Step 4 of the statistically based permit limit calculation procedure.

$$\frac{MDL}{AML} = \frac{\exp [z_m \sigma - 0.5 \sigma^2]}{\exp [z_a \sigma_n - 0.5 \sigma_n^2]}$$

where

$$\sigma_n^2 = \ln (CV^2/n + 1)$$

$$\sigma^2 = \ln (CV^2 + 1)$$

CV = the coefficient of variation of the effluent concentration

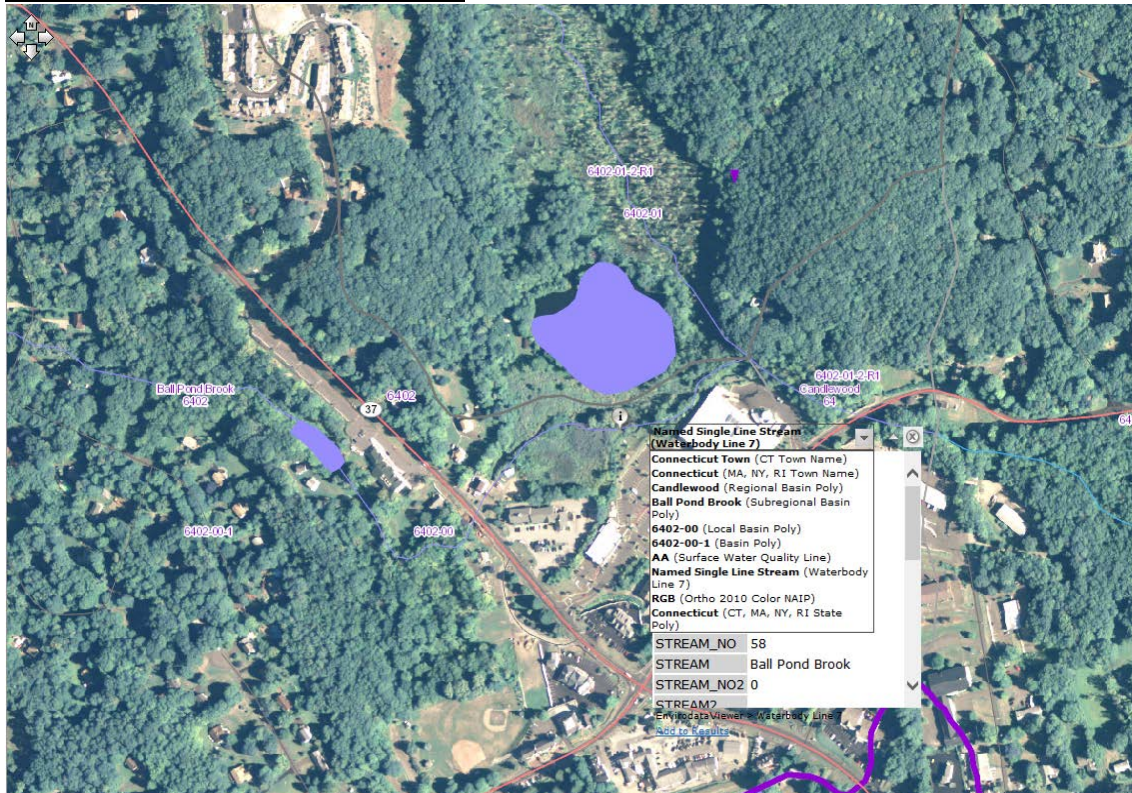
n = the number of samples per month

z_m = the percentile exceedance probability for the MDL

z_a = the percentile exceedance probability for the AML

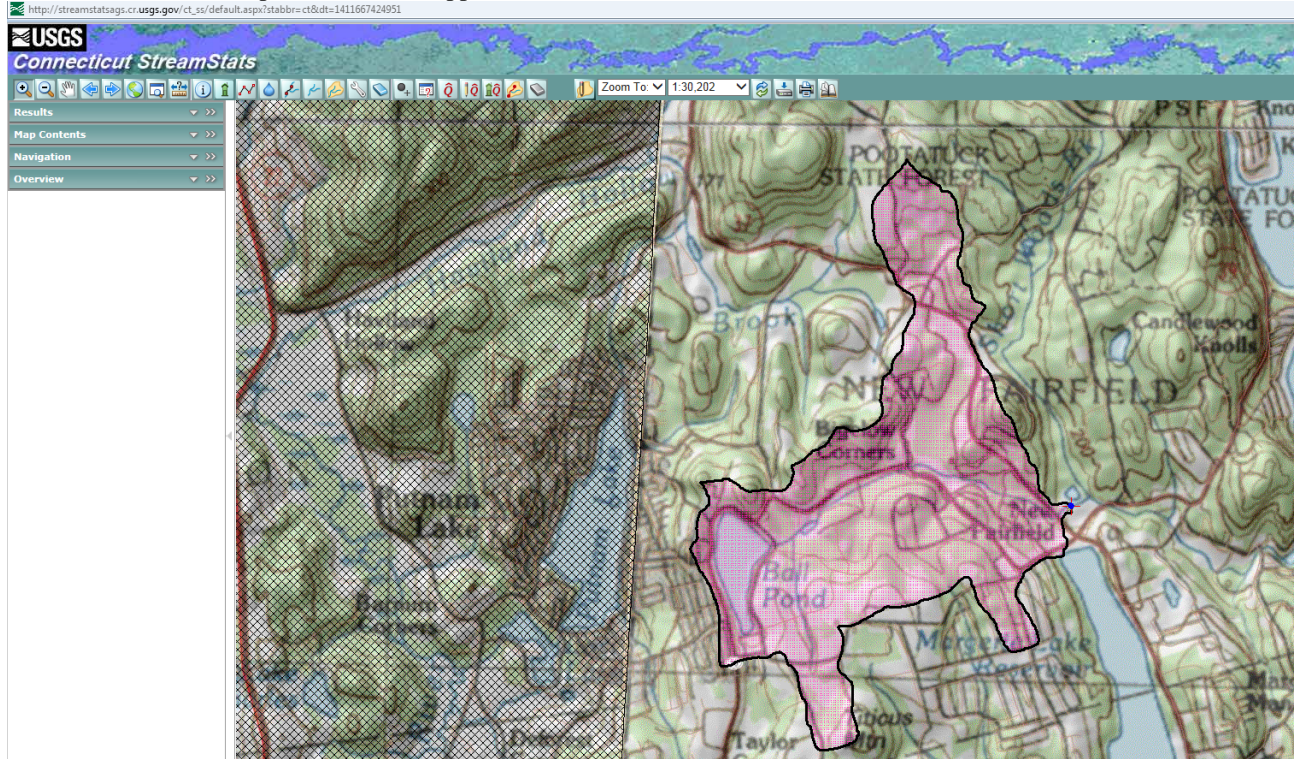
CV	Ratio Between Maximum Daily and Average Monthly Permit Limits									
	Maximum = 99th percentile Average = 95th percentile					Maximum = 99th percentile Average = 99th percentile				
	n=1	n=2	n=4	n=8	n=30	n=1	n=2	n=4	n=8	n=30
0.1	1.07	1.13	1.16	1.18	1.22	1.00	1.07	1.12	1.16	1.20
0.2	1.14	1.25	1.33	1.39	1.46	1.00	1.13	1.24	1.32	1.43
0.3	1.22	1.37	1.50	1.60	1.74	1.00	1.19	1.36	1.49	1.67
0.4	1.30	1.50	1.67	1.82	2.02	1.00	1.24	1.46	1.66	1.92
0.5	1.38	1.622	1.84	2.04	2.32	1.00	1.28	1.56	1.81	2.18
0.6	1.46	1.73	2.01	2.25	2.62	1.00	1.31	1.64	1.95	2.43
0.7	1.54	1.84	2.16	2.45	2.91	1.00	1.34	1.71	2.08	2.67
0.8	1.61	1.94	2.29	2.64	3.19	1.00	1.35	1.76	2.19	2.89
0.9	1.69	2.03	2.41	2.81	3.45	1.00	1.36	1.80	2.27	3.09
1.0	1.76	2.11	2.52	2.96	3.70	1.00	1.37	1.83	2.34	3.27
1.1	1.83	2.18	2.62	3.09	3.93	1.00	1.37	1.84	2.39	3.43
1.2	1.90	2.25	2.70	3.20	4.13	1.00	1.36	1.85	2.43	3.56
1.3	1.97	2.31	2.77	3.30	4.31	1.00	1.36	1.85	2.45	3.68
1.4	2.03	2.37	2.83	3.39	4.47	1.00	1.35	1.84	2.46	3.77
1.5	2.09	2.42	2.89	3.46	4.62	1.00	1.34	1.83	2.46	3.84
1.6	2.15	2.42	2.89	3.46	4.62	1.00	1.33	1.82	2.46	3.90
1.7	2.21	2.52	2.98	3.57	4.85	1.00	1.32	1.80	2.45	3.94
1.8	2.27	2.56	3.01	3.61	4.94	1.00	1.31	1.78	2.43	3.97
1.9	2.32	2.60	3.05	3.65	5.02	1.00	1.30	1.76	2.41	3.99
2.0	2.37	2.64	3.07	3.67	5.09	1.00	1.29	1.74	2.38	4.00

MAP OF THE DISCHARGE LOCATION



DRAINAGE AREA OF THE RECEIVING STREAM

The latitude and longitude of the discharge location are lat: N41° 28' 07" long: W73° 29' 12" (Based on the information in Attachment D of the permit renewal Application No. 201305154)



Streamflow Statistics Report - Internet Explorer
http://streamstatsags.cr.usgs.gov/gisimg/Reports/FlowStatsReport2790656_201492513533.htm?cmd=ComputeFlows

USGS Connecticut StreamStats

Streamstats Ungaged Site Report

Date: Thu Sep 25 2014 13:05:33 Mountain Daylight Time
 Site Location: Connecticut
 IAD27 Latitude: 41.4696 (41 28 07)
 IAD27 Longitude: -73.4872 (-73 29 14)
 IAD83 Latitude: 41.4686 (41 28 07)
 IAD83 Longitude: -73.4868 (-73 29 12)
 Drainage Area: 2.93 mi2

Peak Flows Region Grid Basin Characteristics

100% Statewide Multiparameter (2.93 mi2)

Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	2.93	1.69	715
24 Hour 2 Year Precipitation (inches)	3.6	2.95	3.82
24 Hour 10 Year Precipitation (inches)	5.0	4.15	5.53
24 Hour 25 Year Precipitation (inches)	6.1	4.93	7
24 Hour 50 Year Precipitation (inches)	7.1	5.62	8.36
24 Hour 100 Year Precipitation (inches)	8.2	6.41	9.99
Mean Basin Elevation (feet)	765.89	169	1310

SALMONID SPAWNING Basin Characteristics

100% Duration Flow 2010 5052 (2.93 mi2)

Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	2.93	0.92	150
Mean November Precipitation (inches)	4.4	3.48	4.93
Percent Coarse Stratified Drift (percent)	0.0 (below min value 0.1)	0.1	55.1
Mean Annual Winter Precipitation (inches)	3.8	3.19	4.4
Percent Wetlands (percent)	0.7	0.3	18.1
Mean Basin Elevation (feet)	765.89	168	1287

APPENDIX B

Waterbody Segment ID	Waterbody Name	Location	Miles	Aquatic Life	Recreation
CT6302-00_02	Mill Brook (Sharon)-02	From confluence with Beebee Brook (just DS of Woods 1 road crossing), US to Hatch Pond outlet dam (just US of Mitchelltown Road crossing and confluence with Bog Meadow Brook), Sharon.	1.66	Not Assessed	Not Supporting
CT6302-01_01	Bog Meadow Brook (Sharon)-01	From mouth at confluence with Mill Brook (at Mitchell Town Road crossing), US to Ford Pond outlet dam (parallel to Route 4), Sharon.	1.13	Fully Supporting	Not Assessed
CT6302-03_01	Beebe Brook (Sharon)-01	Mouth at confluence with Mill Brook among farm fields between Route 41 and Woods Road, US parallel with Woods Road to HW at OUTLET Eastmen Pond, Sharon.	1.09	Fully Supporting	Not Assessed
CT6402-00_01	Ball Pond Brook (New Fairfield)-01	Mouth at Lake Candlewood .2 miles DS of Bear Mountain Road crossing, US to confluence with Deep Hollow Brook, .2 miles US of Bear Hollow Road crossing, New Fairfield.	0.39	Not Assessed	Not Supporting
92 CT6500-00_01	Aspetuck River (New Milford)-01	From mouth at confluence with Housatonic River (DS of Housatonic Avenue crossing), New Milford, US to headwaters at North Spectacle Pond outlet (US of Segar Mountain Road (Route 341) crossing), Kent. (Includes West Branch portion above East Branch)	15.04	Fully Supporting	Not Assessed
CT6502-00_02	East Aspetuck River-02	From Wellsville Avenue crossing, US to Wheaton Road Crossing (near Route 202, parallel to Old Mill Road), New Milford.	5.07	Fully Supporting	Not Assessed
CT6502-00_03	East Aspetuck River-03	From Wheaton Road Crossing (near Route 202, parallel to Old Mill Road), New Milford, US to Lake Waramaug outlet dam (just US of West Shore Road crossing), Washington.	3.49	Insufficient Information	Not Assessed
CT6600-00_01	Still River (New Milford/ Brookfield)-01	From mouth at confluence with Housatonic River (DS of RailRoad crossing), New Milford, US to Silvermine Road crossing (USGS station), Brookfield (just DS of Route 7 crossing, and DS of confluence with Charles Pickneys Brook), Brookfield.	8.48	Not Supporting	Not Supporting
CT6600-00_02	Still River (Brookfield/ Danbury)-02	From Silvermine Road crossing (USGS station), Brookfield (just DS of Route 7 crossing, and DS of confluence with Charles Pickneys Brook), US to confluence with Limekiln Brook (just US of I84 crossing), Danbury.	6.21	Not Supporting	Not Supporting
CT6600-00_03	Still River (Danbury)-03	From confluence with Limekiln Brook (just US of I84 crossing), US to confluence with Sympaug Brook (just US of Cross Street crossing), Danbury.	2.19	Not Supporting	Not Supporting

Table 3-4. Connecticut Impaired Waters List (EPA Category 5)

Waterbody Segment ID	Waterbody Name	Waterbody Type	Waterbody Size	Units	Impaired Designated Use	Cause	Comment
CT6025-00_02	Farmill River-02	River	3.99	Miles	Recreation	Escherichia coli	Potential sources include permitted and non-permitted stormwater, illicit discharge, insufficient septic systems, agricultural activity, nuisance wildlife/pets
CT6026-03_01	Cemetery Pond Brook (Stratford/ Shelton)-01	River	2.15	Miles	Recreation	Escherichia coli	
CT6100-00_01	Blackberry River (North Canaan)-01	River	0.78	Miles	Fish Consumption	Polychlorinated biphenyls	
CT6100-00_02a	Blackberry River (North Canaan)-02a	River	2.75	Miles	Fish Consumption	Polychlorinated biphenyls	
					Recreation	Escherichia coli	Potential sources include permitted and non-permitted stormwater, illicit discharge, insufficient septic systems, agricultural activity, nuisance wildlife/pets
CT6100-00_02b	Blackberry River (North Canaan)-02b	River	1.18	Miles	Fish Consumption	Polychlorinated biphenyls	
CT6200-00_01	Hollenbeck River-01	River	18.32	Miles	Recreation	Escherichia coli	Potential sources include permitted and non-permitted stormwater, insufficient septic systems, agricultural activity, nuisance wildlife/pets
CT6302-00_02	Mill Brook (Sharon)-02	River	1.66	Miles	Recreation	Escherichia coli	Potential sources include non-permitted stormwater, insufficient septic systems, agricultural activity, nuisance wildlife/pets
CT6402-00_01	Ball Pond Brook (New Fairfield)-01	River	0.39	Miles	Recreation	Escherichia coli	
CT6402-00-1-L1_01	Ball Pond (New Fairfield)	Freshwater Lake	80.7	Acres	Recreation	Chlorophyll-a	Potential sources include permitted and non-permitted stormwater



**NOTICE OF TENTATIVE DECISION
INTENT TO RENEW A NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM PERMIT FOR THE FOLLOWING DISCHARGE INTO THE
WATERS OF THE STATE OF CONNECTICUT**

TENTATIVE DECISION

The Commissioner of Energy and Environmental Protection ("the Commissioner") hereby gives notice of a tentative decision to renew a permit based on an application submitted by **The Stop and Shop Supermarket Company LLC** ("the applicant") under section 22a-430 of the Connecticut General Statutes ("C.G.S.") for a permit to discharge into the waters of the state.

In accordance with applicable federal and state law, the Commissioner has made a tentative decision that continuance of the existing system to treat the discharge would protect the waters of the state from pollution and the Commissioner proposes to renew a permit for the discharge to the Ball Pond Brook.

The proposed permit, if issued by the Commissioner, will require that all wastewater be treated to meet the applicable effluent limitations and periodic monitoring to demonstrate that the discharge will not cause pollution.

APPLICANT'S PROPOSAL

The Stop and Shop Supermarket Company LLC proposes to discharge 26,000 gallons per day wastewaters to the Ball Pond Brook from groundwater remediation operations.

The discharge will result in the clean-up of contamination and will have no adverse impact on water quality.

The name and mailing address of the permit applicant are: The Stop and Shop Supermarket Company LLC, 1385 Hancock Street, Quincy, MA 02169.

The activity takes place at: NE Corner of Routes 37 and 39 intersection, New Fairfield, CT 06812.

REGULATORY CONDITIONS

Type of Treatment

DSN 001-1: Groundwater is pumped into a dense non aqueous phase liquid (DNAPL) water separator. It is then passed through two parallel bag filters, an air stripping system and finally through three 500-lb carbon filters in series.

Effluent Limitations

This permit contains effluent limitations consistent with a Case by Case Determination using the criteria of Best Professional Judgment and which will meet Water Quality Standards when the Permittee complies with all permit requirements.

In accordance with section 22a-430-4(l) of the Regulations of Connecticut State Agencies the permit contains effluent limitations for the following types of toxic substances: volatile organic compounds.

COMMISSIONER'S AUTHORITY

The Commissioner is authorized to approve or deny such permits pursuant to section 402(b) of the Federal Water Pollution Control Act, as amended, 33 USC 1251, *et. seq.* and section 22a-430 of the C.G.S. and the Water Discharge Permit Regulations (section 22a-430-3 and 4 of the Regulations of Connecticut State Agencies).

INFORMATION REQUESTS

The application has been assigned the following numbers by the Department of Energy and Environmental Protection. Please use these numbers when corresponding with this office regarding this application.

APPLICATION NO. 201305154

PERMIT ID NO. CT0030406

Interested persons may obtain copies of the application from John Brogden, AECOM, 500 Enterprise Drive, Suite 3B, Rocky Hill, CT 06067, (860) 990 6726.

The application is available for inspection by contacting Oluwatoyin Fakilede at 860-424-3025, at the Department of Energy and Environmental Protection, Bureau of Materials Management and Compliance Assurance, 79 Elm Street, Hartford, CT 06106-5127 from 8:30 - 4:30, Monday through Friday.

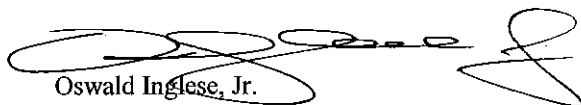
Any interested person may request in writing that his or her name be put on a mailing list to receive notice of intent to issue any permit to discharge to the surface waters of the state. Such request may be for the entire state or any geographic area of the state and shall clearly state in writing the name and mailing address of the interested person and the area for which notices are requested.

PUBLIC COMMENT

Prior to making a final determination to approve or deny any application, the Commissioner shall consider written comments on the application from interested persons that are received within 30 days of this public notice. Written comments should be directed to Oluwatoyin Fakilede, Bureau of Materials Management and Compliance Assurance, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127. The Commissioner may hold a public hearing prior to approving or denying an application if in the Commissioner's discretion the public interest will be best served thereby, and shall hold a hearing upon receipt of a petition signed by at least twenty-five persons. Notice of any public hearing shall be published at least 30 days prior to the hearing.

Petitions for a hearing should include the application number noted above and also identify a contact person to receive notifications. Petitions may also identify a person who is authorized to engage in discussions regarding the application and, if resolution is reached, withdraw the petition. Original petitions must be *mailed or delivered* to: DEEP Office of Adjudications, 79 Elm Street, 3rd floor, Hartford, CT 06106-5127. Petitions cannot be sent by fax or email. Additional information can be found at www.ct.gov/deep/adjudications.

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action and Equal Opportunity Employer that is committed to complying with the Americans with Disabilities Act. To request an accommodation contact us at (860) 418-5910 or deep.accommodations@ct.gov.



Oswald Inglese, Jr.

Director

Water Permitting and Enforcement Division

Bureau of Materials Management and Compliance Assurance

Dated:

FEB 04 2016