

NPDES PERMIT

issued to

Tilcon Connecticut Inc
P.O. Box 1357
642 Black Rock Avenue
New Britain, CT 06050

Location Address:

1 Forest Road
North Branford, CT 06471

Permit ID: CT0000892

Permit Expires:

Receiving Stream:

Cedar Pond
Linsley Pond

Stream Segment Number:

CT5111-09-1-L1_01
CT5111-09-1-L2_01

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) **Tilcon Connecticut Inc.**, (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.

"Annual Mass Loading of Total Phosphorus", expressed in kilograms per year, means the sum of the calculated loading of total phosphorus for each month over the twelve-month period from the date Table C of this permit goes into effect, and annually thereafter.

"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.

"Calculated Monthly Mass Loading of Phosphorus", expressed in kilograms per month, means the sum of the calculated weekly mass loading for each month.

"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.

"MGD", means "million gallons per day".

"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 that a representative sample shall be collected during each of the following periods: January – March, inclusive; April – June, inclusive; July – September, inclusive, and; October – December, inclusive.

"Range during Sampling" ("RDS"), as a sample type, means the maximum and minimum of all values recorded as a result of analyzing each grab sample of; 1) a Composite Sample, or, 2) a Grab Sample Average. For those Permittees with continuous monitoring and recording pH meters, Range during Sampling means the maximum and minimum readings recorded with the continuous monitoring device during the Composite or Grab Sample Average sample collection.

"Twice per Month" when used as a sample frequency shall mean two samples per calendar month collected no less than 12 days apart.

"ug/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 discharge will not cause pollution of the waters of the state when all conditions of this permit are met. The Commissioner's decision is based on Application No.199805058 for permit reissuance received on December 4, 1998 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. CT0000892, issued by the Commissioner to the Permittee on June 2, 1994, the previous application submitted by the Permittee on February 5, 1986 with addenda dated January 8, 1987 and June 13, 1988, 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. CT0000892, issued by the Commissioner to the Permittee on June 2, 1994.

(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. CT0000892 issued by the Commissioner to the Permittee on [DATE OF PERMIT ISSUANCE], Application No. 199805058 received by the Department on December 4, 1998, 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. CT0000892 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 discharges shall not exceed and shall otherwise conform to the specific terms and conditions listed below. The discharges are restricted by, and shall be monitored in accordance with, the tables below:

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Table A: Effective upon permit issuance

Discharge Serial Number: 102-1					Monitoring Location: 1				
Wastewater Description: Quarry stormwater runoff, quarry dewatering, dust control runoff, evaporative spray runoff, and rock crusher non-contact cooling water									
Monitoring Location Description: Discharge from drainage swale at 30 inch pipe (sampling/gauging station)									
Allocated Zone of Influence (ZOI): 0 gph					Instream Waste Concentration (IWC): 100%				
PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test ³
		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	≥ 90%	Quarterly	Grab	
Aquatic Toxicity, Pimephales promelas NOAEL = 100%	%	NA	NA	NR	NA	≥ 90%	Quarterly	Grab	
Aluminum, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Arsenic, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Copper, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Days of Discharge ⁴	Days/month	NA	NA	NR	NA	-----	Monthly	Recorded	
Flow, Instantaneous (at time of sampling)	gpm	NA	NA	NR	NA	-----	Weekly	Instantaneous	
Flow, Maximum during 24 hour period ¹	MGD	NA	2.0	Continuous	Daily Flow	NA	NR	NA	
Flow, Day of Sampling	MGD	-----	2.0	Weekly	Daily Flow	NA	NR	NA	
Iron, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Nitrogen, Ammonia (total as N)	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	X
Nitrogen, Nitrate (total as N)	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	
Nitrogen, Total Kjeldahl	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	
Lead, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Oil and Grease, Total	mg/l	NA	NA	NR	NA	5.0	Quarterly	Grab	
pH, Day of Sampling	S.U.	NA	NA	NR	NA	6.0 to 9.0	Weekly	Grab	
Phosphorus, Dissolved	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	X
Phosphorus, Total	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	X
Sodium, Total	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	
Total Dissolved Solids	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	
Total Suspended Solids	mg/l	NA	NA	NR	NA	20.0	Quarterly	Grab	
Turbidity	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	
Zinc, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X

Table Footnotes and Remarks:

Footnotes:

¹ For this parameter the Permittee shall maintain at the facility a record of the total flow for each day of discharge and shall report the Maximum Daily Flow for each 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 Minimum Level Test refers to Section 6(A) of this permit.

⁴ The number of days per month that a discharge occurs shall be submitted as an attachment to the monthly Discharge Monitoring Report.

Remarks:

"Quarterly", in the context of a sampling frequency, means that a representative sample shall be collected during each of the following periods: January – March, inclusive; April – June, inclusive; July – September, inclusive, and; October – December, inclusive. For months when a sample is not collected, the Discharge Monitoring Report shall be submitted with the comment, "Monitoring Conditional".

The results of toxicity tests shall be recorded in % survival on the Discharge Monitoring Report.

THE DISCHARGE IS RESTRICTED AS FOLLOWS:

- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.25 inches, there shall be no discharge for the remainder of the calendar day and the next calendar day;
- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.5 inches, there shall be no discharge for the remainder of the calendar day and the next two (2) calendar days;
- When at any point during a calendar day the cumulative liquid precipitation is equal or greater than 1.0 inch, there shall be no discharge for the remainder of the calendar day and the next three (3) calendar days; and
- Precipitation shall be as measured A) at the following real time reporting precipitation gage: [USGS 01195100 Indian River Near Clinton, CT](https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100)¹ or B) with the written approval of the Commissioner, at an alternative continuously operating real time reporting precipitation gage.

¹ https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100

See Section (10) of this permit for further information.

Table B

Discharge Serial Number: 102-A

Monitoring Location: 1

Wastewater Description: Non-contact cooling water from rock crushers

Monitoring Location Description: The effluent pipe that discharges into the north end of the first settling basin

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test ³
		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	
Aluminum, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Chlorine, Total Residual	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Copper, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Flow, Instantaneous	gpm	NA	NA	NR	NA	-----	Quarterly	Instantaneous	
Flow, Maximum during 24 hr period ¹	gpd	NA	168,000	Quarterly	Daily Flow	NA	NR	NA	
Flow, Day of Sampling	gpd	NA	168,000	Quarterly	Daily Flow	NA	NR	NA	
Iron, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Oil and Grease, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
pH, Day of Sampling	S.U.	NA	NA	NR	NA	-----	Quarterly	Grab	
Zinc, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X

Table Footnotes and Remarks:

Footnotes:

¹ For this parameter the Permittee shall maintain at the facility a record of the total flow for each day of discharge and shall report the Maximum 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 Minimum Level Test refers to Section 6(A) of this permit.

Remarks:

All samples shall be composed solely of non-contact cooling wastewater prior to combination with wastewaters of any other type.

"Quarterly", in the context of a sampling frequency, means that a representative sample shall be collected during each of the following periods: January – March, inclusive; April – June, inclusive; July – September, inclusive, and; October – December, inclusive.

Table C: Effective 4 years after permit issuance

Discharge Serial Number: 102-1		Monitoring Location: 1							
Wastewater Description: Quarry stormwater runoff, quarry dewatering, dust control runoff, evaporative spray runoff, and rock crusher non-contact cooling water									
Monitoring Location Description: Discharge from drainage swale at 30-inch pipe (sampling/gauging station)									
Allocated Zone of Influence (ZOI): 0 gph					Instream Waste Concentration (IWC): 100%				
PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test ³
		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	≥ 90%	Quarterly	Grab	
Aquatic Toxicity, Pimephales promelas NOAEL = 100%	%	NA	NA	NR	NA	≥ 90%	Quarterly	Grab	
Aluminum, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Arsenic, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Copper, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Days of Discharge ⁴	Days/month	NA	NA	NR	NA	-----	Monthly	Recorded	
Flow, Instantaneous (at time of sampling)	gpm	NA	NA	NR	NA	1,400	Weekly	Instantaneous	
Flow, Maximum during 24 hour period ¹	MGD	NA	2.0	Continuous	Daily Flow	NA	NR	NA	
Flow, Day of Sampling	MGD	-----	2.0	Weekly	Daily Flow	NA	NR	NA	
Iron, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Nitrogen, Ammonia (total as N)	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	X
Nitrogen, Nitrate (total as N)	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	
Nitrogen, Total Kjeldahl	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	
Lead, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X
Oil and Grease, Total	mg/l	NA	NA	NR	NA	5.0	Quarterly	Grab	
pH, Day of Sampling	S.U.	NA	NA	NR	NA	6.0 to 9.0	Weekly	Grab	
Phosphorus, Dissolved	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	X
Phosphorus, Total	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	X
Phosphorus, Total ⁵	kg/month	NA	NA	NR	NA	-----	Monthly	Calculated	
Phosphorus, Total ⁵	kg/year	NA	NA	NR	NA	28.0	Annually	Calculated	
Sodium, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Total Dissolved Solids	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	
Total Suspended Solids	mg/l	NA	NA	NR	NA	20.0	Quarterly	Grab	
Turbidity	mg/l	NA	NA	NR	NA	-----	Weekly	Grab	
Zinc, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	X

Table Footnotes and Remarks:

Footnotes:

¹ For this parameter the Permittee shall maintain at the facility a record of the total flow for each day of discharge and shall report the Maximum Daily Flow for each 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 Minimum Level Test refers to Section 6(A) of this permit.

⁴ The number of days per month that a discharge occurs shall be submitted as an attachment to the monthly Discharge Monitoring Report.

⁵ For these parameters, the Permittee shall calculate the monthly mass loading of phosphorus in the discharge (kg/month) and the cumulative amount of total phosphorus in kilograms to date. The information shall be submitted on the form provided (Attachment A) as an attachment to the monthly Discharge Monitoring Report.

Remarks:

"Quarterly", in the context of a sampling frequency, means that a representative sample shall be collected during each of the following periods: January – March, inclusive; April – June, inclusive; July – September, inclusive, and; October – December, inclusive. For months when a sample is not collected, the Discharge Monitoring Report shall be submitted with the comment, "Monitoring Conditional".

The results of toxicity tests shall be recorded in % survival on the Discharge Monitoring Report.

THE DISCHARGE IS RESTRICTED AS FOLLOWS:

- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.25 inches, there shall be no discharge for the remainder of the calendar day and the next calendar day;
- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.5 inches, there shall be no discharge for the remainder of the calendar day and the next two (2) calendar days;
- When at any point during a calendar day the cumulative liquid precipitation is equal or greater than 1.0 inch, there shall be no discharge for the remainder of the calendar day and the next three (3) calendar days; and
- Precipitation shall be as measured A) at the following real time reporting precipitation gage: [USGS 01195100 Indian River Near Clinton, CT](https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100)¹ or B) with the written approval of the Commissioner, at an alternative continuously operating real time reporting precipitation gage.

¹ https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100

See Section (10) for further information.

- (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 Minimum Levels specified below represent the concentrations at which quantification must be achieved and verified during the chemical analyses for the parameters identified in Section 5 Tables A, B and C. Analyses for these parameters must include check standards within ten percent of the specified Minimum Level or calibration points equal to or less than the specified Minimum Level.

<u>Parameter</u>	<u>Minimum Level</u>
Aluminum	10.0 ug/L
Ammonia	10.0 ug/L
Arsenic	5.0 ug/L
Chlorine, total residual	20.0 ug/L
Copper	5.0 ug/L
Lead	2.0 ug/L
Phosphorus	10.0 ug/L
Zinc	10.0 ug/L

- (4) 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.
- (5) 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.
- (6) 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) 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 Tables A and C 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, as prescribed in section 22a-430-3(j)(7)(A)(I) of the Regulations of Connecticut State Agencies, with five replicates of undiluted effluent.
 - (i) Organisms shall not be fed during the tests.
 - (ii) Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.
 - (c) 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 control 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 90% survival in the undiluted effluent.
- (C) The Permittee shall annually monitor the chronic toxicity of the DSN 102-1 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) Single concentration, static renewal chronic toxicity tests 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 Ceriodaphnia survival and reproduction and Fathead Minnow larval survival and growth.
- (3) Grab samples of the discharge (DSN 102-1), and grab samples of Gulf Brook for use as control water shall be collected on day 0, day 2, and day 4 of the test.
- (4) 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.
- (5) Test solutions shall be renewed daily. Samples 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.
- (6) All samples of the discharge and the Gulf 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	Lead (Total recoverable and dissolved)
Alkalinity	Nitrogen, Ammonia (Total as N)
Aluminum, Total	Nitrogen, Nitrate (Total as N)
Arsenic, Total	Nitrogen, Nitrite (Total as N)
Conductivity	Phosphorus, Total
Chlorine (Total residual)	Sodium
Copper (Total recoverable and dissolved)	Total Suspended Solids
Hardness	Zinc (Total recoverable and dissolved)
Iron, Total	
Turbidity	

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 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 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 the 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.

SECTION 9: COMPLIANCE SCHEDULE

- (A) On or before **30 days** after the date of issuance of this permit, the Permittee shall retain one or more qualified consultants acceptable to the Commissioner to prepare the documents and implement or oversee the actions required by Sections 9 and 10 of this permit and shall, by that date, notify the Commissioner in writing of the identity of such consultants. The Permittee shall retain one or more qualified consultants acceptable to the Commissioner until the actions required by Sections 9 and 10 of this permit have been completed, and within ten days after retaining any consultant other than one originally identified under this paragraph, Permittee shall notify the Commissioner in writing of the identity of such other consultant. The consultant retained shall be a qualified professional engineer licensed to practice in Connecticut acceptable to the Commissioner. The Permittee shall submit to the Commissioner a description of a consultant's education, experience and training

that is relevant to the work required by this permit within ten days after a request for such a description. Nothing in this paragraph shall preclude the Commissioner from finding a previously acceptable consultant unacceptable.

- (B) On or before **180 days** after the date of issuance of this permit, the Permittee shall submit the following for the Commissioner's review and written approval:
- (1) Detailed plans and specifications for a quarry level monitoring system to measure and record the elevation of surface water in the quarry;
 - (2) Detailed plans and specifications for weather instrumentation to collect and record precipitation data linked to a time stamp;
 - (3) Detailed plans and specifications for the construction and installation of an automatic shut-off system with manual re-start for quarry discharge pumping when the cumulative liquid precipitation is equal to or greater than 0.25 inches in a calendar day;
 - (4) Detailed engineering plans, drawn to scale, describing the physical configuration of the quarry, including but not limited to the lateral extent, depth and the location/configuration of the tunnel. Such detailed engineering plans shall include a description of existing conditions and anticipated future conditions five (5) years from the date of issuance of this permit; and
 - (5) A timeframe for implementing the actions described in paragraphs (1)-(3) above.
- (C) **Closure Plan:** On or before **365 days** after the date of issuance of this permit, the Permittee shall submit the following for the Commissioner's review and written approval:
- (1) Detailed engineering plans, drawn to scale, and specifications for the construction, installation, operation and maintenance of measures for the closure and post-closure of the quarry to prevent uncontrolled overflows, downstream flooding, soil erosion and sedimentation and to maintain the physical, chemical and biological integrity of the receiving watercourse;
 - (2) Plans for the continued operation and maintenance of the actions described in (1), above; and
 - (3) An estimate of the cost to implement (1) and (2), above.
- (D) **Financial Assurance:** The Permittee shall provide financial assurance to support the work required by Section 9(C) of this permit.
- (E) **Phosphorus:** As soon as possible, but no later than 4 years after the date of issuance of this permit, the Permittee shall achieve compliance with the final effluent limitations for total phosphorus contained in Section 5, Table C in accordance with the following:
- (1) On or before **90 days** after the date of issuance of this permit, the Permittee shall submit for the Commissioner's review and written approval a scope of study which describes and evaluates available options, including but not limited to, modification(s) to the operation and/or installation of new treatment equipment in order to achieve compliance with the waste load allocation for phosphorus of 28 kg/year as specified in "A Total Maximum Daily Load Analysis for Cedar and Linsley Ponds in North Branford" (the phosphorus TMDL), which was prepared by the Connecticut Department of Energy and Environmental Protection and finalized on November 28, 2005. The scope of study shall:
 - (a) propose alternative actions to achieve compliance with the limits contained in Section 5, Table C including, but not limited to, pollutant source reduction, process changes/innovations, physical treatment, rerouting of all or part of the discharge, recycle and zero discharge systems, water conservation measures, and other internal and/or end-of-pipe treatment technologies;
 - (b) provide a substantive plan and schedule to evaluate each proposed alternative, submit a report to the Commissioner on the results of such evaluation, and implement the preferred alternative;
 - (c) list all permits and approvals required for each alternative, including but not limited to any permits required under sections 22a-32, 22a-42a, 22a-342, 22a-361, 22a-368 or 22a-430 of the Connecticut General Statutes;

- (2) On or before **540 days (1.5 years)** after the date of issuance of this permit, the Permittee shall submit for the Commissioner's review and written approval a comprehensive and thorough report, in accordance with the approval of the scope of study specified in Section 9(E) above. The report shall include, but not be limited to, the following:
- (a) a discussion and formal presentation of the procedures, results, summary and conclusion of the alternative treatment evaluation performed to identify optimum phosphorus removal treatment(s) or action(s) proposed to be used;
 - (b) a detailed description of proposed treatment alternative(s) or action(s), including but not limited to modification(s) to the operation and/or installation of new treatment equipment to comply with the phosphorus TMDL. This description shall include a detailed schedule to implement all proposed modifications or new treatment equipment required by the preferred alternative, including but not limited to a schedule for: development of engineering plans and specifications, construction activities, contract bidding, operational changes, preparation and submittal of permit applications, and any other actions specified in the program approved pursuant to paragraph 9(E).
- (3) The Permittee shall submit to the Commissioner quarterly status reports beginning sixty (60) days after the date of approval of the report referenced in Section 9(E) above. Status reports shall include, but not be limited to, a summary of all effluent monitoring data for phosphorus collected by the Permittee during the previous sixty (60) day period and a detailed description of progress made by the Permittee in performing actions required by this section of the permit in accordance with the approved schedule including, but not limited to, development of engineering plans and specifications, construction activity, contract bidding, operational changes, preparation and submittal of permit applications, and any other actions specified in the program approved pursuant to this section.
- (4) The Permittee shall perform the approved actions in accordance with the approved schedule, but in no event shall the approved actions to achieve compliance with the final effluent limitations for total phosphorus contained in Section 5, Table C be completed later than four years after the date of issuance of this permit. Within fifteen days after completing such actions, the Permittee shall certify to the Commissioner in writing that the actions have been completed as approved.
- (F) The Permittee shall use best efforts to submit to the Commissioner all documents required by this section of the permit in a complete and approvable form. If the Commissioner notifies the Permittee that any document or other action is deficient, and does not approve it with conditions or modifications, it is deemed disapproved, and the Permittee shall correct the deficiencies and resubmit it within the time specified by the Commissioner or, if no time is specified by the Commissioner, within thirty days of the Commissioner's notice of deficiencies. In approving any document or other action under this Compliance Schedule, the Commissioner may approve the document or other action as submitted or performed or with such conditions or modifications as the Commissioner deems necessary to carry out the purposes of this section of the permit. Nothing in this paragraph shall excuse noncompliance or delay.
- (G) Dates. The date of submission to the Commissioner of any document required by this section of the permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this section of the permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date four days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" as used in this section of the permit means calendar day. Any document or action which is required by this section only of the permit, to be submitted, or performed, by a date which falls on, Saturday, Sunday, or, a legal Connecticut or federal holiday, shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or legal Connecticut or federal holiday.
- (H) Notification of noncompliance. In the event that the Permittee becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this Section of the permit, or of any document required hereunder, the Permittee shall immediately notify the Commissioner and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to

the greatest extent possible. In so notifying the Commissioner, the Permittee shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the Permittee shall comply with any dates that may be approved in writing by the Commissioner. Notification by the Permittee shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically so stated by the Commissioner in writing.

- (I) Notice to Commissioner of changes. Within fifteen days of the date the Permittee becomes aware of a change in any information submitted to the Commissioner under this section of the permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the Commissioner.
- (J) Submission of documents. Any document, other than a discharge monitoring report, required to be submitted to the Commissioner under this section of the permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Karen Allen
Department of Energy and Environmental Protection
Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division
79 Elm Street
Hartford, CT 06106-5127

SECTION 10: SPECIAL CONDITIONS

- (A) (1) **Upon permit issuance, the discharge from dewatering the quarry is restricted as follows:**

- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.25 inches, there shall be no discharge for the remainder of the calendar day and the next calendar day;
- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.5 inches, there shall be no discharge for the remainder of the calendar day and the next two calendar days;
- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 1.0 inch, there shall be no discharge for the remainder of the calendar day and the next three (3) calendar days; and
- Precipitation shall be as measured A) at the following real time reporting precipitation gage: [USGS 01195100 Indian River Near Clinton, CT](https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100) (https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100), or B) with the written approval of the Commissioner, at an alternative continuously operating real time reporting precipitation gage.

- (2) Upon a written determination by the Commissioner that the Permittee has completed, to the Commissioner's satisfaction, the actions described in paragraphs (10)(B) and (10)(C), **the discharge from dewatering the quarry will be restricted as follows:**

- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 3.3 inches, there shall be no discharge for the remainder of the calendar day and the next three (3) calendar days;
- Precipitation shall be as measured A) at the following real time reporting precipitation gage: [USGS 01195100 Indian River Near Clinton, CT](https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100) (https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100), or B) with the written approval of the Commissioner, at an alternative continuously operating real time reporting precipitation gage.

- (B) The restrictions on the discharge described in paragraph (A)(2) will go into effect upon the written determination by the Commissioner that the Permittee has completed, to the Commissioner's satisfaction, the following actions:
- (1) The Permittee submits for the Commissioner's review and written approval detailed plans and specifications for modifications to the watercourse receiving the discharge authorized by this permit. Such detailed plans and specifications shall, at a minimum, include supporting hydrology and hydraulic analyses for the construction of modifications to the existing watercourse to provide adequate capacity to handle the combined discharge flows, natural base flows and storm flows in a manner that prevents uncontrolled overflows, flooding, soil erosion and sedimentation and maintains the physical, chemical and biological integrity of the receiving watercourse and downstream waters;
 - (2) The Permittee submits for the Commissioner's review copies of any federal, state or local authorizations or permits required to be obtained to perform the proposed actions, including but not limited to a permit issued pursuant to Section 404 of the federal Clean Water Act, or a written determination from the United States Army Corps of Engineers that a Section 404 permit is not required;
 - (3) The Permittee submits for the Commissioner's review and written approval as-built detailed plans and specifications for (1) above; and
 - (4) The Permittee submits for the Commissioner's review and written approval plans for the continued operation and maintenance of the actions described in (1), above.
 - (5) **Financial Assurance:** The Permittee shall provide financial assurance to support the work required by Sections 10(B)(1) and 10(B)(4) of this permit.
- (C) All plans and specifications required to be prepared and submitted for the Commissioner's review and written approval pursuant to Section 10 of this permit shall be prepared, signed and sealed by a professional engineer licensed to practice in the State of Connecticut.
- (D) The Permittee shall use best efforts to submit to the Commissioner all documents required by this section of the permit in a complete and approvable form. If the Commissioner notifies the Permittee that any document or other action is deficient, and does not approve it with conditions or modifications, it is deemed disapproved, and the Permittee shall correct the deficiencies and resubmit it within the time specified by the Commissioner or, if no time is specified by the Commissioner, within thirty days of the Commissioner's notice of deficiencies. In approving any document or other action under this Compliance Schedule, the Commissioner may approve the document or other action as submitted or performed or with such conditions or modifications as the Commissioner deems necessary to carry out the purposes of this section of the permit. Nothing in this paragraph shall excuse noncompliance or delay.
- (E) **Dates.** The date of submission to the Commissioner of any document required by this section of the permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this section of the permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date four days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" as used in this section of the permit means calendar day. Any document or action which is required by this section only of the permit, to be submitted, or performed, by a date which falls on, Saturday, Sunday, or, a legal Connecticut or federal holiday, shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or legal Connecticut or federal holiday.
- (F) **Notice to Commissioner of changes.** Within fifteen days of the date the Permittee becomes aware of a change in any information submitted to the Commissioner under this section of the permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the Commissioner.

- (G) Submission of documents. Any document, other than a discharge monitoring report, required to be submitted to the Commissioner under this section of the permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Karen Allen
Department of Energy and Environmental Protection
Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division
79 Elm Street
Hartford, CT 06106-5127

This permit is hereby issued on

Robert E. Kaliszewski
Deputy Commissioner
Department of Energy and Environmental Protection

REK/KLA

FACT SHEET
 Water Permitting and Enforcement Division
 NPDES PERMIT REISSUANCE

APPLICANT	<i>Tilcon Connecticut Inc.</i>
PERMIT NO.	<i>CT0000892</i>
APPLICATION NO.	<i>199805058</i>
DATE APPLICATION RECEIVED	<i>December 4, 1998</i>
LOCATION ADDRESS	<i>1 Forest Road, North Branford, CT 06471</i>
FACILITY CONTACT	<i>Chris Costello, Environmental Compliance Technician 860-224-6048 ccostello@tilcon-inc.com</i>
MAILING ADDRESS	<i>P.O. Box 1357 New Britain, CT 06050</i>
DMR CONTACT	<i>Chris Costello, Environmental Compliance Technician 860-224-6048 ccostello@tilcon-inc.com</i>
PERMIT TERM	<i>5 years</i>
PERMIT CATEGORY	<i>NPDES Minor</i>
SIC CODE(S)	<i>1429 (Crushed and Broken Stone, Not Elsewhere Classified)</i>
PERMIT TYPE	<i>Reissuance</i>
OWNERSHIP	<i>Private</i>
DEEP STAFF ENGINEER	<i>Karen Allen (860-424-3842) Karen.allen@ct.gov</i>
TENTATIVE DECISION FACT SHEET DATE	<i>When preparing a final version of this, change the language to DATE FACT SHEET PREPARED FOR PERMIT ISSUANCE</i>

PERMIT FEES

Application Filing Fee: \$700.00

Application Processing Fee: \$14,000.00

Annual Fee:

DISCHARGE CODE	WASTEWATER CATEGORY (per 22a-430-7)	MAXIMUM GPD	DSN	ANNUAL FEE
.101037z	Mineral Mining and Processing	2,000,000	102-1	\$8,425.00
.102000c	Non-contact cooling water	168,000	102-A	\$0.00
TOTAL				\$8,425.00

I. APPLICANT

NATURE OF THE BUSINESS GENERATING THE DISCHARGE

The North Branford quarry is an open basalt mine with ancillary activities including rock crushing, stone and sand washing, asphalt production, and stone and sand sales. The mine is separated into north and south excavations by the drinking water aqueduct from Lake Gaillard. Operations at the site currently occupy in excess of 600 acres.

The primary discharge is mine dewatering wastewater, which is mostly stormwater. The mine dewatering wastewater is also used for dust control on site and can, if needed, be used as a source of non-contact cooling water to supplement the air-cooled system for the rock crushing equipment heat exchangers.

An evaporative spray system is being used to reduce the volume of stormwater accumulating in the south second level of the quarry. Quarry water is pumped to a small detention basin, where it is then pumped to an irrigation system equipped with spray nozzles. The water is sprayed into the air and evaporated. Excess water sprayed from the nozzles drains back into the quarry.

The main explosive is ammonium nitrate in a fuel oil mixture.

The applicant seeks authorization for the following:

DSN	PROPOSED AVERAGE MONTHLY FLOW (gpd)	PROPOSED MAXIMUM DAILY FLOW (gpd)	PROPOSED WASTESTREAMS	TREATMENT TYPE	DISCHARGE TO
102-1	NA	2,000,000	Quarry dewatering, quarry stormwater runoff, dust control runoff, evaporative spray runoff, and rock crusher non-contact cooling water	Settling basin	Unnamed drainage channel to Cedar Pond
102-A	NA	168,000	Rock crusher non-contact cooling water	Settling basin	Unnamed drainage channel to Cedar Pond

BACKGROUND/PERMIT HISTORY

Compliance/Enforcement

Is the Permittee subject to an ongoing enforcement action? **NO**

Does the Permit contain a compliance schedule? **YES**

If yes, please check all that apply.

- | | | |
|---|--|---|
| <input type="checkbox"/> Pollution Prevention | <input type="checkbox"/> Water Conservation | <input type="checkbox"/> Remediation |
| <input checked="" type="checkbox"/> Water Quality Requirement | <input type="checkbox"/> Treatment Requirement | <input checked="" type="checkbox"/> Other |

Information regarding the compliance schedule can be found in Section VI of this fact sheet.

II. DISCHARGE INFORMATION

On-site dewatering management system

The quarry is divided into a north level and a south level by the aqueduct from Lake Gaillard. Stormwater that collects in the quarry flows as sheet flow or is pumped to the second level of the south end of the quarry before being pumped to a series of two settling basins. From there, the water discharges by gravity to an earthen swale and culvert/discharge pipe before flowing down an on-site forested hillside and ultimately off the property.

Off-site channelized flow

(The following information was provided in an inspection report dated 3/22/07 prepared by Brian Golembiewski, formerly of the DEEP Inland Water Resources Division).

There are three major segments of the unnamed watercourse channel downgradient of Tilcon's discharge. **Segment 1** extends from the on-site forested hillside, through a railroad cross culvert, a Route 80/22 cross culvert, and ends at a small culvert inlet within a wetland on the south side of Route 80/22. **Segment 2** begins at the outlet of the small culvert south of Route 80/22 and extends down a high gradient section of watercourse to a small pond and through an upland meadow. **Segment 3** begins at the lower portion of the upland meadow, passes through several residential properties and a Cedar Lake Road cross culvert down to wetlands associated with Cedar Pond.

III. RECEIVING BODY INFORMATION/STREAM SEGMENT NUMBER

Cedar Pond	CT5111-09-1-L1_01	Surface Water Classification: A
Linsley Pond	CT5111-09-1-L2_01	Surface Water Classification: A

Cedar Pond is a 22-acre freshwater pond with a 593-acre watershed located upstream of Linsley Pond, a 23-acre freshwater pond with an 823-acre watershed that includes the Cedar Pond watershed. The two ponds are connected by a stream and form the headwaters of Pisgah Brook. The watershed is mostly industrial (quarry) and residential with stormwater flow contributing approximately 82% of the inflow to Cedar Pond. The Tilcon quarry is located in the northwest portion of the watershed. The dewatering discharge from the quarry ultimately flows into Cedar Pond.

Cedar Pond and Linsley Pond were both included on the *2004 List of Connecticut Waterbodies Not Meeting Water Quality Standards* due to impairment of recreational use and aquatic life caused by excessive phosphorus loading. A Total Maximum Daily Load Analysis (TMDL) for Cedar Pond and a Total Maximum Daily Load Analysis for Linsley Pond were finalized on November 28, 2005. The purpose of these TMDLs is to establish phosphorus loading targets that, if achieved, will result in consistency with the State of Connecticut Water Quality Standards.

IV. EFFLUENT GUIDELINES

DSN 102-1, the quarry dewatering discharge, is comprised of wastewaters regulated under 40 CFR 436 Subpart B, Mineral Mining and Processing Point Source Category, Crushed Stone Subcategory. 40 CFR 436 contains effluent limitations only on the pH of the discharge.

As the only individually permitted discharge of stormwater to Cedar Pond, DSN 102-1 is subject to the waste load allocation for phosphorus identified in the Cedar Pond TMDL. An end-of-pipe phosphorus permit limit of 28 kg/year for the discharge from the quarry was derived from the waste load allocation and has been incorporated in this permit. This mass-based permit limit is expressed as an accumulated mass loading over a twelve-month period and goes into effect 4 years after issuance of this permit.

V. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

BASIS FOR LIMITS, STANDARDS OR CONDITIONS		REGULATION	DISCHARGE POINT(S) DSN
X	Federal Effluent Limitation Guideline ("ELG")	40 CFR 436 Subpart B	102-1
	Performance Standards		
	Section 22a-430-4(s) of the Regulations of Connecticut State Agencies ("RCSA")		
X	Case-by-Case Determination using Best Professional Judgment ("BPJ")		102-1
X	Other (i.e. Department File Information, Treatability Manual, Federal Development Document)	Cedar Pond TMDL	102-1
X	Connecticut Water Quality Standards	RCSA Section 22a-426	102-1

**A. DSN 102-1
Monitoring Parameters, Limits and Monitoring Frequency**

PARAMETER	40 CFR 436.22	BPJ	Monitoring Frequency	Comments
	Required Range	Maximum Instantaneous (mg/L)		
Nitrogen, Ammonia			Weekly	See note (3) below
Nitrogen, Nitrate			Weekly	See note (3) below
Nitrogen, Total Kjeldahl			Weekly	See note (3) below
pH	6.0 – 9.0		Weekly	See note (3) below
Phosphorus, Dissolved			Weekly	See note (2) below
Phosphorus, Total *			Weekly	See note (2) below
Sodium, Total			Weekly	See note (3) below
Total Dissolved Solids			Weekly	See note (3) below
Turbidity			Weekly	See note (3) below
Aluminum, Total			Quarterly	See note (1) below
Arsenic, Total			Quarterly	See note (1) below
Copper, Total			Quarterly	See note (1) below
Iron, Total			Quarterly	See note (3) below
Lead, Total			Quarterly	See note (1) below
Oil and Grease, Total		5.0	Quarterly	See note (3) below
Total Suspended Solids		20.0	Quarterly	See note (3) below
Zinc, Total			Quarterly	See note (1) below

* 28 kg/year annual phosphorus loading in compliance with the TMDL to be calculated over a twelve-month period goes into effect during year 4 of the permit. The calculated monthly phosphorus loading (kg/month) and cumulative monthly phosphorus loading shall be submitted as an attachment (Attachment A) to the Discharge Monitoring Report.

Note (1): Water Quality Based Discharge Limits

The need for inclusion of water quality based discharge limitations in this permit for copper, lead, and zinc was evaluated consistent with Connecticut Water Quality Standards and criteria, pursuant to 40 CFR 122.44(d). 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 the monitoring data and its inherent variability with the calculated water quality based limits indicates a low statistical probability of exceeding such limits for lead and zinc. Therefore, no water quality based discharge limits were included for these parameters. A review of the monitoring data for copper indicates the possible need for a water quality based limit, however sample analyses have not historically been performed to a minimum level adequate for such evaluation. A monitoring requirement for copper using the necessary minimum level for analysis has been included in this permit to develop the data necessary to determine the need for a water quality based discharge limitation.

Discharge data for aluminum and arsenic is not currently available to allow an evaluation of the need for water quality based discharge limitation. Monitoring requirements for aluminum and arsenic have been included in this permit to develop the data necessary to perform that evaluation.

Note (2): Phosphorus

A review of the facility's monitoring data shows that phosphorus is frequently not detected ("ND") in the discharge.

However, the detection level of the analyses performed to date (ND < 0.05 mg/l) does not provide concentration data sensitive enough to determine compliance with the waste load allocation of the TMDL (28 kg/year) given the large discharge per day from the quarry (2 MGD). A monitoring requirement for phosphorus using the necessary minimum detection level (ND < 0.01 mg/l) has been included in this permit to develop the data necessary to evaluate compliance with the TMDL.

Note (3): Other comments

The limits on total suspended solids and total oil and grease were derived using best professional judgement and are indicative of typical operating conditions based on a review of the last 2 years of monitoring data from the facility.

A review of Discharge Monitoring Reports shows that sodium, turbidity and dissolved solids are consistently present in the discharge at elevated levels. In consideration of the large volume of water to be discharged per day from the quarry, the impaired status of the receiving waterbody (Cedar Pond), and the proximity of the quarry and the discharge to a drinking water supply watershed, Department staff recommend those parameters, along with the nitrogen series, be monitored on a weekly basis.

Nickel in the discharge is currently being monitored in accordance with the existing permit. Comparison of the monitoring data with the calculated water quality based limits indicates that nickel is not a parameter of concern. Staff recommends that monitoring requirements for nickel not be included in this permit renewal.

Surfactants (MBAS) in the discharge are currently being monitored in accordance with the existing permit. Review of monitoring data indicates that MBAS are consistently not detected and are not a parameter of concern. Department staff recommend that monitoring requirements for MBAS not be included in this permit renewal.

**B. DSN 102-A
Monitoring Parameters, Limits and Monitoring Frequency**

PARAMETER	BPJ	RCSA section 22a-430-4(s)(2)		MONITORING FREQUENCY
	Maximum Instantaneous (mg/L)	Average Monthly (mg/L)	Maximum Daily (mg/L)	
Aluminum, Total	Monitoring only			Quarterly
Chlorine, Total Residual				Quarterly
Copper, Total				Quarterly
Iron, Total				Quarterly
Oil and Grease, Total				Quarterly
pH				Quarterly
Zinc, Total				Quarterly

When needed, non-contact cooling water for the rock crusher heat exchangers is drawn from, and returned to, the first settling basin that receives water from the quarry. A review of the facility's Discharge Monitoring Reports indicates that there has been no discharge of non-contact cooling water associated with the rock crusher in the last 5 years. The permittee however, has requested to maintain the ability to use and discharge non-contact cooling water as needed. Staff recommends that the monitoring frequency remain at quarterly so that representative samples can be collected if the discharge occurs.

VI. COMPLIANCE SCHEDULE

Section 9 of this permit contains a compliance schedule requiring the following actions addressing the long-term operation and maintenance of the quarry and compliance with the phosphorus TMDL for Cedar Pond:

Section 9(B) Plans and Specifications

Section 9(B) of the permit contains a compliance schedule requiring the submittal of the following on or before 180 days after issuance of the permit:

- (1) Detailed plans and specifications for a quarry level monitoring system to measure and record the elevation of surface water in the quarry;

- (2) Detailed plans and specifications for weather instrumentation to collect and record precipitation data linked to a time stamp;
- (3) Detailed plans and specifications for the construction and installation of an automatic shut-off system with manual re-start for quarry discharge pumping when the cumulative liquid precipitation is equal to or greater than 0.25 inches in a calendar day;
- (4) Detailed engineering plans, drawn to scale, describing the physical configuration of the quarry, including but not limited to the lateral extent, depth and the location/configuration of the tunnel. Such detailed engineering plans shall include a description of existing conditions and anticipated future conditions five (5) years from the date of issuance of this permit; and
- (5) A timeframe for implementing the actions described in paragraphs (1)-(3) above.

Section 9(C) Closure Plan

Section 9(C) requires the submittal of a closure plan on or before 365 days after issuance of the permit that includes the following:

- (1) Detailed engineering plans, drawn to scale, and specifications for the construction, installation, operation and maintenance of measures for the closure and post-closure of the quarry to prevent uncontrolled overflows, downstream flooding, soil erosion and sedimentation and to maintain the physical, chemical and biological integrity of the receiving watercourse;
- (2) Plans for the continued operation and maintenance of the actions described in (1), above; and
- (3) An estimate of the cost to implement (1) and (2), above.

Section 9(D) requires that the permittee provide financial assurance to support the work required for the closure plan.

Section 9(E) Phosphorus

Section 9(E) requires the permittee to comply with the phosphorus waste load allocation of 28 kg/year specified in Section 5 Table C no later than 4 years after the date of issuance of the permit. To that end, Section 9(E) requires the submittal of a scope of study to evaluate available options to come into compliance followed by a final report of proposed treatment alternatives, modifications and/or installation of new treatment equipment.

VII. SPECIAL CONDITIONS

Section 10(A)(1) of this permit contains special conditions restricting the discharge of quarry water during rain events based on an evaluation of the capacity of the drainage channel and the impact of erosive forces. Specifically, Section 10(A)(1) states that that the discharge from dewatering the quarry shall be restricted as follows:

- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.25 inches, there shall be no discharge for the remainder of the calendar day and the next calendar day;
- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.5 inches, there shall be no discharge for the remainder of the calendar day and the next two calendar days;
- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 1.0 inch, there shall be no discharge for the remainder of the calendar day and the next three (3) calendar days; and
- Precipitation shall be as measured A) at the following real time reporting precipitation gage: [USGS 01195100 Indian River Near Clinton, CT](https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100) (https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100), or B) with the written approval of the Commissioner, at an alternative continuously operating real time reporting precipitation gage.

Section 10(A)(2) reduces the restrictions on when quarry water can be discharged, if the permittee modifies the drainage channel receiving the discharge, in accordance with the requirements of Section 10(B), to provide adequate capacity to handle the combined discharge flows, natural base flows and storm flows. Specifically, Section 10(A)(2) states that that the discharge from dewatering the quarry shall be restricted as follows:

- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 3.3 inches, there shall be no discharge for the remainder of the calendar day and the next three (3) calendar days;
-

- Precipitation shall be as measured A) at the following real time reporting precipitation gage: [USGS 01195100 Indian River Near Clinton, CT](https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100) (https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100), or B) with the written approval of the Commissioner, at an alternative continuously operating real time reporting precipitation gage.

VIII. MISCELLANEOUS

The Permittee is also registered for the following:

General Permit for the Discharge of Stormwater Associated with Industrial Activities (Permit No. GSI000517) originally issued on October 1, 2011 and extended without modifications for the period from October 1, 2016 to September 30, 2018.

IX. SITE & RESOURCE INFORMATION

A. INDIAN LAND

Not applicable. The facility is not on Indian lands.

B. COASTAL BOUNDARY

Not applicable. The facility is not within the coastal boundary.

C. ENDANGERED OR THREATENED SPECIES

Not applicable. The application is not for a new or modified permit where the physical footprint of the facility will be changed.

D. AQUIFER PROTECTION AREAS

Not applicable. The facility is not in a level A or B aquifer protection area.

E. CONSERVATION OR PRESERVATION RESTRICTION

Not applicable. There are no conservation or preservation restriction on the facility.

F. MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

The facility is located in North Branford which is registered for the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (Permit No. GSM000072).

G. PUBLIC WATER SUPPLY WATERSHED

Although the site is located within close proximity to a drinking water supply watershed (Lake Gaillard and Lake Saltonstall), the discharge that is the subject of this permit is not directed to a public water supply.

X. COMMENTS RELATED TO THE PUBLIC NOTICE

WATER DIVERSION PERMIT

Permittee: Tilcon Connecticut, Inc.
PO Box 1357
New Britain, CT 06050-1357

Permit No: DIV-200301965

Town: North Branford

Project: North Branford Plant, 1 Forest Rd., North Branford, CT

Waters: Surface Water

Pursuant to Connecticut General Statute 22a-368, the Commissioner of Energy and Environmental Protection (“Commissioner”) hereby grants a permit to Tilcon Connecticut, Inc. (“the Permittee”) to conduct regulated activities under the Connecticut Water Diversion Policy Act (sections 22a-365 through 22a-378, inclusive of the General Statutes.

AUTHORIZED ACTIVITY

Specifically, the permittee is authorized to:

- 1) Withdraw up to 1.152 million gallons of surface water during any 24-hour period at a maximum rate of 1200 gallons per minute from the Stone-Sand Plant Supply, Settling Basins for use in processing excavated, mined or quarried earth materials. Withdrawals are limited to 16 hours per day and to a total of 250 days during a calendar year.
- 2) Withdraw up to 0.067 million gallons of surface water during any 24-hour period at a maximum rate of 280 gallons per minute from the Supplemental Stone Sand Plants Supply Basins for processing excavated, mined or quarried earth materials. Withdrawals are limited to 5 hours per day and to a total of 250 days during a calendar year.
- 3) For the purpose of quarry dewatering, withdraw up to 2.0 million gallons of surface water during any 24-hour period at a maximum rate of 1400 gallons per minute from the Quarry Dewatering Settling Basins for discharge to an unnamed drainage channel that conveys flows to Cedar Pond. Quarry dewatering withdrawal and discharge are restricted as follows:

A. Upon Permit issuance:

- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.25 inches, there shall be no discharge for the remainder of the calendar day and the next calendar day;

- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 0.5 inches, there shall be no discharge for the remainder of the calendar day and the next two (2) calendar days;
- When at any point during a calendar day the cumulative liquid precipitation is equal to or greater than 1.0 inch, there shall be no discharge for the remainder of the calendar day and the next three (3) calendar days; and
- Precipitation shall be as measured A) at the following real time reporting precipitation gage: USGS 01195100 Indian River Near Clinton, CT¹ or B) with the written approval of the Commissioner, at an alternative continuously operating real time reporting precipitation gage.

¹ https://waterdata.usgs.gov/ct/nwis/uv?site_no=01195100

B. Upon a written determination by the Commissioner that the Permittee has completed, to the Commissioner's satisfaction, the actions described in paragraphs (1) through (4) below, the discharge from dewatering the quarry will be restricted as follows:

- When at any point during a calendar day the cumulative liquid precipitation exceeds 3.3 inches, the discharge is prohibited for the remainder of the calendar day; and may not resume for three (3) calendar days; and
- Precipitation shall be as measured A) at the following real time reporting precipitation gage: USGS 01195100 Indian River Near Clinton, CT¹ or B) with the written approval of the Commissioner, at an alternative continuously operating real time reporting precipitation gage.

(1) The Permittee submits for the Commissioner's review and written approval detailed plans and specifications for modifications to the watercourse receiving the discharge authorized by this permit. Such detailed plans and specifications shall, at a minimum, include supporting hydrology and hydraulic analyses for the construction of modifications to the existing watercourse to provide adequate capacity to handle the combined discharge flows, natural base flows and storm flows in a manner that prevents uncontrolled overflows, flooding, soil erosion and sedimentation and maintains the physical, chemical and biological integrity of the receiving watercourse and downstream waters;

(2) The Permittee submits for the Commissioner's review copies of any federal, state or local authorizations or permits required to be obtained to perform the proposed actions, including but not limited to a permit issued pursuant to Section 404 of the federal Clean Water Act, or a written determination from the United States Army Corps of Engineers that a Section 404 permit is not required;

(3) The Permittee submits for the Commissioner's review and written approval as-built detailed plans and specifications for (1) above; and

(4) The Permittee submits for the Commissioner's review and written approval plans for the continued operation and maintenance of the actions described in (1) above.

THE PERMITTEE'S FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THIS PERMIT SHALL SUBJECT THE PERMITTEE, INCLUDING THE PERMITTEE'S AGENTS OR CONTRACTOR(S) TO ENFORCEMENT ACTIONS AND PENALTIES AS PROVIDED BY LAW.

Locations of basins, ponds and withdrawals are as shown on plans entitled "Figure 2, Site Plan Showing Areas of Historical and Future Excavation, 2011 Submittal, Tilcon Connecticut Inc., 1 Forest Road, North Branford, Connecticut", dated 8/18/11, prepared by Triton Environmental, Inc.

This authorization constitutes the licenses and approvals required by 22a-368 of the Connecticut General Statutes.

THIS AUTHORIZATION IS SUBJECT TO AND DOES NOT DEROGATE ANY PRESENT OR FUTURE PROPERTY RIGHTS OR OTHER RIGHTS OR POWERS OF THE STATE OF CONNECTICUT, CONVEYS NO PROPERTY RIGHTS IN REAL ESTATE OR MATERIAL NOR ANY EXCLUSIVE PRIVILEGES, AND IS FURTHER SUBJECT TO ANY AND ALL PUBLIC AND PRIVATE RIGHTS AND TO ANY FEDERAL, STATE, OR LOCAL LAWS OR REGULATIONS PERTINENT TO THE PROPERTY OR ACTIVITY AFFECTED THEREBY. FURTHER, THIS AUTHORIZATION GRANTS NO RIGHTS TO CONVEY ANY DRAINAGE ACROSS PROPERTY NOT OWNED OR CONTROLLED BY THE PERMITTEE.

This authorization is subject to the following conditions:

PERMIT CONDITIONS

1. The permittee shall notify the Commissioner in writing two weeks prior to: (A) commencing construction or modification of structures or facilities authorized herein; and (B) initiating the diversion authorized herein.
2. The permittee may not make any alterations, except de minimis alterations, to any structure, facility, or activity authorized by this permit unless the permittee applies for and receives a modification of this permit in accordance with the provisions of section 22a-377(c)-2 of the Regulations of Connecticut State Agencies. Except as authorized by subdivision (5) of section 22a-377(c)-1(a) of the Regulations of Connecticut State Agencies, the permittee may not make any de minimis alterations to any structure, facility, or activity authorized by this permit without written permission from the Commissioner. A de minimis alteration means an alteration which does not significantly increase the quantity of water diverted or significantly change the capacity to divert water.
3. All structures, facilities, or activities constructed, maintained, or conducted pursuant hereto shall be consistent with the terms and conditions of this permit, and any structure, facility or activity not specifically authorized by this permit, or exempted pursuant to section 22a-377

of the General Statutes or section 22a-377(b)-1 of the Regulations of Connecticut State Agencies, shall constitute a violation hereof which may result in modification, revocation or suspension of this permit or in the institution of other legal proceedings to enforce its terms and conditions.

4. Unless the permittee maintains in optimal condition any structures or facilities authorized by this permit, the permittee shall remove such structures and facilities and restore the affected waters to their condition prior to construction of such structures or facilities.
5. In issuing this permit, the Commissioner has relied on information provided by the permittee. If such information was false, incomplete, or misleading, this permit may be modified, suspended or revoked and the permittee may be subject to any other remedies or penalties provided by law.
6. If construction of any structures or facilities authorized herein is not completed within three years of issuance of this permit or within such other time as may be provided by this permit, or if any activity authorized herein is not commenced within three years of issuance of this permit or within such other time as may be provided by this permit, this permit shall expire three years after issuance or at the end of such other time.
7. This permit is subject to and does not derogate any rights or powers of the State of Connecticut, conveys no property rights or exclusive privileges, and is subject to all public and private rights and to all applicable federal, state, and local law. In constructing or maintaining any structure or facility or conducting any activity authorized herein, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this State. The issuance of this permit shall not create any presumption that this permit should be renewed.
8. In constructing or maintaining any structure or facility or conducting any activity authorized herein, or in removing any such structure or facility under paragraph 4 hereof, the permittee shall employ best management practices to control storm water discharges, to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and other waters of the State. The permittee shall immediately inform the Commissioner of any adverse impact or hazard to the environment which occurs or is likely to occur as the direct result of the construction, maintenance, or conduct of structures, facilities, or activities authorized herein.
9. This permit is not transferable without the prior written consent of the Commissioner.
10. This permit shall expire 25 years from the date of issuance.
11. **Metering of Withdrawals.** Prior to initiating the authorized withdrawal of water, the permittee shall install a totalizing flow meter to measure the total amount of water withdrawn from each of the sources for which withdrawals are authorized herein, and shall for the duration of this authorization continuously operate and maintain such meter. In the

event of meter malfunction or breakage, the permittee shall repair or replace such meter within 72 hours.

12. **Record Keeping and Reporting.** The permittee shall maintain a daily record of the amount of water withdrawn from the sources for which withdrawals are authorized herein. The permittee shall, for the duration of this authorization, submit a copy of said withdrawal record for the preceding calendar year annually to the Commissioner no later than January 15 of each year. Such record shall be signed by the permittee and individual(s) responsible for actually preparing such record, each of whom shall certify in writing as follows:

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53-157b of the General Statutes, and in accordance with any other applicable statute.”

13. **Meter Calibration and Reporting.** The permittee shall annually test and calibrate each meter referenced in Condition 11 and calibrate to within two percent accuracy as shown through a post-calibration test, and shall submit the results of the accuracy test and calibration for the preceding year annually to the Commissioner no later than January 15 of each year.

14. **Recording and Reporting Violations.** Within 48 hours after the permittee learns of a violation of this permit, the permittee shall report the violation in writing to the Commissioner. Such report shall include the following information:

- a. The provision(s) of this permit that has been violated;
- b. The date and time the violation(s) was first discovered and by whom;
- c. The cause of the violation(s), if known;
- d. If the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and time(s) it was corrected;
- e. If the violation(s) has not ceased, the anticipated date when it will be corrected;
- f. Steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented;
- g. The signatures of the permittee and of the individual(s) responsible for actually preparing such report, each of whom shall certify as follows:

“I have personally examined and am familiar with the information submitted in this document, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157b of the General Statutes, and in accordance with any other applicable statute.”

15. **Basin and Pond Construction, Creation, Expansion.** The basins and ponds shown on the plan entitled "plans entitled "Figure 2, Site Plan Showing Areas of Historical and Future Excavation, 2011 Submittal, Tilcon Connecticut Inc., 1 Forest Road, North Branford, Connecticut", dated 8/18/11, prepared by Triton Environmental, Inc. shall not be modified or altered without having obtained a written authorization or required permit(s) from the Commissioner. New basins and ponds shall not be constructed or created without having obtained a written authorization or required permit(s) from the Commissioner.
16. **Wetland and Watercourse Alterations.** No modification or alteration to a wetland or watercourse shall be made without first having obtained a written authorization or required permit(s) from the Commissioner.
17. **Plans and Specifications.** All plans and specifications required to be prepared and submitted for the Commissioner's review and written approval shall be prepared, signed and sealed by a professional engineer licensed to practice in the State of Connecticut.
18. **Certification of Documents.** Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this permit shall be signed by the permittee or a responsible corporate officer of the permittee, a general partner of the permittee, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachment may be punishable as a criminal offense in accordance with Section 22a-376 under 53a-157 of the Connecticut General Statutes."
19. **Submission of Documents.** Any document or notice required to be submitted to the Commissioner under this permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Director
DEEP Land and Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, including but not limited to notice of approval or disapproval on any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier.

Except as otherwise specified in this permit, the word "day" as used in this permit means any calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

This authorization constitutes the permit required by section 22a-368(b) of the Connecticut General Statutes.

Issued as a permit of the Commissioner of Energy and Environmental Protection on

Robert E. Kaliszewski
Deputy Commissioner

DRAFT



**NOTICE OF TENTATIVE DETERMINATION TO APPROVE AN APPLICATION FOR
DIVERSION OF WATER PERMIT
AND INTENT TO WAIVE PUBLIC HEARING
and
NOTICE OF TENTATIVE DECISION OF INTENT TO RENEW
A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
FOR DISCHARGES INTO THE WATERS OF THE STATE OF CONNECTICUT**

**Applicant: Tilcon Connecticut, Inc.
City/Town: North Branford**

TENTATIVE DETERMINATION - Diversion of Water Permit (Application No.: DIV- 200301965)

The Commissioner of the Department of Energy and Environmental Protection ("DEEP") hereby gives notice that a tentative determination has been reached to approve the following application for a permit to divert the waters of the state. The Commissioner also intends to waive the requirement for public hearing pursuant to Section 22a-371 of the Connecticut General Statutes ("CGS"), provided that a hearing may be held if the Commissioner determines that the public interest will best be served thereby, or shall hold a hearing upon receipt of a petition as more thoroughly described below.

Application Number: DIV-200301965
Type of Permit: Diversion of Water
Relevant Statute(s)/Regulation: Section 22a-365 through 22a-378
Project Location: North Branford Plant, 1 Forest Rd., North Branford, CT
Water(s): Surface Water

Project Description: 1) Withdraw up to 1.152 million gallons of surface water per any 24 hour period from an onsite water supply pond for use in processing excavated, mined or quarried earth materials. 2) Withdraw up to 0.067 million gallons of surface water per any 24 hour period from an onsite water supply pond for processing excavated, mined or quarried earth materials. 3) Withdraw up to 2.0 million gallons of surface water from the quarry dewatering pond for discharge to an unnamed watercourse that flows to Cedar Pond.

COMMISSIONER'S FINDINGS/REGULATORY CONDITIONS (Application No.: DIV- 200301965)

Pursuant to Section 22a-371 of CGS, the Department has found that the application is complete and has determined that the proposed diversion 1) is necessary, 2) will not significantly affect long-range water resources management, and 3) will not impair proper management and use of the water resources of the State. Accordingly, the Commissioner hereby publishes notice of intent to waive the requirement for a public hearing, provided if the Commissioner receives a petition requesting a hearing signed by 25 persons on or before the deadline for receipt of written comments specified at the end of this notice, a hearing will be held. Notice of any hearing will be published in a newspaper having general circulation in the area where the proposed diversion will take place or have effect.

TENTATIVE DECISION - NPDES Permit (Application No. 199805058)

The Commissioner of Energy and Environmental Protection hereby gives notice of a tentative decision to renew a permit based on an application submitted by **Tilcon Connecticut, Inc.**, ("the applicant") under section 22a-430 of the CGS for a permit to discharge into the waters of the state.

Application Number: 199805058
Type of Permit: NPDES
Relevant Statute(s)/Regulation: Section 22a-430
Project Location: North Branford Plant, 1 Forest Rd., North Branford, CT
Receiving Water(s): Surface Water – Cedar Pond & Linsley Pond

In accordance with applicable federal and state law, the Commissioner has made a tentative decision that continuance of the existing discharge would not cause pollution of the waters of the state when all conditions of this permit are met and the Commissioner proposes to renew a permit for discharges associated with quarrying activities to an unnamed drainage channel to Cedar Pond/Linsley Pond.

The proposed permit renewal, if issued by the Commissioner, will require periodic monitoring to demonstrate that the discharges will not cause pollution.

APPLICANT'S PROPOSAL - NPDES Permit (Application No. 199805058)

Tilcon Connecticut, Inc., presently discharges a maximum of 2,000,000 gallons per day of quarry stormwater runoff, quarry pump-out water, dust control runoff, evaporative spray runoff and rock crusher non-contact cooling water to an unnamed channel to Cedar Pond which then flows into Linsley Pond.

REGULATORY CONDITIONS - NPDES Permit (Application No. 199805058)

Type of Treatment

The discharge flows through two settling basins in series to assist in the removal of solids prior to discharge.

Effluent Limitations

The NPDES permit contains effluent limitations consistent with Best Practicable Technology (BPT) and a Case by Case Determination using the criteria of Best Professional Judgment and which will meet Water Quality Standards including phosphorus loading targets as defined in the Total Maximum Daily Load Analysis (TMDL) for Cedar and Linsley Ponds when the permittee complies with all permit requirements.

Compliance Schedule and Special Conditions

Section 9 of the NPDES permit contains various special conditions and enforceable compliance schedules to address the long-term operation and maintenance of the quarry and compliance with the phosphorus TMDL for Cedar Pond:

Section 9(B) of the NPDES permit requires the submittal of plans and specifications related to quarry conditions, monitoring and instrumentation systems.

Section 9(C) of the NPDES permit requires the submittal of a closure plan.

Section 9(D) of the NPDES permit requires that the permittee provide financial assurance to support the work required for the closure plan.

Section 9(E) of the NPDES permit contains a scope of study and schedule to with the phosphorus waste load allocation of 28 kg/year.

The NPDES permit contains special conditions restricting the discharge of quarry water during rain events when the cumulative liquid precipitation is ≥ 0.25 inches, based on an evaluation of the capacity of the drainage channel and the impact of erosive forces. The NPDES permit also identifies actions that would be required of the permittee prior to lifting or altering the restrictions on the discharge during rain events.

COMMISSIONER'S AUTHORITY - NPDES Permit (Application No. 199805058)

The Commissioner of Energy and Environmental Protection 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 CGS and the Water Discharge Permit Regulations (section 22a-430-3 and 4 of the Regulations of Connecticut State Agencies).

APPLICANT'S CONTACT INFORMATION

Applicant's Name and Address: Tilcon Connecticut, Inc.
PO Box 1357, New Britain, CT 06050

Contact Name and Information: Chris Costello, Environmental Compliance Technician
860-224-6048
ccostello@tilcon-inc.com

The activity takes place at: North Branford Plant, 1 Forest Rd., North Branford, CT

INFORMATION REQUESTS

Interested persons may obtain copies of the Diversion of Water Permit application and the NPDES permit application from the applicant's contact information noted above. Copies of the draft Diversion of Water permit, the draft NPDES permit and NPDES Fact Sheet are available for review at <http://www.ct.gov/deep/publicnotices>.

The application for the Diversion of Water permit has been assigned the following number. Please use this number when corresponding with DEEP regarding this application.

APPLICATION NO. DIV-200301965

The Diversion of Water permit application and supporting documentation are available for inspection at DEEP, Bureau of Water Protection and Land Reuse, 79 Elm Street, Hartford, CT from 8:30 am to 4:30 pm Monday through Friday by contacting Stefani Battles at (860) 424-3019.

The application for the NPDES permit has been assigned the following numbers. Please use these numbers when corresponding with DEEP regarding this application.

APPLICATION NO. 199805058

PERMIT ID NO. CT0000892

The NPDES application is available for inspection at DEEP Bureau of Materials Management and Compliance Assurance, 79 Elm Street, Hartford, CT 06106-5127 from 8:30 - 4:30, Monday through Friday by contacting Karen Allen at 860-424-3025.

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 decision to approve or deny any application, the Commissioner shall consider written comments on the applications from interested persons that are received no later than thirty (30) days from the publication date of this notice. Written comments on the application for the **Diversion of Water Permit** should be directed to Robert Gilmore, Bureau of Water Protection & Land Reuse, Land and Water Resources Division, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127. Written comments on the **NPDES permit** should be directed to Karen Allen, 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.

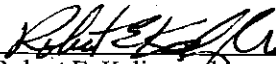
PETITIONS FOR HEARING

Petitions shall be signed by at least twenty five persons and should include the application numbers 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 signed petitions may be scanned and sent electronically to deep.adjudications@ct.gov or may be *mailed or delivered* to: DEEP Office of Adjudications, 79 Elm Street, 3rd floor, Hartford, CT 06106-5127. All petitions must be received within the comment period noted above. If submitted electronically, original signed petitions must also be mailed or delivered to the address above within ten days of electronic submittal. If a hearing is held, timely notice of such hearing will be published in a newspaper of general circulation.

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.

FEB 02 2018

Publication Date



Robert E. Kaliszewski
Deputy Commissioner