

## NPDES PERMIT

issued to

Redland Brick, Inc.  
1440 John Fitch Blvd.  
South Windsor, CT 06074

**Location Address:**

1440 John Fitch Blvd.  
South Windsor, CT 06074

**Permit ID:** CT0030694

**Receiving Water:** Unnamed tributary to Bancroft Brook

**Effective Date:** **XXXXXXXX**

**Permit Expires:** **[5 years after issuance]**

**Water Body Segment ID:** Connecticut River basin segment **CT4000-19-1**

### SECTION 1: GENERAL PROVISIONS

- (A) This permit is issued in accordance with Section 22a-430(e) 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 NPDES permit program.
- (B) **REDLAND BRICK, 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 subsections (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 to Comply
- (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
  - (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.
- (I) Such activity is consistent with the Water Diversion Policy Act which requires that any person or municipality maintaining a diversion at a rate exceeding 50,000 gallons in any twenty- four hour period shall:
- (1) Have in effect a valid license issued by the commissioner pursuant to sections 22a-368 or 22a-378a of the General Statutes, or
  - (2) Be exempt pursuant to section 22a-377(b)-1(a) of the Regulations of Connecticut State Agencies.

- (J) The permittee shall operate and maintain its collection and treatment system in accordance with the plans submitted with Application No. 201704916, and with any approvals issued in accordance with RCSA section 22a-430-3(i)(3).

## 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.
- (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.

“40 CFR” means Title 40 of the Code of Federal Regulations.

“Annual” in the context of any sampling frequency found in Section 5, shall mean the sample must be collected in the month of August to be reported with the discharge monitoring report for August.

“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.

“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.

“LC” means “Lethal Concentration”

“LC<sub>50</sub>” means the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.

“Lowest Observed Effect Concentration” (“LOEC”) means the lowest concentration of an effluent or toxicant that results in adverse effects on the test organisms.

“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.

## SECTION 3: COMMISSIONER'S DECISION

- (A) The Commissioner has made a final determination and found that **the system installed for the treatment of the discharge will protect the waters of the state from pollution**. The Commissioner's final determination is based on Application No. 201704916 for permit issuance, received on June 6, 2017 and the administrative record established in the processing of that application.
- (B) The Commissioner hereby authorizes the permittee to discharge in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or the Commissioner's authorized agent for the discharges and/or activities authorized by, or associated with, this

permit.

- (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.
- (D) This permit takes effect on the first day of the month following the issuance date identified on the signature page of this permit.

#### **SECTION 4: GENERAL EFFLUENT LIMITATIONS**

- (A) The permittee shall assure that the surface water affected by the subject discharge shall conform to the *Connecticut Water Quality Standards*.
- (B) No discharge shall contain, or cause in the receiving water, a visible oil sheen or floating solids or cause visible discoloration or foaming in the receiving water.
- (C) No discharge shall cause acute or chronic toxicity in the receiving water beyond any zone of influence specifically allocated to that discharge in this permit.
- (D) The temperature of any discharge shall not increase the temperature in the receiving water above 85 °F, or in any case, raise the normal temperature of the receiving water more than 4 °F.

#### **SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

- (A) The discharge is restricted by, and shall be monitored in accordance with the following table in this section. The wastewater discharge shall not exceed the effluent limitations in this table and shall otherwise conform to the specific terms and conditions listed in the table. The permittee shall comply with the “Remarks” and “Footnotes” noted in the table that follows and such remarks and footnotes are enforceable like any other term or condition of this permit.
- (B) The wastewaters authorized/approved by this permit shall be collected, treated, and discharged in accordance with this permit and with any approvals issued by the Commissioner or his/her authorized agent for the discharges and activities authorized by or associated with this permit. Any wastewater discharges not expressly identified in these tables or otherwise approved to be discharged by this permit shall not be authorized to be discharged by this permit.
- (C) All samples shall be comprised of only the wastewater described in these tables. Samples shall be collected prior to combination with receiving waters or wastewater of any other type, and after all approved treatment units, if applicable. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Collection of permit required effluent samples in any location other than the authorized location noted in this permit shall be a violation of this permit.
- (D) 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 (“Department”) personnel, the permittee, or other parties.
- (E) Within sixty (60) days of issuance of this permit, the permittee shall install and operate an automated turbidity meter at the outlet of the treatment pond. The meter shall be equipped with an automated alarm that includes audio alarm and electronic notification. Unless otherwise approved by the commissioner, the permittee shall cease clay pit dewatering if turbidity at DSN 101-A exceeds 50 n.t.u. for longer than thirty (30) minutes on any operating day. Clay pit dewatering shall not resume until after such time that turbidity at DSN 101-A is less than 50 n.t.u., or as approved by the commissioner.

- (F) Duration of dewatering shall comply with the hours of operation authorized under any approval, permit or authorization issued by the Town of South Windsor, Connecticut.

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**Table A**

Discharge Serial Number: <b>DSN 101-1</b>							Monitoring Location: <b>1 (Discharge to Brickyard Pond)</b>				
Wastewater Description: <b>Clay pit dewatering wastewater plus incidental runback from dust control spraying</b>											
Monitoring Location Description: <b>Channel/swale connecting the treatment/equalization pond to Brickyard Pond</b>											
Discharge is to: <b>An unnamed tributary to Bancroft Brook</b>						Dilution: <b>1:1</b>			In Stream Waste Concentration: <b>100%</b>		
PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level <sup>3</sup>	Chemical Analysis required with Toxicity Test
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency <sup>2</sup>	Sample Type or measurement to be reported		
Acute Aquatic Toxicity <i>Daphnia pulex</i>	TAA3D	%	NA	NA	NR	NA	LC <sub>50</sub> ≥ 100	Annual	Grab		
Acute Aquatic Toxicity <i>Pimephales promelas</i>	TAA6C	%	NA	NA	NR	NA	LC <sub>50</sub> ≥ 100	Annual	Grab		
Aluminum, Total	01042	µg/l	NA	NA	NR	NA	307	Annual	Grab	4	✓
Flow, Average <sup>1</sup>	50047	gpd	500,000	500,000	Annual	NA	NR	NR	Average Flow		
pH, Day of Sampling	00400	SU	NA	NA	NR	NA	6.0-9.0	Annual	Grab		✓
Temperature	00011	° F	NA	NA	NR	NA	---	Annual	Grab		✓
Total Suspended Solids (TSS)	00530	mg/l	NA	NA	NR	NA	45	Annual	Grab		✓

**TABLE A FOOTNOTES AND REMARKS**

**Footnotes:**

<sup>1</sup> For this parameter, the Permittee shall maintain at the facility a record of the total flow for each day of discharge based on pumping records recorded as required in Table B and shall report the Average Flow for the previous 12 months based only on days on which discharge occurs. The pumping records shall be based on flow estimates using good engineering practices and shall be reported with the discharge monitoring report for the month of August each year.

<sup>2</sup> 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'.

<sup>3</sup> Minimum Level refers to Section 6(A)(4) of this permit.

**Remarks:**

1. Abbreviations used for units are as follows: gpd means gallons per day; mg/L means milligrams per liter; SU means Standard Units; µg/L means micrograms per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable.

2. TSS shall be reported to the nearest 0.1 mg/L. pH shall be reported to 0.1 SU. All other values shall be reported to the level of precision/accuracy reported by the laboratory.

3. Acute toxicity testing shall be conducted in accordance with Section 7(A) of this permit. The LC<sub>50</sub> results (in %) for the acute toxicity testing shall be reported on the DMR.

**Table B**

Discharge Serial Number: <b>DSN 101-A</b>						Monitoring Location: <b>1 (Discharge from the treatment swale)</b>					
Wastewater Description: <b>Clay pit dewatering wastewater plus incidental runback from dust control spraying</b>											
Monitoring Location Description: <b>End of treatment swale, prior to the treatment pond</b>											
Discharge is to: <b>An unnamed tributary to Bancroft Brook</b>				Dilution: <b>1:1</b>				In Stream Waste Concentration: <b>100%</b>			
PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level <sup>3</sup>	Chemical Analysis required with Toxicity Test
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency <sup>2</sup>	Sample Type or measurement to be reported		
Acute Aquatic Toxicity <i>Daphnia pulex</i>	TAA3D	%	NA	NA	NR	NA	LC <sub>50</sub> ≥ 100	Quarterly	Grab		
Acute Aquatic Toxicity <i>Pimephales promelas</i>	TAA6C	%	NA	NA	NR	NA	LC <sub>50</sub> ≥ 100	Quarterly	Grab		
Aluminum, Total <sup>5</sup>	01042	µg/l	NA	NA	NR	NA	307	Weekly	Grab	4	✓
Duration of discharge	81381	Hrs/day	NA	NA	NR	NA	See Permit Section 5:(F)	Weekly	Average		
Flow, Average <sup>1</sup>	00056	gpd	500,000	500,000	Monthly	Average Flow	NA	NR	NA		
Flow, Maximum <sup>1</sup>	50047	gpd	500,000	500,000	Monthly	Maximum Flow	NA	NR	NA		
pH, Day of Sampling	00400	SU	NA	NA	NR	NA	6.0-9.0	Weekly	Grab		✓
Temperature	00011	° F	NA	NA	NR	NA	---	Weekly	Grab		✓
Total Suspended Solids (TSS)	00530	mg/l	NA	NA	NR	NA	45	Weekly	Grab		✓
Turbidity <sup>4</sup>	00070	n.t.u.	50	50	Weekly	NA	NA	Weekly	Continuous		

**TABLE B FOOTNOTES AND REMARKS**

**Footnotes:**

<sup>1</sup> For this parameter, the Permittee shall maintain at the facility a record of the total flow for each day of discharge based on pumping records recorded as required in Table B and shall report the Average Flow or Maximum Flow for the previous 12 months based only on days on which discharge occurs. This record shall be based on flow estimates using good engineering practices.

<sup>2</sup> 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'.

<sup>3</sup> Minimum Level refers to Section 6:(A)(4) of this permit.

<sup>4</sup> See section 5:(E) of this permit

<sup>5</sup> See section 9 of this permit.

**Remarks:**

1. Abbreviations used for units are as follows: gpd means gallons per day; mg/L means milligrams per liter; n.t.u. means Nessler Titration Units, SU means Standard Units; µg/L means micrograms per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable.
2. TSS shall be reported to the nearest 0.1 mg/L. pH shall be reported to 0.1 SU. Mass-based values shall be reported to the level of the permit limit. All other values shall be reported to the level of precision/accuracy reported by the laboratory.
3. Acute toxicity testing shall be conducted in accordance with Section 7(A) of this permit. The LC<sub>50</sub> results (in %) for the acute toxicity testing shall be reported on the DMR.



## SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

### (A) Chemical Analysis

- (1) Chemical analyses to determine compliance with limits and conditions established in this permit shall be performed using sufficiently sensitive methods approved pursuant to the 40 CFR 136 for the analysis of pollutants having approved methods under that part unless an alternative method has been approved in writing pursuant to 40 CFR 136.5 or as provided in section 22a-430-3(j)(7) of the RCSA. Chemicals which do not have approved methods of analysis defined in 40 CFR 136 shall be analyzed in accordance with the methods specified in Section 6(A)(2) of this permit, unless an alternative method has been specifically approved in writing by the Commissioner.
- (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 term Minimum Level (ML) refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL). MLs may be obtained in several ways: They may be published in a method; they may be sample concentrations equivalent to the lowest acceptable calibration point used by the laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a lab, by a factor. The MLs specified in Tables A and B represent the concentrations at which quantification must be achieved and verified during the chemical analyses for those noted parameters. Analyses for these parameters must include check standards within ten percent of the specified ML or calibration points equal to or less than the specified ML.
- (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 levels specified in the Section 5 tables 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. If the Permittee is required to submit its DMRs through the NetDMR system, the Permittee shall report the non-detect value consistent with the reporting requirements for NetDMR.
- (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 limitations or conditions specified in this permit.
- (7) MLs for certain parameters in Tables A and B may be higher than the corresponding permit limit. With respect to these parameters, if a test method/procedure becomes available that will result in a lower ML than the one noted in Tables A and B, then these lower MLs shall supersede the MLs in Tables A and B.

## SECTION 7: AQUATIC TOXICITY TESTING

(A) **ACUTE TESTING REQUIREMENTS.** The Permittee shall conduct acute aquatic toxicity testing for DSN 101-1 and DSN 101-A as follows:

- (1) **TEST METHOD:** Acute aquatic toxicity shall be performed as prescribed in the reference document *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA-821-R-02-012), or the most current version, with any exceptions or clarifications noted below.
- (2) **SAMPLE COLLECTION AND HANDLING**

- (a) Composite samples shall be chilled as they are collected. Grab samples shall be chilled immediately following collection. Samples shall be held at 0-6 °C until aquatic toxicity testing is initiated.
  - (b) Effluent samples shall not be dechlorinated, filtered, or modified in any way prior to testing for acute aquatic toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.
  - (c) Tests for acute aquatic toxicity shall be initiated within 36 hours of sample collection.
- (3) **TEST SPECIES AND TEST DURATION:** Monitoring for aquatic toxicity to determine compliance with the acute toxicity limits in this permit shall be conducted as follows:
- (a) For 48-hours utilizing neonatal *Daphnia pulex* (less than 24-hours old).
  - (b) For 48-hours utilizing larval *Pimephales promelas* (1-14 days old with no more than 24-hours range in age).
- (4) **ACUTE ENDPOINT:** Survival at 48 hours measured by LC<sub>50</sub>
- (5) **TEST CONDITIONS:**
- (a) Definitive (multi-concentration) testing shall be conducted.
  - (b) Tests for acute aquatic toxicity shall be conducted as prescribed for static non-renewal tests.
  - (c) The following effluent dilution series concentrations shall be used: 100%, 75%, 50%, 25%, 12.5% and 6.25%.
  - (d) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (±5 mg/L) as CaCO<sub>3</sub> shall be used as dilution water.
  - (e) Organisms shall not be fed during the tests.
  - (f) Copper nitrate shall be used as the reference toxicant.
  - (g) Dissolved oxygen, pH, and temperature shall be measured in the control and in all test concentrations at the beginning of the test, daily thereafter, and at test termination.
- (6) **CHEMICAL ANALYSIS:**
- (a) At a minimum, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the undiluted effluent sample 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.
  - (b) Chemical analyses of the parameters identified in Tables A and B shall be conducted on an undiluted aliquot of the same sample tested for acute aquatic toxicity.
- (7) **TEST ACCEPTABILITY CRITERIA & COMPLIANCE:** For the test results to be acceptable, control survival must equal or exceed 90%. If the laboratory control fails to meet test acceptability criteria for either of the test organisms at the end of the respective test period, then the test is considered invalid and the test must be repeated with a newly collected sample. Compliance with the limits on Acute Toxicity shall be demonstrated when the results of a valid definitive acute aquatic toxicity test indicates that the LC<sub>50</sub> value for the test is greater than or equal to the aquatic toxicity limit in Tables A and B.

## SECTION 8: 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. All aquatic toxicity reports shall also be included as an attachment to the DMR. 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 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, LC<sub>50</sub> values and 95% confidence intervals for definitive test protocols, and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, 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 Environmental Protection  
79 Elm Street  
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](mailto: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](http://www.ct.gov/deep/netdmr). On or before ninety (90) days after issuance of this permit the Permittee shall submit a signed and notarized copy of the Connecticut DEEP NetDMR Subscriber Agreement to the Department.

(b) Submittal of Reports Using NetDMR

Unless otherwise approved by the Commissioner, on or before one-hundred and eighty (180) days

after issuance of this permit, the Permittee and/or the Signatory Authority shall electronically submit DMRs and reports required under this permit to the Department using NetDMR in satisfaction of the DMR submission requirement in paragraph (A) of this Section of this permit.

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

(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](mailto:deep.netdmr@ct.gov):

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

**SECTION 9: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS**

- (A) If any sample analysis indicates that an Aquatic Toxicity effluent limitation in Section 5 of this permit has been exceeded, or that the test was invalid, another sample of the effluent shall be collected and tested for Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing), at the address listed above, within 30 days of the exceedance or invalid test. Results of all tests, whether valid or invalid, shall be reported.
- (B) If any two consecutive test results or any three test results in a twelve month period indicates that an Aquatic Toxicity Limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report to Bureau of Materials Management and Compliance Assurance 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 seventy-two (72) hours and in writing within thirty (30) 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 10: SPECIAL CONDITIONS**

The permittee shall undertake a study designed to collect data for the purpose of determining site-specific aluminum criteria, consistent with the document titled *Final Aquatic Life Ambient Water Quality Criteria for Aluminum*, December 2018 (EPA-822-R-18-001). At a minimum, the data collected in the receiving stream must include: pH, hardness, and dissolved organic carbon and such data shall be representative of seasonal site conditions. Within ninety (90) days of issuance of this permit, the permittee shall submit for the commissioner's review and written approval a scope of study describing the study design and schedule for implementation. Upon approval, the permittee shall perform the plan as approved. The data collected through the study shall be included in the permittee's NetDMR submission and be submitted to:

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

The commissioner may issue a permit modification to revise the discharge limit for aluminum consistent with the site-specific criteria consistent with the document entitled *Final Aquatic Life Ambient Water Quality Criteria for Aluminum*, December 2018 (EPA-822-R-18-001), and the study undertaken pursuant to this paragraph.

This permit is hereby issued on:

DRAFT

Betsey Wingfield  
Deputy Commissioner  
Department of Energy and Environmental Protection

BW:dg

**FACT SHEET**  
NPDES PERMIT ISSUANCE  
DRAFT PERMIT PUBLIC NOTICED: xxxxxx 2019

<b>APPLICANT</b>	<b>Redland Brick, Inc.</b>
<b>NPDES PERMIT NO.</b>	CT0030694
<b>NPDES APPLICATION NO.</b>	201704916
<b>DATE APPLICATION RECEIVED</b>	June 6, 2017
<b>NOTICE OF SUFFICIENCY ISSUED</b>	July 18, 2018
<b>LOCATION</b>	1440 John Fitch Blvd. – South Windsor, CT 06074
<b>MAILING ADDRESS</b>	1440 John Fitch Blvd. South Windsor, CT 06074
<b>FACILITY CONTACT (OWNER)</b>	John Streb, Environmental Manager 330-265-2030 ext 1316 <a href="mailto:john.streb@beldenbrick.com">john.streb@beldenbrick.com</a>
<b>FACILITY CONTACT (OPERATOR)</b>	John Streb, Environmental Manager 330-265-2030 ext 1316 <a href="mailto:john.streb@beldenbrick.com">john.streb@beldenbrick.com</a>
<b>DMR CONTACT</b>	John Streb, Environmental Manager
<b>SECRETARY OF STATE BUSINESS ID</b>	#0025752 (Redland Brick, Inc.)
<b>PERMIT TERM</b>	5 years
<b>PERMIT CATEGORY</b>	NPDES: <input type="checkbox"/> Major <input type="checkbox"/> Discretionary Major <input checked="" type="checkbox"/> Minor [Score: 548, May 2018]
<b>SIC CODE</b>	3251 (Brick and structural clay tile)
<b>APPLICABLE EFFLUENT GUIDELINE(S)</b>	40 CFR 436 Subpart AA (Mineral Mining and Processing Point Source Category, Fire Clay Subcategory)
<b>PERMIT TYPE</b>	Issuance
<b>OWNERSHIP</b>	<input type="checkbox"/> Federal <input type="checkbox"/> State <input checked="" type="checkbox"/> Private <input type="checkbox"/> Public <input type="checkbox"/> Other: _____
<b>RECEIVING WATER</b>	Unnamed tributary to Bancroft Brook
<b>WATER BODY SEGMENT ID</b>	<b>CT4000-19-1</b>
<b>SURFACE WATERBODY CLASSIFICATION</b>	A
<b>DISCHARGE LOCATION</b>	DSN 101-1: Latitude (41° 84' 60") Longitude (72° 59' 70")
<b>DEEP STAFF ENGINEER</b>	Donald Gonyea (860/424-3827) <a href="mailto:donald.gonyea@ct.gov">donald.gonyea@ct.gov</a>

## I. FEES

Application Fees (RCSA 22a-430-6):

*Application Filing Fee: \$1,350.00 Paid on June 6, 2017.*

*Application Processing Fee: \$7,600.00*

*Annual Fee:*

<b>DISCHARGE CODE</b>	<b>WASTEWATER CATEGORY (per 22a-430-7)</b>	<b>MAXIMUM GPD</b>	<b>DSN</b>	<b>ANNUAL FEE</b>
0B101037z	Mineral Mining and Processing	500,000	101-1	\$4,337.50
<b>TOTAL</b>				<b>4,337.50</b>

## II. APPLICATION

### NATURE OF THE BUSINESS GENERATING THE DISCHARGE

The Redland Brick, KF Plant manufactures red brick for structures, paving and decorative purposes. Clay is mined on site and processed at the facility.

The primary discharge is mine dewatering wastewater, which is nearly entirely stormwater. A minimal amount of dust control water may re-enter the clay pit. Water for dust control is sourced from the on-site pond that has formed in the clay pit.

The Activity was previously regulated as stormwater. After inspections and Department evaluation, it was determined the activity was generating a process wastewater that requires coverage under an NPDES discharge permit. The applicant filed for and subsequently withdrew an application for NPDES permit in 2008. After withdrawal of the NPDES permit application the applicant ceased discharge from the clay pit. At that time, solids and turbidity were identified as the primary pollutants of concern for water quality which were not adequately addressed. Treatment of dewatering wastewater had been insufficient to address colloidal solids at high pumping rates.

The facility has since constructed a series of two dewatering ponds which act primarily as equalization, followed by a two-thousand foot long treatment swale. The swale is constructed with check dams, limestone chip and has since developed areas of vegetation that enhance solids entrapment.

The swale discharges to an on-site basin that had previously been determined to be part of the engineered treatment system. Paragraph 4 of the attached correspondence dated October 26, 2010 from the Bureau Chief of the Bureau of Materials Management and Compliance Assurance indicated that the Department does not consider this pond "waters of the state" as long as it "is not regulated as wetlands nor does it have any headwaters passing through it." This basin overflows to an on-site pond that is classified as waters of the state. The pond discharges to a wetland that drains to a tributary to Bancroft Brook. Bancroft Brook drains to Stoughton Brook which drains to the Connecticut River. The water quality classification of the on-site pond is A.

The lower stretch of the stream system, at its mouth as it enters the Connecticut River, is known to support remnant populations of freshwater mussels that need to be considered. Potential pollutants from the discharge that have the potential to impact these organisms are primarily aluminum and solids. Solids treatment and limits are conservative and will not be expected to have any potential impact. Note that strictly speaking the bivalves do not place the site into an NDDB area but consideration to assuring that this discharge does not impact them went into developing this permit.

In 2018 USEPA adopted a revised Aquatic Life Criteria for Aluminum in fresh waters (Fact Sheet attached). This criteria was developed to "better reflect the latest science" and "provide users flexibility to develop site-specific criteria based on local water chemistry." Department staff assisting the permit writer used the EPA's aluminum calculator and for the purposes of developing an initial limit used conservative water quality criteria to calculate an initial aluminum limit of 307 ug/l (0.307 mg/l). In addition there is a requirement in the proposed permit that the discharger conduct a study to refine this limit in accordance with that in the "Final Aquatic Life Ambient Water

Quality Criteria for Aluminum, December 2018 (EPA-822-R18-001). This approach will be fully protective of aquatic life based on current science.

Note also that permit limits apply to the discharge to an on-site pond that receives drainage from other sources (i.e. is waters of the state). This pond drains into a wetland complex before entering the tributary to Bancroft Brook. This is noted only to reflect that the limits noted above are fully protective, but that the wetlands will provide further protection to downstream watercourses.

Department staff recognizes the sensitivity of the receiving waters as well as past issues associated with improper management of discharges from the clay pit. Historic activities that were terminated ~15 years prior to this proposed permit did produce extremely turbid discharges. Turbidity impacts were documented along the length of Bancroft and Stoughton Brooks and eventually resulted in cessation of dewatering of the clay pit. The past problems were directly attributable to mismanagement of pumping, including no effort to control intake solids or treat the wastewater prior to pumping to the treatment pond. Pumping rates were not controlled or limited to reasonable rates.

The current proposed pumping plan has been tested under Temporary Authorizations issued by the Department in 2015 and 2017 and has been determined to be effective in preventing adverse impacts. The only impacts seen were associated with waterfowl management. The discharger continues to work with the Department to implement reasonable waterfowl management practices in accordance with Department published guidance. Management of dewatering wastewaters has been conducted with no evidence of adverse impact during two trials over the past couple years. There is an additional level of protection to sensitive downstream aquatic life; after the compliance points at the discharges from the treatment swale and treatment pond, there is a natural pond fully on the discharger's property that drains to a wetland complex that drains to the tributary to Bancroft Brook. Compliance is expected at the outlet from the approved treatment system (see section VII), but this comment simply recognizes that there is little chance that the listed threatened bivalves would be impacted should an excursion or upset occur in the system.

DISCHARGE SERIAL NUMBER (DSN)	PROPOSED MONTHLY FLOW (gpd)	PROPOSED MAXIMUM DAILY FLOW (gpd)	WASTE STREAMS PROPOSED TO BE DISCHARGED	WASTEWATER TREATMENT OPERATIONS	RECEIVING WATER
101-1	500,000	500,000	<i>Treated:</i> Clay pit dewatering wastewater plus incidental runback from dust control spraying	Equalization; Settling;	Bancroft Brook (4000-19-1)

### III. GENERAL ISSUES RELATED TO THE APPLICATION

#### A. FEDERALLY-RECOGNIZED INDIAN LAND

As provided in the permit application, the site is not located on federally-recognized Indian land.

#### B. COASTAL AREA/COASTAL BOUNDARY

The site is not located within the coastal area/boundary as defined in CGS 22a-94(b).

#### C. ENDANGERED SPECIES

The December 2016 Natural Diversity Database Areas map indicates that there are areas of "State and Federal Listed Species & Significant Natural Communities" downstream of the site. Site activities if not conducted in accordance with permit conditions could contribute to stresses on species of concern. As discussed elsewhere in this fact sheet, protections are in place to assure that species of concern will not be impacted by activities authorized in the proposed permit.

NDDDB determination of No Negative Impact letter issued November 5, 2018

#### D. AQUIFER PROTECTION AREAS



The project site is not located in a town required to establish Aquifer Protection Areas.

**E. CONSERVATION OR PRESERVATION RESTRICTION**

As provided in the permit application, the property is not subject to a conservation or preservation restriction.

**F. PUBLIC WATER SUPPLY WATERSHED**

According to the applicant, the site is not located within a public water supply watershed.

**IV. RECEIVING WATER INFORMATION**

Bancroft Brook                      CT4000-19-1                      Surface Water Classification: A

Bancroft Brook is a tributary to Stoughton Brook that is tributary to the Connecticut River. The lower stretches of Stoughton Brook are home to a remnant population of state endangered mussels. See previous discussion on mussels.

**V. NATURE OF BUSINESS GENERATING THE DISCHARGE**

The Redland Brick, KF Plant manufactures red brick for structures, paving and decorative purposes. Clay is mined on site and processed at the facility. The discharge is dewatering wastewater needed to keep the clay pit dry enough to mine.

**VI. FACILITY DESCRIPTION**

The site is composed of the clay pit and adjacent brick making facility with attached open space and residential development. The adjacent residential areas are relatively new but their proximity has resulted in their being impacted by fugitive dust from the haul road and clay mining activity. These issues are being addressed by the Air Bureau. Issues of fugitive dust and noise may be raised during the public comment period. It is expected that accommodations will be made by the discharger to address these concerns.

The clay pit is currently a pond which will be pumped as described below.

**VII. THE ON-SITE WASTEWATER COLLECTION/TREATMENT SYSTEM**

Discharge is generated from pumping water from the clay pit through the approved treatment system, which comprises a series of two small equalization basins followed by an engineered treatment swale that discharges into an on-site pond that has previously been determined to be part of the treatment system. The approved treatment system discharges into an on-site pond that has been determined to be waters of the state. This pond discharges to a wetland which drains to Bancroft Brook which is tributary to Stoughton Brook which drains to the Connecticut River.

**VIII. EFFLUENT QUALITY DATA**

Electronic records are available from several tests of the treatment swale authorized by temporary authorizations issued per section 22a-6k of the General Statutes during 2015 and 2016. Data indicates the approved treatment system produces a discharge that will not impair water quality. Aluminum was periodically monitored, and turbidity was monitored daily as the primary indicator that the treatment system was complying with temporary authorization limits. Elevated turbidity levels were detected as a result of waterfowl activity on the quarry pond. Data collected during the 2015 and 2016 evaluations of the treatment swale indicate a high probability that discharges will comply with the proposed limits. As previously noted further refinement of the Aluminum limit is possible if the Aluminum study indicates this is needed.

**IX. MONITORING/EFFLUENT VIOLATIONS**

NA

**X. ENFORCEMENT (RELATED TO WASTEWATER DISCHARGES):**

Previous Stormwater related issues were resolved by the cessation of discharge from the quarry in 2008.

**XI. SPILL HISTORY:**

NA

**XII. EFFLUENT GUIDELINES**

DSN 101-A

The quarry dewatering discharge is comprised of wastewater regulated under 40 CFR 436 Subpart AA, Mineral Mining and Processing Point Source Category, Fire Clay Subcategory. 40 CFR 436 Subpart AA has no specific effluent guidelines adopted.

Effluent monitoring requirements and limits are set to be presumed to be protective at the point of discharge. Primary concerns are aluminum, aquatic toxicity and solids. Limits do not consider the potential mitigation of impacts by the on and off-site wetlands or dilution.

BASIS FOR LIMITS, STANDARDS OR CONDITIONS		REGULATION	DISCHARGE POINT(S) DSN
X	Federal Effluent Limitation Guideline (“ELG”)	40 CFR 436 Subpart AA	101-A
	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”)		101-A
X	Other (i.e. Department File Information, Treatability Manual, Federal Development Document)		101-A
X	Connecticut Water Quality Standards	RCSA Section 22a-426	101-A

**XIII. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

**EFFLUENT GUIDELINES**

**A. DSN 101-A – Discharge from Treatment Swale into Treatment Pond Monitoring Parameters, Limits and Monitoring Frequency**

PARAMETER	40 CFR 436.22	BPJ	Monitoring Frequency	Comments
	Required Range	Maximum Instantaneous (mg/L)		
Acute Aquatic Toxicity <i>Daphnia pulex</i>		LC <sub>50</sub> ≥ 100%	Quarterly	
Acute Aquatic Toxicity <i>Pimephales promelas</i>		LC <sub>50</sub> ≥ 100%	Quarterly	
Aluminum, Total		307 ug/l	Weekly	See note (1) above
pH, Day of Sampling	6.0–9.0	6.0–9.0	Weekly	See note (2) below
Temperature			Weekly	See note (2) below
Total Suspended Solids (TSS)		45 mg/l	Weekly	See note (2) below
Turbidity		50 n.t.u.	Continuous	See note (3) below

Note (1): Water Quality Based Discharge Limits

The limit for Aluminum is based on the 2018 EPA Aluminum criteria discussed earlier.

SECTION 10: SPECIAL CONDITIONS requires that the discharger conduct a study, based on

protocols specified in *Final Aquatic Life Ambient Water Quality Criteria for Aluminum*, December 2018 (EPA-822-R-18-001) published by USEPA. The results of this study will be used to determine whether further refinement of the discharge's aluminum limit is warranted.

Note (2): Other comments

These limits are deemed protective at the point of discharge. The treated discharge passes through a second pond on the property before passing through a wetland and to Bancroft Brook which provides an additional layer of pollution renovation to protect the most sensitive downstream aquatic organisms.

Note (3): Turbidity

Exceeding 50 n.t.u. turbidity for longer than 30 minutes requires shutdown of the pumping of the clay pit.

It should be noted that prior to implementation of any management practices (1990s), the pond received untreated dewatering discharges from the active clay pit. No attempt was made to control solids prior to discharge to the treatment pond. This resulted in the pond and the receiving water being impacted by colloidal suspended solids. Current wastewater management and treatment practices will significantly improve discharge quality. No impacts from colloidal solids are anticipated from the proposed discharge

**B. DSN 101-1 – Discharge from treatment pond to Brickyard Pond prior to outlet to the tributary to Bancroft Brook.  
Monitoring Parameters, Limits and Monitoring Frequency**

PARAMETER	40 CFR 436.22	BPJ	Monitoring Frequency	Comments
	Required Range	Maximum Instantaneous		
Aluminum, Total		307 ug/l	Annually	See note(1)above
Flow, Average <sup>1</sup>		500,000 gpd	Annually	See note(2)above
pH, Day of Sampling	6.0–9.0	6.0–9.0	Annually	See note(2)above
Temperature			Annually	See note(2)above
Total Suspended Solids (TSS)		45 mg/l	Annually	See note(2) above
Acute Aquatic Toxicity <i>Daphnia pulex</i>		LC <sub>50</sub> ≥ 100%	Annually	See note(2)above
Acute Aquatic Toxicity <i>Pimephales promelas</i>		LC <sub>50</sub> ≥ 100%	Annually	See note(2)above

Note: The above monitoring is annual as this is final confirmation sampling prior to the discharge leaving the property. The primary point of compliance is located upstream of this pond

**XIV. SUFFICIENTLY SENSITIVE METHODS**

The regulations at 40 CFR 122.44(i)(1)(iv)(A) now require that monitoring requirements under a permit must be performed using sufficiently-sensitive test methods approved under 40 CFR part 136 for those monitoring parameters that have approved test methods or those parameters that are required under 40 CFR chapter I, subchapter N or O. As noted in the regulation, “sufficiently sensitive” means when:(1) The method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or (2) The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter. For those pollutants that do not have any approved methods under 40 CFR 136, 40 CFR 122.44(i)(1)(iv)(B) now states that monitoring shall be conducted according to a test procedure specified in the permit for such pollutants or pollutant parameters.

- For those pollutants in the permit that have 40 CFR 136-approved methods, the permittee provided sufficiently-sensitive test data with its application (per 40 CFR 122.21(e)(3)(i)). The MLs reported with this application data have been incorporated into the permit.
- For field parameters, pH, temperature and turbidity, this does not apply.

#### **XV. ANTI-BACKSLIDING**

This is a new permit. Anti-backsliding does not apply.

#### **XVI. ANTI-DEGRADATION**

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

The receiving water for the discharge permitted under Permit No. CT0030694 has not been specifically evaluated as high quality water. It is designated a Class A surface water under the Water Quality Standards. It is not listed on 305(b) list of assessed waterbodies.

The discharge permitted under Permit No. CT0030694 has been determined to be a clean water discharge as documented in a May 2017 email from the Assistant Director of the Planning and Management Division of the Bureau of Water Protection and Land Reuse. This determination means that the permitted discharge is allowable under section 22a-426-4(e)(1)(E)(3) of the Regulations of Connecticut State Agencies. Implementation of the management practices and treatment required by the permit the discharge will not result in a significant lowering of water quality or cause the receiving water to violate any of the criteria in section 22a-426-9 of the Regulations of Connecticut State Agencies.

The permitted discharge is the only proposed discharge for the receiving water. The receiving water is not listed pursuant to Section 303d of the federal Clean Water Act, nor has there been a TMDL developed for the receiving water. The Department has determined that the discharges or activities are consistent with the maintenance, restoration, and protection of existing and designated uses assigned to the receiving water body by considering all relevant available data. This data includes an evaluation of the results of monitoring conducted during evaluations of the treatment swale system authorized under Temporary Authorizations issued per 22a-6k of the General Statutes.

#### **XVII. SPECIAL CONDITIONS/COMPLIANCE SCHEDULE**

The permittee shall undertake a study designed to collect data for the purpose of determining site-specific aluminum criteria, consistent with the document titled *Final Aquatic Life Ambient Water Quality Criteria for Aluminum*, December 2018 (EPA-822-R-18-001). At a minimum, the data collected in the receiving stream must include: pH, hardness, and dissolved organic carbon and such data shall be representative of seasonal site conditions. Within ninety (90) days of issuance of this permit, the permittee shall submit a scope of study describing the study design. Upon approval, the permittee shall implement the plan. The data collected through the study shall be included in the permittee's NetDMR submission.

##### **ALUMINUM LIMIT**

The limit for aluminum incorporates the aquatic life criteria adopted by USEPA in 2018 (copy of Fact Sheet attached).

While not yet incorporated into Connecticut's water quality criteria, the 2018 USEPA criteria should be applied for several reasons summarized below:

The 2018 criteria is based on scientific research, peer reviewed studies and actual conditions in any given receiving water. The 1998 criteria which 2018 replaces was based primarily on laboratory evaluations and an assumption that all forms of aluminum subject to dissolution in acid (pH 1.5 to 2.0) are biologically available.

The 2018 criteria accounts for site specific conditions and ambient water quality in the receiving stream to assure that limits are protective of the receiving stream. Generic ambient conditions were used to calculate a preliminary limit for aluminum.

There is a permit condition that the permittee conduct a study of ambient conditions (referenced above) that will be used to refine the initial limit, if indicated, through a permit modification.

The criteria is being applied at a point of discharge to a waterbody on the permittee's property. Prior to being assimilated into waters that leave the site, the discharge travels through a vegetated wetland that will add a secondary level of protection.

It should also be recognized that aluminum present is from a naturally occurring source that is present in all surrounding soils. There will be no chemical reactions occurring as a result of the activities on-site. Detections will primarily be the result of colloidal materials, which are expected to be biologically inert and not subject to transformation in the receiving stream.



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

**TENTATIVE DECISION**

The Commissioner of Energy and Environmental Protection (“Commissioner”) hereby gives notice of a tentative decision to issue a permit to discharge into the waters of the state based on an application submitted by **Redland Brick, Inc.** (“the applicant”) under section 22a-430 of the Connecticut General Statutes (“CGS”). The receiving water associated with this permit issuance is a tributary to Bancroft Brook in the Connecticut River Watershed.

In accordance with applicable federal and state law, the Commissioner has made a tentative decision that modification of the existing system would protect the waters of the state from pollution.

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

**ACTIVITIES THAT ARE THE SUBJECT OF THE DRAFT PERMIT**

Redland Brick, Inc. has submitted an application for issuance of NPDES permit, CT0030694. The activities which are the subject of this application take place at Redland Brick’s facility at 1440 John Fitch Blvd.in South Windsor, Connecticut. The activity involves pumping to remove stormwater and dewater the clay pit, followed by treatment for the removal of solids of dewatering wastewater generated to allow excavation of clay for brick making. Following treatment, this wastewater is discharged to an on-site pond that drains to a tributary to Bancroft Brook in the Connecticut River watershed through one outfall, identified as Discharge Serial Number (“DSN”) 001-1, located as follows:

DISCHARGE ID	LATITUDE	LONGITUDE	LOCATION
DSN 101-1	41° 84' 60"	72° 59' 70"	Approx. 300 feet east of John Fitch Blvd , south of Bancroft Brook

The draft permit allows for up to 500,000 gallons per day of treated mine (i.e. clay pit) dewatering wastewater to be discharged from DSN 001-1. This is a continuous discharge.

**REGULATORY CONDITIONS**

Effluent Limitations and Conditions: Consistent with section 22a-430-4(*l*) of the Regulations of Connecticut State Agencies (RCSA), limitations and conditions in the permit are based on: 1) Section 301(b)(1)(C) of the CWA; and 2) a Case-by-Case determination established in accordance with section 22a-430-4(m) of the RCSA. The permit limits will ensure that the state’s Water Quality Standards, including the antidegradation standards and policies, are met.

**COMMISSIONER'S AUTHORITY**

The Commissioner is authorized to approve or deny such permits pursuant to section 22a-430 of the CGS and the Water Discharge Permit Regulations (Sections 22a-430-3 and 22a-430-4 of the RCSA).

**INFORMATION REQUESTS**

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

APPLICATION NO. **201704916**

PERMIT ID NO. **CT0030694**

The name and mailing address of the permit applicant are: Redland Brick, Inc. LLC, 440 John Fitch Blvd. – South Windsor, CT 06074.

Interested persons may obtain copies of the application by contacting John Streb, Environmental Manager at Belden Brick, Inc. at (330) 265-2030 extension 1316 or [john.streb@beldenbrick.com](mailto:john.streb@beldenbrick.com).

The application is available for inspection by contacting Donald Gonyea at (860) 424-3827 at the Department of Energy and Environmental Protection, Bureau of Materials Management and Compliance Assurance, 79 Elm Street, Hartford, CT 06106-5127 from 8:30-4:30, Monday through Friday.

The draft permit and fact sheet are available on the Department's website at <http://www.ct.gov/deep/> under "Public Notices".

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

### **PUBLIC COMMENT**

Prior to making a final determination to approve or deny any application, the Commissioner shall consider written comments on the application from interested persons that are received within thirty days of this public notice. Written comments should be directed to Donald Gonyea, 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 thirty days prior to the hearing.

Petitions for a hearing should include the application number noted above and also identify a contact person to receive notifications. Petitions may also identify a person who is authorized to engage in discussions regarding the application and, if resolution is reached, withdraw the petition. Original signed petitions may be scanned and sent electronically to [deep.adjudications@ct.gov](mailto:deep.adjudications@ct.gov) or may be mailed or delivered to: DEEP Office of Adjudications, 79 Elm Street, 3rd floor, Hartford, 06106-5127. If submitted electronically, original signed petitions must also be mailed or delivered to the address above within ten days of electronic submittal.

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](mailto:deep.accommodations@ct.gov)



OSWALD INGLESE, JR., Director  
Water Permitting and Enforcement Division  
Bureau of Materials Management and Compliance Assurance

Dated: *June 18, 2019*