

National Pollutant Discharge Elimination System Permit Factsheet

SECTION 1 FACILITY SUMMARY

Applicant	TA Operating LLC
Permit No.	CT0029530
Application No.	201403028
Date Application Received	April 2, 2014
Location Address	Willington Travel Center 327 Ruby Road Willington, CT 06279
Facility Contact	Kelly Gelske Office Phone: 440-808-7406 Email: kgelske@ta-petro.com
Mailing Address	24601 Center Ridge Road Westlake, OH 44145
DMR Contact	Clayton Barnes Office Phone: (440) 808-4431 Email: cbarnes@ta-petro.com
Secretary of State Business Id	0888148
Permit Term	5 Years
Permit Category	National Pollutant Discharge Elimination System ("NPDES") Stormwater Minor ("MI")
SIC & NAICS Code(s)	SIC 5541, NAICS 447110
Applicable Effluent Guidelines	N/A
Permit Type	Reissuance
Ownership	Privately Owned Facility
Receiving Water	DSN 001-1: Wetlands and Ruby Lake outlet stream
Waterbody Segment Id's	CT3104-00-2-L8_outlet_01
Waterbody Classification	A
Discharge Locations	DSN 001-1: Latitude 41° 37' 38.38" Longitude 73° 04' 10.53"
Compliance Schedule	N/A
DEEP Staff Engineer	Joseph Grandelski, Environmental Engineer 2 860-424-3608, Joseph.grandelski@ct.gov

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1.1 PERMIT FEES

Application Fee:

FEE	INVOICE NO.	AMOUNT	DATE PAID
Filing Fee:	DEP230820	\$1,300	04/02/2014
Untimely Renewal of Application Fee:	DEP230877	\$2,620	04/15/2014
Processing Fee:	DEP230878	\$5,250	04/15/2014

Annual Fee:

	WASTEWATER CATEGORY (per RCSA sec. 22a-430-7)	FLOW CATEGORY	DSN	ANNUAL FEE (RCSA sec. 22a-430-7; CGS sec. 22a-6f)
	Stormwater	All Flows	001-1	\$2,912.50
TOTAL				\$2,912.50

1.2 APPLICATION SUBMITTAL INFORMATION

TA Operating LLC is a business that operates a commercial truck stop (SIC 5541). On April 2, 2014, the Department of Energy and Environmental Protection (“DEEP”) received an application (Application 201403028) from TA Operating LLC (“the Permittee”, “the Applicant”, “the facility”) located in Willington, CT for the renewal of its NPDES Permit No. CT0029530 expiring on July 23, 2014 (“the previous permit”).

Consistent with the requirements of Section 22a-6g of the Connecticut General Statutes (CGS), the Permittee published a Notice of Permit Application in the Hartford Courant on March 26, 2014. On April 25, 2014, the application was determined to be timely and administratively sufficient.

The Permittee seeks authorization for the following in Application 201403028:

DSN	PROPOSED AVERAGE DAILY FLOW	PROPOSED MAXIMUM DAILY FLOW	PROPOSED WASTESTREAMS	TREATMENT TYPE	DISCHARGE TO
001-A	NA	2-year storm event	Treated stormwater discharge from building roofs and paved areas entering the receiving water	Oil/water separator & detention pond	001-1, then Wetlands and Ruby Lake outlet
001-1	NA	1.9 MGD	Treated stormwater discharge from 001-A and untreated bypass from the emergency overflow structure during 100-year storm events	Oil/water separator & detention pond	Wetlands and Ruby Lake outlet

DSN 001-1 is identified as the final outfall from the facility. This DSN includes stormwater that is treated through the oil/water separator and detection pond, as well as stormwater that would bypass the detention pond through the emergency overflow structure, in the case of a 100-year storm event.

Compliance with limits and benchmarks are implemented at DSN 001-A, monitoring location 1, following stormwater treatment via the oil/water separator and detention pond. Monitoring of influent to the detention pond is represented as DSN 001-B, monitoring location II. Monitoring inside the detention basin has also been carried forward as DSN 001-C, monitoring location IM.

1.3 OTHER PERMITS & WASTEWATERS

The Permittee manages other wastewater discharges as follows:

- Stormwater and spilled material at the bermed diesel fuel delivery area and the diesel dispensing islands drain to a 6,800-gallon, double-walled, fiberglass reinforced plastic holding tank equipped with a high-level alarm system. The wastewater is removed by a licensed waste hauler.
- Up to 70,000 gallons per day of domestic sewage is permitted to be discharged to the ground via the on-site subsurface disposal system under the Subsurface Sewage Treatment and Disposal System Permit UI0000260, renewed on August 26, 2020.
- Vehicle maintenance wastewaters associated with the truck repair shop are collected in floor drains and discharge to a 700-gallon oil/water separator and then to a 600-gallon holding tank. The wastewater is removed by a licensed waste hauler.

1.4 DESCRIPTION OF INDUSTRIAL PROCESS

The treatment system is used to treat stormwater runoff from the building roofs, paved driveways, and parking areas. This stormwater is discharged to wetlands that drain to the Ruby Lake outlet stream, a tributary to Roaring Brook, by way of DSN 001-1 under this permit. No process wastewater is discharged to the storm sewer system.

1.5 FACILITY DESCRIPTION

TA Operating LLC operates a commercial truck stop, providing the following services: refueling of trucks and automobiles (diesel and gasoline), maintenance and repair of trucks, certified weigh scale, restaurant, convenience and retail store, showers, laundry, bathroom facilities, and controlled, short-term truck parking.

The facility is located on 21.5 acres, of which 15.4 acres are impervious surfaces. There are 28 catch basins that drain stormwater runoff from the site. The Water Quality Volume (WQV) generated from the first 1.0 inch of rainfall is 1.24 acre-feet, which equates to a Water Quality Flow (WQF) of 15.1 cubic feet per second (cfs). The Permittee has estimated the groundwater flow as no more than 10 gallons per minute.

Stormwater runoff from the building roofs, paved driveways, and parking areas enters an oil water separator and detention basin for treatment, prior to being discharged to wetlands that drain to the Ruby Lake outlet stream, a tributary to Roaring Brook. No process wastewaters are discharged to the storm sewer system.

1.6 FACILITY CHANGES

Section 22a-430-3(i) of the Regulations of the Connecticut State Agencies (RCSA) require permittees to obtain written approval from DEEP of any facility expansion or process change that may result in an increased or new discharge or constitute a new source, and of any expansion or significant changes made to a wastewater collection system, treatment system, or its method of operation.

These regulatory provisions are commonly referred to as “3(i) determinations”. Upon review, a determination is made authorizing the activity under the current permit or modifying the permit in accordance with RCSA Section 22a-430-4(p).

There were no changes to the facility since the previous permit was issued.

1.7 TREATMENT SYSTEM DESCRIPTION

See Attachment A for a facility flow diagram.

Stormwater runoff from the impervious surfaces is directed into catch basins that, with the exception of the bermed diesel fuel delivery area and the diesel dispensing island noted in Section 1.3, direct flow to an 18,000-gallon oil/water separator and then to a clay-lined biofilter detention basin.

The 18,000-gallon oil/water separator is located in an off-line configuration between catch basins CB47 and CB48. It is composed of two chambers, an inlet section that can be accessed through two manholes and an effluent section that can be accessed through a third manhole. The two chambers are separated by a cross-over baffle. The outlet is a T-baffle to prevent the discharge of floating product. The oil/water separator is designed to remove heavy sediment and heavy concentrations of oil and diesel fuel contaminants down to at least 50 parts per million of oil and grease. A diversion weir in CB47 directs stormwater runoff into the oil/water separator, which has a design flow of 16 cfs. Higher flows of stormwater runoff overflow the diversion weir and bypass the oil/water separator through pipes connecting CB47 and CB48.

Stormwater then flows through a concrete structure that directs flow into the detention basin. An overflow weir in the concrete structure is designed to direct stormwater runoff from a storm event greater than a 100-year storm to bypass the detention basin and discharge directly to the wetlands via a 48-inch pipe with a flared-end outfall. Stormwater runoff that enters the detention basin is slowed down by a series of baffles to remove any sediment still present in the discharge. A diversion structure through the center of the detention basin directs stormwater through the baffles. Plants in the detention basin were selected for their ability to absorb trace elements of heavy metals and hydrocarbons. The basin discharges through an outlet structure through piping that runs under the gravel driveway and connects to the 48-inch discharge pipe and enters the wetlands. The detention basin is designed to provide retention of rainfall events up to a 2-year storm event.

In the event of a 100-year storm, there is a weir in the concrete inlet structure that would be overtopped and allow stormwater to bypass the detention basin and flow directly to the wetlands. This discharge is permitted via DSN 001-1.

1.8 COMPLIANCE HISTORY

Based on Discharge Monitoring Reports (“DMRs”) submitted to DEEP, the Permittee had two exceedances of the 90% No Observable Acute Effect Level (“NOAEL”) toxicity limit in the last five years. A review of data from October 2019 to September 2024 indicated that toxicity was observed in December 2023 and March 2024 samples, resulting in 82% and 72% survival for *Daphnia pulex*, respectively.

Is the Permittee subject to an ongoing enforcement action?

☒ Yes

☐ No

Consent Order No. WC 5392

Date Issued: October 14, 2003

Consent Order WC 5392 was issued for a spill of diesel fuel on February 19, 2003, which was discovered to be present in the storm drain system and wetlands. The order required the Permittee to determine the cause and pathways of the diesel spill; submit a report of the investigation and proposed corrective actions

to minimize and eliminate the potential for drainage devices to convey contaminants to surface waters; investigate the extent and degree of groundwater, soil, sediments, and surface water pollution; remediate existing pollution; and investigate and eliminate the potential for future pollution. The consent order also included a civil penalty of \$89,960, which was paid on October 27, 2003.

In response to the consent order, the Permittee cleaned the stormwater drainage system, removed impacted soils from the stormwater detention basin, replaced the 6,000-gallon oil/water separator located near the diesel dispensing island with a dedicated 6,800-gallon spill containment tank that receives spills and rainfall from the diesel underground storage tank (“UST”) pad and the diesel dispensing area, sealed a catch basin located near the diesel UST pad, and installed a containment area around the diesel UST. Prior investigations and actions taken to remediate the historical spill are under review by DEEP's Remediation Division, and the Consent Order remains open, pending a determination that all necessary remedial activities to restore the wetlands and the tributary have been completed.

Notice of Violation NOVWRIN11021

Date Issued: September 19, 2011

Notice of Violation (NOV) NOVWRIN11021 identifies several violations at the facility, including the discharge of wastewater from vehicle service operations without the necessary permit. The facility also failed to report non-stormwater discharges as required by its permit, and did not properly maintain its oil/water separator and holding tanks in accordance with required cleaning frequencies. Additionally, the oil/water separator showed signs of poor operation, including visible oil in the detention pond. The facility failed to collect samples from the required monitoring location and follow proper sampling and analysis procedures, including issues with preservation and analytical techniques. The facility did not post required signs indicating vehicle repair restrictions, and there were incomplete or missing records of facility monitoring, including unverified flow data.

Notice of Violation NOVWRIN13024

Date Issued: November 8, 2013

NOVWRIN13024 highlights several violations at the facility, including the unpermitted discharge of chemicals used for stormwater treatment and power washing of the vehicle maintenance shop entrance/exit. Additionally, wastewater and unpermitted substances, including chemical cleaning solutions, were discharged without a permit. The facility also unlawfully discharged groundwater into the stormwater system, which was not covered under the approved permit. The facility failed to obtain prior approval for modifications to the wastewater treatment/holding tank system, and there were no records of required pump-outs for the holding tank. Lastly, the facility did not maintain proper equipment for accurately measuring and recording the volume of wastewater discharged, in violation of state regulations.

The two NOV's remain open.

Did the previous permit have a compliance schedule?

☒ Yes

☐ No

Section 9 of the previous permit required the Permittee to develop a Stormwater Pollution Prevention Plan (SWPPP). The Permittee submitted a copy of the Integrated Contingency Plan, which includes the Permittee's SWPPP and Spill Prevention Control and Countermeasures Plan (SPCC), with the application. The most recent update to the Integrated Contingency Plan was completed on September 6, 2022.

1.9 GENERAL ISSUES RELATED TO THE APPLICATION

1.9.1 FEDERALLY RECOGNIZED INDIAN LAND

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

1.9.2 COASTAL AREA/COASTAL BOUNDARY

The activity is not located within a coastal boundary as defined in CGS 22a-94(b).

1.9.3 ENDANGERED SPECIES

The site is not located within an area identified as a habitat for endangered, threatened or special concern species according to the June 2024 *State and Federal Listed Species and Natural Communities Map*.

1.9.4 AQUIFER PROTECTION AREAS

As provided in the permit application, the site is not located within a protected area identified on a Level A or B map.

1.9.5 CONSERVATION OR PRESERVATION RESTRICTION

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

1.9.6 PUBLIC WATER SUPPLY WATERSHED

The site is not located within a public water supply watershed.

SECTION 2 RECEIVING WATER BODY INFORMATION

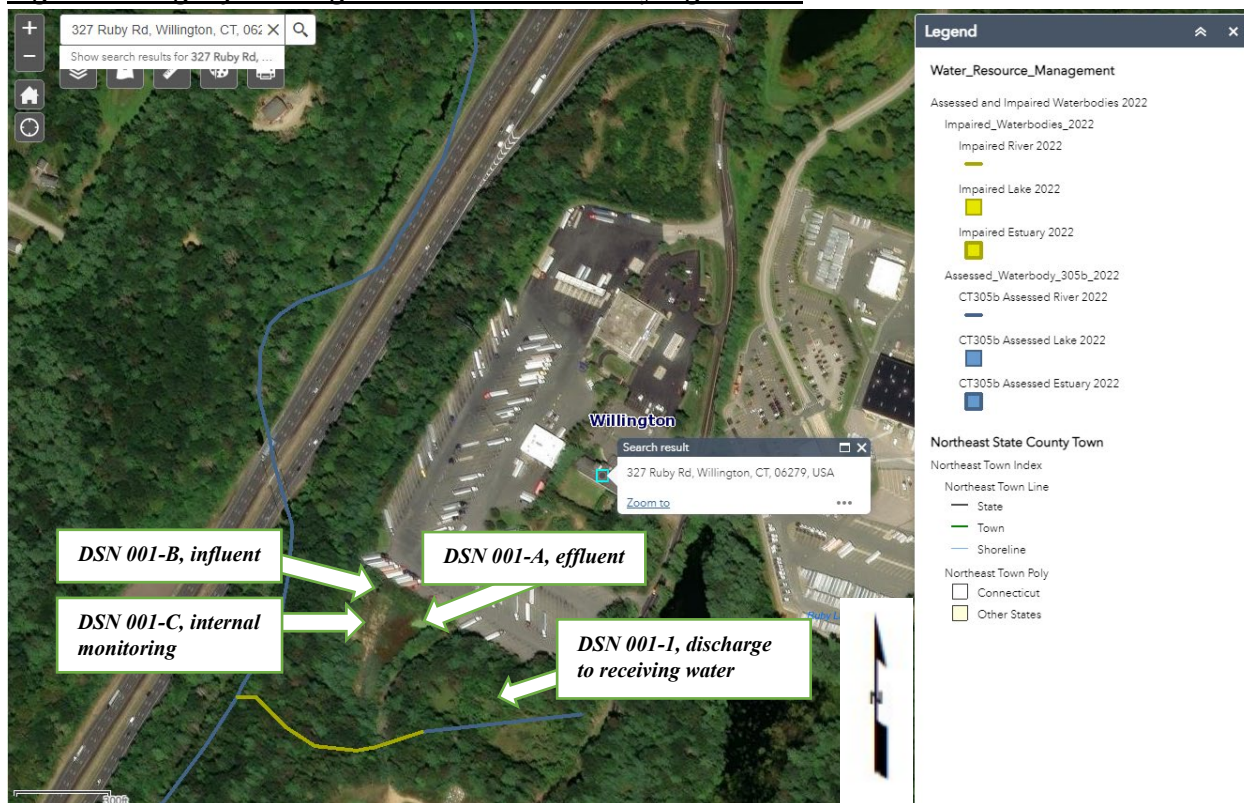
The receiving waterbody, Ruby Lake outlet stream, which includes the stretch from its mouth at Roaring Brook, upstream to the entrance of the wetland adjacent to the truck stop on Route 320, is identified as CT3104-00-2-L8_outlet_01. This stream segment is classified as a Class A surface water. According to RCSA 22a-426-4(d), the designated uses for Class A waters are: (1) habitat for fish and other aquatic life and wildlife; (2) potential drinking water supplies; (3) recreation; (4) navigation; and (5) water supply for industry and agriculture.

The Ruby Lake outlet stream was assessed pursuant to CT's 2022 Clean Water Act Section 305(b) assessment. The receiving water was identified as not supporting its designated of habitat for fish, other aquatic life and wildlife, and listed on the state's 303(d) list as impaired due to the diesel spill that occurred at the facility in 2003 ([2022 Integrated Water Quality Report, CT DEEP](#)). There is no Total Maximum Daily Load ("TMDL") for this impairment.

The entire state is subject to the Northeast Regional Mercury Total Maximum Daily Load, the Statewide Bacteria TMDL, and A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound, which is based on control of Total Nitrogen. TMDLs can be found on the DEEP page The Connecticut Total Maximum Daily Load Program: <https://portal.ct.gov/deep/water/tmdl/total-maximum-daily-load>.

A review of Attachment O of the NPDES permit application revealed that mercury is believed absent, so monitoring for this parameter has not been included in the permit. Bacteria is not expected to be a pollutant of concern associated with the runoff of stormwater from truck stop operations. Monitoring requirements for Total Nitrogen have been included in the permit.

Figure 1. Image of discharge location with waterbody segment ID



SECTION 3 PERMIT CONDITIONS AND EFFLUENT LIMITATIONS

3.1 EFFLUENT LIMIT GUIDELINES

The facility operates as a gasoline service station, and the discharge is composed of stormwater. The following effluent guidelines and standards from 40 CFR Chapter I Subchapter N were reviewed for applicability: Oil and Gas Extraction Point Source Category (40 CFR Part 435) and the Petroleum Refining Point Source Category (40 CFR Part 419). These effluent limit guidelines are not applicable as they apply to extraction of oil and gas and the production of petroleum products, and the Permittee only engages in the distribution of gasoline.

3.2 POLLUTANTS OF CONCERN

The following pollutants are included as monitoring requirements in the permit for the reasons noted below:

POLLUTANT	REASON FOR INCLUSION			
	POLLUTANT WITH AN APPLICABLE TECHNOLOGY-BASED LIMIT	POLLUTANT WITH A WASTE LOAD ALLOCATION FROM A TMDL	POLLUTANT IDENTIFIED AS PRESENT IN THE EFFLUENT THROUGH SAMPLING	POLLUTANT OTHERWISE EXPECTED TO BE PRESENT IN THE EFFLUENT
Barium, Total			X	
Benzene				X
Biochemical Oxygen Demand, 5-day			X	
Cadmium, Total			X	
Chemical Oxygen Demand			X	
Chloride			X	
Chromium, Total			X	
Copper, Total			X	
Ethyl benzene				X
Iron, Total			X	
Lead, Total			X	
Nickel, Total			X	
Ammonia Nitrogen, as N			X	
Kjeldahl Nitrogen, as N			X	
Nitrate, as N			X	
Nitrite, as N				X
Nitrogen, Total			X	
Oil and Grease, Total			X	
Organic Carbon, Total			X	
Phosphorus, Total			X	
Polynuclear Aromatic Hydrocarbons			X	
Silver, Total				X
Surfactants (MBAS)			X	
Toluene				X
Total Suspended Solids			X	
Vanadium, Total				X
Xylene				X
Zinc, Total			X	

The following pollutants of concern are newly identified from the previous permit:

- Attachment O of the application noted the presence of barium, iron, total nitrogen, and polynuclear aromatic hydrocarbons (PAHs) in the discharge. Quarterly monitoring requirements have been added to DSN 001-A.
- Cadmium was also reported as present in the influent to the detention basin. Additionally, while surfactants (MBAS) were indicated as believed absent, past inspections have noted the discharge

of wash waters to the stormwater system. Quarterly monitoring requirements have been added to DSN 001-A for cadmium and surfactants

- Quarterly monitoring requirements have been added to DSN 001-A for silver and vanadium. Per EPA's Fact Sheet, these metals are associated with transportation equipment, and industrial and commercial machinery facilities ([US EPA NPDES MSGP for Stormwater Discharges Associated with Industrial Activity Fact Sheet, Proposed 2026 MSGP](#)). Specifically, silver is associated with brake linings, while vanadium is associated with fossil fuels. Quarterly monitoring requirements for these parameters have been incorporated into the permit to collect the data necessary to evaluate the frequency of detection and variability of these pollutants in the discharge.

3.3 BASIS FOR LIMITS

Technology and water-quality based requirements are considered when developing permit limits. Technology-based effluent limits (TBELs) represent the minimum level of control imposed under the Clean Water Act (CWA). Industry-specific technology-based limits are set forth in 40 CFR Sections 405 – 471 (EPA's Effluent Limitation Guidelines) and in RCSA Section 22a-430-4(s)(2). Water quality-based limits are designed to protect water quality and are determined using the procedures set forth in EPA's *Technical Support Document for Water Quality-Based Toxics Control*, 1991 (TSD).

When both technology and water quality-based limits apply to a particular pollutant, the more stringent limit would apply. In addition, water quality-based limits are required when any pollutant or pollutant parameter (conventional, non-conventional, toxic, and whole effluent toxicity) is or may be discharged at a level that causes, has reasonable potential to cause, or contributes to an excursion above any water quality criteria. Numeric water quality criteria are found in RCSA Section 22a-429-9 of the *Connecticut Water Quality Standards* (WQS).

3.4 ZONE OF INFLUENCE

The final outfall discharges to wetlands associated with a tributary of Roaring Brook. A zone of influence has not been allocated for this discharge.

3.5 REASONABLE POTENTIAL ANALYSIS

Pursuant to CWA Section 301(b)(1)(C) and 40 CFR Section 122.44(d)(1), NPDES permits must contain any requirements in addition to TBELs that are necessary to achieve water quality standards established under Section 303 of the CWA. See also 33 United States Code (USC) Section 1311(b)(1)(C). In addition, limitations "must control any pollutant or pollutant parameter (conventional, non-conventional, or toxic) which the permitting authority determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard, including State narrative criteria for water quality." 40 CFR Section 122.44(d)(1)(i). To determine if the discharge causes, or has the reasonable potential to cause, or contribute to an excursion above any WQS, EPA considers: 1) existing controls on point and non-point sources of pollution; 2) the variability of the pollutant or pollutant parameter in the effluent; 3) the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity); and 4) where appropriate, the dilution of the effluent by the receiving water. See 40 CFR Section 122.44(d)(1)(ii).

If the permitting authority determines that the discharge of a pollutant will cause, has the reasonable potential to cause, or contribute to an excursion above WQSs, the permit must contain Water Quality Based Effluent Limits ("WQBELs") or require additional monitoring if there is insufficient data to develop a WQBEL, for that pollutant. See 40 CFR Section 122.44(d)(1)(i).

Due to the intermittent and variable nature of this type of stormwater discharge, a reasonable potential analysis was not conducted. Instead, each parameter was evaluated for consistency with stormwater benchmarks and the available acute aquatic life criteria only.

3.5.1 BENCHMARK REVIEW

Effluent data from October 2019 through September 2024 was reviewed from DSN 001-A for each parameter against the stormwater benchmarks published in DEEP's *General Permit for the Discharge of Stormwater Associated with Industrial Activity*, effective October 1, 2021 ("Industrial Stormwater General Permit"). The quarterly average of the previous four quarters was calculated for each month on a rolling basis. Parameters with exceedances of the benchmark are presented in the following table:

Parameter	Industrial Stormwater General Permit Benchmarks	Units	No. of Benchmark Exceedances	Quarterly Exceedance Timeline	Exceeded Value
COD	75	mg/L	4	Jul 20 - June 24	86
				Oct 20 - Sep 21	88
				Jan 21 - Dec 21	77
				Oct 23 - Sep 24	83
Nitrate	1.10	mg/L	3	Oct 19 - Sep 20	1.32
				Jan 20 - Dec 20	2.21
				April 20 - Mar 21	1.17
Phosphorus	0.40	mg/L	1	Jan 22 - Dec 22	0.44
TKN	2.30	mg/L	14	Oct 19 - Sep 20	3.30
				Jan 20 - Dec 20	6.15
				April 20 - Mar 21	4
				July 20 - June 21	5.13
				Oct 20 - Sep 21	5.73
				Jan 21 - Dec 21	7.98
				April 21 - Mar 22	8.58
				July 21 - June 22	6.70
				Oct 21 - Sep 22	5.74
				Jan 22 - Dec 22	3.07
				April 22 - Mar 23	2.97
				July 22 - June 23	3.22
				Oct 22 - Sep 23	3.15
				Oct 23 - Sep 24	4.96

Stormwater benchmarks have been incorporated (Section 10.4.1.2) for oil and grease, chemical oxygen demand (COD), total suspended solids (TSS), nitrate, total kjeldahl nitrogen (TKN), phosphorus, copper, lead, and zinc in lieu of effluent limits, consistent with the Industrial Stormwater General Permit. Additionally, monitoring requirements are included in the permit to assess compliance with stormwater benchmarks and evaluate the presence and variability of pollutants of concern.

3.5.2 ACUTE WQS REVIEW

DSN 001-A effluent data from October 2019 through September 2024 without stormwater benchmarks was reviewed against the acute WQS for Class A waterbodies. No exceedances of acute criteria were observed. However, nickel concentrations exceeded the nickel chronic aquatic life criteria of 28.9 µg/L on five occasions.

3.6 WHOLE EFFLUENT TOXICITY

The Permittee shall comply with effluent standards or prohibitions established by CWA Section 307(a) and RCSA Section 22a-430-4(l) and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life. If toxicity is suspected in the effluent, DEEP may require the Permittee to perform acute or chronic whole effluent toxicity testing.

The previous permit required semi-annual acute aquatic toxicity testing to determine the NOAEL in 100% effluent for *Daphnia pulex* and *Pimephales promelas*. For acute toxicity tests that meet the test acceptability criteria, an average of 90% survival of organisms in the replicate test chambers in the undiluted effluent would suggest that the effluent is not acutely toxic to the receiving waters, consistent with RCSA Section 22a-430-3(j)(7)(A)(i) and 22a-430-4(l)(5). A review of data from October 2019 to September 2024 indicated that toxicity was observed in December 2023 and March 2024 samples, resulting in 82% and 72% survival for *Daphnia pulex*, respectively. All other data indicated survival at $\geq 90\%$ for both *Daphnia pulex* and *Pimephales promelas*.

The Permittee discharges to wetlands that drain to a tributary of Roaring Brook (Ruby Lake outlet stream) and has not been allocated a zone of influence; therefore, to demonstrate compliance with the WQS, the Permittee must demonstrate that the average survival of test organisms in at least five replicate test chambers is 90% or greater at the critical test concentration of 100% effluent, consistent with RCSA Section 22a-430-3(j)(7)(A)(i) and 22a-430-4(l)(5). The acute aquatic toxicity limit of 90% survival in 100% effluent has been carried forward in the permit. Acute toxicity test conditions are identified in Section 7 of the permit. The outfall identification number for WET test limits, monitoring requirements, and paired chemical monitoring has been changed from DSN 001-A to DSN 001-AT to allow submission of WET data via NetDMR.

3.7 WATER QUALITY BASED EFFLUENT LIMITATIONS (WQBELs)

The CWA and federal regulations require that effluent limitations based on water quality considerations be established for point source discharges when such limitations are necessary to meet state or federal water quality standards that are applicable to the designated receiving water. This is necessary when less stringent TBELs would interfere with the attainment or maintenance of water quality criteria in the receiving water. See CWA Section 301(b)(1)(C) and 40 CFR Section 122.44(d)(1), 122.44(d)(5), 125.84(e) and 125.94(i).

As noted above in Section 3.5, a reasonable potential analysis was not conducted on this discharge due to the intermittent and variable nature of this type of stormwater discharge. Therefore, WQBELs were not calculated for this facility. In lieu of WQBELs, stormwater benchmarks are included in the permit consistent with the Industrial Stormwater General Permit:

Parameter	Industrial Stormwater Benchmarks	Units
Chemical Oxygen Demand	75	mg/L
Total Oil and Grease	5.0	mg/L
Total Suspended Solids	90	mg/L
Total Phosphorus	0.40	mg/L

Parameter	Industrial Stormwater Benchmarks	Units
Total Kjeldahl Nitrogen	2.30	mg/L
Nitrate as Nitrogen	1.10	mg/L
Total Copper	0.059	mg/L
Total Lead	0.076	mg/L
Total Zinc	0.160	mg/L
pH	5.0 – 9.0	SU

Benchmarks for chemical oxygen demand, total oil and grease, total suspended solids, nitrate as nitrogen, total phosphorus, total iron, and total Kjeldahl nitrogen were based on 80th percentiles of the cumulative relative frequency graphs developed from stormwater results reported during the sampling years 2003 to 2007. Note that the benchmarks for copper, lead, and zinc are based upon state Water Quality Standards and have been determined to be protective of water quality at typical dilution rates.

3.8 TECHNOLOGY BASED EFFLUENT LIMITATIONS

Technology-based treatment requirements represent the minimum level of control that must be imposed under CWA Section 301(b) and 402 to meet best practicable control technology currently available (BPT) for conventional pollutants and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. See 40 CFR Section 125 Subpart A and RCSA Section 22a-430-4(l)(4)(A).

Subpart A of 40 CFR Section 125 establishes criteria and standards for the imposition of technology-based treatment requirements in permits under Section 301(b) of the CWA, including the application of EPA promulgated Effluent Limitation Guidelines (ELGs) and case-by-case determinations of effluent limitations under CWA Section 402(a)(1). EPA promulgates New Source Performance Standards (NSPS) under CWA Section 306 and 40 CFR Section 401.12. See also 40 CFR Section 122.2 (definition of “new source”) and 122.29.

There are no federal Effluent Limit Guidelines that apply to this discharge. In the absence of categorical standards, the permit writer is authorized under CWA Section 402(a)(1)(B) and RCSA Section 22a-430-4(m) to establish effluent limitations on a case-by-case basis using best professional judgment (BPJ).

While there are no applicable federal effluent limit guidelines, under DEEP’s *General Permit for the Discharge of Stormwater Associated with Industrial Activity*, effective October 1, 2021, the facility would be classified as a commercial truck stop (SIC 5541) under Sector G – Transportation and Public Works Facilities. Therefore, requirements for this sector were incorporated into this permit, as described in Section 3.11 below.

A limit of 10 mg/l, instantaneous max, has been developed for oil and grease based on BPJ, pursuant to RCSA Section 22a-430-4(m) and 40 CFR Part 125.3(a). This limit is based on the State’s technology-based treatment requirements for certain industrial discharges published at RCSA 22a-430-4(s). The limit is expressed as an instantaneous maximum because the Permittee does not perform flow or time-based monitoring for their stormwater discharge because monitoring is intended to capture the “first flush”. This limit is consistent with the previous permit.

3.9 COMPARISON OF LIMITS

After preparing and evaluating applicable TBELs and WQBELs, the most stringent limits are applied in the permit. Pollutants of concern that only require monitoring without limits with are not included in the below table. Limits highlighted in green are being carried forward in this permit issuance.

PARAMETER	UNITS	EFFLUENT LIMITS				
		PREVIOUS PERMIT		WATER QUALITY BASED EFFLUENT LIMITS		BPJ
		AVERAGE MONTHLY LIMIT OR pH Minimum	MAXIMUM DAILY LIMIT OR pH Maximum	AVERAGE MONTHLY LIMIT OR pH Minimum	MAXIMUM DAILY LIMIT OR pH Maximum	MAXIMUM DAILY LIMIT
Acute Aquatic Toxicity, <i>Daphnia pulex</i> , NOAEL = 100%	%		≥ 90		≥ 90	
Acute Aquatic Toxicity, <i>Pimephales promelas</i> , NOAEL = 100%	%		≥ 90		≥ 90	
Oil & Grease, Total	mg/L		10.0			10.0
pH	SU	6.0	9.0			

Effluent limits for pH have been carried forward from the previous permit.

In addition to these effluent limits, stormwater benchmarks are included in the permit and are summarized below. These benchmarks apply to the following parameters:

Parameter	Industrial Stormwater Benchmarks	Units
Chemical Oxygen Demand	75	mg/L
Total Oil and Grease	5.0	mg/L
Total Suspended Solids	90	mg/L
Total Phosphorus	0.40	mg/L
Total Kjeldahl Nitrogen	2.30	mg/L
Nitrate as Nitrogen	1.10	mg/L
Total Copper	0.059	mg/L
Total Lead	0.076	mg/L
Total Zinc	0.160	mg/L
pH	5.0 – 9.0	SU

3.10 SAMPLING, INSPECTIONS, AND MONITORING

The permit requires monitoring and inspections to be conducted on a regular basis.

Quarterly monitoring for chemical constituents of the influent and effluent of the detention basin via DSN 001-A is maintained, consistent with the previous permit. Semi-annual acute aquatic toxicity for DSN 001-A effluent is also maintained from the previous permit. Grab samples are required to be collected during

the first 30 minutes of a storm event, which is intended to target the first flush of stormwater runoff. Section 10.4.1.1 requires concurrent visual monitoring of DSN 001-1 and 001-A.

Monitoring of DSN 001-A, inside the detention basin, is carried over from the previous permit and is required monthly for benzene, toluene, ethylbenzene, xylene, and oil and grease to capture data for continued evaluation of the contamination in the detention basin from the historical spill from 2003.

Section 5.5 of the permit requires the Permittee to record the total precipitation and instantaneous discharge flow rate at the time of grab sample collection; the date, discharge temperature, time of the start of discharge, time of sampling of each monitoring location, and the length in hours of the storm event sampled; the pH of the uncontaminated rainfall (before it contacts the ground); the magnitude (in inches) of the storm event sampled; and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event. This is consistent with monitoring requirements in the Industrial Stormwater General Permit.

In addition to monitoring, Section 10.3 of the permit requires monthly routine site inspections and quarterly comprehensive site inspections. The inspections must be conducted by qualified personnel and must be documented in the Stormwater Pollution Prevention Plan ("SWPPP").

3.11 INDUSTRIAL STORMWATER REQUIREMENTS

This facility is classified as a commercial truck stop (SIC 5541) under Sector G – Transportation and Public Works Facilities within DEEP's Industrial Stormwater General Permit, effective October 1, 2021. Therefore, applicable requirements from the Industrial Stormwater General Permit have been incorporated into this permit.

Section 10.1 of the permit requires the Permittee to implement control measures to minimize the discharge of pollutants, including BMPs for good housekeeping, vehicles and equipment, vehicle and equipment fueling areas, vehicle and equipment cleaning, vehicle and equipment maintenance areas, material storage areas, vehicle and equipment storage, and infiltration.

Section 10.2 requires the Permittee to develop and maintain a SWPPP. The SWPPP must be representative of current site conditions and must include a facility description, general location map, pollution prevention team, potential pollutant sources, control measures including the oil/water separator and the detention basin, future construction, monitoring program, schedules and procedures. These requirements are consistent with the Industrial Stormwater General Permit including any additional requirements applicable to Sector G – Transportation and Public Works Facilities.

Sections 10.2.2.6 have been added to the permit to expand on existing control measures in the Permittee's SWPPP. These new sections require the Permittee to address specific operation and maintenance activities for the oil/water separator and detention basin, consistent with the Connecticut Stormwater Quality Manual to ensure proper operation and maintenance. During a site visit the Permittee explained that they do not perform regular maintenance of the detention basin, and maintenance issues were raised during previous inspections.

Additional requirements include restrictions on any vehicle repair or maintenance being performed outside of any building and the requirement for associated signage (Section 10.1.2 – 10.1.7); a requirement to closely monitor parking and fueling areas to prevent petroleum products from entering the storm drain system (Section 10.1.11); to perform preventative maintenance, including cleaning the 18,000-gallon oil/water separator and the catch basins (Section 10.1.15); and a requirement to supervise the off-loading of bulk fuel deliveries (Section 10.1.16). These requirements are consistent with the previous permit and

have been carried forward in response to historical inspection and compliance findings. Cleaning requirements for the oil/water separator and catch basins have been expanded to ensure cleaning adequately addresses removal of sediment, oil and grease, and floatable debris within structures.

Section 10.4.1.2.2 incorporates stormwater benchmarks, as discussed in Sections 3.5 and 3.7 of this fact sheet. These benchmarks are different from effluent limits in that an exceedance of a benchmark does not constitute a violation of the permit. Rather, the Permittee is required to conduct corrective actions, and failure to take these steps does constitute a violation.

Section 10.5 requires the Permittee to implement corrective actions in response to benchmark exceedances. Section 10.5.1 details the schedule of required corrective actions including immediate actions to be taken within 1-2 days, subsequent actions to be taken within 14-60 days, an extension when a corrective action will exceed 60 days, and follow-up sampling. Section 10.5.2 details the steps necessary for implementing corrective measures, provides clarifications for when the conditions in the SWPPP should be reviewed, includes deadlines to further specify DEEP's expectations for what actions must be taken within a specific time frame, and simplifies the reporting requirements. When conditions requiring corrective actions occur or are detected through inspections, monitoring, or other means, or the Commissioner informs the Permittee that conditions requiring corrective actions have occurred, the Permittee must take corrective actions so that permit conditions are met, and pollutant discharges are minimized. Section 10.5.3 details the conditions under which a corrective action would be required, including the exceedance of the four (4) event average for a benchmark threshold is mathematically certain; an effluent limit exceedance; an unauthorized release or discharge; inconsistency with an applicable TMDL; if control measures are not stringent enough to meet water quality standards; in the case that control measures were never designed, installed, implemented, or maintained; if there is a change in design, operation, or maintenance at a facility; a visual assessment shows evidence of pollution; or as required by the Commissioner following a permit violation. These corrective action measures are based on EPA's Multi-Sector General Permit (MSGP) that became effective September 29, 2021.

3.12 ANTIDEGRADATION

Implementation of the Antidegradation Policy follows a tiered approach pursuant to the federal regulations (40 CFR Section 131.12) and consistent with the Connecticut Antidegradation Policy included in the Connecticut Water Quality Standards (Section 22a-426-8(b-f) of the Regulations of Connecticut State Agencies). Tier 1 Antidegradation review applies to all existing permitted discharge activities to all waters of the state. Tiers 1 and 2 Antidegradation reviews apply to new or increased discharges to high quality waters and wetlands, while Tiers 1 and 3 Antidegradation reviews apply to new or increased discharges to outstanding national resource waters.

This discharge is an existing discharge, and the Permittee does not propose an increase in volume or concentration of constituents. Therefore, only the Tier 1 Antidegradation Evaluation and Implementation Review was conducted to ensure that existing and designated uses of surface waters and the water quality necessary for their protection are maintained and preserved, consistent with Connecticut Water Quality Standards, RCSA Sec.22a-426-8(a)(1). This review involved:

- An evaluation of narrative and numeric water quality standards, criteria and associated policies;
- The discharge activity both independently and in the context of other dischargers in the affected waterbodies; and
- Consideration of any impairment listed pursuant to Section 303d of the federal Clean Water Act or any TMDL established for the waterbody.

Compliance with all the terms and conditions in the new permit would ensure that existing and designated uses of surface waters and the water quality necessary for their protection are maintained and preserved.

3.13 ANTI-BACKSLIDING

This permit has effluent limitations, standards or conditions that are at least as stringent as the final effluent limitations, standards, or conditions in the previous permit as required in 40 CFR Section 122.44(l) and RCSA Section 22a-430-4(l)(4)(A)(xxiii).

3.14 E-REPORTING

The Permittee is required to electronically submit documents in accordance with 40 CFR Section 127.

SECTION 4 SUMMARY OF NEW PERMIT CONDITIONS AND LIMITS FROM THE PREVIOUS PERMIT

- The nomenclature of the monitoring of the influent to the detention basin has changed from DSN 001-1, monitoring location II to DSN 001-B, monitoring location II and monitoring inside the basin has changed from DSN 001-A, monitoring location “inside basin” to DSN 001-C, monitoring location IM.
- Quarterly influent and effluent monitoring has been included for DSN 001-A total nitrogen, barium, cadmium, iron, silver, vanadium, PAHs, and surfactants.
- This permit includes conditions from the Industrial Stormwater General Permit, including outfall monitoring (Section 10.4.) that requires quarterly visual monitoring of the outfall, benchmark monitoring, and requirements if discharge monitoring data exceeds benchmarks (Section 10.5). Sections 10.2.2.5.1 and 10.2.2.5.2 require the Permittee to include sections in their SWPPP describing the operation and maintenance requirements prescribed by the Connecticut Stormwater Quality Manual for the 18,000-gallon oil/water separator and the stormwater detention basin.
- WET testing limits, monitoring requirements, and paired chemical monitoring have been moved from DSN 001-A to DSN 001-AT to allow submission of WET data via NetDMR.
- The following minimum level requirements have changed to ensure testing is conducted using sufficiently sensitive methods:
 - Benzene has been changed from 5.0 µg/L to 1.2 µg/L to ensure test methodology is sufficiently sensitive to determine compliance with the WQS for Class A waters;
 - Copper has been changed from 5.0 µg/L to 3.0 µg/L; and
 - Lead has been changed from 5.0 µg/L to 1.0 µg/L.

SECTION 5 PUBLIC PARTICIPATION PROCEDURES

5.1 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. 201403028

PERMIT ID NO. CT0029530

Interested persons may obtain copies of the application from Kelly Gelske, TA Operating LLC, 24601 Center Ridge Road, Westlake, OH 44145.

The application is available for inspection by contacting Joseph Grandelski at joseph.grandelski@ct.gov, at the Department of Energy and Environmental Protection, Bureau of Materials Management and Compliance Assurance, 79 Elm Street, Hartford, CT 06106-5127 from 8:30 - 4:30, Monday through Friday.

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

5.2 PUBLIC COMMENT

Prior to making a final decision to approve or deny any application, the Commissioner shall consider written comments on the application from interested persons that are received within 30 days of this public notice. Written comments should be directed to Joseph Grandelski, Environmental Engineer 2, Bureau of Materials Management and Compliance Assurance, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127 or DEEP.IndustrialNPDESPublicComments@ct.gov and should indicate the Permit ID No. CT0029530 in the subject line. 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 (25) persons. Notice of any public hearing shall be published at least thirty (30) days prior to the hearing.

Petitions shall be submitted within thirty (30) days from the date of publication of this public notice and 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. Upon receipt of a petition, the Commissioner shall take action as required by relevant laws, including Public Act 25-84, which was effective upon passage in June 2025. The Office of Adjudications will accept electronically-filed petitions for hearing in addition to those submitted by mail or hand-delivered. Petitions with required signatures may be sent to deep.adjudications@ct.gov; those mailed or delivered should go to the DEEP Office of Adjudications, 79 Elm Street, Hartford, CT 06106. If the signed original petition is only in an electronic format, the petition must be submitted with a statement signed by the petitioner that the petition exists only in that form. Original petitions that were filed electronically must also be mailed or delivered to the Office of Adjudications within 30 days of electronic submittal. Additional information can be found at www.ct.gov/deep/adjudications.

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to complying with the requirements of the Americans with Disabilities Act (ADA). If you are seeking a communication aid or service, have limited proficiency in English, wish to file an ADA or Title VI discrimination complaint, or require some other accommodation, including equipment to facilitate virtual participation, please contact the DEEP Office of Diversity and Equity at 860-418-5910 or by email at deep.accommodations@ct.gov. Any person needing an accommodation for hearing impairment may call the State of Connecticut relay number - 711. In order to facilitate efforts to provide accommodation, please request all accommodations as soon as possible following notice of any agency hearing, meeting, program, or event.

Attachment A

Site Plan and Flow Diagram

