

Application Type Renewal  
 Facility Type Non-Municipal  
 Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0064131  
 APS ID 931278  
 Authorization ID 1391317

**Applicant and Facility Information**

Applicant Name	<u>Raceway Truck Stop</u>	Facility Name	<u>Raceway Truckstop a.k.a. Liberty Truck Stop</u>
Applicant Address	<u>2227 Scranton Carbondale Highway</u> <u>Scranton, PA 18508-1151</u>	Facility Address	<u>10 Molleystown Road</u> <u>Pine Grove, PA 17963-8673</u>
Applicant Contact	<u>Dan Naylor</u>	Facility Contact	<u>Dan Naylor (ONVO)</u>
Applicant Phone	<u>(570) 291-4260</u>	Facility Phone	<u>(570) 291-4261</u>
Client ID	<u>253613</u>	Site ID	<u>545851</u>
Ch 94 Load Status	<u> </u>	Municipality	<u>Tremont Township</u>
Connection Status	<u> </u>	County	<u>Schuylkill</u>
Date Application Received	<u>April 1, 2022</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>May 11, 2022</u>	If No, Reason	<u>-</u>
Purpose of Application	<u>Renewal of NPDES Permit.</u>		

**Summary of Review**

This is an NPDES Permit Renewal for an existing 0.015 MGD Truck Stop STP (serving a diner and gas station). The Truck Stop is also called "Liberty Truckstop". They had 0.00198 MGD average flows (2019), 0.0016 MGD annual average flows (2020) and 0.00302 MGD annual average flows in 2021. The monthly average flow was reported at 0.0038 MGD flow in July 2021.

- On-Base Reference No. 57368 (revised application)
- **Client Clarification:** The NPDES Permit was previously issued to Amarbir Singh (a.k.a. Sunny Singh) but now he is incorporating as "Raceway Management Company Inc.". He remains the "operator with financial control" per Dan Naylor (identified site contact at 570-862-7140, Onvo Inc.) during a 5/11/2022 Telephone call. The client information has been updated accordingly with Raceway Management Company's EIN, with Raceway Truck Stop being a registered fictitious name. Tafton was indicated to be the land-owner.

Sludge use and disposal description and location(s): 25.234 tons sent to Pine Grove WWTP.

Part C Special Conditions: Changes bolded.

- Part C.I.A, B, C, D: Existing Standard Conditions (Stormwater prohibition; Necessary property rights; Residuals managements; Planning
- Part C.I.E: Existing Chlorine Minimization
- **Part C.I.F: New Notification of Responsible Operator: Due to unusual Nitrate-nitrite-N concentrations and substantial STP underloading, the Responsible Operator must be identified.**
- **Part C.I.G: New special condition (CB-related):** Prior to any connection of new source (motel or other), an NPDES Permit Part A.III.C.2 (Planned Changes to Waste Streams) notification must be submitted. The

Approve	Deny	Signatures	Date
X		James D. Berger (signed) James D. Berger, P.E. / Environmental Engineer	November 22, 2022
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	11-28-22

**Summary of Review**

Department would evaluate whether the resultant increased discharge triggers additional Chesapeake Bay requirements at that time.

- **Part C.II: New Chesapeake Bay Nutrient Definitions: Added due to unusual Nitrate-nitrite-N concentrations and substantial underloading. If the discharge rate increases, the high Total Nitrogen loadings might trigger additional Chesapeake Bay nutrient requirements.**
- **Part C.III:** Existing Standard Solids Management conditions, including prohibition against excess sludge build-up in clarifiers and disinfection system.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.015</u>
Latitude	<u>40° 35' 27.20"</u>	Longitude	<u>-76° 24' 24.39"</u>
Quad Name	<u>Pine Grove</u>	Quad Code	<u>1434 (6.18.3)</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Swatara Creek (CWF, MF)</u>	Stream Code	<u>9361</u>
NHD Com ID	<u>56394685</u>	RMI	<u>61.2 (per previous NPDES Permit Fact Sheet)</u>
Drainage Area	<u>33.4 mi<sup>2</sup></u>	Yield (cfs/mi <sup>2</sup> )	<u>0.152</u>
Q <sub>7-10</sub> Flow (cfs)	<u>5.08</u>	Q <sub>7-10</sub> Basis	<u>USGS PA Streamstats</u>
Elevation (ft)	<u>620 feet (STP center). Streamstats tool indicated 615.15 Feet (used in modeling) for outfall.</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>7-D</u>	Chapter 93 Class.	<u>CWF, MF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>
Assessment Status	<u>Impaired (Aquatic life)</u>		
Cause(s) of Impairment	<u>METALS, PH, TOTAL SUSPENDED SOLIDS (TSS)</u>		
Source(s) of Impairment	<u>ACID MINE DRAINAGE, ACID MINE DRAINAGE, ACID MINE DRAINAGE</u>		
TMDL Status	<u>Final (3/1/1999)</u>	Name	<u>Upper Swatara Creek Watershed</u>
<u>Background/Ambient Data</u>		<u>Data Source</u>	
pH (SU)	<u>6.64</u>	Sample ID: 2005658 Sequence Number: 494	
Temperature (°C)	<u>11.1</u>	Date Collected: 12/14/2015; upstream near confluence with Middle Creek	
Hardness (mg/L)	<u>80</u>	<u>See above</u>	
TSS (mg/l)	<u>&lt;5</u>	<u>See above</u>	
Total Aluminum (ug/l)	<u>69.2</u>	<u>See above</u>	
Total Manganese (ug/l)	<u>463</u>	<u>See above</u>	
Total Iron (ug/l)	<u>472</u>	<u>See above</u>	
Total Copper (ug/l)	<u>&lt;4</u>	<u>See above</u>	
Total Lead (ug/l)	<u>&lt;1.0</u>	<u>See above</u>	
Total Zinc (ug/l)	<u>44</u>	<u>See above</u>	
Nearest Downstream Public Water Supply Intake	<u>Lebanon Water Authority (per E-maps, below info from previous Fact Sheet)</u>		
PWS Waters	<u>Swatara Creek</u>	Flow at Intake (cfs)	<u>26.9</u>
PWS RMI	<u>39.6</u>	Distance from Outfall (mi)	<u>~21.5</u>

Changes Since Last Permit Issuance: Swatara Creek is pathogen-impaired downstream.

Other Comments:

- Chesapeake Bay: The facility is classified as a Phase 5 Non-Significant Chesapeake Bay discharger.

- STP is discharging relatively high (>100 mg/l) nitrate-nitrite levels in its discharge (and therefore TN). However, the underloading (20% of NPDES Permit-Basis Flow) means total loadings within the ballpark. See Effluent and EDMR data for reported concentrations.
- 2/month monitoring and reporting requirements for Total Phosphorus and Total Nitrogen was added to the permit to monitor nutrient loadings. To calculate Total Nitrogen, 2/month monitoring and reporting requirements for Total Kjeldahl Nitrogen (TKN) and Nitrate+Nitrite-Nitrogen are added to the permit.
- TMDL: Facility Discharge is upstream of confluence with Little Rausch Creek (which has orphan mine discharges in its watershed). There are Orphan Mine discharges upstream. No TMDL WLAs for this facility. The small facility discharge is not expected to contribute to any ongoing impairment.

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Raceway Sewage Treatment Plant				
<b>WQM Permit No.</b>	<b>Issuance Date</b>	<b>Scope</b>		
5401406	5/13/2002	0.015 STP to replace failing on-lot system with Planning approval for 70-unit motel (unbuilt)		
<b>Waste Type</b>	<b>Degree of Treatment</b>	<b>Process Type</b>	<b>Disinfection</b>	<b>Avg Annual Flow (MGD)</b>
Sewage	Secondary	Aeration Basin	Chlorine Contact with de-chlorination	0.015 (NPDES Permit-basis flow)
<b>Hydraulic Capacity (MGD)</b>	<b>Organic Capacity (lbs/day)</b>	<b>Load Status</b>	<b>Biosolids Treatment</b>	<b>Biosolids Use/Disposal</b>
0.015	30	-	Sludge Holding	Hauled

**Changes Since Last Permit Issuance:** None known.

**Other Comments:**

**Substantial Underloading:** The WQM Permit and Planning approval included an unbuilt motel (70 units) with additional reserve capacity. They are reporting significant underloading per Application and EDMR (~20% of hydraulic capacity). They are reporting high Nitrate-Nitrite concentrations (~100 mg/l) compared to their Ammonia-N concentrations per Application and EDMR. Unclear whether these reported values are biased by 8-hour composite sampling (with STP loadings variable with truck/motorist travel hours).

**Application STP Description:** Single ~2002 treatment train. Grease trap, then aerated equalization tank (5,250 gallons), aeration basin, secondary clarifier (where aluminum chloride is added for TP reduction), chlorine contact tank, de-chlorination tank, then discharge. 2019 DEP Inspection indicated comminutor & bar screen are present. They used soda ash as softening agent per application, not pH adjustment.

**Compliance History**

**DMR Data for Outfall 001 (from April 1, 2021 to March 31, 2022)**

Parameter	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21
<b>Flow (MGD) Average Monthly</b>	<b>0.0020</b>	<b>0.0029</b>	<b>0.0029</b>	<b>0.0035</b>	<b>0.0038</b>	<b>0.0033</b>	<b>0.0035</b>	<b>0.0037</b>	<b>0.0038</b>	<b>0.0034</b>	<b>0.0032</b>	<b>0.0031</b>
<b>Flow (MGD) Daily Maximum</b>	<b>0.0041</b>	<b>0.0051</b>	<b>0.0038</b>	<b>0.0076</b>	<b>0.0094</b>	<b>0.0043</b>	<b>0.0079</b>	<b>0.0055</b>	<b>0.0047</b>	<b>0.0045</b>	<b>0.0053</b>	<b>0.0043</b>
pH (S.U.) Minimum	<b>6.49</b>	6.70	<b>6.38</b>	<b>6.46</b>	<b>6.35</b>	6.68	<b>6.31</b>	<b>6.45</b>	6.61	6.66	6.72	6.84
pH (S.U.) Instantaneous Maximum	7.46	7.56	7.65	7.36	7.36	7.67	7.58	7.62	7.45	7.65	7.65	7.90
TRC (mg/L) Average Monthly	0.10	0.08	0.09	0.08	0.09	0.09	0.10	0.10	0.09	0.09	0.09	0.10
TRC (mg/L) Instantaneous Maximum	0.18	0.13	0.19	0.18	0.13	0.13	0.14	0.18	0.12	0.15	0.15	0.19
CBOD5 (mg/L) Average Monthly	5.80	8.75	6.00	5.30	3.30	3.60	3.0	3.00	3.0	3.70	4.10	3.25
CBOD5 (mg/L) Daily Maximum	5.80	9.70	8.30	6.90	3.60	4.20	3.0	3.00	3.0	5.20	4.70	3.60
TSS (mg/L) Average Monthly	3.0	15.0	6.5	0.09	3.0	5.00	3.0	7.0	3.0	8.5	10.0	4.50
TSS (mg/L) Daily Maximum	3.0	23.0	9.0	11.0	3.0	6.00	3.0	7.0	3.0	10.0	17.0	6.00
Fecal Coliform (No./100 ml) Geometric Mean	5	30.50	35.21	6.78	5.74	53.85	66.45	180.28	184.39	323.11	10	10
Fecal Coliform (No./100 ml) Instantaneous Maximum	5	310	62	23	11.0	290	92	620	340	1740	10	10
<b>Nitrate-Nitrite (mg/L) Average Monthly</b>	<b>115.0</b>	<b>94.9</b>	<b>124.5</b>	<b>121</b>	<b>142</b>	<b>140.0</b>	<b>119.0</b>	<b>153.5</b>	<b>123</b>	<b>147.0</b>	<b>72.7</b>	<b>34.4</b>
<b>Total Nitrogen (mg/L) Average Monthly</b>	<b>119.7</b>	<b>100.5</b>	<b>137.3</b>	<b>125.8</b>	<b>142.5</b>	<b>142.5</b>	<b>120.2</b>	<b>155.2</b>	<b>124.2</b>	<b>150.0</b>	<b>74.3</b>	<b>36.1</b>
Ammonia (mg/L) Average Monthly	1.57	2.01	10.79	2.99	0.25	0.30	0.30	0.37	0.40	0.25	0.16	0.22

**NPDES Permit Fact Sheet  
Raceway Truckstop**

**NPDES Permit No. PA0064131**

TKN (mg/L) Average Monthly	4.67	5.55	12.75	4.84	1.35	2.39	1.29	1.69	1.24	1.51	1.59	1.77
Total Phosphorus (mg/L) Average Monthly	0.24	0.42	0.18	0.22	0.42	0.69	0.57	1.13	1.20	0.40	0.24	1.10

**Compliance History**

**Effluent Violations for Outfall 001, from: May 1, 2021 To: March 31, 2022**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Fecal Coliform	06/30/21	Geo Mean	323.11	No./100 ml	200	No./100 ml
Fecal Coliform	06/30/21	IMAX	1740	No./100 ml	1000	No./100 ml
Fecal Coliform	06/30/22	Geo Mean	260.70	No./100 ml	200	No./100 ml

Summary of Inspections:

SITE NAME	INSP PROGRAM	INSP ID	INSP CATEGORY	INSPECTED DATE	INSP TYPE	INSPECTION RESULT DESC	INSPECTOR ID	VIO
RACEWAY TRUCKSTOP	WPCNP	2637968	PF	08/30/2017	Routine/Partial Inspection	No Violations Noted	00531359	
RACEWAY TRUCKSTOP	WPCNP	<a href="#">2877018</a>	PF	04/18/2019	Compliance Evaluation	No Violations Noted	00531359	

**Other Comments:**

Underloading: The facility is underloaded (~20% of hydraulic capacity) with relatively high Nitrate-Nitrite concentrations (>100 mg/l monthly average). They may need to modify their operating procedures accordingly. The underloading reduced food for the biological treatment process. Nitrification is also severely impacted at pH values below 6.8 and stops at 6.5 SU, with EDMR indicating such conditions regularly occur at this facility.

Fecal Coliform: The 2021 EDMR violations indicated equipment problem with the chlorine “puck” loading. They might have to improve O&M if problem is recurring.

Open Violations by Client No.: The 11/21/2022 WMS Query indicated no open violations:

Client ID: 253613

**NPDES Permit Fact Sheet  
Raceway Truckstop**

**NPDES Permit No. PA0064131**

Client: All

Open Violations: 0

No data was found using the criteria entered. Please revise your choices and try again.



**Development of Effluent Limitations**

Outfall No. 001  
 Latitude 40° 35' 27.76"  
 Wastewater Description: Sewage Effluent

Design Flow (MGD) .015  
 Longitude -76° 24' 24.00"

**Permit Limits & Monitoring:** Changes bolded

Parameter	Limit (mg/l unless otherwise specified)	SBC	Model/Basis
CBOD5	Report Lbs/d Report Lbs/d 25.0 40.0 50.0	Monthly Average Daily Average Monthly Average Daily Average IMAX	Existing Technology limit (Chapter 92a.47) supported by water quality modeling.  Application data: 16.40 mg/l max and 5.01 mg/l average (48 samples).
TSS	Report Lbs/d Report Lbs/d 30.0 45.0 60.0	Monthly Average Daily Average Monthly Average Daily Average IMAX	Existing Technology limit (Chapter 92a.47).  Application data: 20.0 mg/l max and 5.65 mg/l average (48 samples).
pH	6.0 – 9.0 SU	Inst. Min - IMAX	Existing Technology limit (Chapter 92a.47)  Application data: 6.18 – 7.91 SU (730 samples).
Dissolved Oxygen (DO)	<b>3.0</b>	<b>Inst. Minimum</b>	<b>New permit limit based on water quality modeling and normal treated sewage DO concentration.</b>  No Application data.
Total Residual Chlorine (TRC)	0.50 1.10	Monthly Average IMAX	Existing TBEL supported by water quality modeling. <b>Significant digit added. Antiregressing does not allow for any less stringent limit.</b> Application data: 0.21 mg/l max and average of 0.09 mg/l (48 samples).
Fecal Coliform (5/1 – 9/30)	200/100 ml 1,000/100 ml	Geo Mean IMAX	Existing Technology limit (Chapter 92a.47)  Application data of max of <b>1740/100 ml</b> and average of 48.46/100 ml (48 samples). <b>See Compliance Section.</b>
Fecal Coliform (10/1 – 4/30)	2,000/100 ml 10,000 ml/100 ml	Geo Mean IMAX	See above.
Ammonia-Nitrogen	Report Lbs/d Report Lbs/d 25.0 50.0 50.0	Monthly Average Daily Max Monthly Average Daily Max IMAX	<b>New WQBEL due to updated water quality modeling. Application and EDMR indicate facility can comply with the new limits.</b>  Application data: 9.84 mg/l max and average of 0.73 mg/l (48 samples). See EDMR data also.
Total Phosphorus	Report Lbs/d Report Lbs/d Report Report	Monthly Average Daily Max Monthly Average Daily Max	Existing reporting requirement.  Application data: 2.19 mg/l max and 0.64 mg/l average (48 sample).

Total Nitrogen (Nitrate-Nitrite-N + TKN measured in same sample)	Report Lbs/d Report Lbs/d Report Report	Monthly Average Daily Max Monthly Average Daily Max	Existing reporting requirement.  <u>Application data: 155.2 mg/l max and 105.52 mg/l average (48 sample).</u>
Nitrate-Nitrite-N	Report Lbs/d Report Lbs/d Report Report	Monthly Average Daily Max Monthly Average Daily Max	Existing 2/month monitoring requirement suffices because the facility is only discharging ~20% of NPDES Permit Basis Flow, so mass loading within permitted range despite high Nitrate-Nitrite-N concentrations (majority of TN).  <u>Application data: Not broken out. EDMR data range was &gt;100 mg/l monthly average.</u>
Total Kjeldahl Nitrogen (TKN)	Report Lbs/d Report Lbs/d Report Report	Monthly Average Daily Max Monthly Average Daily Max	Existing monitoring requirement suffices because the facility is only discharging ~20% of NPDES Permit Basis Flow  <u>Application data: Not broken out. EDMR data range had range of 0.5 – 12.8 mg/l range.</u>
Total Copper	-	-	Not needed per Reasonable Potential Analysis  <u>Application data: 0.02 mg/l (1 sample).</u>
Total Lead	-	-	Not needed per Reasonable Potential Analysis  <u>Application data: &lt;0.02 mg/l (1 sample)</u>
<b>Total Zinc</b>	Report Lbs/d Report Lbs/d Report Report	Monthly Average Daily Max Monthly Average Daily Max	<b>Reasonable Potential Analysis requires Zinc Monitoring in this permit term.</b>  <u>Application data: 0.29 mg/l (1 sample)</u>
Aluminum (AMD TMDL metals)	-	-	Not needed per Reasonable Potential Analysis  <u>Application data: 1.04 mg/l (1 sample) but facility is discharging ~20% permit basis flow.</u>
Manganese (AMD TMDL metals)	-	-	Not needed per Reasonable Potential Analysis  <u>Application data: &lt;0.02 mg/l (1 sample)</u>
Total Iron (AMD TMDL metals)	-	-	Not needed per Reasonable Potential Analysis  <u>Application data: 0.06 mg/l (1 sample)</u>

Comments:

- Going to 24-hour composite sampling to eliminate biasing.
- Adding mass loading and daily max reporting (no additional sampling).
- No drinking water supply will be impacted by this discharge.

**WQM Model 7.1.1 Output:** Model ran due to revised Chapter 93 Ammonia-N Criteria.

The screenshot shows the 'Analysis Results WQM 7.0' window with the 'Effluent Limitations' tab selected. The main content area contains a table with the following data:

RMI	Discharge Name	Permit Number	Disc Flow (mgd)
0.30	Raceway STP	PA0064131	0.0150

  

Parameter	Effluent Limit 30 Day Average (mg/L)	Effluent Limit Maximum (mg/L)	Effluent Limit Minimum (mg/L)
CBOD5	25		
NH3-N	25	50	
Dissolved Oxygen			3

Record: 1 of 1 | No Filter | Search

Buttons: Print, < Back, Next >, Archive, Cancel

Reasonable Potential Analysis:

Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

Pollutants	Mass Limits		Concentration Limits				Governing WQBEL	WQBEL Basis	Comments
	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units			
Total Zinc	Report	Report	Report	Report	Report	µg/L	1,970	AFC	Discharge Conc > 10% WQBEL (no RP)

TRC Spreadsheet Output:

TRC EVALUATION					
Input appropriate values in A3:A9 and D3:D9			Raceway STP		
5.08	= Q stream (cfs)		0.5	= CV Daily	
0.015	= Q discharge (MGD)		0.5	= CV Hourly	
30	= no. samples		1	= AFC_Partial Mix Factor	
0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)	
0.5	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)	
0	= % Factor of Safety (FOS)			=Decay Coefficient (K)	
Source	Reference	AFC Calculations		Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 69.854		1.3.2.iii	WLA cfc = 68.095
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 26.029		5.1d	LTA_cfc = 39.587
Source	Effluent Limit Calculations				
PENTOXSD TRG	5.1f	AML MULT = 1.231			
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500		BAT/BPJ	
		INST MAX LIMIT (mg/l) = 1.635			



RacewayTMSPDF.p RacewayWQM1.pdf  
df

**Communications Log:**

- **4/11/2022:** DEP Incompleteness letter
- **4/14/2022:** Applicant (ARRO) E-mail asking if sampling data needed for resubmittal or if can come in later.
- **4/15/2022:** DEP (Berger) E-mail telling them to submit all at once.
- **5/10/2022:** Applicant (ARRO) E-mail indicating problem with On-Base submittal of revised application.
- **5/10/2022:** DEP (Berger) E-mail explaining On-Base further
- **5/10/2022:** Applicant (ARRO) E-mail indicating resubmittal by On-Base.
- **5/11/2022:** DEP (Berger) E-mail asking for clarification on applicant/permittee identity.
- **5/11/2022:** Applicant (Dan Naylor) clarification: "Sonny Singh is the correct owner and does hold title individually to the real property upon which this sewage treatment facility is located. Raceway Management Company, Inc.'s EIN is 23-2823581. This entity is also controlled by Sonny".