pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0087025**
Facility Type	**Non-Municipal**	APS ID	**20**
Major / Minor	**Minor**	Authorization ID	**1246287**

Applicant and Facility Information

Applicant Name	**David M. Ott**	Facility Name	**Dave & Janes Crab House Restaurant**
Applicant Address	2989 Tract Road	Facility Address	2989 Tract Road
	Fairfield, PA 17320-9333		Fairfield, PA 17320-9333
Applicant Contact	Dave Ott	Facility Contact	Dave Ott
Applicant Phone	(717) 642-5025	Facility Phone	(717) 642-5025
Client ID	92214	Site ID	461077
Ch 94 Load Status	Not Overloaded	Municipality	Liberty Township
Connection Status		County	Adams
Date Application Received	September 19, 2018	EPA Waived?	Yes
Date Application Accepted	October 2, 2018	If No, Reason	
Purpose of Application	NPDES permit renewal.		

Summary of Review

Dave & Jane's Crab House Restaurant has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit. The permit was issued on April 18, 2014 and became effective on May 1, 2014. The permit authorized discharge of treated sewage from the existing wastewater treatment plant (WWTP) located in Liberty Township, Adams County to Flat Run. The existing permit expiration date was April 30, 2018, and the permit has been administratively extended since that time.

Changes from the previous permit: Unit of Fecal Coliform changed from CFU/100 ml to No./100 ml.

Based on the review outline in this fact sheet, it is recommended that the permit be drafted and published in the Pennsylvania Bulletin for public comments for 30 days.

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.

Approve	Deny	Signatures	Date
X		Hilary H. Le / Environmental Engineering Specialist	November 15, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Clean Water Program Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.0034
Latitude	39º 43' 29.99"	Longitude	-77Âº 20' 32.71"
Quad Name	Emmitsburg	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Flat Run (WWF)	Stream Code	58724
NHD Com ID	53322090	RMI	3.67 miles
Drainage Area	7.41 mi.^{2}	Yield (cfs/mi^2)	0.04 cfs/mi.^{2}
Q_{7-10} Flow (cfs)	0.323	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	446	Slope (ft/ft)	
Watershed No.	13-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Not Assessed		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	City of Frederick, MD		
PWS Waters	Monocacy River	Flow at Intake (cfs)	
PWS RMI	unknown	Distance from Outfall (mi)	Approximate 31 miles

Changes Since Last Permit Issuance: none

Drainage Area
The discharge is to Unnamed Tributary to Flat Run at RMI 3.67 miles. A drainage area upstream of the discharge is estimated to be 7.41 mi.^{2}, according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/. The Q_{7-10} is 0.323 cfs, then the low flow yield is 0.04 cfs/mi.^{2}.

Flat Run
25 Pa. Code § 93.9z classifies Flat Run as warm water fishes (WWF) surface water.

Potable Water Supply Intake
The nearest downstream public water supply intake is the City of Frederick, MD intake on the Monocacy River, approximately 31 miles from the point of discharge. Given the nature and dilution, the discharge is not expected to significantly impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: Dave & Janes Crabhouse				
WQM Permit No.	**Issuance Date**			
0195405	2/26/1997			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Extended Aeration	Hypochlorite	0.0034
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.0034		Not Overloaded	Anaerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: none

The treatment process is as follows: Grease Trap (1) – Septic Tanks (2) - Aeration Tank (1) – Chlorine Contact Tank (1) – Final Effluent Tank (1) – Blower (1) – Discharge (Outfall 001)

Septic tanks and a grease trap are cleaned every 5 to 6 months.

Compliance History	
Summary of DMRs:	See DMR reported from September 1, 2018 to September 30, 2019 Table below. (Page 4)
Summary of Inspections:	7/19/2016: Mr. Haines, DEP WQS, conducted the compliance evaluation inspection. The recommendations were as follows: need current operator's license onsite, pump and haul poor quality effluent and avoid discharge to stream until quality improves, and have treatment plant evaluated by engineer or operational consultant. There were violations such as: effluent violations (Part A.I.A of NPDES permit No. PA0087025), operation and maintenance violations (Part B.I.E.2 of the NPDES permit No. PA0087025), and failure to prevent discharge that is in violation of permit (Part B.I.F of NPDES permit No. PA0087025). 1/18/2017: Mr. Haines, DEP WQS, conducted follow up inspection on 1/18/2017 with Ms. Wriglesworth, DEP WQAA, and Mr. Haines, DEP WQS in response to effluent and significant operation and maintenance (O &M) violation revealed during a compliance evaluation inspection on 7/19/2016. Effluent was clear and the field tests were good. Sample results revealed compliance with permit effluent limits. Pending violations are now closed. There were no violations identified during inspection. 2/1/2018: Mr. Bowen, DEP WQS, conducted compliance evaluation inspection. The chlorine contact tank contents were clear with visible suspended solids. The maintenance records and testing equipment in a location readily accessible for inspection. The follow up inspection on 2/8/2018 due to the records were not accessible during inspection on 2/1/2018.
Other Comments:	There are currently no open violations associated with the permittee or the facility.

Other Comments:

The sample dated 2/8/2018 test results were summarized in the Table below.

pH (S.U.)	Chlorine (mg/L)	Temperature (F)	D.O (mg/L)	$CBOD_5$ (mg/L)	TSS (mg/L)	TP (mg/L)	TN (mg/L)	Oil & Grease (mg/L)
7.6	0.02	52.9	9.12	3.90	21	7.804	< 0.02	< 5.0

The test results indicated in the permit limits. The facility appears to be operating satisfactorily.

Compliance History

DMR Data for Outfall 001 (from September 1, 2018 to September 30, 2019)

Parameter	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18
Flow (MGD) Average Monthly	0.000602	0.000614	0.000634	0.000564	0.000519	0.000477					0.00633	0.000669	0.000653
Flow (MGD) Daily Maximum	0.000615	0.000665	0.000655	0.000590	540	0.000490					0.00067	0.000685	0.00067
pH (S.U.) Minimum	7.7	8.0	8.1	7.8	7.7	7.6					7.4	7.6	7.7
pH (S.U.) Maximum	8.5	8.5	8.6	8.4	8.3	8.2					7.9	8.1	8.2
DO (mg/L) Minimum	7.6	7.8	7.5	8.1	8.5	8.6					8.8	7.5	7.5
TRC (mg/L) Average Monthly	0.29	0.33	0.36	0.40	0.32	0.37					0.36	0.34	0.35
TRC (mg/L) Instantaneous Maximum	0.48	0.47	0.48	0.47	0.47	0.47					0.47	0.48	0.48
CBOD5 (mg/L) Average Monthly	8.7	6.1	7.0	6.2	5.9	7.7					1.0	17.1	4.8
CBOD5 (mg/L) Instantaneous Maximum	10.3	6.8	9.0	6.9	6.6	9.2					2.0	18.0	5.4
TSS (mg/L) Average Monthly	21.5	21.5	17.5	13.0	14.0	9.5					2.5	20.5	12.5
TSS (mg/L) Instantaneous Maximum	24.0	30.0	19.0	16.0	16.0	19.0					5.0	23.0	18.0
Oil and Grease (mg/L) Average Monthly	1.0	1.0	1.0	1.0	1.0	1.0					No Data	0.00	0.00
Oil and Grease (mg/L) Instantaneous Maximum	1.0	1.0	1.0	1.0	1.0	1.0					No Data	0.00	0.00
Fecal Coliform (CFU/100 ml) Geometric Mean	1.0	1.0	60	34.6	1.0	1.0					No Data	0.00	346
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	1.0	1.0	3600	1200	1.0	1.0					No Data	0.00	8000

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0034
Latitude 39º 43' 16.19" **Longitude** -77º 20' 27.99"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$):
Only the minimum treatment requirements of secondary treatment will be necessary to protect water quality. The existing limits of 25 mg/L average monthly and 50 mg/L instantaneous maximum will remain in the proposed permit. Past DMRs and inspection reports show that the facility has been consistently achieving concentrations under these limits.

Total Suspended Solids (TSS):
The existing limits of 30 mg/L average monthly and 60 mg/L instantaneous maximum will remain in the proposed permit based on the minimum level of effluent quality attainable by secondary treatment based on 25 Pa. Code § 92a.47. Past DMRs and inspection reports show that the facility has been consistently achieving concentrations under these limits.

Dissolved Oxygen (D.O.):
A minimum D.O. of 5.0 mg/L is required per 25 Pa. Code § 93.7. This is consistent with the previous permit and current Department criteria.

pH:
The effluent discharge pH should remain above 6 and below 9 standard units according to 25 Pa. Code § 95.2(2).

Fecal Coliform:
The recent coliform guidance in 25 Pa. Code § 92a.47(a)(4) requires a summer technology limit of 200/100 ml as a geometric mean (average monthly) and not greater than 1,000/100 ml (IMAX) and 25 Pa. Code § 92a.47(a)(5) requires a winter limit of 2,000/100 ml as a geometric mean (average monthly) and not greater than 10,000/100 ml (IMAX), respectively.

Total Residual Chlorine (TRC):
Based on the attached TRC Excel Spreadsheet calculator, which uses the equations and calculations from the Department's May 1, 2003 Implementation Guidance for Total Residual Chlorine (ID No. 391-2000-015), indicated monthly average limit of 0.5 mg/L and an instantaneous maximum limit of 1.6 mg/L. However, the existing IMAX limit of 1.2 mg/L is more stringent than new IMAX limit recommended by the spreadsheet, the existing IMAX limit will remain in the proposed permit. The average monthly limit of 0.5 mg/L is in existing permit. Based on the DMRs from the past year, the facility has been consistently achieving these limits. Therefore, these limits will remain in the proposed permit.

Oil & Grease:
The oil & grease limits are required for restaurant waste per 25 Pa. Code § 95.2 (2)(ii). The average monthly limit of 15.0 mg/L and daily maximum limit of 30.0 mg/L in existing permit will remain in the proposed permit.

Chesapeake Bay Strategy:
The Department formulated a strategy to comply with the EPA and Chesapeake Bay Foundation requirements by reducing point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP). Sewage discharges have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases 1, 2, and 3) dischargers will receive annual loading caps based on their design flow on August 29, 2005 and concentrations of 6 mg/L TN and 0.8 mg/L TP. These limits may be achieved through a combination of treatment technology, credits, or offsets. Phase 4 (0.2 -0.4 MGD) will be required to monitor and report TN and TP during permit renewal monthly and Phase 5 (below 0.2 MGD) will monitor during current permit renewal once a year. However, any facility in Phases 4 and 5 that undergoes expansion is subjected to cap load right away. This plant is classified as a phase 5, will be required to monitor and report TN & TP once a year, and these monitoring requirements will remain in the proposed permit.

Toxic
This is a minor sewage facility receiving domestic wastewater only and the current application does not require sampling of toxic pollutants (or heavy metals) for those facilities with design flows less than 0.1 MGD. Therefore, no reasonable potential analysis for toxic pollutants has been performed for this permit renewal.

Additional Consideration

Flow Monitoring
The requirement to monitor the volume of effluent will remain in the proposed permit per 40 CFR § 122.44(i)(1)(ii).

Monitoring Frequency and Sample Type
The facility currently is required to collect daily effluent grab samples for DO, TRC, and pH; bi-monthly effluent grab samples of $CBOD_5$, TSS, fecal coliform, and oil & grease; annually effluent 8-hr composite samples of TP; and annually effluent calculation samples of TN. Based on the best professional judgement of the author, the existing monitoring frequencies are sufficient and necessary. Therefore, the renewal permit monitoring frequencies will remain the same as those specified in the existing permit.

Antidegradation (93.4)
The effluent limits and monitoring requirements have been established to ensure that the existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

Class A Wild Trout Fisheries
No Class A Wild Trout Fisheries are impacted by this discharge.

303d Listed Streams
The 2012 Pennsylvania Integrated Water Quality Monitoring and Assessment Report (formerly 303(d) list) groups Flat Run in List 2, *Attaining some designated uses and insufficient or no data available for remaining uses*. Flat Run is currently unassessed; therefore, the stream condition is unknown. A Total Maximum Daily Load (TMDL) has not been developed for this stream.

Anti-Backsliding
Unless stated otherwise in this fact sheet, all permit requirements proposed in this fact sheet are at least as stringent as existing permit requirements in accordance with 40 CFR §122.44(l)(1).

WQM 7.0 model inputs:

Node 1: Point of First Use on Flat Run

Elevation:	446 ft (USGS National Map Viewer)
Drainage Area:	7.41 $mi.^2$ (USGS PA StreamStats)
River Mile Index:	3.67 miles (PA DEP eMapPA)
Low Flow Yield:	0.04 $cfs/mi.^2$
Discharge Flow:	0.0034 MGD (NPDES PA0087025)

Node 2: Just before PA & MA Border on Flat Run

Elevation:	441 ft (USGS National Map Viewer)
Drainage Area:	7.47 $mi.^2$ (USGS PA StreamStats)
River Mile Index:	3.39 mile (PA DEP eMapPA)
Low Flow Yield:	0.04 $cfs/mi.^2$
Discharge Flow:	0.00 MGD

Attachment is WQM7.0 data.

WQM 7.0 data Dave & Jane.pdf

TRC Results

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.32	= Q stream (cfs)	0.5	= CV Daily
0.0034	= 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 = 19.427	1.3.2.iii	WLA cfc = 18.932
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 7.239	5.1d	LTA_cfc = 11.006

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	

WLA afc	**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...** **...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...** **...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**

Permit No. PA0087025

Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine	XXX	XXX	XXX	0.5	XXX	1.2	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25	XXX	50	2/month	Grab
Total Suspended Solids	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15	XXX	30	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report Annual Avg	XXX	XXX	1/year	Calculation
Total Phosphorus	XXX	XXX	XXX	Report Annual Avg	XXX	XXX	1/year	8-Hr Composite

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	XXX	30.0	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation

Compliance Sampling Location:

Other Comments:

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment)
☐	PENTOXSD for Windows Model (see Attachment)
☒	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Toxics Screening Analysis Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☒	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☒	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other: