

Application Type Renewal  
Facility Type Municipal  
Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0060135  
APS ID 760074  
Authorization ID 1395466

**Applicant and Facility Information**

Applicant Name	<u>Sanitary Sewer Authority of the Borough of Shickshinny (SSABS)</u>	Facility Name	<u>SSABS Wastewater Treatment Plant</u>
Applicant Address	<u>908 Loop Trail Road Shickshinny, PA 18655-5502</u>	Facility Address	<u>Loop Trail Road Mocanaqua, PA 18655-1505</u>
Applicant Contact	<u>Barry Noss, Board Chairman</u>	Facility Contact	<u>Jeff Slabinski, Operator</u>
Applicant Phone	<u>(570) 760-5886</u>	Facility Phone	<u>(570) 412-0182</u>
Client ID	<u>44152</u>	Site ID	<u>450173</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Shickshinny Borough</u>
Connection Status	<u>No Limitations</u>	County	<u>Luzerne</u>
Date Application Received	<u>May 3, 2022</u>	EPA Waived?	<u>No</u>
Date Application Accepted	<u>May 9, 2022</u>	If No, Reason	<u>Significant CB Discharge</u>
Purpose of Application	<u>Renewal of NPDES permit for discharge of treated sewage.</u>		

**Summary of Review**

The applicant is requesting the renewal of an NPDES permit to discharge up to 0.45 MGD of treated sewage into the Susquehanna River, a Warm-Water Fishery, (WWF) receiving stream in State Water Plan Basin 5-B (Wapwallopen Creeks). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use. This stream segment is not designated as a naturally reproducing trout stream as per PA Fish & Boat Commission. This discharge is not expected to affect public water supplies.

This is a significant Chesapeake Bay Discharger (Phase 3) Minor Facility with existing cap loads.

Limitations for pH, CBOD<sub>5</sub>, Total Suspended Solids (TSS), and Fecal Coliform are technology-based and carried over from the previous permit.

A BPJ-based limitation of 5.0 mg/L for Dissolved Oxygen (DO) has been added to the permit. This is an increase from the existing 4.0 mg/l DO limitation. The updated limitation will come into effect three years after the permit effective date.

The 1.0 mg/L monthly average and 2.0 mg/L IMAX limitations for Total Residual Chlorine (TRC) in the previously issued permit were water quality-based limitations. As per PA Code 92a.47(a)(8) (which refers to PA Code 92a.48(b)(2)), a monthly average TRC facility-specific BAT effluent limit of 0.5 mg/L and an IMAX limit of 1.6 mg/L has been applied to this permit renewal. The TRC Calculation Spreadsheet did not recommend more stringent water quality-based limitations. eDMR data from June 2022 to May 2023 (seen on page 4 of this Fact Sheet) indicates that the facility is consistently under 0.5 mg/L monthly average for TRC. Therefore, the new TRC technology-based limit will be applied at the permit effective date.

The 2/week monitoring and reporting for Ammonia-Nitrogen and Total Phosphorus has been carried over from the previous permit. WQM 7.0 modeling did not recommend stricter limits.

Approve	Deny	Signatures	Date
X		/s/ Allison Seyfried / Project Manager	September 19, 2023
X		/s/ Amy M. Bellanca, P.E. / Program Manager	9-22-23

### Summary of Review

The Chesapeake Bay monitoring/reporting requirements for Total Nitrogen (TN), Total Phosphorus (TP), Total Kjeldahl Nitrogen (TKN), and Nitrate-Nitrite as N has been maintained in this permit.

Per current Standard Operating Procedures for Publicly Owned Treatment Plants, the raw sewage influent monitoring/reporting for TSS and BOD<sub>5</sub> has been maintained in the permit.

Sewage discharges now require monitoring and reporting for E. Coli. A monitoring frequency of 1/month for design flows  $\geq$  1 MGD, 1/quarter for design flows  $\geq$  0.05 and  $<$  1 MGD, 1/year for design flows of 0.002 – 0.05 MGD will be utilized.

Pollutant sampling results submitted with the permit application were entered into the Toxic Management Spreadsheet (TMS). The TMS did not recommend any additional limitations or reporting/monitoring.

Two final Total Maximum Daily Load (TMDLs) exist for the Susquehanna River. The first TMDL address PCBs and is treated as a non-point source contaminant because there are no known sources of PCB to this segment of the Susquehanna River. There are no approved Waste Load Allocations (WLA) for this facility. Since this is a sewage discharge with no industrial contributors and the use of PCB in the United States has been banned since July of 1979, no PCBs are expected to be present in the effluent.

The second TMDL for the Susquehanna River addresses metals (iron, manganese, and aluminum) and pH associated with acid mine drainage (AMD). There are no approved Waste Load Allocations (WLA) for this facility under either TMDL.

The 1/month monitoring and reporting for Total Aluminum due to Alum being used in the treatment plant and the Acid Mine Drainage TMDL has been carried over from the previous permit.

The annual monitoring and reporting for Total Iron and Total Manganese due to the Acid Mine Drainage TMDL has been carried over from the previous permit.

For this permit renewal, all monitoring frequencies for parameters with limitations are consistent with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (document no. 362-0400-001).

The existing permit expired on October 31, 2022 and the application for renewal was received on time.

A Water Management System Inspection query indicated that on July 1, 2020 a Compliance Evaluation was performed.

There are currently no open violations for this client that warrant withholding issuance of this permit.

Sludge use and disposal description and location(s): Sewage sludge is disposed at on-site reed beds.

#### 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.	001	Design Flow (MGD)	0.45
Latitude	41° 9' 1.82"	Longitude	-76° 8' 45.52"
Quad Name	Shickshinny	Quad Code	0936
Wastewater Description: Sewage Effluent			
Receiving Waters	Susquehanna River (WWF)	Stream Code	6685
NHD Com ID	65636383	RMI	156.55
Drainage Area	10,200 mi <sup>2</sup>	Yield (cfs/mi <sup>2</sup> )	0.1
Q <sub>7-10</sub> Flow (cfs)	948	Q <sub>7-10</sub> Basis	USGS Stream Stats
Elevation (ft)	497.91	Slope (ft/ft)	-
Watershed No.	5-B	Chapter 93 Class.	WWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	MERCURY, METALS, POLYCHLORINATED BIPHENYLS (PCBS),		
Source(s) of Impairment	ACID MINE DRAINAGE, SOURCE UNKNOWN		
TMDL Status	Final	Name	Susquehanna River Metals
Nearest Downstream Public Water Supply Intake	Danville Municipal Authority		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	-
PWS RMI	122.58	Distance from Outfall (mi)	> 30 miles

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Shickshinny Sewer Authority WWTP				
WQM Permit No.	Issuance Date	Scope		
4012402	3/23/2012	WWTP Upgrade utilizing two SBRs and modification of existing three treatment tanks		
4095405	11/27/1995	0.45 MGD Expansion (including upgrades) and connection to SCI Retreat		
4076409	8/30/1976	Original 0.23 MGD		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Activated Sludge	Chlorination	0.247 (2019-2021)
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.46 (old units) 0.900 (upgrade)	991 (old units) 1,126 (upgrade)	Not Overloaded	Aerobic Digestion/ Onsite reed drying beds	-

Compliance History

DMR Data for Outfall 001 (from June 1, 2022 to May 31, 2023)

Parameter	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22
Flow (MGD) Average Monthly	0.2322	0.12977	0.18745	0.12647	0.24308	0.19349	0.12305	0.09403	0.08462	0.06656	0.06851	0.10962
Flow (MGD) Daily Maximum	0.88865	0.32054	0.26692	0.17748	0.34346	0.38142	0.19953	0.18998	0.1534	0.10909	0.09157	0.16463
pH (S.U.) Minimum	6.1	6.0	6.1	6.2	6.1	6.0	6.1	6.2	6.3	6.1	6.3	6.2
pH (S.U.) Maximum	6.6	6.6	7.0	6.8	6.7	6.8	6.6	6.6	6.7	6.8	6.8	6.7
DO (mg/L) Minimum	5.16	5.55	6.59	5.41	6.47	5.9	5.62	5.36	4.49	4.27	4.32	4.55
TRC (mg/L) Average Monthly	0.2	0.2	0.2	0.3	0.2	< 0.3	0.3	0.4	0.3	0.2	0.2	0.3
TRC (mg/L) Instantaneous Maximum	0.4	1.0	0.3	1.0	0.4	1.0	1.0	1.0	1.0	0.3	0.5	1.0
CBOD5 (lbs/day) Average Monthly	< 9	< 3	< 10	< 3	< 6	< 6.0	< 5	< 4	< 2	< 3	< 2	< 3
CBOD5 (lbs/day) Weekly Average	35	< 4	27	< 4	< 7	7.0	8	6	< 3	6	< 2	< 3
CBOD5 (mg/L) Average Monthly	< 3.4	< 3.0	< 5.5	< 3.0	< 3.0	< 3.9	< 4.7	< 4.9	< 3.0	< 4.8	< 3.0	< 3.0
CBOD5 (mg/L) Weekly Average	4.7	< 3.0	12.8	< 3.0	< 3.0	6.4	8.9	7.7	< 3.0	11.1	< 3.0	< 3.0
BOD5 (lbs/day) Influent   Average Monthly	167	154	278	218	201	140	120	148	97	89	180	200
BOD5 (mg/L) Influent   Average Monthly	125	163	155	204	109	89	126	189	132	176	316	240
TSS (lbs/day) Average Monthly	< 14	< 3	23	< 4	< 5	< 6	< 3	< 3	< 2	< 2	< 2	< 2
TSS (lbs/day) Influent   Average Monthly	62	88	111	129	126	132	74	82	61	67	173	208
TSS (lbs/day) Weekly Average	62	< 4	80	8	8	9	5	4	3	4	3	2
TSS (mg/L) Average Monthly	< 3.5	< 2.8	12.5	< 4.2	< 2.5	< 3.7	< 2.8	< 3.5	< 1.9	< 3.4	< 2.8	< 1.9

**NPDES Permit Fact Sheet  
SSABS Wastewater Treatment Plant**

**NPDES Permit No. PA0060135**

TSS (mg/L) Influent   Average Monthly	59	91	66	119	68	91	86	107	66	136	302	248
TSS (mg/L) Weekly Average	8.4	< 4.0	42.8	8.0	4.8	6.4	3.6	5.6	2.0	8.4	4.4	2.8
Fecal Coliform (No./100 ml) Geometric Mean	< 7	< 1	< 1	< 7	< 3	< 2	< 1	< 1	< 1	< 2	< 1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	2419.6	< 1	2	2419.6	12.1	3.1	< 1	1	1	3.1	1	1
Nitrate-Nitrite (mg/L) Average Monthly	< 1.7767	< 3.944	< 2.155	< 1.748	< 1.918	< 2.561	< 3.108	< 3.577	< 3.977	< 3.7257	< 4.9645	< 3.0399
Nitrate-Nitrite (lbs) Total Monthly	< 128.8	< 124.3	< 118.7	< 48.4	< 116.2	< 130.1	< 98.5	< 82.7	< 92.5	< 66	< 94	< 83.3
Total Nitrogen (mg/L) Average Monthly	< 3.0577	< 4.687	< 2.777	< 2.819	< 2.431	< 3.207	< 4.74	< 4.523	< 4.4864	< 4.4984	< 5.7401	< 3.7105
Total Nitrogen (lbs) Effluent Net   Total Monthly	< 259.3	< 145.8	< 153.1	< 78.5	< 147.4	162.6	< 150.3	< 104.6	< 104.5	< 79.6	< 108.9	< 102.7
Total Nitrogen (lbs) Total Monthly	< 259.3	< 145.8	< 153.1	< 78.5	< 147.4	< 162.6	< 150.3	< 104.6	< 104.5	< 79.6	< 108.9	< 102.7
Total Nitrogen (lbs) Effluent Net   Total Annual									< 1783			
Total Nitrogen (lbs) Total Annual									< 1783			
Ammonia (mg/L) Average Monthly	< 0.457	< 0.131	< 0.112	0.558	< 0.126	< 0.106	< 0.166	< 0.247	< 0.172	0.325	0.374	0.164
Ammonia (lbs) Total Monthly	< 68.3	< 4.1	< 6.1	15.4	< 7.9	< 5.4	< 5.1	< 5.5	< 3.9	5.7	7	4.3
TKN (mg/L) Average Monthly	< 1.281	< 0.744	< 0.623	1.1	< 0.514	< 0.646	< 1.632	< 0.946	< 0.509	< 0.761	< 0.776	< 0.671
TKN (lbs) Total Monthly	< 130.4	< 21.5	< 34.4	30.1	< 31.2	< 32.5	< 51.8	< 21.9	< 11.9	< 13.3	< 14.9	< 18.9
Total Phosphorus (mg/L) Average Monthly	0.973	1.3	0.5	0.8	0.7	0.445	0.4	0.5	1.0	1.228	0.8	1.1
Total Phosphorus (lbs) Effluent Net   Total Monthly	60.2	37.4	27.4	23.5	39.4	< 23.4	11.3	11.6	23.7	21.1	14.9	31.6
Total Phosphorus (lbs) Total Monthly	60.2	37.4	27.4	23.5	39.4	23.4	11.3	11.6	23.7	21.1	14.9	31.6

**NPDES Permit Fact Sheet  
SSABS Wastewater Treatment Plant**

**NPDES Permit No. PA0060135**

Total Phosphorus (lbs) Effluent Net   Total Annual									387			
Total Phosphorus (lbs) Total Annual									342			
Total Aluminum (lbs/day) Average Monthly	2.0	< 0.1	< 0.2	< 0.1	< 0.2	< 0.2	0.1	0.1	< 0.1	0.1	< 0.1	< 0.1
Total Aluminum (mg/L) Average Monthly	0.31	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.16	< 0.1	0.19	< 0.1	< 0.1
Total Iron (lbs/day) Annual Average						< 0.1						
Total Iron (mg/L) Annual Average						< 0.2						
Total Manganese (lbs/day) Annual Average						0.02						
Total Manganese (mg/L) Annual Average						0.0359						

**Compliance History**

**Effluent Violations for Outfall 001, from: July 1, 2022 To: May 31, 2023**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Fecal Coliform	05/31/23	IMAX	2419.6	No./100 ml	1000	No./100 ml

**Development of Effluent Limitations**

<b>Outfall No.</b> <u>001</u>	<b>Design Flow (MGD)</b> <u>0.45</u>
<b>Latitude</b> <u>41° 8' 59.28"</u>	<b>Longitude</b> <u>-76° 8' 38.79"</u>
<b>Wastewater Description:</b> <u>Sewage Effluent</u>	

**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 <sub>5</sub>	25.0	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40.0	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
	50.0	IMAX		
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45.0	Average Weekly	133.102(b)(2)	92a.47(a)(2)
	60.0	IMAX		
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)
	1.6	IMAX		
E. Coli	Report	IMAX	-	92a.61
Dissolved Oxygen	5.0	Minimum	-	BPJ

**Water Quality-Based Limitations**

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen	Report	Average Monthly	BPJ
Total Phosphorus	Report	Average Monthly	Chesapeake Bay Monitoring
Aluminum, Total	Report	Average Monthly	Use of alum for TP treatment and TMDL for Acid Mine Drainage (AMD)
Iron, Total	Report	Annual Average	
Manganese, Total	Report	Annual Average	TMDL
Biochemical Oxygen Demand (BOD <sub>5</sub> ) Raw Sewage Influent	Report	Average Monthly	POTW Requirement
Total Suspended Solids Raw Sewage Influent	Report	Average Monthly	

**Anti-Backsliding**

No limitations were made less stringent.

### Modeling Using StreamStats:

At Outfall 001 on Susquehanna River:

RMI	Elevation (ft)	Drainage Area (mi <sup>2</sup> )	Q <sub>7-10</sub> Flow (cfs)
156.547	497.91	10,200	948

$$\text{Low Flow Yield using StreamStats} = \frac{948 \text{ ft}^3/\text{sec}}{10,200 \text{ mi}^2} = 0.093 \frac{\text{ft}^3/\text{sec}}{\text{mi}^2}$$

### StreamStats Report

Region ID: PA  
 Workspace ID: PA20220606164839118000  
 Clicked Point (Latitude, Longitude): 41.14982, -76.14622  
 Time: 2022-06-06 12:49:06 -0400



Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	10200	square miles	4.93	1280
Low-Flow Statistics Flow Report [6.4 Percent (651 square miles) Low Flow Region 2]					
<b>Statistic</b>				<b>Value</b>	<b>Unit</b>
7 Day 2 Year Low Flow				1720	ft <sup>3</sup> /s
30 Day 2 Year Low Flow				2090	ft <sup>3</sup> /s
7 Day 10 Year Low Flow				1220	ft <sup>3</sup> /s
Low-Flow Statistics Flow Report [93.1 Percent (9480 square miles) Low Flow Region 5]					
<b>Statistic</b>				<b>Value</b>	<b>Unit</b>
7 Day 2 Year Low Flow				1410	ft <sup>3</sup> /s
30 Day 2 Year Low Flow				1710	ft <sup>3</sup> /s
7 Day 10 Year Low Flow				934	ft <sup>3</sup> /s



Low-Flow Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
7 Day 2 Year Low Flow	1420	ft <sup>3</sup> /s
30 Day 2 Year Low Flow	1730	ft <sup>3</sup> /s
7 Day 10 Year Low Flow	948	ft <sup>3</sup> /s

At confluence with Unnamed Tributary 28288 to Susquehanna River:

RMI	Elevation (ft)	Drainage Area (mi <sup>2</sup> )
156.328	497.85	10,200.1

StreamStats Report

Region ID: PA  
 Workspace ID: PA20220606165919554000  
 Clicked Point (Latitude, Longitude): 41.14628, -76.14648  
 Time: 2022-06-06 12:59:48 -0400



Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	10200	square miles	4.93	1280

At confluence with Unnamed Tributary 28283 to Susquehanna River:

RMI	Elevation (ft)	Drainage Area (mi <sup>2</sup> )
154.44	495.67	10,200.3

StreamStats Report

Region ID: PA  
 Workspace ID: PA20220606170948739000  
 Clicked Point (Latitude, Longitude): 41.12128, -76.13540  
 Time: 2022-06-06 13:10:15 -0400



Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	10200	square miles	4.93	1280

Modeling with State-Wide default LFY of 0.1 cfs/mi<sup>2</sup>:

$$\frac{0.1 \text{ ft}^3/\text{sec}}{\text{mi}^2} \times 10,200 \text{ mi}^2 = \frac{1,020 \text{ ft}^3}{\text{sec}}$$

**WQM 7.0 Effluent Limits**

<u>SWP Basin</u>		<u>Stream Code</u>		<u>Stream Name</u>			
07K		6685		SUSQUEHANNA RIVER			
RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
156.547	Shickshinny	PA0080135	0.450	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			3

TRC EVALUATION				
Input appropriate values in A3:A9 and D3:D9				
948	= Q stream (cfs)	0.5	= CV Daily	
0.45	= 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
TRC	1.3.2.iii	WLA afc = 434.425		1.3.2.iii
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c
PENTOXSD TRG	5.1b	LTA_afc= 161.877		5.1d
		WLA cfc = 423.523		
		LTAMULT cfc = 0.581		
		LTA_cfc = 246.217		
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)			



WQM 7.0.pdf



TMS PA0080135.pdf

DRAFT

Approve	Deny	Signatures	Date
X		/s/ Allison Seyfried / Project Manager	September 19, 2023
X		/s/ Amy M. Bellanca, P.E. / Program Manager	9-22-23