

- d) Complete a Certification Form for each structure as appropriate:  
Sediment Pond Certification form 5600-PM-BMP0408 - Attached  
Treatment Pond Certification form 5600-PM-BMP0455 - Not Applicable
- e) If the impoundment is located outside of the area covered by the geology and hydrology description contained in Modules 7 and 8, include a preliminary geology and hydrology report.

Not Applicable. The pond is located within the area covered by the geology and hydrology description contained in Modules 7 and 8.

- f) Describe the potential effect on the structure from subsidence from underground mining when applicable.

Based on drill hole H-BH-4, which was located very near to sediment pond P-1, there is approximately 105 feet from the surface to the bottom of the mine void. This should be adequate cover over the underlying workings in the Pittsburgh coal seam to prevent subsidence.

- g) If the detailed design plans are not included with the initial submittal of this application, identify when the detailed design plans will be submitted. (**Note:** The detailed design plans must be approved by the Department before construction of the structure begins.)

Please see the attached design plans.

#### 13.4 Class C Dams

Not Applicable. There are no Class C Dams proposed for this site.

A separate permit is required for impoundments that meet one or more of the following:

- 1) a contributory drainage area exceeding 100 acres;
- 2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 ft;
- 3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet.

#### 13.5 Operation and Maintenance Requirements

Describe the operation and maintenance requirements for the structure, including dewatering of the impoundments following storm events.

The impoundment will self-dewater if the pond is filled to the principal spillway. 24 hours after each storm event, the operator will drain down the pond utilizing the 6" PVC skimmer drawdown device with a 5.0" orifice. The inlet of the pipe will be 3.0' above the bottom of the pond. The skimmer design is on page 13-14.

#### 13.6 Removal

Describe the timetable and plans for removal of the impoundment and reclamation of the area.

The owner of the property, John Kosky Contracting Inc., has signed a request to allow sedimentation pond P-1 to remain as a permanent postmining structure. The original request is on file under with this application. Permanent approval allowing the pond to remain will be reviewed by the PA Department of Environmental Protection during bond release of this permit.

Sedimentation pond P-2 will be removed once the area draining to it meets the Stage 2 revegetation requirement.

## SEDIMENT POND CERTIFICATION

Permittee: Neiswonger Construction, Inc. Site Name: Maggie Lynn Underground Mine SMP No.: 63192001

Engineer/Land Surveyor: Christopher Carl Peterson Structure ID #: P-1 NPDES Outfall ID #: 001

Location (point of discharge): Latitude (DMS): 39°59'54.8" Longitude (DMS): 80°02'35.2"

Drainage Area: 44.5 acres Design Storm: 10/100 year / 24 hour Rainfall Amount: 3.35/4.99 inches

Average Watershed Slope: Steep Land Use: Forestland Soil Type: Nw Curve Number: 85

Peak Discharge: 90/177 cubic feet/second NPDES Average Flow: 5.229 mgd NPDES Design Flow: 64.627 mgd

	<i>Permit Application</i>	<i>As Constructed</i>
Embankment	Top Width (Minimum)	10'
	Outside Slope (Maximum) (H:V)	3:1
	Inside Slope (Maximum) (H:V)	2.5:1
	Top Elevation	829.8
	Bottom Elevation	814.8
	Upstream Toe Elevation	817.8
	Downstream Toe Elevation	815.8
	Type of Cover	grass
	Incised Slope (if any)	N/A
	Inside Slope (Maximum) (H:V)	_____
	Top Elevation	_____
Bottom Elevation	_____	
Principal Spillway	Type	SLCPP
	Conduit Diameter (if barrel/riser give both)	12"
	Inlet Elevation	824.8
	Outlet Protection	Riprap Apron
	Spillway Capacity (cubic feet/second)	8.20 cfs
Dewatering Device	Type/Size	6" PVC pipe w/skimmer
	Inlet Elevation	817.8
	Discharge Regulation (self-draining or valved)	valved
	Discharge Capacity (cubic feet/second)	0.73 cfs
	Time to Dewater Full Pond	112.3 hrs (5 days)
Emergency Spillway	Type	Trapezoidal
	Width	22'
	Depth (with 1 foot of freeboard)	2.7'
	Length	20', 72'
	Sideslopes (H:V)	2:1
	Crest Elevation	827.0
	Slope	0.0%, 2.6%
	Type of Lining/Protection	R-4 Rock
	Spillway Capacity (provide design calculations)	177 cfs (pg 13-9)
Storage Capacity	Length @ Bottom	336'
	Width @ Bottom	70'
	Length @ Dewatering Device	348'
	Width @ Dewatering Device	82'
	Volume @ Dewatering Device	78,012 cf
	Length @ Principal Spillway	372.0'
	Width @ Principal Spillway	106.0'
	Volume @ Principal Spillway	203,328 cf
	Length @ Crest of Emergency Spillway	384.8'
	Width @ Crest of Emergency Spillway	118.8'
	Volume @ Crest of Emergency Spillway	422,068 cf

### MODULE 13 ADDENDUM

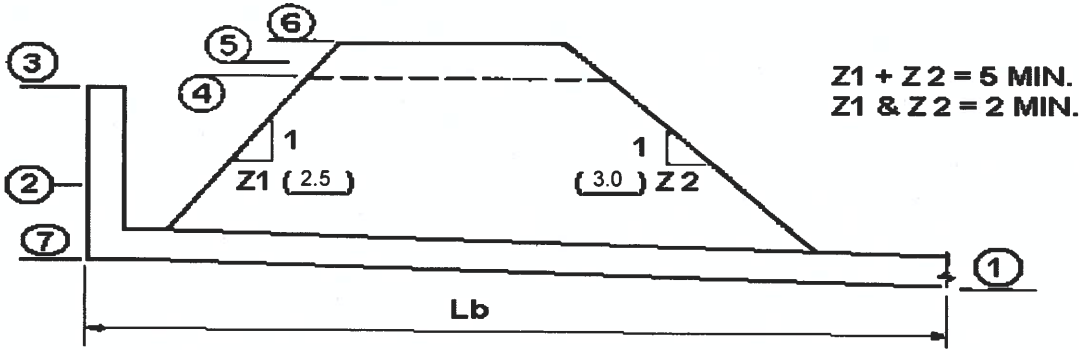
Calculations for Sediment Pond P-1 are given on the following pages of this addendum to Module 13. Design Criteria used:

- Storm Event for all calculation were done using table 5.1, Pennsylvania Rainfall by County (page 109 of the Pennsylvania Department of Environmental Protection Erosion and Sediment Pollution Control Program Manual (E&S Manual). The table is included on page 13-7 of this module.
- Dewatering Elevation determined using 1,000 ft<sup>3</sup>/ac, specified on Standard Worksheet #12, from page 383 of the E&S Manual.
- Principal Spillway Elevation determined using design criteria number six from page 159 of the E&SPCP Manual with a base design of 5,000 cubic feet for each disturbed and undisturbed acre.
- Principal Spillway Design volume is determined using the following equation,  $Q = a [(2gh)/(1+K_m+K_pL)]^{.5}$  this is equation number three for using pipe flow as the determinate for the principal spillway discharge capacity on page 175 of the E&S Manual.
- Emergency Spillway Elevation determined using a capacity to hold the runoff from a ten-year storm. This is calculated above the dewatering elevation.
- Emergency Spillway Design was done using the 100-year storm and then increasing the freeboard by 12 inches. This is labeled as an acceptable alternative for using the 25-year storm event with two feet of freeboard as labeled on page 192 of the E&S manual.

The calculations for the pond are on the following pages. All design criteria are labeled in red while the design of the pond is all in bold type. Tables used within the calculations are included as pages 13-7 through 13-10. Design sheets include construction detail #7-1: Skimmer Detail, #7-12: Sediment Basin Emergency Spillway with Riprap Lining, Standard E&S Worksheet #12, Sediment Basin Capacity Requirements, and Standard E&S Worksheet #13: Sediment Basin Dimensions and Elevations.

## STANDARD E&S WORKSHEET # 13 Sediment Basin Dimensions and Elevations

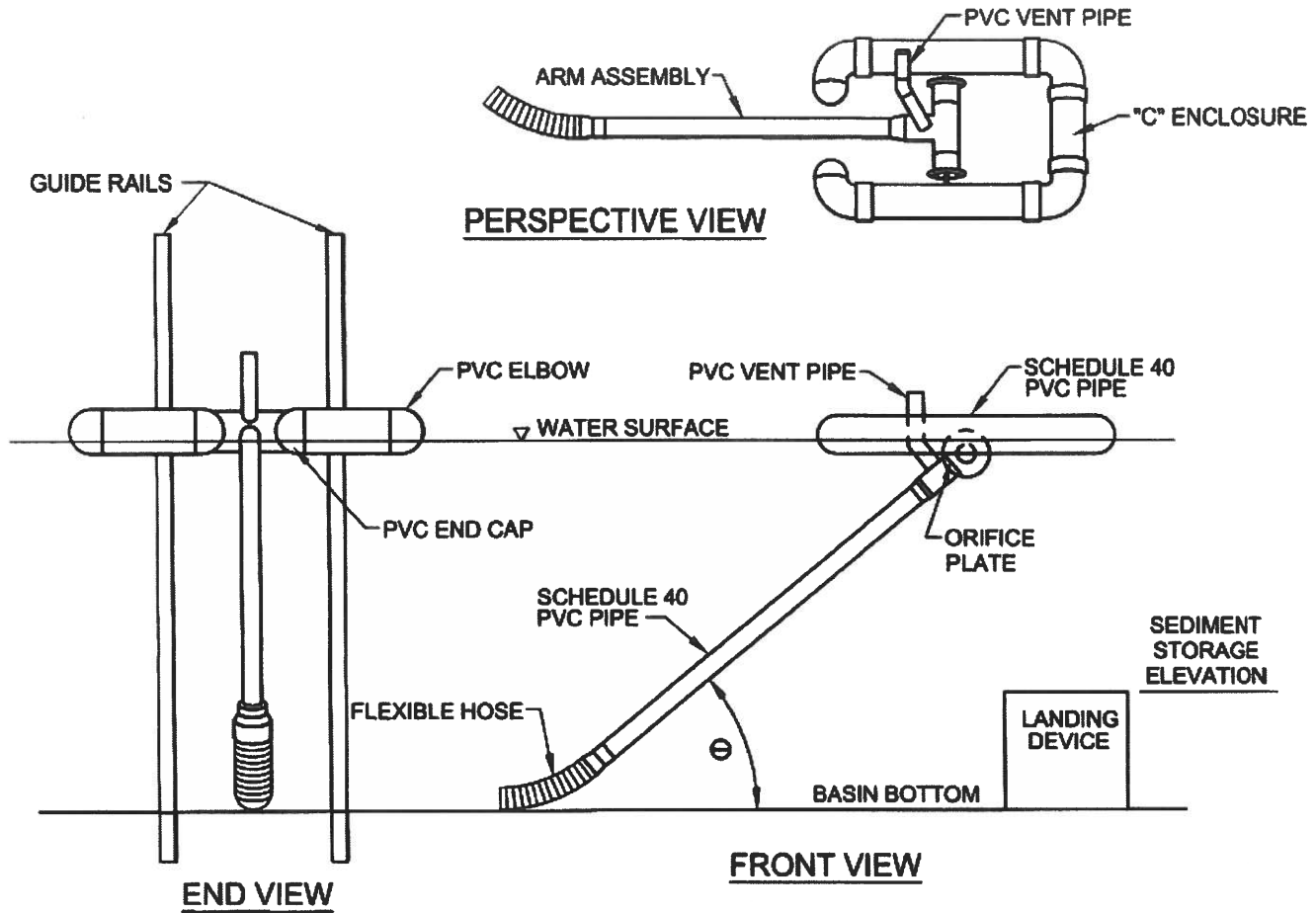
PROJECT NAME: Maggie Lynn Underground Mine SMP No. 63192001  
 LOCATION: Deemston Borough, Washington County  
 PREPARED BY: Sherman Bloom, PE DATE: May 24, 2023  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



BASIN NUMBER		P-1	
1. DISCHARGE PIPE ELEVATION (FT)		812.8'	
2. ELEVATION AT TOP OF SEDIMENT STORAGE ZONE (@ Sd) (FT) (MIN. 1.0' ABOVE ELEVATION 7)		817.8'	
3. ELEVATION AT TOP OF DEWATERING ZONE (St) (CREST OF PRINCIPAL SPILLWAY)	(FT)	824.8'	
4. EMERGENCY SPILLWAY CREST ELEVATION (MIN. 0.5' ABOVE ELEVATION 3)	(FT)	827.0'	
5. 2 CFS/ACRE OR 25-YR/24-HR FLOW ELEVATION	(FT)	828.0'	
6. TOP OF EMBANKMENT ELEVATION (MIN. 24" ABOVE ELEVATION 5 OR 12" WITH ROUTED 100-YR/24-HR STORM)	(FT)	829.8'	
7. BASIN BOTTOM ELEVATION	(FT)	814.8'	
AVERAGE BOTTOM WIDTH	(FT)	70'	
AVERAGE BOTTOM LENGTH	(FT)	341'	
(S <sub>Amin</sub> ) REQUIRED SURFACE AREA AT ELEVATION 2	(SQ. FT.)	8,200	
SURFACE AREA PROVIDED AT ELEVATION 2	(SQ. FT.)	28,946	
AVERAGE BASIN WIDTH (W) AT ELEVATION 3	(FT)	106.0'	
FLOW LENGTH (L) AT ELEVATION 3	(FT)	377.0'	
FLOW LENGTH:WIDTH RATIO AT ELEVATION 3	(L/W)	3.56	
SILT CURTAIN OR FOREBAY? (IF YES, INDICATE WHICH)		NO	
EMBANKMENT TOP WIDTH	(FT, 8')	10'	
EMBANKMENT SOIL TYPE(S)		Nw	
KEY TRENCH DEPTH	(FT, 2' MIN.)	2	
KEY TRENCH WIDTH	(FT, 4' MIN.)	4	
RISER DIAMETER/TYPE	(15" MIN.)	15" Snout	
BARREL DIAMETER/TYPE	(12" MIN.)	12"	
L <sub>b</sub> (BARREL LENGTH)	(FT)	60	
EMERGENCY SPILLWAY WIDTH	(FT)	22	
EMERGENCY SPILLWAY SIDE SLOPES	(H:V)	2:1	
EMERGENCY SPILLWAY DEPTH	(FT)	2.1	

For irregular shaped traps, provide stage storage data

## STANDARD CONSTRUCTION DETAIL # 7-1 Skimmer



Adapted from Penn State Agricultural and Biological fact Sheet F-253

NOTE: This table is intentionally blank and should be filled in by the plan preparer.

Basin No.	Water Surface Elevation (ft)	Arm Length (ft)	Arm Dia. (in)	Orifice Size* (in)	Top of Landing Device Elevation (ft)	Flexible Hose Length (in)	Flexible Hose Attachment Elevation (ft)
P-1	824.8	10.0	6	5.3	817.8	24	815.0

\* Must be equal to or less than arm diameter

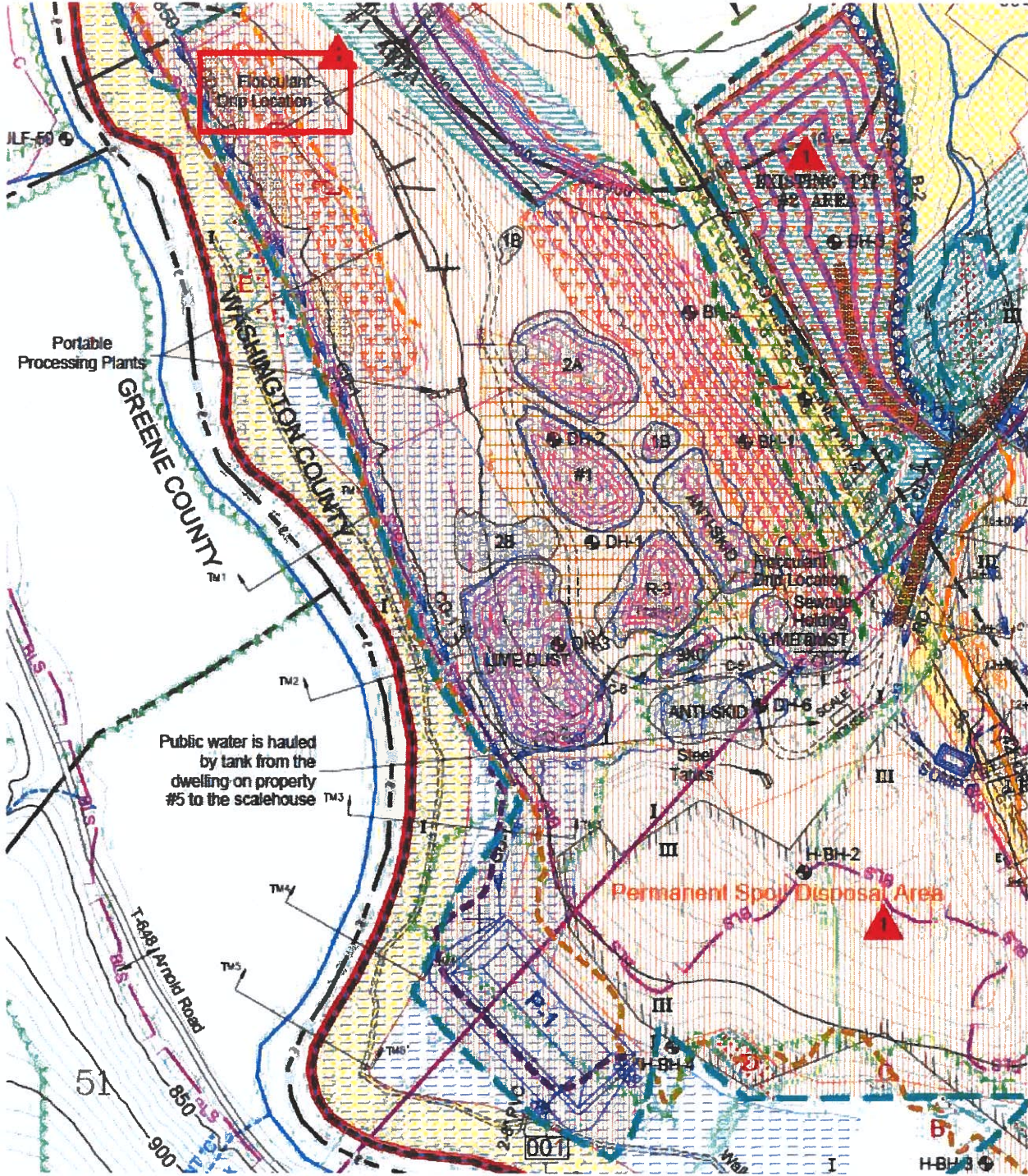
A rope shall be attached to the skimmer arm to facilitate access to the skimmer once installed. Skimmer shall be inspected weekly and after each runoff event.

Any malfunctioning skimmer shall be repaired or replaced within 24 hours of inspection.

Ice or sediment buildup around the principal spillway shall be removed so as to allow the skimmer to respond to fluctuating water elevations.

Sediment shall be removed from the basin when it reaches the level marked on the sediment clean-out stake or the top of the landing device.

A semi-circular landing zone may be substituted for the guide rails (Standard Construction Detail # 7-3)



## **Flocculant Addition Plan**

The on-site plan is to run without need for flocculant addition. The introduction of curtains in SP-1 has been made in efforts to reduce suspended solids. If sampling at SP-1 dictates that suspended solids are at levels that are not compliant, the following plan is to be implemented.

- Flocculant addition is to occur in the pit area prior to the pumped water reaching CD-1, in efforts to reduce suspended solids at SP-1.
- Enviro-floc CF-1 as specifies in pages 13-18 to 13-24 of the Module 13 submission to the Pennsylvania Department of Environmental Protection is the proposed Flocculant to be used on the mining site covered under SMP 63192001.
- Flocculant addition will occur at one location, only while pumping is occurring, and the flocculant drip will be directed toward the pumped water stream. The addition location is the sump location of the main pit. Flow distance from addition of the flocculant to the SP-1 is approximately 1,400'.
- Flocculant addition will only occur when suspended solids levels have been shown to be high.
- When there is water being pumped from pit, the addition is planned to be drips at approximately 7.5 ml. every 30 seconds. Based pumping of 250 gallons a minute the flocculant addition is determined to be 1 ml per 33 gallons of pumped water.
- Prior to starting the flocculant drip application, SP-1 will not be flowing from the emergency or principal spillway and that the dewatering valve will be turned off.
- Approximate flocculant location is show in the main pit on the Exhibit 9 and 15.2 mapping of the Maggie Lynn underground mining operation.
- Any changes to the Flocculant Addition Plan must be submitted to the PFBC for approval and a revised Flocculant Addition Plan will be submitted to the New Stanton DMO as a minor revision to the permit.
- Pages 13-18 through 13-30 are an integral part of the Flocculant Addition Plan and includes correspondence with the PFBC and the map and the Safety Data Sheets for Enviro-Floc CF-1 sent to PFBC.

## Sherman Bloom

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**From:** Ryan, Daniel <daniryan@pa.gov>  
**Sent:** Monday, April 22, 2024 8:21 AM  
**To:** Sherman Bloom  
**Subject:** RE: [External] DEP asked me to get PFBC approval

Hi Sherm-

Thanks for passing along the info. I reviewed the proposed revision as well as the previously submitted documentation and I don't have any issues with reducing the amount of flocculent being used. You can take this email as official PFBC correspondence for your records if necessary.

Thanks,

Daniel Ryan | Fisheries Biologist  
Pennsylvania Fish and Boat Commission | Division of Environmental Services  
595 E. Rolling Ridge Drive | Bellefonte PA 16823  
Mobile: 814.470.5782 | Office: 814.359.5140  
[fishandboat.com](http://fishandboat.com)

**From:** Sherman Bloom <SBloom@geotech-engineering.com>  
**Sent:** Friday, April 19, 2024 3:11 PM  
**To:** Ryan, Daniel <daniryan@pa.gov>  
**Subject:** [External] DEP asked me to get PFBC approval

**ATTENTION:** This email message is from an external sender. Do not open links or attachments from unknown senders. To report suspicious email, use the [Report Phishing button in Outlook](#).

Regarding the addition of floc as the Maggie Lynn mining site.

Dan,

You and I had an Email exchange in early April of last year, regarding the use of flocculant at this site. The pages I have attached are basically a review of that exchange along with the material being used. One thing has changed and that is Neiswonger has said they are using a drip of between 5 and 10 ml every 30 seconds. Our email exchange discussed 15 ml every 30 seconds. Currently they are using no floc.

I need to get your written approval on the floc as shown on the enclosed pages. These are coming directly from our submission to DEP. If you look at them, you will see that they have not changed are the materials I gave you last year along with a summary write up of usage which is page 29. Your last email states that your office has no issue with the floc. I would think that with reduce usage, the language of your April 5, 2023 should suffice.

It doesn't. If you can get me a letter or an email stating that you have reviewed the materials of the module 13 that are to be a part of the DEP application, and that there is still no issue. I'd be appreciative.

Sherman Bloom, PE