pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0272833**
Facility Type	**Industrial**	APS ID	**1006759**
Major / Minor	**Minor**	Authorization ID	**1359896**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Collins Pine Company**	Facility Name	**Kane Hardwood McKean County**
Applicant Address	P.O. Box 807	Facility Address	95 Hardwood Drive
	Kane, PA 16735-0807		Kane, PA 16735-3011
Applicant Contact	Howard Hughes	Facility Contact	
Applicant Phone	(503) 826-5250	Facility Phone	
Client ID	28233	Site ID	456806
SIC Code	2421	Municipality	Kane Borough
SIC Description	Sawmills and Planing Mills, General	County	McKean
Date Application Received	November 1, 2019	EPA Waived?	Yes
Date Application Accepted	December 3, 2019	If No, Reason	

Purpose of Application: Renewal of an NPDES Permit for an existing discharge of industrial stormwater and boiler blowdown

Summary of Review

This facility is a sawmill which manufactures wood products from trees. Plant operations include debarking, sawing, planing, drying, storing and shipping lumber.

The permittee is proposing to reduce the number of outfalls from ten in the current permit to six (five main outfalls and one internal outfall) by constructing multiple channels with rock filters to convey stormwater to newly constructed sedimentation basins, in order to better treat the stormwater leaving the site. The combined drainage area of the facility will remain the same.

There are currently no open violations listed in EFACTS for this permittee (7/01/2021).

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		Adam Pesek Adam J. Pesek, E.I.T. / Environmental Engineering Specialist	July 1, 2021
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	July 8, 2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0
Latitude	41º 40' 20.72"	Longitude	-78º 49' 19.45"
Quad Name	Kane	Quad Code	0515
Wastewater Description:	Stormwater associated with industrial activities		

Receiving Waters	Unnamed Tributary to West Run	Stream Code	55350
NHD Com ID	100469017	RMI	0.21
Drainage Area	---	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Dry Swale
Elevation (ft)	1981	Slope (ft/ft)	
Watershed No.	16-F	Chapter 93 Class.	HQ-CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	7.47	8/13/2020 stream sample on West Run
Temperature (°C)	20	Default (CWF)
Hardness (mg/L)	77	8/13/2020 stream sample on West Run
Other:		

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania, Inc. - Emlenton	
PWS Waters	Allegheny River	Flow at Intake (cfs)	
PWS RMI	90.0	Distance from Outfall (mi)	115 (approx.)

Changes Since Last Permit Issuance: RMIs were refined, new ambient stream data found.

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	006	Design Flow (MGD)	0
Latitude	41º 40' 24.22"	Longitude	-78º 49' 39.78"
Quad Name	Kane	Quad Code	0515
Wastewater Description:	Stormwater associated with industrial activities		
Receiving Waters	Unnamed Tributary to West Run	Stream Code	55352
NHD Com ID	100469017	RMI	0.9900
Drainage Area	---	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	**0**	Q_{7-10} Basis	Dry Swale
Elevation (ft)	1982	Slope (ft/ft)	
Watershed No.	16-F	Chapter 93 Class.	HQ-CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	7.47	8/13/2020 stream sample on West Run
Temperature (°C)	20	Default (CWF)
Hardness (mg/L)	77	8/13/2020 stream sample on West Run
Other:		

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania, Inc. - Emlenton	
PWS Waters	Allegheny River	Flow at Intake (cfs)	
PWS RMI	90.0	Distance from Outfall (mi)	115 (approx.)

Changes Since Last Permit Issuance: Stream codes and RMIs were refined, new ambient stream data found.

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	007	Design Flow (MGD)	0
Latitude	41º 40' 21.81"	Longitude	-78º 49' 37.53"
Quad Name	Kane	Quad Code	0515
Wastewater Description:	Stormwater associated with industrial activities		
Receiving Waters	Unnamed Tributary to West Run	Stream Code	55352
NHD Com ID	100469017	RMI	0.5800
Drainage Area	--	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	**0**	Q_{7-10} Basis	Dry Swale
Elevation (ft)	1980	Slope (ft/ft)	
Watershed No.	16-F	Chapter 93 Class.	HQ-CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	7.47	8/13/2020 stream sample on West Run
Temperature (°C)	20	Default (CWF)
Hardness (mg/L)	77	8/13/2020 stream sample on West Run
Other:		

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania, Inc. - Emlenton	
PWS Waters	Allegheny River	Flow at Intake (cfs)	
PWS RMI	90.0	Distance from Outfall (mi)	115 (approx.)

Changes Since Last Permit Issuance: Stream codes and RMIs were refined, new ambient stream data found.

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	008	Design Flow (MGD)	0
Latitude	41º 40' 14.94"	Longitude	-78º 49' 38.01"
Quad Name	Kane	Quad Code	0515
Wastewater Description:	Stormwater associated with industrial activities and internal outfall 108		
Receiving Waters	Unnamed Tributary to West Run (HQ-CWF)	Stream Code	55352
NHD Com ID	100469017	RMI	0.58
Drainage Area	--	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Dry Swale
Elevation (ft)	1977	Slope (ft/ft)	0.0399
Watershed No.	16-F	Chapter 93 Class.	HQ-CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	7.47	8/13/2020 stream sample on West Run
Temperature (°C)	20	Default (CWF)
Hardness (mg/L)	77	8/13/2020 stream sample on West Run
Other:		

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania, Inc. - Emlenton	
PWS Waters	Allegheny River	Flow at Intake (cfs)	1801
PWS RMI	90.0	Distance from Outfall (mi)	115 (approx.)

Changes Since Last Permit Issuance: Stream codes and RMIs were refined, new ambient stream data found.

Other Comments:

Compliance History	
Summary of DMRs:	pH has exceeded the maximum limit at Outfall 001 on numerous occasions in the previous permit cycle. Total iron discharge concentrations are rather high in stormwater discharge samples for this type of industrial activity.
Summary of Inspections:	The most recent site inspection was conducted on 4/07/2021. Recommendations on the inspection report are as follows: 1. PPC plan needs to be updated/expanded to include all elements required in Permit #PA0272833 Part C B. and should be reviewed/updated at least annually. 2. Install a cover over the fueling station and keep spill kits in close proximity to where fuel/oils are handled or stored. 3. I observed in several open roll offs containing scrap metal. Scrap metal should be kept under roof or disposed of properly. 4. Remove pipes /install caps on discharge pipes at Outfall #s 003 and 004. 5. All spills should be cleaned up ASAP and disposed of properly.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from April 1, 2020 to March 31, 2021)

Parameter	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20
Flow (MGD) Average Monthly	0.00027 0	0.00043 2	0.00021 6	0.00037 8	0.00072 3	0.00080 0	0.00063 0	0.00070 0	0.00057 0	375	270	270
pH (S.U.) Minimum	8.8	8.3	8.5	8.8	8.4	8.4	7.0	8.4	8.4	7.8	7.6	7.6
pH (S.U.) Maximum	9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.8	9.0	8.4	8.8	8.4
Temperature (ºF) Daily Average	96	86	88	85	89	89	95	95	100	98	99	95
TSS (mg/L) Annual Average				9.00								
Oil and Grease (mg/L) Daily Average				< 6.85								

DMR Data for Outfall 002 (from April 1, 2020 to March 31, 2021)

Parameter	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20
pH (S.U.) Daily Maximum				7.6						6.9		
COD (mg/L) Daily Maximum				< 15.0						245		
TSS (mg/L) Daily Maximum				5.00						200		
Oil and Grease (mg/L) Daily Average				< 6.25						< 5.25		
Total Iron (mg/L) Daily Maximum				< 0.200						15.6		

DMR Data for Outfall 006 (from April 1, 2020 to March 31, 2021)

Parameter	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20
pH (S.U.) Daily Maximum										7		
COD (mg/L) Daily Maximum										35.4		
TSS (mg/L) Daily Maximum										40		
Oil and Grease (mg/L) Daily Average										< 5.20		
Total Iron (mg/L) Daily Maximum										2.10		

DMR Data for Outfall 008 (from April 1, 2020 to March 31, 2021)

Parameter	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20
pH (S.U.) Daily Maximum				7.4						6.9		
COD (mg/L) Daily Maximum				66.1						82.5		
TSS (mg/L) Daily Maximum				100						12.1		
Oil and Grease (mg/L) Daily Maximum				< 6.25						< 5.00		
Total Iron (mg/L) Daily Maximum				17.4						0.908		

DMR Data for Outfall 009 (from April 1, 2020 to March 31, 2021)

Parameter	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20
pH (S.U.) Daily Maximum										7.2		
COD (mg/L) Daily Maximum										59.1		
TSS (mg/L) Daily Maximum										16.0		
Oil and Grease (mg/L) Daily Average										< 5.20		
Total Iron (mg/L) Daily Maximum										0.769		

DMR Data for Outfall 010 (from April 1, 2020 to March 31, 2021)

Parameter	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20
pH (S.U.) Daily Maximum										7		
COD (mg/L) Daily Maximum										92.3		
TSS (mg/L) Daily Maximum										30.0		
Oil and Grease (mg/L) Daily Average										< 5.00		
Total Iron (mg/L) Daily Maximum										2.12		

Development of Effluent Limitations

Outfall No. 002 **Design Flow (MGD)** 0
Latitude 41º 40' 20.72" **Longitude** -78º 49' 19.45"
Wastewater Description: Stormwater associated with industrial activities

Technology-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Oil & Grease	15	Semiannual Average		95.2(2)
Oil & Grease	30	IMAX		95.2(2)

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
N/A			

Comments: Water quality modeling not conducted for stormwater discharges.

Best Professional Judgment (BPJ) Limitations

Comments: None

Other Considerations

Comments: Monitoring and benchmark values for COD and TSS, derived from Appendix D of the PAG-03 general permit, will be retained in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Industrial Permits." Monitoring for total iron is being retained in the permit due concern over elevated concentrations being reported on DMRS.

Anti-Degradation Discussion

Anti-degradation requirements were previous waived for this facility because it existed prior to the stream being designated as high quality. Although the drainage area to this outfall is expanding due to the combining of outfalls, the overall drainage area of the facility to permitted stormwater outfalls remains the same. Therefore, the Department is not conducting an anti-degradation evaluation for the resulting increased stormwater flow from this outfall.

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No. 006 **Design Flow (MGD)** 0
Latitude 41º 40' 24.22" **Longitude** -78º 49' 39.78"
Wastewater Description: Stormwater associated with industrial activities

Technology-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Oil & Grease	15	Semiannual Average		95.2(2)
Oil & Grease	30	IMAX		95.2(2)

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
N/A			

Comments: Water quality modeling not conducted for stormwater discharges.

Best Professional Judgment (BPJ) Limitations

Comments: None

Other Considerations

Comments: Monitoring and benchmark values for COD and TSS, derived from Appendix D of the PAG-03 general permit, will be retained in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Industrial Permits." Monitoring for total iron is being retained in the permit due concern over elevated concentrations being reported on DMRS.

Anti-Degradation Discussion

Anti-degradation requirements were previous waived for this facility because it existed prior to the stream being designated as high quality. Although the drainage area to this outfall is expanding due to the combining of outfalls, the overall drainage area of the facility to permitted stormwater outfalls remains the same. Therefore, the Department is not conducting an anti-degradation evaluation for the resulting increased stormwater flow from this outfall.

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No. 007 **Design Flow (MGD)** 0
Latitude 41º 40' 21.81" **Longitude** -78º 49' 37.53"
Wastewater Description: Stormwater associated with industrial activities

Technology-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Oil & Grease	15	Semiannual Average		95.2(2)
Oil & Grease	30	IMAX		95.2(2)

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
N/A			

Comments: Water quality modeling not conducted for stormwater discharges.

Best Professional Judgment (BPJ) Limitations

Comments: None

Other Considerations

Comments: Monitoring and benchmark values for COD and TSS, derived from Appendix D of the PAG-03 general permit, will be retained in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Industrial Permits." Monitoring for total iron is being retained in the permit due concern over elevated concentrations being reported on DMRS.

Anti-Degradation Discussion

Anti-degradation requirements were previous waived for this facility because it existed prior to the stream being designated as high quality. Although the drainage area to this outfall is expanding due to the combining of outfalls, the overall drainage area of the facility to permitted stormwater outfalls remains the same. Therefore, the Department is not conducting an anti-degradation evaluation for the resulting increased stormwater flow from this outfall.

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No. 008 **Design Flow (MGD)** 0.00012
Latitude 41º 40' 14.94" **Longitude** -78º 49' 38.01"
Wastewater Description: Stormwater associated with industrial activities and boiler blowdown

Technology-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Oil & Grease	15	Semiannual Average		95.2(2)
Oil & Grease	30	IMAX		95.2(2)

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
N/A			

Comments: Water quality modeling not conducted for stormwater discharges.

Best Professional Judgment (BPJ) Limitations

Comments: None

Other Considerations

Comments: Monitoring and benchmark values for COD and TSS, derived from Appendix D of the PAG-03 general permit, will be retained in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Industrial Permits." Monitoring for total iron is being retained in the permit due concern over elevated concentrations being reported on DMRS.

Anti-Degradation Discussion

Anti-degradation requirements were previous waived for this facility because it existed prior to the stream being designated as high quality. Although the drainage area to this outfall is expanding due to the combining of outfalls, the overall drainage area of the facility to permitted stormwater outfalls remains the same. Therefore, the Department is not conducting an anti-degradation evaluation for the resulting increased stormwater flow from this outfall.

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No. 108 **Design Flow (MGD)** 0.00012
Latitude 41º 40' 16.27" **Longitude** -78º 49' 29.90"
Wastewater Description: Boiler blowdown

Technology-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
None			

Comments: Because this is a thermally evaluated discharge the "Thermal Discharge Analysis Spreadsheet" was used to determine if thermal limits were necessary. The spreadsheet determined that no limits were necessary based on a comparison with actual plant discharge temperatures. Monitoring for temperature will remain in the permit for evaluation purposes because of a planned discharge to a stormwater sedimentation pond and discharging via Outfall 008 during the next permit cycle, where additional thermal loading could occur.

Best Professional Judgment (BPJ) Limitations

Comments: N/A

Anti-Degradation Discussion

Anti-degradation requirements were previous waived for this facility because it existed prior to the stream being designated as high quality. Since this is an existing discharge, no anti-degradation requirements were required to be met as part of this permit renewal.

Anti-Backsliding

Monitoring for TSS was removed from the permit based on a review of eDMR data during the previous permit cycle, which showed the effluent quality was well below levels of concern (100 mg/l).

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 002, 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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	1/6 months	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	15.0 SEMI AVG	XXX	30.0	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 002 (during a qualifying storm event)

Other Comments: Sampling frequency was set as the same as that found in the PAG-03 General Permit under Appendix D.

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 006, 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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	1/6 months	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	15.0 SEMI AVG	XXX	30.0	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 006 (during a qualifying storm event)

Other Comments: Sampling frequency was set as the same as that found in the PAG-03 General Permit under Appendix D.

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 007, 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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	1/6 months	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	15.0 SEMI AVG	XXX	30.0	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 006 (during a qualifying storm event)

Other Comments: Sampling frequency was set as the same as that found in the PAG-03 General Permit under Appendix D.

Permittee has indicated that Outfall 006 is a representative outfall. Therefore, sampling conducted at Outfall 006 will also be reported for compliance at this outfall.

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 008, 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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	1/6 months	Grab
COD	XXX	XXX	XXX	XXX	XXX	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	15.0 SEMI AVG	XXX	30.0	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 008 (during a qualifying storm event)

Other Comments: Sampling frequency was set as the same as that found in the PAG-03 General Permit under Appendix D.

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 108, 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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD) Internal Monitoring Point	Report	XXX	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.) Internal Monitoring Point	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/month	Grab
Temperature (ºF) Internal Monitoring Point	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/month	Measured

Compliance Sampling Location: Outfall 008 (during non-wet weather discharge events).

Other Comments:

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Toxics Management Spreadsheet
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Discharge Information

Instructions | Discharge | Stream

Facility: **Kane Hardwoods McKean County** NPDES Permit No.: **PA027 2833** Outfall No.: **108**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Boiler Blowdown**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.00012	3.31	8.8						

					0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		1320		159							
	Chloride (PWS)	mg/L											
	Bromide	mg/L											
	Sulfate (PWS)	mg/L											
	Fluoride (PWS)	mg/L											
Group 2	Total Aluminum	µg/L											
	Total Antimony	µg/L											
	Total Arsenic	µg/L											
	Total Barium	µg/L											
	Total Beryllium	µg/L											
	Total Boron	µg/L											
	Total Cadmium	µg/L											
	Total Chromium (III)	µg/L	<	5									
	Hexavalent Chromium	µg/L	<	5									
	Total Cobalt	µg/L											
	Total Copper	µg/L											
	Free Cyanide	µg/L											
	Total Cyanide	µg/L											
	Dissolved Iron	µg/L											
	Total Iron	µg/L		227									
	Total Lead	µg/L											
	Total Manganese	µg/L											
	Total Mercury	µg/L											
	Total Nickel	µg/L											
	Total Phenols (Phenolics) (PWS)	µg/L											
	Total Selenium	µg/L											
	Total Silver	µg/L											
	Total Thallium	µg/L											
	Total Zinc	µg/L											
	Total Molybdenum	µg/L											
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	µg/L	<										
	Bromoform	µg/L	<										

Group 3	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										
	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	µg/L	<										
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	µg/L	<										
	Toluene	µg/L	<										
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	µg/L	<										
	Vinyl Chloride	µg/L	<										
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	µg/L	<										
	Benzo(a)Pyrene	µg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	µg/L	<										
	Benzo(k)Fluoranthene	µg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	µg/L	<										
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										

	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										
	Indeno(1,2,3-cd)Pyrene	µg/L	<										
	Isophorone	µg/L	<										
	Naphthalene	µg/L	<										
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	µg/L	<										
	Pyrene	µg/L	<										
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	µg/L	<										
	PCB-1221	µg/L	<										
	PCB-1232	µg/L	<										
	PCB-1242	µg/L	<										
	PCB-1248	µg/L	<										
	PCB-1254	µg/L	<										
	PCB-1260	µg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											

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Toxics Management Spreadsheet
Version 1.3, March 2021

Stream / Surface Water Information

Kane Hardwoods McKean County, NPDES Permit No. PA027 2833, Outfall 108

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **UNT West Run (via Outfall 008)**

No. Reaches to Model: **1**

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	055352	115	1977	0.05	0.0399		Yes
End of Reach 1	055352	0.01	1836	1801	0.001	1	Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	115	0.00279	1920									77	7.47		
End of Reach 1	0.01	0.2818	1801									75	8.1		

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	115														
End of Reach 1	0.01														

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Toxics Management Spreadsheet
Version 1.3, March 2021

Model Results

Kane Hardwoods McKean County, NPDES Permit No. PA027 2833, Outfall 108

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☑ ***Hydrodynamics***

Q_{7-10}

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time (days)	Complete Mix Time (min)
115	1,920		1,920	0.00019	0.04	2.939	19.628	6.678	33.278	0.211	0.525
0.01	1,801	1.547	1799.453								

Q_h

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time (days)	Complete Mix Time (min)
115	5502.93		5502.93	0.00019	0.04	4.672	19.628	4.202	60.012	0.117	0.262
0.01	5203.647	1.547	5202.10								

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 0.525 PMF: 1 Analysis Hardness (mg/l): 77 Analysis pH: 7.47

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	159000	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	459.971	1,456	##########	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	##########	Chem Translator of 0.982 applied
Total Iron	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): 0.525 PMF: 1 Analysis Hardness (mg/l): 77 Analysis pH: 7.47

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	159000	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	59.833	69.6	##########	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	##########	Chem Translator of 0.962 applied
Total Iron	0	0		0	1,500	1,500	##########	WQC = 30 day average; PMF = 1

☑ ***THH*** CCT (min): 0.525 THH PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A PWS PMF: 1

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	159000	0		0	500,000	500,000	#########	WQC applied at RMI 0.01 with a design stream flow of 1801 cfs
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 0.262 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	159000	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

Pollutants	*Mass Limits* AML (lbs/day)	*Mass Limits* MDL (lbs/day)	*Concentration Limits* AML	*Concentration Limits* MDL	*Concentration Limits* IMAX	*Concentration Limits* Units	Governing WQBEL	WQBEL Basis	Comments

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	#########	mg/L	Discharge Conc ≤ 10% WQBEL
Total Chromium (III)	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	#########	µg/L	Discharge Conc ≤ 10% WQBEL

Flow Data for Thermal Discharge Analysis

Facility: **Kane Hardwood McKean County**
Permit Number: PA0272833
Stream Name: UNT to West Run
Analyst/Engineer: A. Pesek
Stream Q7-10 (cfs): 0.0201

	Facility Flows				Stream Flows			
	Intake (Stream) (MGD)	Intake (External) (MGD)	Consumptive Loss (MGD)	Discharge Flow (MGD)	PMF	Upstream Stream Flow (cfs)	Adjusted Stream Flow (cfs)	Downstream Stream Flow (cfs)
Jan 1-31	0	0.00012	0	0.00012	1.00	0.06	0.06	0.06
Feb 1-29	0	0.00012	0	0.00012	1.00	0.07	0.07	0.07
Mar 1-31	0	0.00012	0	0.00012	1.00	0.13	0.13	0.13
Apr 1-15	0	0.00012	0	0.00012	1.00	0.18	0.18	0.18
Apr 16-30	0	0.00012	0	0.00012	1.00	0.18	0.18	0.18
May 1-15	0	0.00012	0	0.00012	1.00	0.10	0.10	0.10
May 16-31	0	0.00012	0	0.00012	1.00	0.10	0.10	0.10
Jun 1-15	0	0.00012	0	0.00012	1.00	0.06	0.06	0.06
Jun 16-30	0	0.00012	0	0.00012	1.00	0.06	0.06	0.06
Jul 1-31	0	0.00012	0	0.00012	1.00	0.03	0.03	0.03
Aug 1-15	0	0.00012	0	0.00012	1.00	0.03	0.03	0.03
Aug 16-31	0	0.00012	0	0.00012	1.00	0.03	0.03	0.03
Sep 1-15	0	0.00012	0	0.00012	1.00	0.02	0.02	0.02
Sep 16-30	0	0.00012	0	0.00012	1.00	0.02	0.02	0.02
Oct 1-15	0	0.00012	0	0.00012	1.00	0.03	0.03	0.03
Oct 16-31	0	0.00012	0	0.00012	1.00	0.03	0.03	0.03
Nov 1-15	0	0.00012	0	0.00012	1.00	0.04	0.04	0.04
Nov 16-30	0	0.00012	0	0.00012	1.00	0.04	0.04	0.04
Dec 1-31	0	0.00012	0	0.00012	1.00	0.06	0.06	0.06

Please forward all comments to Tom Starosta at 717-787-4317, tstarosta@state.pa.us.
Version 2.0 – 07/01/2005 Reference: Implementation Guidance for Temperature Criteria, DEP-ID: 391-2000-017
NOTE: The user can only edit fields that are blue.
NOTE: MGD x 1.547 = cfs.

Thermal Discharge Recommended Permit Limits

Cold Water Fishes (CWF) Stream

Facility: **Kane Hardwood McKean County**
Permit Number: PA0272833
Stream: UNT to West Run

	CWF Ambient Stream Temperature (°F) (Default)	Ambient Stream Temperature (°F) (Site-specific data)	Target Maximum Stream Temp.[1] (°F)	CWF Daily WLA[2] (Million BTUs/day)	CWF Daily WLA[3] (°F)	at Discharge Flow (MGD)	PMF
Jan 1-31	34	0	38	N/A -- Case 2	110.0	0.00012	1.00
Feb 1-29	35	0	38	N/A -- Case 2	110.0	0.00012	1.00
Mar 1-31	39	0	42	N/A -- Case 2	110.0	0.00012	1.00
Apr 1-15	46	0	48	N/A -- Case 2	110.0	0.00012	1.00
Apr 16-30	52	0	53	N/A -- Case 2	110.0	0.00012	1.00
May 1-15	55	0	56	N/A -- Case 2	110.0	0.00012	1.00
May 16-31	59	0	60	N/A -- Case 2	110.0	0.00012	1.00
Jun 1-15	63	0	64	N/A -- Case 2	110.0	0.00012	1.00
Jun 16-30	67	0	68	N/A -- Case 2	110.0	0.00012	1.00
Jul 1-31	71	0	72	N/A -- Case 2	110.0	0.00012	1.00
Aug 1-15	70	0	71	N/A -- Case 2	110.0	0.00012	1.00
Aug 16-31	70	0	71	N/A -- Case 2	110.0	0.00012	1.00
Sep 1-15	66	0	67	N/A -- Case 2	110.0	0.00012	1.00
Sep 16-30	60	0	61	N/A -- Case 2	110.0	0.00012	1.00
Oct 1-15	55	0	56	N/A -- Case 2	110.0	0.00012	1.00
Oct 16-31	51	0	52	N/A -- Case 2	110.0	0.00012	1.00
Nov 1-15	46	0	47	N/A -- Case 2	110.0	0.00012	1.00
Nov 16-30	40	0	42	N/A -- Case 2	110.0	0.00012	1.00
Dec 1-31	35	0	40	N/A -- Case 2	110.0	0.00012	1.00

[1] This is the maximum of the CWF WQ criterion or the ambient temperature. The ambient temperature may be either the design (median) temperature for CWF, or the ambient stream temperature based on site-specific data entered by the user. A minimum of 1°F above ambient stream temperature is allocated.

[2] The WLA expressed in Million BTUs/day is valid for Case 1 scenarios, and disabled for Case 2 scenarios.

[3] The WLA expressed in °F is valid only if the limit is tied to a daily discharge flow limit (may be used for Case 1 or Case 2). WLAs greater than 110°F are displayed as 110°F.