pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0004251**
Facility Type	**Industrial**	APS ID	**1037374**
Major / Minor	**Minor**	Authorization ID	**1351602**

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

Applicant and Facility Information

Applicant Name	**Advanced Cast Products, Inc.**	Facility Name	**Advanced Cast Products**
Applicant Address	18771 Mill Street	Facility Address	18771 Mill Street
	Meadville, PA 16335		Meadville, PA 16335
Applicant Contact	Shawn Bodnar	Facility Contact	Shawn Bodnar
Applicant Phone	(814) 724-2600, ext. 5302	Facility Phone	(814) 724-2600, ext. 5302
Client ID	6463	Site ID	245085
SIC Code	3321	Municipality	Vernon Township
SIC Description	Manufacturing - Gray And Ductile Iron Foundries	County	Crawford County
Date Application Received	March 26, 2021	EPA Waived?	Yes
Date Application Accepted	April 30, 2021	If No, Reason	-
Purpose of Application	Renewal of an existing NPDES Permit for an existing discharge of stormwater runoff and emergency only non-contact cooling water (NCCW) from a ductile iron foundry. Advanced Cast Products, Inc. is now owned by Grede, but the legal name of the company has not changed.		

Summary of Review

Act 14 - Proof of Notification was submitted and received.

This facility is not subject to any ELGs.

A Part II Water Quality Management permit is not required at this time.

The applicant should be able to meet the limits of this permit, which will protect the uses of the receiving stream.

I. OTHER REQUIREMENTS:
- A. Right of way
- B. Solids handling
- C. NPDES Permit Supersedes WQM Permits
- D. Modification or Revocation for changes to
- E. Temperature
- F. No net addition of pollutants

SPECIAL CONDITIONS:
- II. Chemical Additives
- III. Requirements Applicable to Stormwater Outfalls

There are no open violations in efacts associated with the subject Client ID (6463) as of 3/29/2022.

Approve	Deny	Signatures	Date
X		Stephen A. McCauley Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist	3/29/2022
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	3/31/2022

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.

Threatened and Endangered Mussel Species Concerns and Considerations

The main segment of the French Creek from the Union City Reservoir to the confluence with the Allegheny River was designated by the United States Fish and Wildlife Services (USFWS) as "Critical Habitat" for the rabbitsfoot mussel, a federally listed threatened species, and is also known to contain other threatened and endangered mussel species. Due to this being a direct discharge to the French Creek, located just downstream of the Meadville Area STP (PA0026271), potential mussel impacts were evaluated.

The USFWS has indicated in comment letters and email correspondence on other NPDES permits, that to protect threatened and endangered mussel species, wastewater discharges containing ammonia-nitrogen (NH3-N), chloride (Cl-) dissolved nickel, and dissolved zinc, where mussels or their habitat exist, can be no more than 1.9 mg/l, 78 mg/l, 7.3 µg/l, and 13.18 µg/l respectively.

The Department reviewed the renewal application sampling data for these parameters and zinc to determine potential impacts that the discharge may have to threatened and endangered mussel species. The application did not contain any effluent samples for Ammonia-Nitrogen, Chloride, Nickel, or Zinc.

Since the discharges from this site consist of stormwater and emergency only non-contact cooling water (NCCW), they are not expected to adversely affect threatened or endangered mussel species in the French Creek considering the assimilative capacity of the French Creek during precipitation events, and the source of the NCCW is the Meadville Municipal water system.

However, since the previous permit did not include monitoring or limits, there is no data available.

Monitoring for Ammonia-Nitrogen, Chloride, Nickel, and Zinc will be added with this renewal to develop a dataset to further evaluate potential impacts for the next permit renewal. None of the parameters would typically be required for a permit of this nature.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0.295
Latitude	41º 37' 35.70"	Longitude	-80º 09' 31.90"
Quad Name	-	Quad Code	-
Wastewater Description:	Noncontact Cooling Water (NCCW), Stormwater		

Receiving Waters	French Creek (WWF)	Stream Code	51591
NHD Com ID	127350470	RMI	30.55
Drainage Area	-	Yield (cfs/mi^2)	-
Q_{7-10} Flow (cfs)	-	Q_{7-10} Basis	-
Elevation (ft)	-	Slope (ft/ft)	-
Watershed No.	16-D	Chapter 93 Class.	WWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	Mercury		
Source(s) of Impairment	Source Unknown		
TMDL Status	-	Name	-

Background/Ambient Data		Data Source
pH (SU)	-	-
Temperature (°F)	-	-
Hardness (mg/L)	-	-
Other:	-	-

Nearest Downstream Public Water Supply Intake	Aqua Pennsylvania, Inc. - Emlenton		
PWS Waters	Allegheny River	Flow at Intake (cfs)	1,376
PWS RMI	90.0	Distance from Outfall (mi)	64.0

* - The receiving stream is the French Creek, which is impaired by mercury from an unknown source. However, the stormwater runoff and the NCCW that is discharged from this Outfall are not anticipated to contain mercury in any reportable quantities. The source of the NCCW is the local Meadville POTW.

Outfall 002 consists of stormwater runoff from the parking, courtyard, and foundry areas. During maintenance or process upsets only, Non-Contact Cooling Water (NCCW) from the melt furnace is discharged from Outfall 102 through this outfall.

No modeling was performed since the discharge consists only of NCCW, and the discharge is only activated during maintenance or process upsets only. The source of the NCCW is from the City of Meadville's public water supply, which is monitored. The technology-based limits generally given for NCCW will protect the receiving stream.

Compliance History

DMR Data for Outfall 002 (from January 1, 2021 to December 31, 2021)

Parameter	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21
Flow (MGD) Average Monthly		0.011072						0.0192				
pH (S.U.) Minimum		8.3						8.4				
pH (S.U.) Maximum		8.3						8.4				
Oil and Grease (mg/L) Average Monthly		< 5.0						< 5.0				
Oil and Grease (mg/L) Instantaneous Maximum		< 5.0						< 5.0				

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	Maximum	Instant. Maximum		
Flow (MGD)	Report SEMI AVG	XXX	XXX	XXX	XXX	XXX	1/6 months	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	15.0 SEMI AVG	XXX	30.0	1/6 months	Grab

Compliance Sampling Location: at Outfall 002.

Flow is monitor only based on Chapter 92a.61. The limits for pH and Oil and Grease are technology-based on Chapter 95.2.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	0.115
Latitude	41º 37' 30.40"	Longitude	-80º 09' 50.40"
Quad Name	-	Quad Code	-
Wastewater Description:	Noncontact Cooling Water (NCCW), Stormwater		
Receiving Waters	Unnamed Tributary to the Van Horne Creek (WWF)	Stream Code	N/A
NHD Com ID	127348884	RMI	N/A
Drainage Area	-	Yield (cfs/mi^2)	-
Q_{7-10} Flow (cfs)	-	Q_{7-10} Basis	-
Elevation (ft)	-	Slope (ft/ft)	-
Watershed No.	16-D	Chapter 93 Class.	WWF
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)	-	-
Temperature (°F)	-	-
Hardness (mg/L)	-	-
Other:	-	-

Nearest Downstream Public Water Supply Intake	Aqua Pennsylvania, Inc. - Emlenton		
PWS Waters	Allegheny River	Flow at Intake (cfs)	1,376
PWS RMI	90.0	Distance from Outfall (mi)	64.0

Outfall 003 consists of stormwater runoff from the 2070 building and the grounds south of the Austemper. During maintenance or process upsets only, Non-Contact Cooling Water (NCCW) from the screw compressor, air dryer, Desprue Hydraulics, and the Austemper is discharged from Outfall 103 through this outfall.

No modeling was performed since the discharge consists only of NCCW, and the discharge is only activated during maintenance or process upsets only. The source of the NCCW is from the City of Meadville's public water supply, which is monitored. The technology-based limits generally given for NCCW will protect the receiving stream.

Compliance History

DMR DMR Data for Outfall 003 (from January 1, 2021 to December 31, 2021)

Parameter	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21
Flow (MGD) Average Monthly		0.004339						0.0075				
pH (S.U.) Minimum		7.6						8.0				
pH (S.U.) Maximum		7.6						8.0				
Oil and Grease (mg/L) Average Monthly		< 5.0						< 5.0				
Oil and Grease (mg/L) Instantaneous Maximum		< 5.0						< 5.0				

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 003, 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)	Report SEMI AVG	XXX	XXX	XXX	XXX	XXX	1/6 months	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	15.0 SEMI AVG	XXX	30.0	1/6 months	Grab

Compliance Sampling Location: at Outfall 003.

Flow is monitor only based on Chapter 92a.61. The limits for pH and Oil and Grease are technology-based on Chapter 95.2.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	0.000
Latitude	41º 37' 34.20"	Longitude	-80º 09' 49.70"
Quad Name	-	Quad Code	-
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to the Van Horne Creek (WWF)	Stream Code	N/A
NHD Com ID	127348884	RMI	N/A
Drainage Area	-	Yield (cfs/mi^2)	-
Q_{7-10} Flow (cfs)	-	Q_{7-10} Basis	-
Elevation (ft)	-	Slope (ft/ft)	-
Watershed No.	16-D	Chapter 93 Class.	WWF
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)	-	-
Temperature (°F)	-	-
Hardness (mg/L)	-	-
Other:	-	-

Nearest Downstream Public Water Supply Intake	Aqua Pennsylvania, Inc. - Emlenton		
PWS Waters	Allegheny River	Flow at Intake (cfs)	1,376
PWS RMI	90.0	Distance from Outfall (mi)	64.0

Outfall 004 consists of stormwater runoff from the northern portion of the finishing building and the paved area north of the machine shop.

Compliance History

DMR Data for Outfall 004 (from January 1, 2021 to December 31, 2021)

Parameter	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21
Flow (MGD) Average Monthly		0.001206						0.0021				
pH (S.U.) Minimum		7.7						8.2				
pH (S.U.) Maximum		7.7						8.2				
Oil and Grease (mg/L) Average Monthly		< 5.0						< 5.0				
Oil and Grease (mg/L) Instantaneous Maximum		< 5.0						< 5.0				

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 004, 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)	Report SEMI AVG	XXX	XXX	XXX	XXX	XXX	1/6 months	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	15.0 SEMI AVG	XXX	30.0	1/6 months	Grab

Compliance Sampling Location: at Outfall 004.

Flow is monitor only based on Chapter 92a.61. The limits for pH and Oil and Grease are technology-based on Chapter 95.2.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	102	Design Flow (MGD)	0.100
Latitude	41º 37' 35.70"	Longitude	-80º 09' 31.90"
Quad Name	-	Quad Code	-
Wastewater Description:	Noncontact Cooling Water (NCCW)		
Receiving Waters	French Creek (WWF)	Stream Code	N/A
NHD Com ID	127350470	RMI	N/A
Drainage Area	-	Yield (cfs/mi^2)	-
Q_{7-10} Flow (cfs)	-	Q_{7-10} Basis	-
Elevation (ft)	-	Slope (ft/ft)	-
Watershed No.	16-D	Chapter 93 Class.	WWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired*		
Cause(s) of Impairment	Mercury		
Source(s) of Impairment	Source Unknown		
TMDL Status	-	Name	-

Background/Ambient Data		Data Source
pH (SU)	-	-
Temperature (°F)	-	-
Hardness (mg/L)	-	-
Other:	-	-

Nearest Downstream Public Water Supply Intake	Aqua Pennsylvania, Inc. - Emlenton		
PWS Waters	Allegheny River	Flow at Intake (cfs)	1,376
PWS RMI	90.0	Distance from Outfall (mi)	64.0

* - The receiving stream is the French Creek, which is impaired by mercury from an unknown source. However, the stormwater runoff and the NCCW that is discharged from this Outfall are not anticipated to contain mercury in any reportable quantities. The source of the NCCW is the local Meadville POTW.

Outfall 102 consists of Non-Contact Cooling Water (NCCW) from the melt furnace only during maintenance or process upsets.

No modeling was performed since the discharge consists only of NCCW, and the discharge is only activated during maintenance or process upsets only. The source of the NCCW is from the City of Meadville's public water supply, which is monitored. The technology-based limits generally given for NCCW will protect the receiving stream.

Compliance History

DMR Data for Outfall 102 (from January 1, 2021 to December 31, 2021)

Parameter	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21
Flow (MGD) Average Monthly		0.1846						0.028609				
pH (S.U.) Minimum		7.4						8.0				
pH (S.U.) Maximum		8.3						8.1				
Oil and Grease (mg/L) Average Monthly		< 5.0						< 5.0				
Oil and Grease (mg/L) Instantaneous Maximum		< 5.0						< 5.0				

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 102, 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)	Report	XXX	XXX	XXX	XXX	XXX	2/discharge	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	2/discharge	Grab
Oil and Grease	XXX	XXX	XXX	15.0	XXX	30.0	2/discharge	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	2/discharge	Grab
Total Nickel	XXX	XXX	XXX	Report	XXX	Report	2/discharge	Grab
Total Zinc	XXX	XXX	XXX	Report	XXX	Report	2/discharge	Grab
Chloride	XXX	XXX	XXX	Report	XXX	Report	2/discharge	Grab

Compliance Sampling Location: at Outfall 102, which is an inspection/sampling port inside the plant, prior to mixing with any other waters.

Flow is monitor only based on Chapter 92a.61. The limits for pH and Oil and Grease are technology-based on Chapter 95.2. Monitoring for Ammonia-Nitrogen, Total Nickel, Total Zinc, and Chloride is based on Chapter 92a.61.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	103	Design Flow (MGD)	0.043
Latitude	41º 37' 30.40"	Longitude	-80º 09' 50.40"
Quad Name	-	Quad Code	-
Wastewater Description:	Noncontact Cooling Water (NCCW)		
Receiving Waters	Unnamed Tributary to the Van Horne Creek (WWF)	Stream Code	N/A
NHD Com ID	127348884	RMI	N/A
Drainage Area	-	Yield (cfs/mi^2)	-
Q_{7-10} Flow (cfs)	-	Q_{7-10} Basis	-
Elevation (ft)	-	Slope (ft/ft)	-
Watershed No.	16-D	Chapter 93 Class.	WWF
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)	-	-
Temperature (°F)	-	-
Hardness (mg/L)	-	-
Other:	-	-

Nearest Downstream Public Water Supply Intake	Aqua Pennsylvania, Inc. - Emlenton		
PWS Waters	Allegheny River	Flow at Intake (cfs)	1,376
PWS RMI	90.0	Distance from Outfall (mi)	64.0

Outfall 103 consists of Non-Contact Cooling Water (NCCW)* from the screw compressor, reciprocating compressor, air dryer, Desprue Hydraulics, and the Austemper only during maintenance or process upsets.

* **-** The Non-Contact Cooling Water (NCCW) at this outfall contains an anti-freeze additive. During maintenance or upset, city water is used for cooling. The city water is used to flush the anti-freeze into an approximately 300 gallon plastic tank prior to reaching Outfall 003. The anti-freeze is colored, so when the water being discharged to the tank looks clear, it is then discharged. Sampling for this outfall shall be performed on the water that discharges after the non-contact cooling water containing the anti-freeze has been captured. The discharge from this outfall should not contain any anti-freeze.

No modeling was performed since the discharge consists only of NCCW, and the discharge is only activated during maintenance or process upsets only. The source of the NCCW is from the City of Meadville's public water supply, which is monitored. The technology-based limits generally given for NCCW will protect the receiving stream.

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 103, 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)	Report	XXX	XXX	XXX	XXX	XXX	2/discharge	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	2/discharge	Grab
Oil and Grease	XXX	XXX	XXX	15.0	XXX	30.0	2/discharge	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	2/discharge	Grab
Total Nickel	XXX	XXX	XXX	Report	XXX	Report	2/discharge	Grab
Total Zinc	XXX	XXX	XXX	Report	XXX	Report	2/discharge	Grab
Chloride	XXX	XXX	XXX	Report	XXX	Report	2/discharge	Grab

- No anti-freeze is authorized to be discharged from this IMP at any time.

Compliance Sampling Location: at Outfall 103, prior to mixing with any other waters.

Flow is monitor only based on Chapter 92a.61. The limits for pH and Oil and Grease are technology-based on Chapter 95.2. Monitoring for Ammonia-Nitrogen, Total Nickel, Total Zinc, and Chloride is based on Chapter 92a.61.