pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0062791**
Facility Type	**Industrial**	APS ID	**598177**
Major / Minor	**Minor**	Authorization ID	**1165038**

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

Applicant and Facility Information

Applicant Name	**Just Born Inc.**	Facility Name	**Just Born Inc.**
Applicant Address	1300 Stefko Boulevard	Facility Address	1300 Stefko Boulevard
	Bethlehem, PA 18017-6672		Bethlehem, PA 18017
Applicant Contact	William Slater	Facility Contact	William Slater
Applicant Phone	(610) 867-7568	Facility Phone	(610) 867-7568
Client ID	62134	Site ID	254257
SIC Code	2064	Municipality	Bethlehem City
SIC Description	Manufacturing - Candy And Other Confectionery Products	County	Northampton
Date Application Received	December 30, 2016	EPA Waived?	Yes
Date Application Accepted	April 3, 2017	If No, Reason	-

Purpose of Application: RENEWAL OF EXISTING NPDES PERMIT.

Summary of Review

This is an existing facility discharging 0.217 MGD discharge of non-process wastewater (Non-contact Cooling Water) and stormwater to the City of Bethlehem Stormwater MS4 Stormwater Sewer system (which discharges to Trib 03383 To Lehigh River (UNT to Lehigh River, historical UNT to Lehigh Coal And Navigation Canal).

Background:

- **Facility:** This is a SIC Code# 2064 Candy maker (nonchocolate confectionary).
- **IW Stormwater Discharges Requirements: Previous "no exposure" no longer applicable due to documented releases. Stormwater permitting requirements are being incorporated into this permit cycle. Just Born blamed high Module 1 2017 BOD5/COD stormwater constituent levels on 2014 and 2016 release incidents.**
  - **SIC Code 2064 is subject to GP PAG-03 Appendix I (FOOD AND KINDRED PRODUCTS) with constituents of interest including: pH, BOD5, COD, Nitrate-Nitrite-N, and Oil & Grease. There is no applicable 40 CFR Effluent Limitation Guideline (ELG) for this SIC code.**
  - **Application and DEP files include reporting of releases onsite.**
  - **Facility-named "SW001" and "SW002" renamed Outfall Nos. 002 and 003.**
- **NCCW System:** Water-cooled air condensers in an open-loop configuration drains to the local storm sewers during warm weather months. They previously indicated (prior NPDES Permit Renewal Application) that the water temperature increases approximately 2°F above well water temperature at discharge, prior to routing via City of Bethlehem storm sewer system to the Unnamed Tributary.
  - **NCCW is discharged only from April to October annually.**
  - **Source water is well water for Outfall #001 NCCW discharge.**
  - **Application indicates no chemical additives or treatment chemicals in use, but TRC found in effluent.**
- **Other Discharges**:

Approve	Deny	Signatures	Date
X		James D. Berger, P.E. / Environmental Engineer	June 3, 2019
X		Amy M. Bellanca, P.E. / Environmental Engineer Manager	

Summary of Review

- Flowchart shows process flows go to the City of Bethlehem POTW.
- The applicant has indicated that no chemical additives are used in the NCCW, and that the NCCW does not contact product or waste via 12/28/2011 telephone conversation. The NCCW is not treated prior to discharge.
- Facility's sewage goes to the POTW for treatment.

Part C Special Conditions:

Part C.I.A, B, C, D: New standard IW conditions (Necessary Property Rights; Residuals Management; Relation to WQM permits (if any): BAT/ELG Condition)
Part C.I.E: New dry stream condition due to eventual discharge to head of UNT.
Part C.I.F: New No Additional Pollutants to NCCW condition. Application did not identify any chemical conditioner or treatment chemicals for NCCW. TRC indicates indicated chlorine usage or discharge of potable water into stormwater controls (see Part C.II regarding allowable discharges).
Part C.II: New Standard Stormwater Conditions as evidence of releases voided previous No Exposure Certification.

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.	001 002 003	Design Flow (MGD)	0.217 (001) 0 (002) 0 (003)
Latitude	40º 37' 39.61"	Longitude	-75º 21' 32.49"
Quad Name	Nazareth	Quad Code	1343 (6.22.1)
Wastewater Description:	Outfall 001: Noncontact Cooling Water (NCCW) and stormwater Outfall 002: Stormwater associated with industrial activities Outfall 003: Stormwater associated with industrial activities		
Receiving Waters	Unnamed Tributary to Lehigh River aka UNT to Lehigh Coal & Navigation Canal (historic)	Stream Code	03383
NHD Com ID	26294091	RMI	0.1900
Drainage Area	See below	Yield (cfs/mi^2)	See below
Q_{7-10} Flow (cfs)	Zero (discharge to headwater)	Q_{7-10} Basis	See below
Elevation (ft)	~390 Feet (Outfall No. 001) ~380 Feet (Outfall No. 002) ~360 Feet (Outfall No. 003)	Slope (ft/ft)	-
Watershed No.	2-C	Chapter 93 Class.	CWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	**Impaired for Aquatic life**		
Cause(s) of Impairment	**Siltation; Water/Flow Variability (Flow regime modification)**		
Source(s) of Impairment	**Urban Runoff/Storm Sewers**		
TMDL Status	-	Name	-

Background/Ambient Data: None available		Data Source: None available	
pH (SU)	-	-	
Temperature (°F)	-	-	
Hardness (mg/L)	-	-	
Other:	-	-	

Nearest Downstream Public Water Supply Intake	FOREST PARK WTP		
PWS Waters	Delaware River	Flow at Intake (cfs)	-
PWS RMI	-	Distance from Outfall (mi)	37 miles

Changes Since Last Permit Issuance: **Updated Coordinates provided for stormwater outfalls (being added into the NPDES Permit in this permit cycle), MS4 discharge, and UNT confluence with Canal**:

Outfall No./Location	Effluent	Latitude	Longitude
001 discharging through Outfall No. 003	NCCW, stormwater	40°, 37', 52.02	-75°, 21', 12.43"
002 (SW001) for northside stormwater drainage areas discharging directly to Bethlehem MS4	Stormwater only	40°, 37', 55.19"	-75°, 21', 15.55
003 (SW002)	Stormwater only	40°, 37', 55.02"	-75°, 21', 19.63
Source Well (from previous NPDES Application)	-	40°, 37', 52.518"	-75°, 21', 13.1502"
Bethlehem MS4 Outfall To UNT Headwaters	MS4 discharge	40º, 37', 42"	-75º, 21', 32"
UNT confluent with Old Canal (which is presumed to direct flow to Lehigh River after conversion of canal to public trail) per Permittee.	Stream flow	40º, 37', 12"	-75º, 21', 10"

Other Comments:

- **Unnamed Tributary to Lehigh River aka UNT to Lehigh Coal & Navigation Canal (historic): The facility discharges to the Bethlehem City MS4 system which discharges to the head of the UNT (about 0.4 miles distant from Outfall No. 001, mixed with intermittent stormwater discharges). The UNT directs flow to the old Lehigh Coal & Navigation Canal and then to Lehigh River per E-maps.**
    - **NCCW Flow and UNT**:
        - In the previous NPDES Permit Renewal, the permittee indicated the NCCW temperatures were within 2 ºF of the well water temperature (reflecting groundwater temperatures recharging the UNT). More data will be gathered in this permit term to clarify well water temperatures.
        - Outfall No. 001 NCCW Discharge is approximately 0.4 miles from UNT headwaters, via Bethlehem MS4 system with MS4 discharge about ~0.05 miles from E-maps-defined UNT headwaters. This allows for some thermal equalization even in absence of stormwater within the Bethlehem MS4 system.
        - Given small drainage area and flow modification (urbanization, industrial park, wellwater withdrawals) reducing natural UNT low flows, the 0.217 MGD (0.332 CFS) discharge (April to October) is the main water source for the UNT during April through October (other than intermittent short-term Bethlehem MS4 stormwater-only discharges) and is the likely reason the UNT is classified as a perennial stream. Elimination of NCCW discharges might convert the UNT into a dry/intermittent stream, negatively impacting aquatic life. In comparison, the DRBC classifies any stream with less than 0.1 CFS flow as an intermittent stream. Even assuming the default statewide LFY (0.1 CFS/square miles) applied (which is not the case), the UNT would only receive 0.082 CFS (at head) through 0.110 CFS (at confluence with Lehigh River) flows in the absence of the NCCW contribution.
    - **Drainage Area and Q7-10 at UNT Headwaters**: USGS Streamstats estimated the UNT drainage area as 0.82 square miles at the E-maps-shown UNT headwater and ~1.11 square miles at the UNT's confluence with the Lehigh River. Due to "Water/Flow Variability (Flow regime modification)" and UNT area(s) below Streamstats regression range, the Streamstats estimated Q7-10 low flow is invalid and therefore not included in this Fact Sheet. No LFY can be derived or accurately estimated.
    - **New Information:** Permittee consultant confirmed that the facility discharges to the City of Bethlehem storm system that discharge to the head of this UNT. He walked down the trib to the Canal, He noted that the UNT stream bed was completely dry until reaching ~50 feet of ponded water at the confluence with the old canal on 4/13/2017. He provided coordinates to Bethlehem MS4 discharge and confluence of UNT with old Lehigh Canal coordinates. The UNT confluence coordinates conflicts with E-maps-shown confluence location. It is possible that E-maps is outdated due to conversion of Lehigh Canal to recreational uses (see below) or flow route changed due to normal factors (erosion to new channels, sediment build-up, etc.).
    - **Lehigh Coal & Navigation Canal (historic) Information:** The old canal was basically parallel to Lehigh River and is part of the overall Lehigh River watershed. Wikipedia: "An 8-mile (13 km) segment of the canal towpath has been converted into a multi-use trail that runs from Freemansburg through Bethlehem to Allentown. The trail runs along the river and active railroad tracks."
    - **Lehigh River**: E-maps implies the Canal would then drain directly to the River from UNT confluence at the UNT confluence. At the E-maps-shown confluence, the Lehigh River (WWF) is impaired for aquatic life due to: Urban Runoff/Storm Sewers - Siltation; Combined Sewer Overflow - Suspended Solids; Municipal Point Source - Organic Enrichment/Low D.O
- **No TMDL: NCCW is not expected to be a significant source of siltation. Stormwater BMPs and permit limits will limit impact of stormwater on the receiving streams (siltation or organic enrichment). Other dischargers will be separately addressed by separate NPDES Permits:**
    - **Bethlehem City (receiving MS4, surrounding the UNT) has a MS4 permit (PAI132225).**
    - **Due to present state of MS4 outfall data in E-maps, it is unclear if any other MS4 system discharges to this UNT (ultimately).**
    - **There are other NPDES Dischargers to the UNT (either directly or through the City MS4 outfalls).**

Compliance History

DMR Data for Outfall 001 (from April 1, 2018 to March 31, 2019)

Parameter	APR-19	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18	MAY-18	APR-18
Flow (MGD) Average Monthly	0.216	0.216	0.216	0.216	0.216	< 0.216	0.216	0.216
Flow (MGD) Daily Maximum	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216
pH (S.U.) Minimum	6.9	6.94	6.95	6.9	6.99	7.02	7.0	7.02
pH (S.U.) Maximum	7.03	7.6	7.3	7.4	7.4	7.3	7.8	7.33
Temperature (ºF) Average Monthly	**68.1**	**63**	**65.1**	**65.8**	**66.2**	**68.1**	**63.5**	**61.8**
Temperature (ºF) Daily Maximum	**71.1**	**64.1**	**75.4**	**71.3**	**69**	**73.4**	**68**	**63.4**
Oil and Grease (mg/L) Average Monthly	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.0
Oil and Grease (mg/L) Daily Maximum	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.0

Compliance History:

Inspection History (5/30/2019 WMS Query):

FACILITY NAME	INSP ID	INSPECTED DATE	INSP TYPE	INSPECTION RESULT DESC	INSPECTOR ID	# OF VIOLATIONS
JUST BORN INC	2542229	12/01/2016	Compliance Evaluation	No Violations Noted	00733079	0
JUST BORN INC	2413937	08/26/2015	Compliance Evaluation	No Violations Noted	00628030	0

Compliance Comments:

Application was due 12/31/2016, but not complete until 4/3/2017. Existing Permit was administratively extended by 6/17/2017 Administrative Letter.

NPDES Application Certification section indicated no violation of DEP regulation or permit, but facility discharged contaminated rainfall despite prior "no exposure certification":

- **Existing NPDES Permit Part C.I.B required an NPDES Permit Amendment be requested to include stormwater outfalls in event conditions allow for exposure of materials or activities to the environment.**
- **The Application referenced releases of food ingredients (liquid sugar and corn syrup) released to storm sewer.**
  - **Module 1 Outfall Single sample: 279 mg/l BOD, 414 mg/l COD, 10 mg/l TSS. Just Born blamed high Module 1 2017 BOD5/COD levels on 2014 and 2016 release incidents.**
  - **The 3/30/2017 Application revisions indicated that Just Born was implementing stormwater BMPs from the GP PAG-03 Appendix I (brought to their attention during permitting).**

Compliance Status: The 6/4/2019 WMS Query (open violation by client) query indicated no open violations:

Permit: PA0062791

Client ID: 62134
Client: All

Open Violations: 0

No data was found using the criteria entered. Please revise your choices and try again.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .217
Latitude 40º 37' 51.91" **Longitude** -75º 21' 12.44"
Wastewater Description: Noncontact Cooling Water (NCCW) and stormwater

Permit Limits/Monitoring:

Parameter	Limit (mg/l unless otherwise specified)	SBC	Model/Basis
Flow	Report MGD Report MGD	Monthly Average Daily Max	Existing standard monitoring requirement.
TSS	**100.0**	**IMAX**	**New limit based on stormwater monitoring requirements for this industry (based on PAG-03 benchmark value requiring corrective action). Module 1 indicated 10 mg/l TSS stormwater sample result (1/17/2017 storm event). Outfall #001 effluent data was 62 mg/l maximum of three samples averaging <21 mg/l.**
pH	6.0 – 9.0 SU	Inst. Min - IMAX	Existing Chapter 95.2 and standard monitoring requirement. Application data indicate range of 6.9 – 8.8 SU.
Temperature	Report ºF	**Daily Max**	Existing standard monitoring requirement for NCCW**, now broken down into Chapter 93 WQS Temperature criteria time-frames reporting time frames. Application data indicated maximum 81 ºF, maximum average monthly temperature of 67.8 ºF, and LTA of 62.8 ºF.**
Oil & Grease	15.0 30.0	Monthly Average Daily Max	Existing permit limit retained (Chapter 95.2 and PAG-03 statewide BPJ). Application indicated <5 mg/l Oil & Grease in Effluent.
BOD5	**30.0**	**IMAX**	**New permit limit based on PAG-03 statewide BPJ for stormwater for this industry, incorporated per documented facility releases. The application indicated <2 mg/l BOD5 effluent concentration.**
COD	**120.0**	**IMAX**	**New permit limit based on PAG-03 statewide BPJ for stormwater for this industry, incorporated per documented releases. Application indicated 001 Effluent concentration of <25 mg/l COD.**
Nitrate + Nitrite-N	**Report**	**IMAX**	**New permit limit based on PAG-03 statewide BPJ for stormwater for this industry.**
Total Residual Chlorine (TRC)	**0.50** **1.60**	**Monthly Average** **IMAX**	**New permit limit due to detection in effluent based on Chapter 92a.48. Application data indicated max of 0.24 mg/l and average of <0.13 mg/l.**

Comments:

Application references this existing Outfall as "NCCW001" and as an "internal monitoring point", but it was the historically monitored outfall. Given existing permit limits (pH and Oil & Grease subject to the Antibacksliding prohibition) and variable impacts of stormwater dilution on NCCW temperature, it has been retained as a permitted Outfall where permit limits must be met.

Existing monitoring updated to reflect EDMR requirements (Instantaneous Minimum and Maximum reporting for grab sampling, etc.).

Due to nature of flows (NCCW for summer months, precipitation year-round), the Part A tables will clarify Outfall sampling to take place only during NCCW discharge. Stormwater Outfall No. 003 receives Outfall No. 001 flows, and therefore will be sampled during periods of non-NCCW discharge only.

Temperature monitoring increased to daily per DEP standard monitoring frequency (Table 6-4).

Groundwater Well Source Water (NCCW usage) Temperature will now be monitored at new Internal Monitor Point No. 101 (well water temperature) to allow for direct comparison to discharge temperature.

Temperature Considerations: **The Department is increasing monitoring requirements to gather data in this permit term. The Department will be re-evaluating need for thermal limits in the next NPDES Permit Renewal.** The facility discharges NCCW (from groundwater source) to the Bethlehem City MS4 stormwater system from April to October annually. See Discharge, Receiving Waters and Water Supply Information Section above for additional information.

- NCCW Water Source is well water directed to the Packaging Storage Air Conditioner and Warehouse Air Conditioner prior to discharge via Outfall No. 001 at 217,440 GPD (Line Drawing).
- Previous NPDES permit renewal application indicated that the NCCW discharge temperature was within 2°F of well water source temperature (presumably the same temperature as the groundwater recharging the Unnamed Tributary) and was discharged only during warmer June through October months. EDMR data indicated additional discharge months and raised questions of actual groundwater temperatures.
- The Unnamed Tributary (CWF) flows to Lehigh River (WWF) which is subject to less stringent Chapter 93.7 WQ criteria (Maximum temperatures in the receiving water body resulting from heated water sources regulated under Chapter 92a and 95):

Time Period	CWF (°F)	WWF (°F)	**2018 EDMR data (ºF)**
April 1-15	48	52	**61.8° Monthly Average; 63.4° Daily Max**
April 16-30	52	58	See above
May 1-15	54	64	**63.5° Monthly Average; 68° Daily Max**
May 16-31	58	74	See above
June 1 – 15	60	80	**68.1° Monthly Average; 73.4° Daily Max**
June 16 – 30	64	84	See above
July 1 – 31	66	87	**66.2° Monthly Average; 69° Daily Max**
Aug 1 – 15	66	87	65.8° Monthly Average; 71.3° Daily Max
Aug 16 – 31	66	87	See above
Sept 1 – 15	64	84	**65.1° Monthly Average; 75.4° Daily Max**
Sept 16 – 30	60	78	See above
Oct 1 – 15	54	72	**63° Monthly Average; 64.1° Daily Max**
Oct 16 – 30	50	66	See above

Development of Effluent Limitations

Outfall No. 002 and 003 **Design Flow (MGD)** 0
Latitude 40º 37' 55.19" (002) **Longitude** -75º 21' 15.55" (002)
40º 37' 51.37" (003) -75º 21' 19.63" (003)
Wastewater Description: Stormwater associated with industrial activities

Permit Limits and Monitoring:

Parameter	Limit (mg/l unless otherwise specified)	SBC	Model/Basis
TSS	**100.0**	**IMAX**	**New limit based on stormwater monitoring requirements for this industry (based on PAG-03 benchmark value requiring corrective action). Module 1 indicated 10 mg/l TSS stormwater sample result (1/17/2017 storm event). Outfall #001 effluent data was 62 mg/l maximum of three samples averaging <21 mg/l.**
pH	**Report SU**	**Inst. Min - IMAX**	**New permit limit based on PAG-03 statewide BPJ for stormwater for this industry.**
Oil & Grease	**15.0** **30.0**	**Monthly Average** **Daily Max**	**Existing permit limit retained (Chapter 95.2 and PAG-03 statewide BPJ). Application indicated <5 mg/l Oil & Grease in Effluent.**
BOD5	**30.0**	**IMAX**	**New permit limit based on PAG-03 statewide BPJ for stormwater for this industry. Module 1 indicated 279 mg/l BOD5 stormwater sample result (1/17/2017 storm event) but later indicated to be Outfall #003 (SW002 sample). The application indicated <2 mg/l BOD5 effluent concentration.**
COD	**120.0**	**IMAX**	**New permit limit based on PAG-03 statewide BPJ for stormwater for this industry. Module 1 indicated 414 mg/l stormwater sample result (1/17/2017 storm event). Application indicated 001 Effluent concentration of <25 mg/l COD.**
Nitrate + Nitrite-N	**Report**	**IMAX**	**New permit limit based on PAG-03 statewide BPJ for stormwater for this industry.**

Comments:

- **Outfalls #002 (South Drainage Area) and #003 (North Drainage Area) receive drainage from shipping & receiving areas.**
- **Outfall No. 003 is to be sampled only during times of non-NCCW discharge.**

Outfall No.	Area Drained (ft^2)	Latitude	Longitude	Description
002	225,000	40º 37' 55.19"	-75º 21' 15.55"	South Drainage Area discharging to Bethlehem MS4
003	81,200	40º 37' 51.37"	-75º 21' 19.63"	North Drainage Area discharging to Bethlehem MS4

Communication Log:

1/20/2017: Application Completeness: Renewal Application was due December 31, 2016. They asked for additional time for stormwater sampling and was granted it. The revised Module 1 was received 1/20/2017. **Facility has chosen to do the abbreviated analysis for non-process wastewater (NCCW) allowed by the Application Instructions instead of Pollutant Group 1.**

1/28/2017: Telephone Conversation with Consultant (Rick Gorrell): Waived other stormwater outfall sampling due to time of year for application completeness, but will revisit need during technical review (including stormwater drainage area delineation, PPC Plan addressing stormwater requirements, etc.). Noted PAG-03 Appendix I monitoring requirements apply to the facility's SIC Code. Noted no exposure benchmarks for stormwater outfalls in GP PAG-03 guidance, etc. Noted awaiting clarification on whether there is any additional wastewater being discharged from 001, in which case additional sampling and analysis might be required. They can ask for more time if they cannot meet the 30-day due date of the DEP Letter. (Previous conversation noted need for receiving stream hardness applied only if new wastestream (not NCCW or stormwater) was being discharged). Noted need to supply application-referenced release documentation.

4/3/2017: Supplemental information received

4/11/2017: DEP (Berger) E-mail asking for information on stormwater routing to UNT and Lehigh River.

4/24/2017: Just Born (consultant) E-mail response to 4/11/2017 Berger E-mail.