pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

| | | | |
|---|---|---|---|
| Application Type | **Renewal** | Application No. | **PA0232521** |
| Facility Type | **Storm Water** | APS ID | **984214** |
| Major / Minor | **Minor** | Authorization ID | **1257702** |

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

## Applicant and Facility Information

| | | | |
|---|---|---|---|
| Applicant Name | **Nicholas Meat, LLC** | Facility Name | **Nicholas Meat, LLC** |
| Applicant Address | 508 East Valley Road | Facility Address | 508 East Valley Road |
| | Loganton, PA 17747-9207 | | Loganton, PA 17747-9207 |
| Applicant Contact | Doug Nicholas | Facility Contact | Doug Nicholas |
| Applicant Phone | 570-725-3511 | Facility Phone | 570-725-3511 |
| Client ID | 283872 | Site ID | 734809 |
| SIC Code | 2011 | Municipality | Greene Township |
| SIC Description | Manufacturing - Meat Packing Plants | County | Clinton |
| Date Application Received | January 08, 2019 | EPA Waived? | Yes |
| Date Application Accepted | March 27, 2019 | If No, Reason | N/A |
| Purpose of Application | Renewal of NPDES Stormwater Permit | | |

## Summary of Review

INTRODUCTION

Doug Nicholas, General Manager, has proposed the renewal of the existing National Pollution Discharge Elimination System (NPDES) permit authorizing the discharge of stormwater from the Nicholas Meat, LLC beef processing plant in Loganton, PA.

APPLICATION

Doug Nicholas, the client contact for this application, submitted the *National Pollutant Discharge Elimination System (NPDES) Application for Individual Permit to Discharge Industrial Stormwater* (DEP #3800-PM-WSFR0403b). This application was received by the Department on January 08, 2019 and was considered administratively complete on March 27, 2019. Additional contact information for Doug Nicholas is (fax) 570-725-3511 X305, (fax) 570-725-7970 and (email) dnicholas@nicholasmeats.com. The application consultant is Britt Bassett, PE of Bassett Engineering of Montoursville, PA. His contact information is (phone) 570-368-2131, (fax) 570-268-2026 and (email) bbassett@basseteng.com.

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.

The case file, permit application package and the draft permit will be available for public review at the Department's Northcentral Regional Office. The address is 208 West Third Street, Suite 101, Williamsport, PA 17701. An appointment can be made to review these materials during the comment period by calling the file coordinator at 570-327-3636.

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| Approve | Deny | Signatures | | | Date |
|---|---|---|---|---|---|
| X | | Jeffrey J. Gocek, EIT | Jeffrey J. Gocek | Project Manager | 07/06/2020 |
| X | | Nicholas W. Hartranft, PE | Nicholas W. Hartranft | Environmental Engineer Manager | 07/06/2020 |

COMPLIANCE HISTORY

The WMS Query *Open Violations for Client by Permit Number* revealed one open violation for Grove Township. This open violation is summarized below.

| # | Facility | Inspection ID | Violation ID | Program | Region | Violation |
|---|---|---|---|---|---|---|
| 1 | Nicholas Meat, LLC | 2726285 | 815736 | Safe Drinking Water | NCRO | Failed to obtain a permit, innovative technology permit, major permit amendment, or emergency permit. |

The most recent Department inspection, a Routine Partial (RTPT) inspection, was conducted September 25, 2019. No violations were noted during the inspection.

Discharge Monitoring Report (DMR) data from January 2019 through July 2019 is presented below.

| Outfall | Date | pH Minimum | pH IMAX | COD Avg. Month | TSS Avg. Month | Oil and Grease Avg. Month | Fecal Coliform Avg. Month | Nitrate-Nitrite Avg. Month | TKN Avg. Month |
|---|---|---|---|---|---|---|---|---|---|
| | Units | (S.U.) | (S.U.) | (mg/L) | (mg/L) | (mg/L) | (No./100 ml) | (mg/L) | (mg/L) |
| 001 | Dec. 2019 | 8.3 | 8.3 | 98.9 | 980 | <4.8 | >2419.6 | 0.81 | 5.3 |
| | June 2019 | 8.1 | 8.1 | 53.9 | 203 | <4.8 | >2419.6 | 0.30 | 3.7 |
| 002 | Dec. 2019 | GG | GG | GG | GG | GG | GG | GG | GG |
| | June 2019 | GG | GG | GG | GG | GG | GG | GG | GG |
| 003 | Dec. 2019 | GG | GG | GG | GG | GG | GG | GG | GG |
| | June 2019 | GG | GG | GG | GG | GG | GG | GG | GG |
| 005 | Dec. 2019 | 7.9 | 7.9 | 34.7 | 28.0 | <4.8 | >2419.6 | 2.6 | 4.9 |
| | June 2019 | 7.9 | 7.9 | 65.7 | 80.0 | <4.8 | >2419.6 | 0.34 | 2.1 |
| 006 | Dec. 2019 | GG | GG | GG | GG | GG | GG | GG | GG |
| | June 2019 | GG | GG | GG | GG | GG | GG | GG | GG |
| 007 | Dec. 2019 | GG | GG | GG | GG | GG | GG | GG | GG |
| | June 2019 | GG | GG | GG | GG | GG | GG | GG | GG |

GG indicates that reporting conditions had not been met during the reporting period.

INDUSTRIAL FACILITY

See Attachment 01 for a map of the site location.

Description

Nicholas Meat, LLC harvests and fabricates beef at their Loganton, PA facility. From a roofed animal barn at the beginning of the process to end products being stored in the refrigerated storage, the entire operation is conducted under roof and indoors. Approximately 250 persons work at this facility, which normally operates five days per week. Harvest and fabrication operations begin early in the morning and continue throughout the day with a final cleanup done at the end of each day's work. USDA inspectors are present in the facility watching all aspects of the operations to ensure regulatory requirements are met. Nicholas Meat, LLC products are marketed both domestically and abroad. The preparation of the meat from beef animals involves automated and manual operations.

The daily operation consists of slaughter, butcher and packing which begin early in the morning and continue throughout the day with the final cleanup performed at the end of each work day. USDA inspectors observe all aspects of the butchering to ensure the safety of the butchered and packed beef products. These products are marketed both domestically and abroad.

Live beef animals are the primary raw material for this operation. The finished products are butchered, packaged and chilled cuts of beef. Except for brains and spinal cords, which must be disposed of in sanitary landfills, all other animal parts (hides, blood, bones, etc.) are marketed for various non-food products. Paunch manure is land applied to agricultural land by methods approved by the PA Department of Agriculture.

Nicholas Meat, LLC has reported a *North American Industry Classification System* (NAICS) of 311611 in the application. This number represents *Animal (Except Poultry) Slaughtering* and corresponds to *Standard Industrial Classification* (SIC) code of 2011. According to the Occupational Health and Safety Administration (OSHA), *Meat Packing Plants* (SIC 2011) are defined as establishments primarily engaged in the slaughtering, for their own account or on a contract basis for the trade of cattle, hogs, sheep, lambs, and calves for meat to be sold or to be used on the same premises in canning, cooking, curing, and freezing, and in making sausage, lard, and other products.

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Process Wastewater

All food processing waste, along with the interference and cleaning chemicals, is washed into plant drains which convey the wastewater to aerated holding tanks. This wastewater has less than 2% solids and is classified as a food processing waste (not industrial wastewater). The wastewater is aerated for several days and is then land applied, in accordance with Nicholas' approved *Nutrient Management Plan* (NMP). Tank 1 has a volume of 180,000 gallons while Tank 2 has a volume of 700,000 gallons. One tank is designated as the primary receiving tank, while the other is considered a secondary receiving tank. During periods when land application is infeasible, the secondary tank is considered a backup storage tank. Following an aeration period, wastewater is transferred to tanker trucks which haul the wastewater to land application sites.

All domestic wastewater from the site is treated by an on-lot septic system.

EXISTING STORMWATER MANAGEMENT

Currently, stormwater at the Nicholas site is discharged via four stormwater outfalls. These outfalls discharge to Fishing Creek via swales (unnamed tributaries) on the site. The characteristics of these outfalls are as follows:

| Outfall # | Latitude | Longitude | Drainage Area (ft2) | % Impervious | Entirely Stormwater | Description |
|---|---|---|---|---|---|---|
| 001 | 41°02'07.21" | -77°17'16.80" | 2,134,440 | 0 | Yes | Farming and residential offsite stormwater |
| 004 | 41°02'04.82" | -77°17'16.98" | 515,600 | 82 | Yes | Slaughterhouse wastewater holding tanks, diesel fuel tanks, propane tanks, gasoline tank, employee parking and slaughterhouse operations |
| 005 | 41°02'08.23" | -77°16'59.85" | 172,000 | 83 | Yes | Truck parking |
| 007 | 41°02'06.23" | -77°17'07.23" | 115,600 | 72 | Yes | Offsite stormwater and roof drainage |

Outfalls 002 and 003, authorized in the previous permit, will be no longer be needed since the stormwater impacted by industrial activity will be collected and conveyed to one of the two constructed impoundments for either infiltration or discharge (overflow).

See Attachment 02 for schematic of the site.

RECEIVING STREAM

Stream Characteristics

The receiving stream for these stormwater discharges will be Fishing Creek, tributary to Bald Eagle Creek and eventually the West Branch Susquehanna River. According to 25 PA § 93.9L, this stream is protected for *High Quality-Cold Water Fishes* (HQ-CWF) and *Migratory Fishes* (MF). These are the stream's *Designated Uses*, which are defined in 25 PA § 93.1 as "those uses specified in §§ 93.9a – 93.9z for each waterbody or segment whether or not the use is being attained". Designated uses are regulations promulgated by the Environmental Quality Board (EQB) through the rulemaking process. Fishing Creek currently does not have an *Existing Use*. An Existing Use is defined in 25 PA § 93.1 as "those uses actually attained in the waterbody on or after November 28, 1975 whether or not they are included in the water quality standards". Fishing Creek, identified by Department stream code 22416, is in Drainage Basin L (Chapter 93) and State Water Plan Watershed 9C (Bald Eagle Creek).

Impairment

According to Department data, Fishing Creek is attaining its uses for aquatic life.

ANTI-DEGRADATION BACKGROUND

40 CFR §§ 131.12 and 131.32 require Pennsylvania (PA) to adopt an anti-degradation policy and include this policy as a required element of the surface water quality standards program. According to the Department's "Water Quality Anti-Degradation Implementation Guidance" (#391-0300-002), it is the Department's policy to protect the existing uses of all surface waters and the existing quality of High Quality (HQ) and Exceptional Value (EV) waters.

The basic concept of anti-degradation is to promote the maintenance and protection of existing water quality for High Quality (HQ) and Exceptional Value (EV) waters, and protection of existing uses for all surface waters because it recognizes that existing water quality and uses have inherent value worthy of protection and preservation. As a required element of PA's water quality standards, the Anti-Degradation (Antideg) program introduces levels of protection for deserving waterbodies above the basic standards. The exception occurs, in the case of HQ waters, when the Department finds (after satisfaction of intergovernmental coordination and public participation requirements) that allowing a lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

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The existing uses are protected when the Department makes a final decision on any permit or approval for an activity that may affect a protected use. The existing uses are also protected based on the Department's evaluation of the best available information that indicates the protected use of a waterbody.

For new, additional or increased point source discharges to an HQ or EV water, the person proposing the discharge is required to utilize a non-discharge alternative that is both cost-effective and environmentally sound when compared with the cost of the proposed discharge. If a non-discharge alternative is not cost effective and environmentally sound, the person must use the best available combination of treatment, pollution prevention and wastewater reuse technologies to assure that any discharge is non-degrading. This process, known as the Anti-Degradation Best Available Combination of Technologies (ABACT) analysis, establishes a minimum level of performance for dischargers in HQ or EV waters based on the more stringent of water quality-based effluent limits (WQBELs) or ABACT.

ANTI-DEGRADATION ANALYSIS (2016)

Fishing Creek Special Protection

Since the industrial activity as Nicholas began in 1987 and the nearby section of Fishing Creek was reclassified with a designated use of High Quality - Cold Water Fishes (HQ-CWF) in 1979, any surface water discharge from this facility is considered "new" and subject to the Department's Anti-degradation Requirements and Regulations (25 PA § 93.4a).

Process Wastewater

As explained above, 100% of the food processing wastewater is disposed of through land application with no wastewater being discharged from the site to Fishing Creek. The land application occurs in Jersey Shore, approximately 12 miles from the Nicholas site, on fields used to grow seed corn. Multiple tank trucks travel this route most days of the year. This wastewater can only be land applied when the soil is dry enough to absorb the water without running off. Both Nicholas and the seed grower having holding tanks in the event spreading cannot occur. See above for a description of the Nicholas holding tanks.

Alternatives Analysis

Non-discharge alternatives were evaluated by the consultant at the last renewal. These included alternate siting, recycle/reuse, complete stormwater capture, alternate discharge location and wetland treatment.

1. Alternate siting is infeasible since millions of dollars have been spent by Nicholas renovating the site following a devastating fire in 2005.
2. To capture all stormwater (zero discharge) would not be feasible.
3. Alternative discharge locations are not feasible since the area is predominately farmland with the village of Loganton downstream.
4. No property owned by Nicholas is suitable for the construction of treatment wetlands. This property is either in the floodplain or has a slope too excessive for conventional wetlands.

Best Management Practices

Nicholas considers the zero discharge of stormwater to be cost prohibitive and utilizes the following combination of best management practices (BMPs) and available technologies for the management of stormwater:

1. All industrial activities, other than the mobile refueling, will be performed under roof and indoors.
2. A portable containment device will be utilized to prevent spills of fuel to the ground during portable refueling.
3. Chemical inventories will be kept to a minimum with all chemicals used and stored indoors.
4. Secondary containment will be provided for all chemicals, diesel and gasoline.
5. Off-site stormwater will be diverted around the site and will not come in contact with industrial activities.
6. On-site stormwater will be collected and conveyed to two detention basins, which will infiltrate flows up to a two-year storm and will regulate the discharge from larger storms.
7. Parking lots and areas around buildings are not paved to promote infiltration.
8. Weekly inspections will be performed in accordance with the Prepared, Prevention and Contingency (PPC) Plan.
9. Crushed stone aprons will be used to prevent the scouring of soil under drainage pipes.
10. Prevention, Preparedness and Contingency (PPC) Planning will be documented for the site.

Site Runoff

All stormwater from up-gradient of the plant, as well as roof runoff from the onsite buildings, is diverted into swales that bypass the industrial activities.

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Any precipitation which falls on the industrial activity, with the exception of roof runoff, is collected and conveyed to a stormwater detention basin. Nicholas has also constructed earthen berms around the lower portion of the property and constructed inlets to capture stormwater along the berms. Two previously existing inlets are also being utilized.

The detention basin retains peak flows and releases stormwater at a controlled rate in order to prevent post-development runoff rates from exceeding pre-development runoff rates. All stormwater flows, up to a 2-year design storm, will be detained and allowed to infiltrate into the groundwater. Any flows greater than the 2-year storm will be discharged. Discharge from the basins will be to the above referenced swales, which convey the up-gradient stormwater away from the industrial activity. Following the construction of the detention basins, the flow rate of discharged stormwater will be managed so it does not exceed the pre-development conditions. Swales or piping will be repaired or added, as needed. Nicholas performs routine maintenance on the basins to prevent plugging by sediment.

Nicholas considers the above stormwater management changes to be both cost effective and environmentally sound.

ABACT Approval (2016)

The Department considers the above BMPs, in conjunction with the stormwater collection, conveyance, detention and infiltration system, acceptable and constitute the ABACT for the protection of Fishing Creek. This previous approval, made in 2016, remains in effect.

PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN

The most recent Preparedness, Prevention and Contingency (PPC) Plan was prepared on April 01, 2018 and revised on September 13, 2018. A copy was submitted with the application. As described above, live beef animals are the primary raw material for the operation. The cattle are kept in a barn, attached to the main building, while they wait to be processed.

Best Management Practices (BMPs) described in the PPC Plan include Pre-Release Planning, Material Compatibility Awareness, Inspection and Monitoring Program, Preventative Maintenance, Housekeeping Program, Security, External Factor Planning, Employee Training Program, Release Countermeasures, Communication, Alarm Systems, Evacuation Planning and Emergency Equipment. Stormwater-specific BMPs are described above in the Anti-Degradation Analysis.

Sanitation chemicals used onsite include HB2, PAA, Bi-Quat and HB2 Activator. Late day cleaning chemicals include KC-615, KC-631, KC-545, KC-568, KC-101 and Caustic Soda Beans. Additionally, transformer oil, hydraulic oil, gasoline and diesel fuel are also stored onsite. Both the gasoline and diesel fuel are stored in DOT-approved aboveground operating tanks with integral secondary containment. A simple, portable secondary containment device, consisting of a 100-gallon plastic basin, is utilized during refueling to prevent spills or leaks. In the event of contaminated soil, there is an existing contract with the Wayne Township Landfill for the disposal of contaminated soil.

EXISTING EFFLUENT MONITORING

The following limitations, applied to Outfalls 001, 002, 003, 004, 005, 006 and 007, were established in the permit issuance on January 14, 2016.

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass (lb/day) | | Concentration (mg/L, unless noted) | | | | Minimum Measurement Frequency | Required Sample Type |
| | Average Monthly | Maximum Daily | Minimum | Average Monthly | Maximum Daily | Instant. Maximum | | |
| pH | | | Report | | | Report | 1/6 months | Grab |
| Oil & Grease | | | | Report | | | 1/6 months | Grab |
| Chemical Oxygen Demand | | | | Report | | | 1/6 months | Grab |
| Total Suspended Solids | | | | Report | | | 1/6 months | Grab |
| Total Kjeldahl Nitrogen | | | | Report | | | 1/6 months | Grab |
| Nitrate-Nitrite Nitrogen | | | | Report | | | 1/6 months | Grab |
| Fecal Coliforms | | | | Report | | | 1/6 months | Grab |

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DEVELOPMENT OF STORMWATER MONITORING

The monitoring requirements in the existing permit are based on those contained in the Department's 2014 NPDES General Permit for Discharges of Stormwater Associated with Industrial Activities (PAG-03) Appendix I (*Animal Handling and Meat Packing Facilities*). These are below.

| Pollutant | Units | Sample Type | Measurement Frequency |
|---|---|---|---|
| pH | Standard Units | Grab | 1/6 months |
| Oil & Grease | mg/L | Grab | 1/6 months |
| Chemical Oxygen Demand | mg/L | Grab | 1/6 months |
| Total Suspended Solids | mg/L | Grab | 1/6 months |
| Total Kjeldahl Nitrogen | mg/L | Grab | 1/6 months |
| Nitrate-Nitrite Nitrogen | mg/L | Grab | 1/6 months |
| Fecal Coliforms | #/100 mL | Grab | 1/6 months |

That appendix has been replaced in the current general permit with Appendix I (*Food and Kindred Products*). The current appendix now includes Biochemical Oxygen Demand (5-Day) but no longer includes Total Kjeldahl Nitrogen or Fecal Coliforms. The monitoring requirements of this Appendix are below.

| Pollutant | Units | Sample Type | Measurement Frequency | Benchmark Value |
|---|---|---|---|---|
| pH | Standard Units | Grab | 1/6 months | XXX |
| BOD5 | mg/L | Grab | 1/6 months | XXX |
| Total Suspended Solids | mg/L | Grab | 1/6 months | 100 |
| Chemical Oxygen Demand | mg/L | Grab | 1/6 months | 120 |
| Nitrate-Nitrite Nitrogen | mg/L | Grab | 1/6 months | XXX |
| Oil & Grease | mg/L | Grab | 1/6 months | 30 |

Monitoring for this permit will include the parameters from both Appendices. Both Fecal Coliforms and Total Kjeldahl Nitrogen are being reported in detectable quantities and are therefore being kept in the permit. The continued need for these parameters will be evaluated following the upcoming permit term.

Benchmark values are not effluent limitations. They represent the threshold concentration for the determination of whether existing site BMPs are effective in controlling or preventing stormwater pollution. Two consecutive monitoring period exceedances will require the permittee to develop and submit a corrective action plan (CAP).

Appendix I of the general permit contains BMPs applicable to SIC Code 2011. These BMPs will be included in the permit.

Since the receiving stream is protected for High Quality – Cold Water Fishes, the Department is applying the summer specific water quality criteria for bacteria from 25 PA § 93.7as the benchmark value.

| Pollutant | Units | Sample Type | Measurement Frequency | Benchmark Value |
|---|---|---|---|---|
| Fecal Coliforms | #/100 mL | Grab | 1/6 months | 200 |

Changes Since Last Permit

As mentioned above, outfalls 002, 003 and 006 have been removed from this permit. The construction of three stormwater detention ponds will collect the stormwater generated by the parking lot expansion to the east. Any overflow from these ponds will discharge through outfalls 004, 005 and 007.

See Attachment 02 for schematic of the site.

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Standard Operating Procedures

The review of this application was in accordance with the Department's Standard Operating Procedure (SOP) for Clean Water Program Establishing Effluent Limitations for Individual Industrial Permits (SOP #BPNPSM-PMT-032) and the SOP for Clean Water Program New and Reissuance Industrial Waste and Industrial Stormwater Individual NPDES Permit Applications (SOP #BPNPSM-PMT-001).

Special Conditions

Requirements Applicable to Stormwater Outfalls
Approval Contingencies
Proper Waste Disposal

Supplemental Discharge Monitoring Reports

Annual Inspection Form for NPDES Permits for Discharges of Stormwater Associated with Industrial Activities
Lab Accreditation Form
Non-Compliance Reporting Form

PROPOSED MONITORING REQUIREMENTS

*Outfalls 001, 004, 005, and 007 - Effective Period: Permit Effective Date through Permit Expiration Date*

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass (lb/day) | | Concentration (mg/L, unless noted) | | | | Minimum Measurement Frequency | Required Sample Type |
| | Average Monthly | Maximum Daily | Minimum | Average Monthly | Maximum Daily | Instant. Maximum | | |
| pH (SU) | | | Report Instant. Min. | | | Report | 1/6 months | Grab |
| BOD5 | | | | Report | | | 1/6 months | Grab |
| Chemical Oxygen Demand | | | | Report | | | 1/6 months | Grab |
| Total Suspended Solids | | | | Report | | | 1/6 months | Grab |
| Oil & Grease | | | | Report | | | 1/6 months | Grab |
| Fecal Coliforms (No./100mL) | | | | Report | | | 1/6 months | Grab |
| Nitrate-Nitrite as Nitrogen | | | | Report | | | 1/6 months | Grab |
| Total Kjeldahl Nitrogen | | | | Report | | | 1/6 months | Grab |

*END of Fact Sheet.*