



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL

OFFICE OF THE
SECRETARY

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Secretary's Order No. 2015-W-0046

Re: Allen Harim Foods, LLC's Applications for a Wastewater Facility Construction Permit and a National Pollutant Discharge Elimination System Permit (NPDES Permit # DE 0000299 and State Permit WPCC 313F/76) for its Poultry Processing Plant at 18752 Harbeson Road, Harbeson, Sussex County

Date of Issuance: December 18, 2015

Effective Date: December 18, 2015

BACKGROUND

Pursuant to 7 Del. C. §§6003, 6004(b), 6006(4) and other relevant authority, the Secretary of the Department of Natural Resources and Environmental Control ("Department") issues this Order after a consolidated public hearing on two Allen Harim Foods, LLC ("Applicant") permit applications submitted to the Department's Division of Water, Surface Water Discharges Section ("SWDS").

Both permit applications are for Applicant's poultry processing plant at 18752 Harbeson Road, Harbeson, Sussex County ("Facility"). One application seeks to renew and amend the Facility's National Pollutant Discharge Elimination System ("NPDES") permit ("NPDES Permit"), which regulates the Facility's discharges into Beaverdam Creek. The other application seeks a Wastewater Facility Construction permit for WTP upgrades ("Construction Permit"). SWDS prepared a draft NPDES permit pursuant to the Department's NPDES permit application process set forth in the Department's

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Regulations Governing the Control of Water Pollution (“Water Quality Regulations”). 7
DE Admin. Code 7201.

SWDS published separate public notices of each application and the draft NPDES permit in two newspapers, and, in response, received one public comment on each application from the same group of five persons who reside near Milton and Millsboro. Both comments also requested a public hearing. The Department determined to hold a consolidated public hearing, and published public notice in two newspapers of a November 18, 2015 public hearing to be held at the Indian River Senior Center in Millsboro, Sussex County.

Department hearing officer, Robert P. Haynes, presided over the public hearing, which was attended by approximately forty persons, including SWDS’ representatives and Applicant’s representatives. The public speakers raised issues with the applications’ impact on Beaverdam Creek.

Following the public hearing, Mr. Haynes requested technical assistance from SWDS. SWDS provided its Technical Response Memorandum (“TRM”), which recommended issuance of the two draft permits that SWDS provided with its TRM.

Mr. Haynes prepared the attached Hearing Officer’s Report (“Report”), which reviews the procedural history, establishes the record on which the Report relies upon (“Record”), discusses the public comments, and makes findings of fact and reasons to support the Department’s decision to issue the two permits prepared by SWDS.

Findings of Fact

The Department finds that the Record supports adopting the Report's findings of fact to the extent they are consistent with this Order.

The Department finds that Applicant's Construction Permit application complies with the Water Quality Regulations' requirements. The Construction Permit application provided detailed engineering plans and specifications for the WTP's proposed upgrade, which the Applicant designated as 'Phase I' because the Applicant proposes a two phase construction project in order to meet the new NPDES Permit's limits, as set forth in the draft NPDES permit.

The proposed Phase I upgrade is: 1) to increase the WTP's current treatment capacity from 1.25 million gallons per day ("MGD") to 2.0 MGD to treat the proposed increased wastewater flows from the Facility's increased poultry processing production, and 2) to improve the WTP's treatment process thereby improving Beaverdam Creek's water quality despite the proposed 0.75 MGD increase in the WTP's discharges.¹ The Construction Permit approved by this Order will allow the Facility to meet the new NPDES Permit's limits, as also approved by this Order.

The Department also finds that the Facility should receive a renewed and amended NPDES Permit because the NPDES Permit application complies with the Water Quality Regulations. In addition, the current NPDES permit does not comply with the Department's Total Maximum Daily Loads ("TMDLs") regulations, which for Beaverdam Creek are set forth in the *TMDLs for the Broadkill River Watershed*,

¹ The pollutants Total Nitrogen and aluminum will be reduced by Applicant's Phase II upgrade. The only increased limit is for oil & grease, which is a limit set by the lowest possible detection limit of 5mg/L multiplied by the flow. The NPDES permit approved by this Order will have lower concentration limits for all pollutants and thereby will improve Beaverdam Creek's water quality than the current permit's limits.

Delaware, 7 DE Admin. Code 7418. The renewed and amended NPDES permit will comply with the Broadkill River TMDLs.

The Record supports issuing the draft NPDES Permit as a final permit based upon limits that will improve Beaverdam Creek’s water quality to meet the level required by the Delaware Surface Water Quality Standards. The new NPDES Permit limits and the current NPDES permit limits are set forth below along with the percentage changes.

Summary of NPDES Permit Current and Approved Limits				
Parameter	Units	Current Limit	Proposed Limit	Change (+/- %)
Flow	MGD	1.25	2.0	+ 60%
BOD5 ²	lbs/day	114	104.3	- 9%
	mg/L	16	6.25	- 61%
TSS ³	lbs/day	152	152	---
	mg/L	20	9.1	- 55%
Oil & Grease	lbs/day	68	83	+ 22%
	mg/L	8	5	- 38%
Total Nitrogen (“TN”)	lbs/day	467	73	- 84%
Total Phosphorus (“TP”)	lbs/day	15	5.21	- 65%
Ammonia (Summer)	lbs/day	20.5	10.4	- 50%
	mg/L	4	0.62	- 85%
Ammonia (Winter)	lbs/day	35	10.4	- 70%
	mg/L	4	0.62	- 85%

As the above chart shows, the new NPDES Permit requires the Facility to reduce discharges of pollutants into Beaverdam Creek even though it allows for increased flow. The Department finds the new NPDES Permit limits are reasonable and supported by the Record. The Department also finds that the Construction Permit should be approved because it will allow the Facility to construct the Phase I upgrades, which will result in

² 5 day Biological Oxygen Demand
³ Total Suspended Solids

reductions other than TN that will be the subject of the Phase II upgrade. Thus, the Department finds that both the Construction Permit and the NPDES Permit should be issued to achieve the water quality improvements required by the Broadkill TMDLs and the Delaware Surface Water Quality Standards.

Conclusions and Reasons

Based upon the above findings of fact, the Department concludes that SWDS should issue Applicant the Construction Permit for the Phase 1 upgrade construction and the NPDES Permit that sets new, more stringent limits to be met within 42 months from the date of issuance. The Department concludes that the Record supports SWDS issuing both permits based upon the draft permits included in the Record. This conclusion is consistent with SWDS' and the Report's recommendations, and after consideration of all public comments.

The public comments raised several issues with both permits that may be summarized as: 1) opposing the treatment capacity increase from 1.25 MGD to 2.0 MGD based upon water quality and flow concerns; 2) seeking a shorter time period to comply with the new NPDES permit limits than the 42 months allowed in the draft permit; 3) questioning the Department's procedures that did not undertake a more extensive environmental review either when the Department approved a loan⁴ to finance the Facility's upgrade or through the permit application process; and 4) opposing any permit because of the Facility's permit compliance history. The Department concludes that the public comments do not provide any reason to deny the permit applications or modify SWDS' draft permits.

⁴ On May 17 and 20, 2015, after conducting an environmental review, the Department published in two newspapers public notice of its "Finding of No Significant Impact" for the Water Pollution Control Revolving Fund for the Allen Harim Foods, LLC Harbeson Wastewater Expansion, Project CW-2015-01.

Addressing the public's first issue, namely, the proposed 0.75 MGD increase to the WTP's treatment capacity, the Department concludes that the proposed capacity increase is reasonable and well-supported in the Record. The public comments attempt to link the proposed capacity increase to the Facility's proposed increase in poultry processing production and cite various environmental impacts from that, such as traffic congestion. The Department's regulation over the Facility's discharge into the Beaverdam Creek primarily reviews the water quality impact on Beaverdam Creek. If Beaverdam Creek's water quality is not harmed, then the Department does not require possible alternatives to a surface water discharge, such as land application of the treated effluent. The Department also has reviewed the increased flow's impact on Beaverdam Creek to determine if the 0.75 MGD increased flow will cause any undue risk of flooding downstream. The Department's experts conclude that the increased flow does not pose an undue risk of increased flooding downstream.

The Department's NPDES Permit ensures that the Facility's discharges meet the more stringent permit limits that SWDS designed to improve Beaverdam Creek's water quality and to comply with the Broadkill River's TMDLs. The public comments that raised non-water quality impacts, such as the number of employees working at the Facility and any increase in the area's traffic, are not relevant to the Department's regulatory role to determine the NPDES Permit's water quality impact. The Department concludes, based upon its experts' analysis of the water quality impacts, that the NPDES Permits should produce significant water quality improvements for Beaverdam Creek and the Broadkill River downstream of where Beaverdam Creek flows into the Broadkill River. In sum on the first issue, the Department concludes that the public comments

objecting to any treatment capacity increase or flow increase in the NPDES Permit do not provide a basis to deny the Construction Permit or the NPDES Permit.

The second issue raised by the public comments was that the NPDES Permit's 42 month time period to meet the new NPDES Permit's more stringent limits was too long. The Department concludes that the 42 month time period to construct the Phase I and Phase II upgrade is a reasonable amount of time after considering engineering, construction, and other regulatory factors. Of note, the public comments do not suggest any time period other than a shorter time period. The Department concludes that the Record does not support shortening the 42 month period to comply with the NPDES Permit's limits. This time period will allow a reasonable amount of time for the Applicant to complete the Phase I and Phase II construction, including for potential regulatory delays such as the public hearing process.

The third issue raised in the public comments questioned the Department's decision to finance the upgrades. The public comments seek to require either a reconsideration of the loan decision to provide for increased environmental review based upon federal procedures, or to require such environmental review in this proceeding and state that there was a procedural flaw in the Department's loan approval process for the Water Pollution Control Revolving Fund.

The Report fully discusses this issue, and adds to the Record the Department's relevant loan decision documents procedures with the May 17 and May 20, 2015 public notices of its decision 'Finding of No Significant Impact' and the environmental studies supporting the decision. These documents show the error in the public comment's claim of a procedural error in the loan decision. First, the Department's loan decision followed

proper procedures. Second, the public comment challenge to the loan decision is not proper as part of the permit application process and is therefore a collateral challenge not relevant to the permit decisions. Third, any challenge of the loan decision is time barred because the loan decision was made months ago and can no longer be challenged. Therefore, the Department concludes there is no requirement for a further environmental review either in the loan decision process or as part of the permit application.

The fourth issue that the public comments raised to object to the permit applications was based upon allegations and documents that purported to show that the Facility did not comply with its current NPDES permit. The Department's experts investigated the public comments' claims and found no support for denying the permits based upon the Facility's performance under the current NPDES permit. The Department's experts conduct periodic inspections of the Facility and review Applicant's discharge monitoring reports disclosing all discharges from the Facility pursuant to the NPDES permit. The Department's experts determined that the Facility has operated in compliance with its current NPDES permit. The Department has not taken any enforcement action based upon any of the inspections or reports. Any discharges in excess of permit limits were considered not to be permit violations, but the Department's experts determined they were explained as allowed under the NPDES permit due to storm related upsets attributable to the Facility's stormwater system and not the WTP. Thus, these public comments do not support any denial of the permits based upon the Facility's permit compliance history.

The public comments reveal strong opposition to the two permit applications based upon opposition to the Applicant's plans to increase its poultry processing

operations, however, denial of the permits based on this reason is a position that the Department concludes is unreasonable and contrary to the law and regulations. The public comments also express genuine concern with improving Beaverdam Creek's water quality, and the two permits approved by this Order will improve water quality consistent with the applicable laws and regulations.

In sum, the following conclusions are entered:

1. The Department has jurisdiction under its state and delegated federal authority pursuant to *7 Del. C. Section 6001 and 6006*, and the Water Quality Regulations to make a determination on the Construction Permit application for the Facility's WTP and on the Facility's NPDES Permit;

2. The Department provided adequate public notice of the Application and the public hearing, and held the public hearing in a manner required by the law and its regulations pursuant to *Sections 6003, 6004, and 6006 of Title 7*;

3. The Department considered all timely and relevant public comments in making this determination and this Order and attached Report identifies the Record to support this decision;

4. SWDS shall issue the Applicant the Construction Permit and the NPDES Permit based upon SWDS' draft permits that are in the Record;

5. The conditions and terms in the two permits shall allow the Facility's surface water discharges consistent with the Department's TMDLs for Broadkill River Watershed, the Department's Surface Water Quality Standards and otherwise protect the environment from the risk of harm from the Facility's discharges; and

6. The Department shall publish this Order on its web site and provide such public notice of the Order as required by the law, applicable regulations, and as the Department determines is appropriate.

A handwritten signature in blue ink, appearing to read "David S. Small", written over a horizontal line.

David S. Small
Secretary

HEARING OFFICER'S REPORT

To: The Honorable David S. Small
Secretary, Department of Natural Resources and Environmental Control

From: Robert P. Haynes, Esquire
Senior Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

Re: **Allen Harim Foods, LLC's Applications for a Wastewater Facility Construction Permit and a National Pollutant Discharge Elimination System Permit for its Poultry Processing Plant at 18752 Harbeson Road, Harbeson, Sussex County**

Date: December 14, 2015

I. PROCEDURAL HISTORY

A. Application for National Pollutant Discharge Elimination System ("NPDES") Permit

On October 28, 2010, Allen Family Foods, LLC applied with the Delaware Department of Natural Resources and Environmental Control's ("Department") Division of Water, Surface Water Discharges Section ("SWDS") to renew the National Pollutant Discharge Elimination System ("NPDES") permit regulating surface water discharges from its Harbeson poultry processing plant at 18752 Harbeson Road, Harbeson, Sussex County ("Facility").

On August 24, 2011, the Allen Family Foods, LLC and Allen Harim Foods, LLC ("Applicant") notified the Department that Allen Harim Foods, LLC would acquire the Facility on September 6, 2011 under a bankruptcy court approved transfer of ownership.

On November 21, 2014, the Applicant submitted a permit application addendum to SWDS that proposed to increase the Facility's NPDES permit limit to 2.0 million gallons per day ("MGD") from its wastewater treatment plant ("WTP") from its current permit limit of 1.25 MGD. The Applicant explained this increase was needed because the

WTP's wastewater flows would increase as a result of the Facility's increased poultry processing production.

Pursuant to the Department's procedures for a NPDES permit application, SWDS prepared a draft NPDES permit and fact sheet, and on August 26, 2015 the Department published public notices in two newspapers of the NPDES application and the draft NPDES permit.¹ On September 25, 2015, SWDS received a written public comment from a group of five persons from Millsboro and Milton that also requested a public hearing.

The Department determined to hold a public hearing on the NPDES permit application. Consequently, on October 18, 2015, SWDS published in two newspapers public notices of a November 18, 2015 public hearing in the Indian River Senior Center, Millsboro, Sussex County, the consolidation of the NPDES and wastewater facility construction permit applications, and that the public comment period was re-opened until November 18, 2015.

B. Application for Wastewater Facility Construction Permit

On August 21, 2015, the Applicant applied to SWDS for a wastewater facility construction permit for upgrades to the Facility's WTP that Applicant identified as 'Phase 1, which would increase the WTP's treatment capacity from 1.25 MGD to 2.0 MGD and improve the WTP's wastewater treatment process.

On September 1, 2015, SWDS sent the Applicant Review Letter #1, which sought more information on the application.

¹ Section 9.0 of the Department's *Regulations Governing the Control of Water Pollution, 7 DE Admin. Code 7201* ("Water Quality Regulations") sets forth the NPDES application procedures.

On September 2, 2015, SWDS published in two newspapers public notices of the construction permit application, which opened the public comment period of the construction permit application.

On October 8, 2015, the Applicant provided its written response to SWDS' Review Letter #1. The Applicant also submitted revised plans and application addendums based in part on SWDS' review and bids received from contractors.

On September 25, 2015, SWDS received one written comment submitted by a group of five persons from Milton and Millsboro, which also requested a public hearing. As noted above in the NPDES permit's procedural history, the Department consolidated the two applications for purposes of the public hearing and the decision.

C. Consolidated

At the public hearing, I granted an unopposed request to extend the public comment period for two days. The Department received additional public comments and SWDS provided its Technical Response Memorandum ("TRM"), which recommends approval of the applications and the Department's issuance of SWDS' draft permits.

II. SUMMARY OF THE RECORD²

This Report establishes the following record: 1) the verbatim transcript of the public hearing; and 2) the documents identified as exhibits, as set forth in Appendix A hereto.

At the November 18, 2015 public hearing, SWDS' representatives Tony Hummel, P.E., and Molly Mackil, P.E., made presentations that described their permit application review process. Mr Hummel also described the draft NPDES permit, which proposed new more stringent discharge limits for the Facility's NPDES regulated discharges into

² This summary does not determine any factual accuracy.

Beaverdam Creek, which is a tributary of the Broadkill River that, in turn, flows into the Delaware Bay. SWDS also provided documents included in Appendix A's list of exhibits.³

The draft permit's changes are summarized in the SWDS chart set forth below:

Summary of NPDES Permit's Current and Proposed Limits				
Parameter	Units	Current Limit	Proposed Limit	Change (+/- %)
Flow	MGD	1.25	2.0	+ 60%
BOD ₅ ⁴	lbs/day	114	104.3	- 9%
	mg/L	16	6.25	- 61%
TSS ⁵	lbs/day	152	152	---
	mg/L	20	9.1	- 55%
Oil & Grease	lbs/day	68	83	+ 22%
	mg/L	8	5	- 38%
Nitrogen ("TN")	lbs/day	467	73	- 84%
Phosphorus ("TP")	lbs/day	15	5.21	- 65%
Ammonia (Summer)	lbs/day	20.5	10.4	- 50%
	mg/L	4	0.62	- 85%
Ammonia (Winter)	lbs/day	35	10.4	- 70%
	mg/L	4	0.62	- 85%

The Applicant's representative Elio Battista, Jr., Esquire, with the law firm of Parkowski, Guerke and Swayze, spoke and provided a written statement of his remarks. His comments reviewed the two applications and provided support for finding that they complied with the Department's Water Quality Regulations and, consequently, that the Department should issue the two permits.

³ The Department provides certain document for the record at the public hearing to assist the public in making their comments.

⁴ 5 day Biological Oxygen Demand

⁵ Total Suspended Solids

In addition, Mr, Battista also provided the prepared statement of John M. Reid, the Delaware Professional Engineer the Applicant retained to prepare the applications. Mr. Reid also was present at the public hearing. Mr. Reid's statement provided a detailed review of the Applicant's proposed Phase I and Phase II construction, which he said would upgrade the WTP and thereby reduce its discharge of pollutants into Beaverdam Creek. He also noted the Applicant's future construction plans included construction that would reduce the Facility's water usage as a result of recycling and also allow the Facility's biosolids to be re-used for agricultural purposes.

The first public speaker was Dot Lecates from Millsboro, who expressed her concern with water quality. She noted that she toured the Facility in 2013. She indicated that the current NPDES permit was issued May, 1, 2006 and that it had expired on April 30, 2011. She said that the NPDES permit had a minor amendment to reflect the Facility's ownership change on September 6, 2011. She expressed concern that the draft NPDES permit's proposed 42 month schedule to comply with the new proposed limits was too long. She also referenced the other issues set forth in the written comment that requested the NPDES permit hearing.

The second public speaker was Cheryl Mathis from Millsboro. She read from her written comment that was submitted as part of the request for the public hearing on the NPDES application. She raised the following issues: 1) the submission and consideration of Applicant's Phase II construction permit; 2) the failure of the public notice to mention the Facility's proposed increase chicken processing production; 3) the impact of the increased employee level and production that will increase domestic wastewater flows; 4) the 'deplorable' condition of the WTP and the groundwater should be

monitored to determine any contamination from the lagoons. She also asked that the permits not be granted because of alleged past permit violations. Finally; she questioned the reduced amount of wastewater that would be produced by each processed chicken.

The third public speaker was Susan Fewell from Milton who opposed the proposed 60% increase in the discharge of treated wastewater, which is based upon the proposed flow increase from 1.25 to 2.0 MGD. She asked where the chicken products would be sold.

The fourth public speaker was Mary VanHouse from Milton, who also signed the written comment letter. She expressed her concern with the proposed increase discharge up to 2.0 MGD. She also complained about the algae that formed in Wegamon Pond, which is in Milton and is part of the Broadkill River.

The fifth public speaker was State Representative Steve Smyk, who spoke of accelerating the clean-up process and expressed concern with the hearing's location in Millsboro and not closer to Harbeson.

The sixth public speaker was Maria Payan, who questioned whether the Department properly followed procedures in financing the upgrade. She claimed that proper financing procedures would have required further environment review. She provided documents that are identified in Appendix A to support her claims of problems with the proposed discharge and the Department's financing procedure.

The seventh public speaker was Rich King, who is from outside of Millsboro. He said he runs the Delaware Surf Fishing website that has 78,000 readers and 28,000 followers on Facebook. He first requested an extension of the public comment period. After a discussion with the Applicant, I granted an unopposed two day extension until

November 20, 2015. Mr. King then discussed the need for improved water quality and for commercial and recreational fishing.

The record includes the written public comments timely received during the extended public comment period, as identified in Appendix A, which supported Mr. King's position and opposed the issuance of the permits.

Following the public hearing, SWDS provided me with their expert advice and opinion on both applications, as set forth in the attached Technical Response Memorandum ("TRM"). SWDS also provided a draft NPDES with minor changes from the prior draft permit and a draft construction permit should the Secretary decide to issue the Applicant the permits.

As part of the post-hearing investigation of the issues raised by the public comments, I include the relevant Department's documents on its financing of the loan, which are identified in Appendix A. In addition, the Department's Division of Watershed Stewardship provided documents based upon its in-depth analysis of Broadkill River, and these documents are identified in Appendix A.

Findings of Fact

I find that the Record, as established above, supports adopting SWDS' recommendations and issuing the Applicant a renewed and amended NPDES permit and the wastewater facility construction permit, which will allow Applicant to begin to construct the Phase I upgrade to meet the new NPDES permit's limits.

The Record in support of approving the Applicant's wastewater facility construction permit application is based upon a complete and detailed application. Mr. Reid, a well-qualified Delaware licensed professional engineer, prepared the application,

which includes detailed plans and specifications for the Phase I upgrade to the WTP. I find that the application complies with the Water Quality Regulations' requirements for a wastewater construction permit application.

I find that the Applicant's decision to construct the WTP's upgrades in two phases is reasonable, appropriate, and supported by engineering and regulatory judgment. I find that Phase I will construct improved treatment process and reduce the discharge of most pollutants, while phase 2 will reduce total nitrogen and aluminum. I find that the Phase 1 and Phase 2 construction upgrades will allow the Applicant to meet the new, considerably more stringent NPDES Permit's limits in SWDS' draft NPDES permit. Consequently, I find and I recommend be approved and issued as a final permit.

I find that the record supports authorizing the Applicant, as part of its Phase I upgrade, to construct an increase in the WTP's current treatment capacity from 1.25MGD to 2.0 MGD. This increase is reasonable and appropriate based upon the estimated wastewater flows, which is from the Facility's planned increase in poultry processing production. I find this increase is reasonable because the Phase I upgrade will also reduce the discharge of pollutants.

I find that the Facility should receive a new and amended NPDES Permit because the NPDES Permit application complies with the Water Quality Regulations. In addition, the new NPDES permit will comply with the Department's Total Maximum Daily Loads ("TMDLs") regulations. Beaverdam Creek is within the Broadkill River watershed, and the Department has determined by its regulation set forth in the *TMDLs for the Broadkill River Watershed, Delaware, 7 DE Admin. Code 7418*, the maximum amount of pollutants that the Facility may discharge. The proposed new NPDES permit meets the Department

approved TMDLs for the Facility's discharges into Beaverdam Creek. I include in the record the Department's scientific support for its TMDLs in Appendix A to show the Department extensively has considered water quality impacts and determined the appropriate limits to be included in the NPDES permit.

The Record supports issuing the draft NPDES Permit as a final permit based upon limits that will improve Beaverdam Creek's water quality to meet the level required by the Delaware Surface Water Quality Standards. The new NPDES Permit limits and the current NPDES permit limits are set forth above in SWDS's chart from its hearing presentation, which shows that the new NPDES permit will significantly reduce the Facility's discharge of pollutants even with increased flow of 2.0 MGD.

The new NPDES Permit requires the Facility to reduce discharges of pollutants into Beaverdam Creek. The Department finds the new NPDES Permit limits are reasonable and supported by the Record. The Department also finds that the Construction Permit should be approved because it will allow the Facility to construct the Phase I upgrades, which will result in reductions other than TN that will be the subject of the Phase II upgrade. Thus, the Department finds that both the Construction Permit and the NPDES Permit should be issued to achieve the water quality improvements required by the Broadkill TMDLs and the Delaware Surface Water Quality Standards.

Conclusions and Reasons

Based upon the above findings of fact, the Department concludes that SWDS should issue Applicant the Construction Permit for the Phase 1 upgrade construction and the NPDES Permit that sets new, more stringent limits to be met within a reasonable and

well-supported estimate of a 42 months completion date from the date of the NPDES permit's issuance.

The public comments raised several issues with both permits that may be summarized as: 1) opposing the treatment capacity increase from 1.25 MGD to 2.0 MGD based upon water quality and flow concerns; 2) seeking a shorter time period to comply with the new NPDES permit limits than the 42 months allowed in the draft permit; 3) questioning the Department's procedures that did not undertake a more extensive environmental review either when the Department approved a loan to finance the Facility's upgrade or in this proceeding; and 4) opposing any permit because of the Facility's permit compliance history. I find that the Record supports finding that the public comments do not support any Department decision to deny the permit applications or modify SWDS' draft permits.

On the first issue, the public comments that oppose the proposed 0.75 MGD increase to the WTP's treatment capacity and the NPDES permit's total discharge flow limit from the WTP, I find and conclude that the proposed increase capacity is reasonable and well-supported in the Record.

I find and conclude that the applicable laws and regulations do not allow the Department to exercise any direct regulation over the Facility's expansion of its poultry processing production. The Department's authority is to determine the water quality impact from the proposed increase wastewater flow coupled with increased treatment. Under this analysis, I recommend that the permit should be issued because the Record supports finding that the permits should improve Beaverdam Creek's water quality. The public comments that attempt to link the proposed 0.75 MGD wastewater capacity with

more pollution are incorrect because the increased flow is coupled with increase treatment that will remove more pollutants from the discharge than currently discharged.

I also find and conclude that non-water quality impacts from the proposed production increase, such as increased traffic, are not relevant. I find and conclude that the Department's regulation over the Facility's discharge into the Beaverdam Creek should be based upon the Facility's discharges into Beaverdam Creek, and not any tangential environmental impacts from the increased production at the Facility and increasing the number of employees working at the Facility.

The Record supports issuing the two permits, which the Department's experts have demonstrated should improve Beaverdam Creek's water quality, particularly based on the limits in the new NPDES Permit. The new NPDES permit will ensure that the Facility's discharges meet the more stringent permit limits, which SWDS proposes to improve Beaverdam Creek's water quality to meet the Delaware Surface Water Quality Standards and to comply with the Broadkill River's TMDLs. In sum, the new NPDES Permit should produce significant water quality improvements for Beaverdam Creek and the Broadkill River downstream of where Beaverdam Creek flows into the Broadkill River.

The Department's Watershed Assessment Section also reviewed the proposed increased flow's impact on Beaverdam Creek. This analysis found that the Beaverdam Creek flows into the Broadkill River downstream of Milton. Consequently, the public comments that claim that the Facility caused any algae problems in Milton are incorrect. Second, the same experts also found that increased flow will not pose any undue risk of increased flooding downstream from the Facility.

In sum on the first issue, I recommend that the public comments that object to any treatment capacity increase or increase flow in the NPDES Permit be rejected as unreasonable, particularly as the upgrade and new NPDES permit and the increase flow should result in improved water quality.

The second issue raised by the public comments questioned the NPDES Permit's 42 month time period to meet the new NPDES Permit's more stringent limits. As noted above, the 42 month time period to construct the Phase I and Phase II upgrade is a reasonable amount of time based after considering primarily engineering, construction, business and other regulatory factors. Of note, the public comments do not suggest any time period other than a shorter time period. The Department concludes that the Record does not support shortening the 42 month period to comply with the NPDES Permit's limits and allow the Phase I and Phase II construction to be completed, including for the regulatory delays such as the public hearing process.

The Applicant's plans included receiving the two permits without any delay from the Department's public hearing process. This delay means that the start and the end of the 42 month time period are delayed, which is contrary to the public comments' goal of faster completion and implementation of the more stringent NPDES Permit limits that will result in improved water quality.

The third issue raised in the public comment questioned the Department's decision to finance the upgrades. The public comments seek to require either a reconsideration of the loan decision to provide for increased environmental review based upon federal procedures, or to require such environmental review in this proceeding.

My review of the relevant financing documents and the procedures finds nothing to support the public comment's claim that the Department's financing was contrary to the federal law. The comments seek to require a delay for a more extensive environmental review that I find is not warranted. I include in this Record, as identified in Appendix A, the Department's relevant loan decision documents, which show the error in the public comment's claim of a procedural error in the loan decision. I find and conclude that the Department's loan decision followed proper procedures and conducted all the environmental review that was required.

Second, I find and conclude that even if there was some error, then the time to challenge that error has past. The loan decision was made months ago and the Department provided public notice of its final decision. There was no appeal of this final decision. Thus, raising the issue in this proceeding is an improper collateral challenge to the final loan decision, and now must be rejected. In sum, I find no basis for any further environmental review in this proceeding.

The fourth issue that the public comments raised to object to the permit applications was based upon allegations and documents that purported to show that the Facility did not comply with its current NPDES permit. The Department's experts investigated the public comments' claims. Their review is set forth in the TRM, which found that the Facility has operated substantially in compliance with its permit. They determined the history of permit compliances does not support the drastic action of denying the permits. Indeed, the construction permit should allow the Facility to remedy some of causes of any past permit exceedances. The Department's experts also conduct periodic inspections of the Facility and found nothing from these inspections to support

denying the permits and they discussed the Applicant's plans for the WTP's old equipment in the TRM. This old equipment is not part of the permit application, but the Applicant's plans satisfy the Department's experts. The Department's experts determined that the Facility operates with a high degree of compliance with its NPDES permit and, consequently, no enforcement action has been taken. The Department's experts determined that most permit limit exceedances were explained by storm related upsets from the Facility's stormwater system that handles flow from the parking lots. In sum, the Facility's performance history does not support any denial of the permits as requested by the public comments.

The public comments reveal strong opposition to the two permit applications based upon opposition to the Applicant's plans to increase its poultry processing operations, however, denial of the permits based on this reason is a position that the Department concludes is unreasonable and contrary to the law and regulations. The public comments also express genuine concern with improving Beaverdam Creek's water quality, but I find that the two draft permits, if issued, will result in improved water quality in Beaverdam Creek consistent with the applicable laws and regulations. Thus, I recommend that the two permits be issued in order to allow the construction of upgrades that will improve water quality towards compliance with the new NPDES permit more stringent limits necessary to treat and discharge 2.0 MGD.

In sum, I recommend the Department enter the following conclusions:

1. The Department has jurisdiction under its state and delegated federal authority pursuant to *7 Del. C. Section 6001 and 6006*, and the Water Quality

Regulations to make a determination on the Construction Permit application for the Facility's WTP and on the Facility's NPDES Permit;

2. The Department provided adequate public notice of the Application and the public hearing, and held the public hearing in a manner required by the law and its regulations pursuant to *Sections 6003, 6004, and 6006 of Title 7*;

3. The Department considered all timely and relevant public comments in making this determination and this Order and attached Report identifies the Record to support this decision;

4. SWDS shall issue the Applicant the Construction Permit and the NPDES Permit based upon SWDS' draft permits that are in the Record;

5. The conditions and terms in the two permits shall allow the Facility's surface water discharges consistent with the Department's TMDLs for Broadkill River Watershed, the Department's Surface Water Quality Standards and otherwise protect the environment from the risk of harm from the Facility's discharges; and

6. The Department shall publish this Order on its web site and provide such public notice of the Order as required by the law, applicable regulations, and as the Department determines is appropriate.



Robert P. Haynes, Esq.
Senior Hearing Officer
Office of the Secretary

Appendix A (exhibits in the record)¹

- Ex.1 –NPDES renewal permit application dated October 28, 2010
- Ex.2-Notice of acquisition of the Facility on September 6, 2011 by Allen Harim Foods, LLC dated August 24, 2011 and transfer of permit and environmental background for new owner
- Ex.3-NPDES permit application addendum sated November 21, 2014 to increase treatment capacity of WTP to 2.0 MGD;
- Ex. 4-SWDS NPDES Fact Sheet issued August 26, 2015
- Ex. 5-SWDS draft NPDES permit issued August 26, 2015
- Ex. 6-Public notice published as legal notices in two newspapers August 26, 2015 of draft NPDES permit, NPDES permit application and fact sheet
- Ex. 7-Joint public comment from five persons received September 25, 2015 including a request for a public hearing on NPDES application
- Ex. 8-Joint public comment from five persons received September 25, 2015 including a request for public hearing on the construction application
- Ex. 9-Public notice published as legal notices in two newspapers October 18, 2015 of public hearing to be held on consolidated NPDES and construction permit applications;
- Ex.10- SWDS' NPDES permit presentation at the public hearing
- Ex.11 Wastewater Facility Construction permit application dated August 21, 2015 prepared by Reid Engineering Company, Inc., including Technical Specifications and Plans;
- Ex. 12-SWDS Review letter #1 on the construction permit dated September 1, 2015
- Ex. 13-SWDS public notice of construction permit application published September 2, 2015
- Ex. 14-Applicant response to SWDS Review letter #1 dated October 8, 2015
- Ex. 15-Applicant application addendum dated October 8, 2015
- Ex. 16-Applicant application addendum dated October 8, 2015
- Ex. 17-Applicant application addendum dated October 8, 2015
- Ex. 18-DNREC Financial Assistance Branch publication of Public Notice of Determination of No Significant Impact on May 17 & 20, 2015
- Ex. 19-Environmental Information Document prepared by Reid Engineering as part of Financial Assistance Branch determination of environmental impact for loan financing April 28, 2015
- Ex. 20 2005 TMDLs analysis for Broadkill River Watershed
- Ex. 21-maps of Beaverdam Creek
- Ex. 22-EPA 9-15-15 email of no comment at this time on draft permit.
- Payan Ex.1 written comments
- Payan Ex. 2 EPA 2005 manual inspection conclusion data sheet form
- Payan Ex. 3 Water Pollution Control Revolving Fund fiscal Year 2015 Intended Use Plan
- Payan Ex. 4 Gary Lasako, BP Environmental, October 12, 2010 email to Department
- Payan Ex. 5 Paul Janiga, DNREC September 8, 2011 email to Glenn Davis et all DNREC on discharges from stormwater outfalls
- Payan Ex. 6- John DeFriece, DNREC April 12, 2012 email to Jenn Roushey et al on NPDES permit.

¹ SWDS and the Applicant both provided some of the same exhibits and the above list consolidates the exhibits to avoid duplication. To the extent any document provided by SWDS or Applicant is not in the list it would be included.

Payan Ex. 7-Delaware Environmental Navigator on Allen Family Foods Plant Harbeson

O'Connor Ex. 1 November 20, 2015 email opposing increased discharge

Markpoulos Ex 1. November 20, 2015 email opposing permits

Rosner Ex. 1 November 19, 2015 email opposing permits

O'Connor Ex. 1 November 20, 2015 email opposing permits

King Ex. 1- November 20, 2015 email opposing permits

Allen Harim Ex. 1 Battista prepared Testimony

Allen Harim Ex. 2-Reid prepared Testimony



10101

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES &
ENVIRONMENTAL CONTROL
DIVISION OF WATER
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

Surface Water Discharges Section

Telephone: (302) 739-9946
Fax: (302) 739-8369

MEMORANDUM

To: Robert P. Haynes, Esq., Senior Hearing Officer, OTS

Thru: Bryan Ashby, Environmental Program Manager II, SWDS
Jennifer Roushey, Environmental Program Manager I, SWDS

From: Tony Hummel, PE, Engineer IV, SWDS

Date: December 10, 2015

Subject: **Technical Response Memorandum** - Response to Public Hearing Comments for NPDES Permit Reissuance and Wastewater Facilities Construction Permit for Allen Harim Foods, LLC, Harbeson, Delaware

Re: Allen Harim Foods, LLC, NPDES Permit No. DE 0000299
November 18, 2015 Public Hearing

The purpose of this Technical Response Memorandum (TRM) is to address issues raised by the public regarding the NPDES Permit reissuance and the Wastewater Facilities Construction Permit for the Allen Harim Foods, LLC facility located in Harbeson, Delaware.

Based on comments received during the public comment period and during the November 18, 2015 Public Hearing, I have prepared the following responses for the issues raised regarding the referenced NPDES Permit. Many of the comments received during the public notice period prior to the public hearing were read into the record during the public hearing. As such, I have structured this response memo to mirror the written comments where possible. The headings for the following responses were taken from the two (2) "Citizen Request for Public Hearing" documents submitted to the Department on September 24, 2015.

- **Phase 1 and Phase 2 Permit Actions**

Comments were received regarding the proposed process for the Phase II construction permit, opportunity for public comment, and the length of the compliance schedule in the NPDES Permit.

The process for the Phase II construction permit will be the same as the Phase I construction permit. The application will be advertised for public comment and the public will have the opportunity to review the application materials. The public will also have the opportunity to comment and/or request a public hearing.

The proposed 42 month compliance schedule allows for the completion of design, advertisement of bids, submission of bids, evaluation of bids, awarding of the contracts, start-up, construction, start-up, and process optimization. The schedule of compliance only affects the TN and Aluminum effluent limitations. All other effluent limitations are effective commencing with the permit effective date. The TN effluent concentration limits are reduced by approximately 40 percent during the interim period, and the final TN loads are reduced by approximately 84 percent from the current load limits. The Aluminum effluent limitations are new and the upgrades are required to meet the new limits.

- **Facility Public Notice**

Comments were received regarding the timing of the two public notices for the NPDES Permit and the Construction Permit, timing of the NPDES Permit Application, and why it has taken so long to renew the NPDES Permit.

The public notice periods for the construction permit and the NPDES Permit were separate because they are two separate permits. The NPDES Permit is written based on applicable water quality standards and regulations and is not dependent upon the construction permit. The wastewater facilities construction and the construction permit are designed to meet the requirements of the NPDES Permit. In other words, the NPDES Permit can be written without the completed design for Phase II.

The NPDES Permit application was received on time in 2010, followed by a facility name change request, and a request for an increase in the flow limit. The facility was not required to submit another application in 2015 since they already submitted a complete application in a timely manner and the NPDES Permit was administratively extended.

The public hearing commenters questioned why the NPDES Permit that expired April 30, 2011 has not been renewed until over four years later. The simple answer is that the Surface Water Discharges Section is woefully understaffed and has been working to reduce a permit backlog that has been decades in the making. As stated earlier, there will be another public notice for the Phase II construction permit.

- **Increased Employee Domestic Sewage**

Comments were received regarding the Discharge Description in the NPDES Permit and the capabilities and design capacity of the sanitary/domestic wastewater package plant.

Neither the current permit nor the public notice draft NPDES permit included sanitary wastewater in the General Description of Discharges and Facilities section for Outfall 001. This was an oversight that will be corrected in the final permit documents. It should be noted that domestic wastewater was referenced in the public notice Fact Sheet, but should have been included in the permit also.

The design capacity of the wastewater facilities are based on established Engineering practices and the professional judgment of the design professionals hired by the permittee. SWDS concurs in their expert opinions that the projected time period is reasonable assuming no unanticipated delays. Provided that the final effluent meets the effluent limitations in the NPDES permit, the treatment capabilities of the facilities are assumed to be sufficient.

- **Condition of Existing Waste Treatment System**

Comments were received regarding whether or not the existing wastewater system has contaminated shallow groundwater, closure of the west or abandoned anaerobic lagoon, and why the permit used an outdated aerial photograph of the facility.

The Department has no information to lead us to believe that the on-site wastewater system has contaminated shallow groundwater. Based on engineering drawings, the on-site lagoons are lined and the Department has no information to question the integrity of the liners. The abandoned anaerobic lagoon is proposed for re-use as diversion lagoon.

The material in the lagoon will be removed, properly treated, and properly disposed of. The liner will be thoroughly inspected for integrity. If the liner is certified to be in operational condition, this lagoon will be converted to a diversion lagoon that can hold treated or partially treated wastewater from the wastewater treatment plant during an emergency or planned maintenance activity that requires that the discharge be shut down. This material can then be reintroduced into the wastewater treatment process prior to discharging. If the liner is found to be unusable, the liner will be replaced prior to being put into diversion lagoon service.

The only purpose of the aerial photograph in the permit was to show the location of the facility. It was not meant to show the current wastewater treatment facilities or any other features of the plant. When the permit is finalized, the aerial photograph will be replaced with a more recent aerial photo or a photocopy of the USGS map for the area with the facility location indicated.

- **Problems Existing Effluent Discharge Concentrations**

Comments were received regarding past compliance with effluent limitations and how the Department can insure that the TMDL for the Broadkill River will be met before the end of the permit term.

Overall compliance with NPDES Permit effluent limitations at the facility has been excellent with a greater than 99% compliance rate since January 2010.

The draft permit was written to comply with all applicable technology based and water quality based standards including the TMDL for the Broadkill River. The TMDL Waste Load Allocations (WLA's) for BOD₅, Total Phosphorus (TP), Ammonia Nitrogen, and Enterococcus become effective and enforceable upon issuance of the NPDES Permit. The WLA for Total Nitrogen (TN) becomes effective 42 months after the effective date of the NPDES Permit. The proposed plant upgrades are presumably intended to comply with the proposed NPDES Permit effluent limitations in the proposed permit. The

proposed NPDES Permit.

- **Other Concerns**

Comments were received regarding general concerns such as adverse impacts to downstream surface water and shallow groundwater.

Since the majority of the effluent limits in the proposed permit are more stringent than those in the current permit, there should be no adverse impact from reissuing the permit.

- **Flowrate of 2 Million Gallons Per Day For Expanded Facility**

Comments were received regarding the Design Summary and calculations being based on 5 gallons of water per bird versus 6.0 to 7.0 gallons of water per bird for the existing plant, and whether or not wastewater has seeped into the groundwater from the on-site lagoons.

The amount of water used per bird being reduced from 6 to 7 gallons per bird to 5 gallons per bird is a good thing for the environment as it will conserve water usage, although it is not directly relevant to the NPDES permit. The permittee should be commended for their efforts to conserve our precious natural resources and the Department has approved financing that will result in even greater water savings in the future. The Department has no information to lead us to believe that seepage from the on-site lagoons has occurred.

- **Abandoned lagoons, buildings, and other wastewater treatment systems**

Comments were received regarding removal of on-site buildings and/or treatment structures, and what will be done with the abandoned anaerobic lagoon, which is not directly relevant to the NPDES permit decision.

The disposition of buildings and other structures that are not part of the wastewater treatment process is immaterial to both the NPDES Permit reissuance and the Wastewater Facilities Construction Permit. The Department has been in discussion with Allen Harim about the plans for the old anaerobic lagoon. The cover and vegetation was removed several months ago. At some time during, or just after, completion of Phase II construction, the remaining liquid and solids will be removed from this lagoon, properly treated, and properly disposed of. The liner will be thoroughly inspected for integrity. If the liner is certified to be in operational condition, this lagoon will be converted to a Diversion Lagoon that can hold treated or partially treated wastewater from the wastewater treatment plant during an emergency or planned maintenance activity that requires that the discharge be shut down. This material can then be reintroduced into the wastewater treatment process prior to discharging. If the liner is found to be unusable, the liner will be replaced prior to being put into Diversion Lagoon service.

- **Environmental Review Requirements**

Comments were received during the public hearing regarding the environmental review

requirements of the Delaware Water Pollution Control Revolving Fund. The commenter questioned whether or not an environmental assessment was performed for the state/federal financing of the plant improvements.

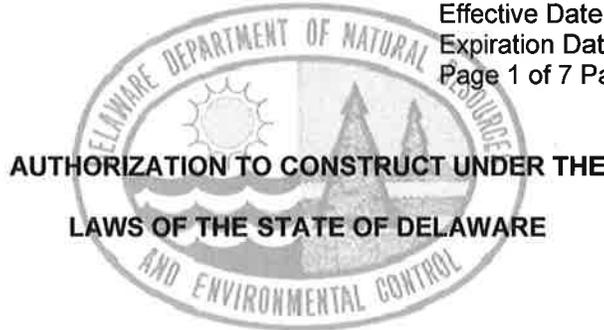
The loan application for the Wastewater Treatment Plant expansion, upgrades and water re-use, underwent a State Level (or NEPA like) environmental review process following Environmental Review Standards and Procedures established for the Department of Natural Resources and Environmental Control. This review process consisted of the following:

- 1) Environmental Finance office reviewed the Environmental Information Document (EID) and Preliminary Engineering Report (PER), submitted as part of the company's loan application dated April 29, 2015;
- 2) On May 5, 2015, Environmental Finance office performed a walkthrough inspection of the facilities to verify the projects' footprint and the environmental resources it would impact as a result of construction activities. The walk through inspection found that the project construction footprint was confined to already disturbed areas of the facility;
- 3) Using information from the review of the EID and PER and the walkthrough inspection, Environmental Finance office determined that significant environmental impacts would not result from the proposed construction activities and significant adverse effects (if any) could be eliminated by making changes in the projects. Hence, the Environmental Finance office, acting for the Secretary, issued a final decision that determined that the projects qualified for a Finding of No Significant Impact (or FONSI) Environmental Determination.
- 4) On May 6, 2015, Environmental Finance office submitted the FONSI Determination to Cross-Cutter agencies for review and comments;
- 5) On May 17 and 20th, 2015, Environmental Finance office published the FONSI Determination in the Delaware State News and News Journal, which provided legal notice of the Department's action for purposes of any appeal.

Based on the above discussion of comments received during the public notice period and the public hearing, I propose the following changes to the draft permit documents:

- Add "treated sanitary wastewater" to the Discharge Description for Outfall 001 in Part I. A.1. of the NPDES Permit and to the applicable portions of the Fact Sheet.
- Replace the aerial photograph in Part I. A.1. of the NPDES Permit with a more recent aerial photo or USGS Map to indicate site location.

Please let me know if you need any clarification on the above discussion or recommendations.



PART I

1. **In compliance with the provisions of 7 Del. C., §6003,**

**Allen Harim Foods, LLC
126 north Shipley Street
Seaford, DE 19973**

is authorized to construct facilities consisting of the following:

Two (2) Raw Wastewater Pumps, one (1) Flow Equalization Basin, two (2) Recycle Pressurization Pumps, three (30 larger HP motors for the existing DAF Cell, two (20 Effluent Pumps, One (1) Jet Aeration Header, Jet Recirculation Pump and Air Supply Blower, one (1) Final Clarifier, one (1) Ultra Violet Effluent Disinfection System, modification to the existing RAS/WAS Pump Station, and related improvements, to serve the Allen Harim chicken processing facility located at 18752 Harbeson Road, Harbeson, Sussex County, Delaware,

in accordance with plans and specifications as described below and limitations, requirements and other conditions set forth in Parts I, II and III hereof.

2. The plans and specifications consist of the following:

Thirty-two (32) drawings* prepared by Reid Engineering Company, Inc., titled "Allen Harim Foods, LLC – Harbeson, Delaware – Wastewater Treatment System – Upgrade & Expansion – Phase One", dated XXX XX, XXXX, revised through XXX XX, XXXX; the Application for the Construction of Wastewater Collection and Conveyance Systems (Phase 1), dated August 21, 2015, and any subsequent addenda thereto; the Final Design Summary of Wastewater Treatment System Upgrades & Expansion (Phase 1), dated August 21, 2015, and any subsequent addenda thereto; the Technical Specifications for Wastewater Treatment System Upgrade & Expansion (Phase 1), dated August 21, 2015, and any subsequent addenda thereto; and related calculations.

* Sheet Nos. Cover, Index, C100 through C104, C200 through C202, F100, F200, M100, M101, M200 through M203, M300, M400, M401, M500, M501, M600 through M604, M700, M701, D100 and D200:
Sheet No. Cover titled "Bid Set"; Sheet No. Index titled "Drawing Index"; Sheet No. C100 titled "Existing Conditions Site Plan"; Sheet No. C101 titled "Demolition Plan"; Sheet No. C102 titled "Location Plan Key Sheet"; Sheet No. C103 titled "Location Plan (Southwest Area)"; Sheet No. C104 titled "Location Plan (Northeast Area)"; Sheet No. C200 titled

Bryan A. Ashby, Manager
Surface Water Discharges Section
Division of Water
State of Delaware Department of Natural Resources
and Environmental Control

Date Signed

"Underground Piping Key Sheet"; Sheet No. C201 titled "Underground Piping Plan (Southwest Area)"; Sheet No. C202 titled "Underground Piping Plan (Northeast Area)"; Sheet No. F100 titled "Wastewater Flow Schematic"; Sheet No. F200 titled "Hydraulic Profile"; Sheet No. M100 titled "Southwest Area Plan"; Sheet No. M101 titled "Northeast Area Plan"; Sheet No. M200 titled "Existing DAF Equipment Building"; Sheet No. M201 titled "Existing DAF Equipment Building Modifications"; Sheet No. M202 titled "Existing Raw Waste Pump Station Modifications Plan"; Sheet No. M203 titled "Existing Raw Waste Pump Station Section & Details"; Sheet No. M300 titled "Reactor No. 1 Effluent Pump Station Plan & Sections"; Sheet No. M400 titled "DAF Pretreatment System FEB Plan"; Sheet No. M401 titled "DAF Pretreatment System FEB Sections & Details"; Sheet No. M500 titled "Existing CMAS Basin No. 1 Plan"; Sheet No. M501 titled "Existing CMAS Basin No. 1 Sections & Details"; Sheet No. M600 titled "New Clarifier No. 2 Plan"; Sheet No. M601 titled "New Clarifier No. 2 Section & Details"; Sheet No. M602 titled "RAS & WAS Pump Station Area Plan"; Sheet No. M603 titled "RAS & WAS Pump Station Plans"; Sheet No. M604 titled "RAS & WAS Pump Stations Sections & Details"; Sheet No. M700 titled "UV Disinfection System Area Plan"; Sheet No. M701 titled "UV Disinfection System Plan Section & Details"; Sheet No. D100 titled "Miscellaneous Notes & Details"; and Sheet No. D200 titled "General Piping Notes & Details"

3. The liquid waste will be discharged through the Allen Harim Harbeson Wastewater Treatment Facility which discharges treated wastewater in accordance with NPDES Permit No. DE 0000299.

A. Effluent Limitations on Pollutants Attributable to Industrial Users

The use of the constructed facility is conditioned on meeting all applicable pretreatment standards under 40 CFR, Part 403, or toxic pollutant discharge limitations under Section 307(a) of the Clean Water Act of 1977, PL 95-217.

B. Flow and Usage Limitations

This permit authorizes a daily average discharge of N/A gallons*. The flow in the system shall be measured at least every N/A.

* This permit authorizes only the construction of the wastewater collection and conveyance facilities referenced herein.

C. Monitoring and Reporting (When Required)

1. Representative sampling of the volume and nature of the monitored discharge shall be conducted at the request of the Division of Water.

2. Reporting

Monitoring results shall be reported to the:
Delaware Department of Natural Resources and Environmental Control
Division of Water, Surface Water Discharges Section
89 Kings Highway
Dover, DE 19901
302-739-9946

3. Definitions

- a. "Daily average flow" means the total flow during a calendar month divided by the number of days in the month that the facility was operating.
- b. "Daily maximum flow" means the highest total flow during any calendar day.

- c. "Daily Peak Flow" means the flow which can be safely transported within the sewage system without causing an overflow or a backup into the building(s) or residence(s).
- d. "Bypass" means the intentional diversion of wastes from any portion of a treatment facility.
- e. "Measured flow" means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.
- f. "Estimate" means a value to be based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The date, exact place and time of sampling or measurement;
- b. The person(s) who performed the sampling and/or measurement;
- c. The date(s) and time(s) analysis was performed;
- d. The individual(s) who performed each analysis;
- e. The analytical technique(s) or method(s) used;
- f. The results of each analysis; and
- g. Appropriate quality assurance information.

5. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, all records of instrument calibration and maintenance and all charts from continuous monitoring instruments, shall be retained for three (3) years. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Department.

6. Test Procedures

Test procedures for the analysis of pollutants shall conform to the applicable test procedures identified in 40 CFR, Part 136, unless otherwise specified in this permit.

END OF PART I

PART II

A. Management Requirements

1. Duty to Comply

The permittee must comply with the terms and conditions of this permit. Failure to do so constitutes a violation of this permit, which is grounds for enforcement and the imposition of penalties as provided in 7 Del.C., Chapter 60, grounds for permit termination or loss of authorization to discharge or operate pursuant to this permit, grounds for permit revocation and reissuance or permit modification, or denial of a permit renewal application.

2. Notification

a. Changes in Authorized Activities

The permittee shall notify the Department of any proposed change in the activity authorized herein, of any proposed substantive change in the operation of the facility or facilities authorized herein, or of any anticipated facility expansions, production increases, or process modifications. Notification is required only when such alteration, addition or change may justify the inclusion of conditions that are absent or different from those specified in this permit. This includes, for example, the construction of additional wastewater collection, transmission or treatment facilities and changes which will result in new, different, or increased discharges of pollutants. Following such notice, the Department may require the submission of a new permit application and this permit may be reopened and modified to address the proposed changes.

b. Noncompliance

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specified in this permit, the permittee shall provide the Department with the following information, in writing, within five (5) days of becoming aware of such condition:

A description of the discharge and cause of noncompliance; and

The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall, at all times, maintain in good working order and operate as efficiently as possible all collection and treatment facilities and systems (and related appurtenances) installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, effective management, adequate operator staffing and training and adequate laboratory process controls, including appropriate quality assurance procedures.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and extent of the noncomplying discharge.

5. Bypassing

Any bypass or intentional diversion of waste streams from the facilities authorized by this permit, or any portion thereof, is prohibited, except (i) where unavoidable to prevent loss of human life, personal injury or severe property damage, or (ii) where excessive storm drainage or run-off would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Department, in writing, of each such diversion or bypass.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewater shall be disposed of in a manner such as to prevent any pollutant from such materials from entering the surface water or groundwater.

B. Responsibilities

1. Within 90 days following the completion of construction, the permittee shall submit to the Department an "as-built" set of plans of the facility or facilities constructed, bearing the seal and signature of a licensed Professional Engineer registered in the State of Delaware.

2. Right of Entry

The permittee shall allow the Secretary of the Department of Natural Resources and Environmental Control, or his authorized representative(s), upon the presentation of credentials:

- a. To enter upon the permittee's premises for inspection of any records, flow measurements, construction or other activity authorized by this permit or any condition required under the terms of this permit; and
- b. At reasonable times, to have access to and to copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and
- c. To sample any discharge.

3. Transferability

This permit is transferable with the Department's consent, provided that an intention to transfer accompanied by a copy of the permit is provided to the Department, signed by both the transferor and the transferee at least ten (10) days prior to the actual transfer.

4. Availability of Reports

All reports submitted with the application and those reports required under the terms of this permit shall be available for public inspection at the offices of the Department of Natural Resources and Environmental Control. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in 7 Del. C., §6013. Any person who causes or contributes to the discharge of a pollutant into State waters either in excess of any conditions specified in this permit or in absence of a specific permit condition shall report such an incident to the Department required under 7 Del. C. §6028.

5. Permit Modification

This permit may be modified, suspended or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any term or condition of this permit;
- b. Obtaining this permit by misrepresentation or failure to fully disclose all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized activity; or
- d. Information that the permitted activity poses a threat to human health or welfare, or to the environment.

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under 7 Del. C., Chapter 60.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation.

8. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

9. Severability

The provisions of this permit are severable. If any provision of this permit is held invalid, or if the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

END OF PART II

PART III

A. Special Conditions

1. This permit authorizes only the construction of the wastewater facilities and related work referenced herein.
2. If wellpointing is required during construction, the wells must be installed by a licensed well driller, and a permit to construct such wells must first be obtained from the Well Permits Branch of the Water Supply Section.
3. All construction shall be in agreement with plans and specifications submitted under this project and approved by the Department of Natural Resources and Environmental Control.
4. All construction shall be in accordance with Ten States Standards and other applicable local utility construction specifications and standards.
5. Connections or additions to the proposed system, other than those proposed on the plans, will not be allowed without prior approval from the Department.

END OF PART III

State Permit Number WPCC 3131F/76
NPDES Permit Number DE 0000299
Effective Date: February 1, 2016
Expiration Date: January 31, 2021

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND THE LAWS OF THE
STATE OF DELAWARE

In compliance with the provisions of the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251 et seq.) (hereinafter referred to as "the Act"), and pursuant to the provisions of 7 Del. C., §6003,

Allen Harim Foods, LLC
18752 Harbeson Rd.
Harbeson, Delaware 19951

is authorized to discharge from the facility
(Point Sources 001, 002, 003 and 004) located at

Route 5
Harbeson, Delaware

to receiving waters named

Beaverdam Creek

The effluent limitations, monitoring requirements and other permit conditions are set forth in Parts I, II and III hereof.

Bryan Ashby, Manager
Surface Water Discharges Section
Division of Water Resources
Department of Natural Resources and Environmental Control

Date Signed

Part I

A. General Description of Discharges and Facilities

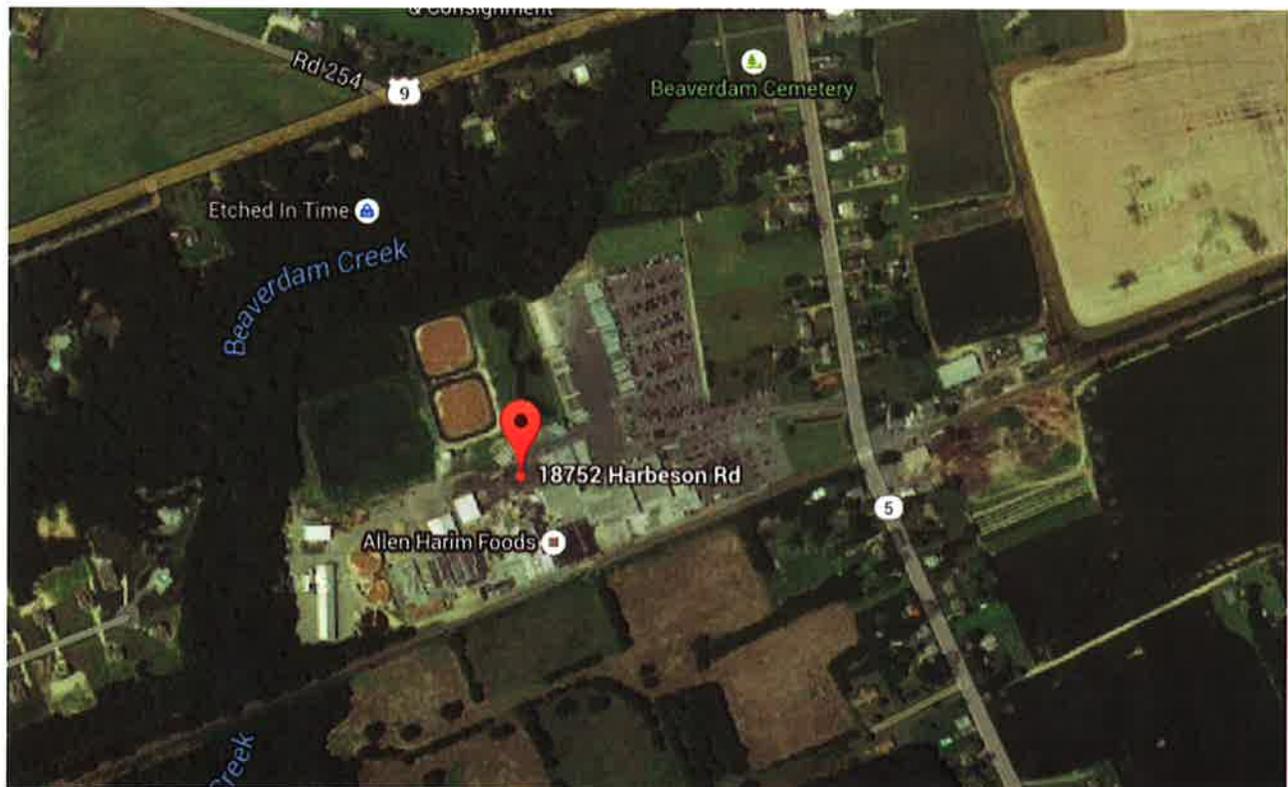
1. Discharge Descriptions and Site Location Map

Discharge 001 consists of treated sanitary waste water, treated poultry process waste water and treated storm water. The treatment process consists of primary screening, grit removal and dissolved air flotation device, biological nutrient removal (anoxic basins followed by aerobic basins), clarifier, chlorination, and dechlorination. (Lat. $38.00^{\circ} 43.00' 13.34''$, Long. $-75.00^{\circ} 17.00' 29.00''$)

Discharge 002 consists of storm water runoff, after capture and treatment of the first flush, from the screening area, trucks parking, washing and cleaning area, loading and unloading area, and live holding shed area. (Lat. $38.00^{\circ} 43.00' 10.80''$, Long. $-75.00^{\circ} 17.00' 28.40''$)

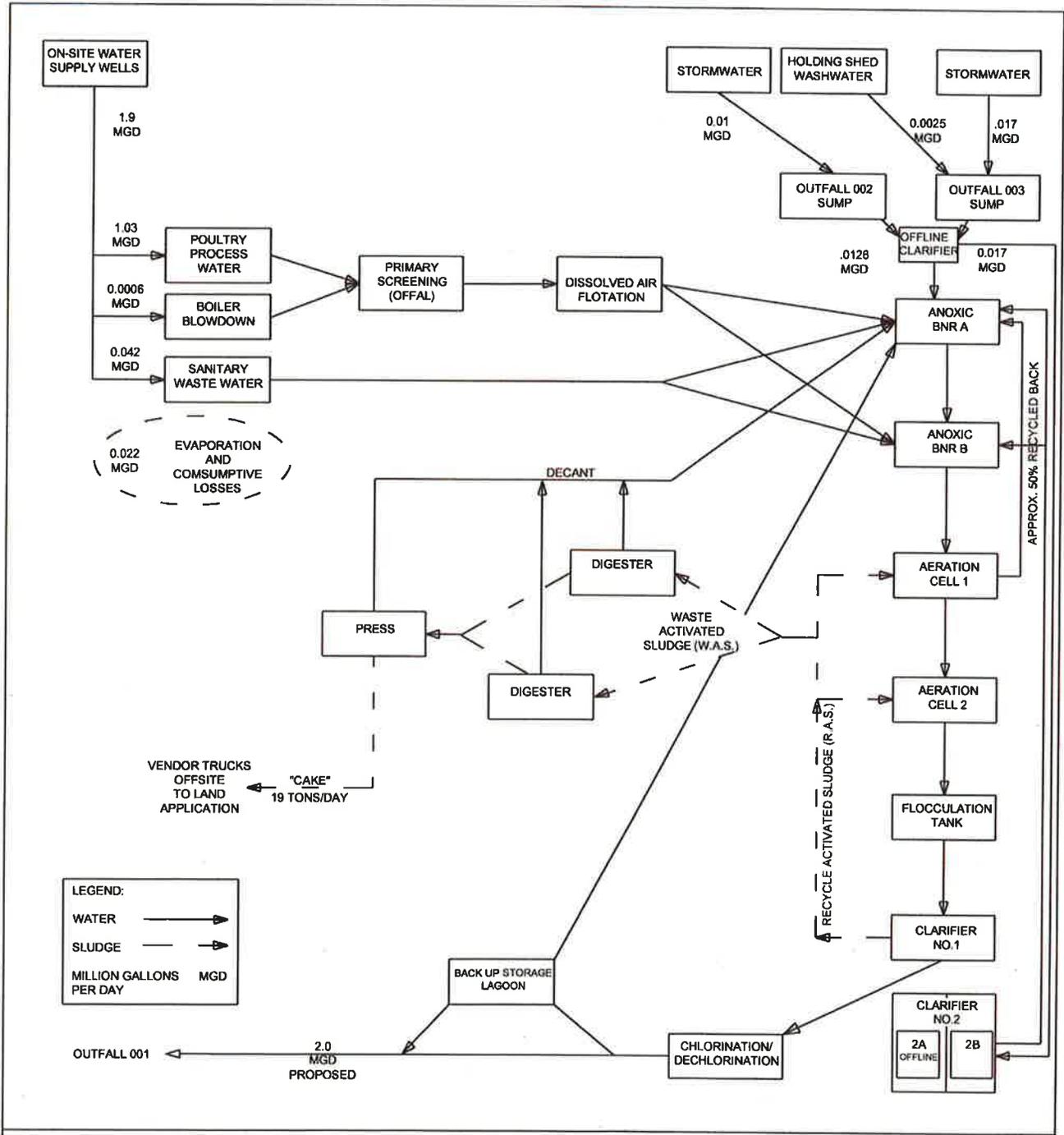
Discharge 003 consists of storm water runoff, after capture and treatment of the first flush, from the trucks parking and live holding shed area. (Lat. $38.00^{\circ} 43.00' 8.44''$, Long. $-75.00^{\circ} 17.00' 25.93''$)

Discharge 004 consists of storm water runoff from access driveways and the employee parking area. (Lat. $38.00^{\circ} 43.00' 19.29''$, Long. $-75.00^{\circ} 17.00' 19.75''$)



A. General Description of Discharges and Facilities (continued)

2. Process Schematic



B. Effluent Limitations and Monitoring Requirements

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for Outfall 001

During the period beginning **effective date** and lasting through **42 months after effective date**, the permittee is authorized to discharge from point source 001¹ the quantity and quality of effluent specified below:

Parameter	Effluent Limitations						Monitoring Requirements ²	
	Load			Concentration			Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Units		
Flow ³	2.00		mgd	---	---	---	Continuous	Record/Totalize
Total Residual Chlorine	---	---	---	---	ND ⁴	mg/L	Once per day	Grab
pH	The pH shall be between 6.0 S.U. and 9.0 S.U. at all times.						Once per day	Grab
BOD ₅	104.3	156.5	lbs/day	6.25	9.38	mg/L	Once per week	Composite
Total Suspended Solids	152	228	lbs/day	9.1	13.7	mg/L	Once per week	Composite
Oil & Grease	83	125	lbs/day	5.0	7.5	mg/L	Once per week	Composite ⁵
Total Phosphorus (as P)	5.21	7.82	lbs/day			mg/L	Once per week	Composite
Ammonia (as N)	10.4	15.6	lbs/day	0.62	0.93	mg/L	Once per week	Composite
Total Nitrogen (as N) ⁶	467	574	lbs/day	28	34.4	mg/L	Once per week	Composite
Aluminum ⁶			lbs/day			mg/L	Once per week	Composite
Enterococcus ⁷	---	---	-	63	113	col/100mL	Once per week	Grab
Biomonitoring							One time ⁸	Composite
The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.								

Note: In the table above, a blank box indicates that a value must be reported, but there is no effluent limitation.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: after dechlorination and before final discharge.

- 1 See discharge description on page 2 of this permit.
- 2 Report "nondetected" testing results on the discharge monitoring report (DMR) as "<" and the applicable test MDL. For example, if BOD5 is "nondetected" using a test method with an MDL of 2.4 mg/L, report "< 2.4 mg/L" on the DMR.
- 3 Report both average and maximum daily flow on the DMR.
- 4 See Part III.A., Special Condition No. 11 of this permit.
- 5 See Part III.A., Special Condition No. 4 of this permit.
6. See Part I.C Schedule of Compliance on page 8 of this permit.
7. The average effluent limit for enterococcus is based on a geometric mean.
8. See Part III.A., Special Condition No. 3 of this permit.

B. Effluent Limitations and Monitoring Requirements (continued)

2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for Outfall 001

During the period beginning **42 months after effective date** and lasting through **expiration date**, the permittee is authorized to discharge from point source 001¹ the quantity and quality of effluent specified below:

Parameter	Effluent Limitations						Monitoring Requirements ²	
	Load			Concentration			Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Units		
Flow ³	2.00		mgd	---	---	---	Continuous	Record/Totalize
Total Residual Chlorine	---	---	---	---	ND ⁴	mg/L	Once per day	Grab
pH	The pH shall be between 6.0 S.U. and 9.0 S.U. at all times.						Once per day	Grab
BOD ₅	104.3	156.5	lbs/day	6.25	9.38	mg/L	Once per week	Composite
Total Suspended Solids	152	228	lbs/day	9.10	13.70	mg/L	Once per week	Composite
Oil & Grease	83	125	lbs/day	5.0	7.5	mg/L	Once per week	Composite ⁵
Total Phosphorus (as P)	5.21	7.82	lbs/day			mg/L	Once per week	Composite
Ammonia (as N)	10.4	15.6	lbs/day	0.62	0.93	mg/L	Once per week	Composite
Total Nitrogen (as N) (Oct. 1 - Apr. 30)						mg/L	Once per week	Composite
Total Nitrogen (as N) (May 1 - Sep. 30)	73.0	109.5	lbs/day			mg/L	Once per week	Composite
Total Nitrogen (as N) ⁶	Moving 12-Month Cumulative Load of 26,645 pounds ⁷							
Aluminum ⁶	1.90	3.80	lbs/day	0.114	0.228	mg/L	Once per week	Composite
Enterococcus ⁸	---	---	---	63	113	col/ 100mL	Once per week	Grab
Biomonitoring	---	---	---	---	---	---	One time ⁹	Composite
The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.								

Note: In the table above, a blank box indicates that a value must be reported, but there is no effluent limitation.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: after dechlorination and before final discharge.

- 1 See discharge description on page 2 of this permit
- 2 Report "non-detect" testing results on the discharge monitoring report (DMR) as "<" and the applicable test MDL. For example, if BOD₅ is "non-detect" using a test method with an MDL of 2.4 mg/L, report "< 2.4 mg/L" on the DMR.
- 3 Report both average and maximum daily flow on the DMR.
- 4 See Part III.A., Special Condition No. 11 of this permit.
- 5 See Part III.A., Special Condition No. 4 this permit.
6. See Part I.C Schedule of Compliance on page 8 of this permit.
7. See Part III.A. Special Condition No. 6 of this permit.
8. The average effluent limit for enterococcus is based on a geometric mean.
9. See Part III.A. Special Condition No. 3 of this permit.

B. Effluent Limitations and Monitoring Requirements (continued)

3. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for Outfalls 002 and 003

During the period beginning **effective date** and lasting through the **expiration date**, the permittee is authorized to discharge from point sources 002 and 003¹ the quantity and quality of effluent specified below:

Parameter	Effluent Limitations						Monitoring Requirements ²		
	Load			Concentration			Measurement Frequency	Sample Type	
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Units			
Flow ³			gal/min	-	-	-	Once per month	Estimate	
pH	The pH shall be between 6.0 S.U. and 9.0 S.U. at all times.							S.U.	Grab
Oil & Grease	---	---	---	8.0	14.0			Grab	
BOD ₅	---	---	---	16.0	26.0	mg/L		Grab	
Total Suspended Solids	---	---	---	20.0	30.0	mg/L		Grab	
Total Phosphorus (as P)	---	---	---			mg/L		Grab	
Ammonia (as N)	---	---	---	4.0	8.0	mg/L		Grab	
Total Nitrogen (as N)	---	---	---	103	147	mg/L		Grab	
Enterococcus	---	---	---	---	185	col/100mL		Grab	
Only storm water may be discharged from these outfalls.									
The discharges shall be free from floating solids, sludge deposits, debris, oil and scum.									

Note: In the table above, a blank box indicates that a value must be reported, but there is no effluent limitation.

All samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches and at least 72 consecutive hours from the previously measurable (greater than 0.1 inch rainfall) storm event. All samples shall be taken within 30 minutes after discharge starts, or as soon thereafter as practicable. No sample shall be taken under circumstances that have the potential to endanger the person taking the sample. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: at the discharge point of Outfalls 002 and 003 where water is flowing out of the collection sump and over the gravel weir.

1 See Discharge Descriptions on page 2 page of this permit.

2 Report "non-detect" testing results on the discharge monitoring report (DMR) as "<" and the applicable test MDL. For example, if BOD5 is "non-detect" using a test method with an MDL of 2.4 mg/L, report "< 2.4 mg/L" on the DMR.

3 Report estimated flow at the time of storm water sampling.

B. Effluent Limitations and Monitoring Requirements (continued)

4. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS for Outfall 004

During the period beginning **effective date** and lasting through the **expiration date**, the permittee is authorized to discharge from point source 004¹ the quantity and quality of effluent specified below:

Parameter	Effluent Limitations							Monitoring Requirements ²	
	Load			Concentration				Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Maximum Instantaneous	Units		
Only storm water may be discharged from this outfall.									
The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.									

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: at the outlet of the storm water retention basin.

¹ See discharge descriptions on page 2.
² See Special Condition No. 5 of the permit.

C. Schedule of Compliance with Total Nitrogen (TN) and Aluminum Limits in Part I.B.2 of this permit.

1. For TN limits the permittee shall comply with the requirements herein as soon as possible, but in no event later than the dates set forth in the following schedule:
 - a. No later than six (6) months after the effective date of this permit, the permittee shall complete design of proposed plant upgrades necessary for compliance with the final effluent limitations for TN.
 - b. No later than 12 months after the effective date of this permit, the permittee shall initiate construction of proposed plant upgrades necessary for compliance with the final effluent limitations for TN.
 - c. No later than 24 months after the effective date of this permit, the permittee shall submit a Progress Report identifying actions taken to date to achieve compliance with the final effluent limitations for TN.
 - d. No later than 36 months after the effective date of this permit, the permittee shall complete construction of proposed plant upgrades necessary for compliance with the final effluent limitations for TN.
 - e. No later than 42 months after the effective date of this permit, the permittee must achieve compliance with the final effluent limitations and monitoring requirements for TN at Outfall 001, as specified in Part I, B. 2. of this permit.
2. For Aluminum limits, the permittee shall comply with the requirements herein as soon as possible, but in no event later than the dates set forth in the following schedule:
 - a. No later than six (6) months after the effective date of this permit, the permittee shall prepare a plan to achieve compliance with the aluminum limits.
 - b. No later than 18 months after the effective date of this permit, the permittee shall begin implementation of the plan to achieve compliance with the Final Aluminum Limits.
 - c. No later than 30 months after the effective date of this permit, the permittee shall submit a Progress Report identifying actions taken to date to achieve compliance with the Final Aluminum Limits.
 - d. No later than 42 months after the effective date of this permit, the permittee must achieve compliance with the final effluent limitations and monitoring requirements for Aluminum at Outfall 001, as specified in Part I, B. 2. of this permit.
3. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

D. Monitoring and Reporting

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

Monitoring results obtained during the previous one (1) month shall be summarized for each month and reported on a Discharge Monitoring Report Form ("DMR", EPA Form No. 3320-1),

- a. The permittee shall submit results postmarked no later than the 28th day of the month following the completed reporting period. Electronically-generated DMR forms may be used, if approved by the Department in writing. Signed copies of these, and all other reports required herein, shall be submitted to the Department at the following address:

State Of Delaware Dept. Of Natural Resources And Environmental Control,
Division of Water, Surface Water Discharges Section,
R & R Building, 89 Kings Highway, Dover, Delaware 19901
TELEPHONE: (302) 739-9946; FACSIMILE: (302) 739-8369

- b. The Department may provide written requirements for the permittee to submit DMR electronically (eDMR), no later than the 28th day of the month following the completed reporting period. These submittals must be electronically signed.

3. Definitions

- a. "Average daily loading" means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.
- b. "Average monthly discharge" or "daily average discharge" is the arithmetic mean of all daily discharges during a calendar month, calculated as the sum of all daily discharges sampled and/or measured during the month divided by the number of daily discharges sampled or measured during such month.
- c. "Average monthly effluent limitation" or "daily average effluent limitation" means the highest allowable average of daily discharges over a calendar month.
- d. "Best management practices" or "BMP's" means schedules of activities, prohibitions of practices, maintenance procedures and other management practices or measures to prevent or reduce the discharge of pollutants. BMP's include, but are not limited to: structural and nonstructural controls; treatment requirements; operating procedures and practices to control spills or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs can be applied before, during and after pollution generating activities to reduce or eliminate the introduction of pollutants into receiving waters.
- e. "Biosolids" refers to the biomass or biological sludge generated or produced by biological wastewater treatment processes.
- f. "Bypass" means the intentional diversion of wastes from any portion of a treatment facility.
- g. "Composite sample" means a combination of individual samples obtained at specified intervals over a given time period, generally 24 hours.

In collecting a composite sample of a discharge other than a discharge of storm water or storm runoff (a non-storm water discharge), either: a) the volume of each individual sample is

- proportional to the discharge flow rate or b) the sampling interval is proportional to the discharge flow rate and the volume of each individual sample is constant. For a continuous non-storm water discharge, a minimum of 24 individual grab samples shall be collected and combined to constitute a 24 hour composite sample. For intermittent non-storm water discharges 4 hours or more in duration, the number of individual grab samples collected and combined to constitute a composite sample shall at a minimum be equal to the duration of the discharge in hours but not less than 12. For intermittent non-storm water discharges of less than 4 hours, the minimum number of individual grab samples collected and combined to constitute a composite sample shall be equal to the duration of the discharge in hours times 3 but not less than 3 samples.
- h. "Daily discharge" means the total discharge measured during a calendar day or any 24-hour period that reasonably represents the calendar day for sampling purposes. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of a pollutant discharged over a calendar day or the equivalent 24-hour period. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over a calendar day or the equivalent 24-hour period.
 - i. "Daily maximum effluent limitation" is the highest total mass of a pollutant allowed to be discharged during a calendar day or, in the case of a pollutant limited in terms other than mass, the highest average concentration or other measurement of the pollutant specified during the calendar day, or any 24-hour period that reasonably represents the calendar day for sampling purposes.
 - j. "Daily maximum temperature" is the highest arithmetic mean of the temperature observed for any two (2) consecutive hours during a 24-hour day, or during the operating day if flows are of shorter duration.
 - k. "Direct Responsible Charge" or "DRC" means on-location accountability for, and on-location performance of, active daily operation (including Technical Supervision, Administrative Supervision, or Maintenance Supervision) for a Wastewater Facility, an operating shift of a system or a facility, or a major segment of a system or facility.
 - l. "Estimate" is that based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.
 - m. "Grab sample" is an individual sample collected in less than 15 minutes.
 - n. "I/S" (immersion stabilization) means the immersion of a calibrated device in the effluent stream until the reading is stabilized.
 - o. "Maximum instantaneous concentration" or "MIC" is the highest allowable measured concentration of a pollutant, obtained by analyzing a grab sample of the discharge.
 - p. "Measured flow" is any method of liquid volume measurement the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.
 - q. "Method Detection Limit" or "MDL" means the lowest concentration of a substance which can be measured with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.
 - r. "Minimum analytical level" or "MAL" means the lowest concentration of a substance that can be quantified within specified limits of interlaboratory precision and accuracy under routine laboratory operating conditions in the matrix of concern. When there is insufficient interlaboratory study data, the "MAL" may be determined through the use of a multiplier of 5 to 10 times the method detection level or "MDL".

- s. "Monthly average temperature" is the arithmetic mean of temperature measurements made on an hourly basis, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar month, or during the operating month if flows are of shorter duration.
- t. "Non-contact cooling water" is that which is contained within a leak-free system, i.e. has no contact with any gas, liquid or solid other than the container used for transport.
- u. "Nuisance condition" is any condition that, as a result of pollutant addition to a surface water, causes unreasonable interference with the designated uses of the waters or the uses of the adjoining land areas.
- v. "Operator" means any person employed or appointed by any owner, and who is designated by such owner to be the person controlling the operations of the treatment works, including direct actions, decisions or evaluations which affect the quality of the discharge, and whose duties include testing or evaluation to control treatment works operations.
- w. "Pollution prevention" means any practice which results in a lesser quantity of emissions released or discharged prior to out-of-process recycling, treatment or control, as measured on a per-unit-of-production basis.
- x. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- y. "Sewage" means the water carried human or animal wastes from septic tanks, water closets, residences, buildings, industrial establishments or other places together with such ground water infiltration, subsurface water, storm inflow, admixture of industrial wastes, or other wastes as may be present.
- z. "Sewage sludge" means any solid, semi-solid or liquid residue removed during the treatment of municipal wastewater or domestic sewage including, but not limited to, solids removed during primary, secondary or advanced wastewater treatment, scum, septage, portable toilet pumpings and sewage sludge products.
- aa. "Sludge" means the accumulated semi-liquid suspension, settled solids, or dried residue of these solids removed by any surface water or ground water treatment facility or any liquid waste treatment facility or works, whether or not such solids have undergone treatment.
- bb. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. The basis for specific effluent limitations can be found in this permit's fact sheet. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- cc. "Whole effluent toxicity" means the aggregate toxic effect of an effluent or discharge measured directly by a toxicity test.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to the applicable test procedures identified in 40 C.F.R., Part 136, unless otherwise specified in this permit.

5. Quality Assurance Practices

The permittee is required to show the validity of all data by requiring its laboratory to adhere to the following minimum quality assurance practices:

- a. Duplicate¹ and spiked² samples must be run for each constituent in the permit on 5% of the samples, or at least on one sample per month, whichever is greater. If the analysis frequency is less than one sample per month, duplicate and/or spiked samples must be run for each analysis.
- b. For spiked samples, a known amount of each constituent is to be added to the discharge sample. The amount of constituent added should be approximately the same amount present in the unspiked sample, or must be approximately that stated as maximum or average in the discharge permit.
- c. The data obtained in a and b shall be summarized in an annual report in terms of precision, percent recovery, and the number of duplicate and spiked samples run, date and laboratory log number of samples run, and name of analyst. The report shall cover the calendar year, January 1 through December 31, and shall be submitted to the Department, postmarked no later than the February 15 following the fourth quarter of reporting.
- d. Precision shall be calculated by the formula, standard deviation $s = (\sum d^2/k)^{1/2}$, where d is the difference between duplicate results, and k is the number of duplicate pairs used in the calculations.
- e. Percent recovery shall be reported on the basis of the formula $R = 100 (F-I)/A$, where F is the analytical result of the spiked sample, I is the result before spiking of the sample, and A is the amount of constituent added to the sample.
- f. The percent recovery, R, in e above shall be summarized yearly in terms of mean recovery and standard deviation from the mean. The formula, $s = (\sum (x-\bar{x})^2/(n-1))^{1/2}$, where s is the standard deviation around the mean \bar{x} , x is an individual recovery value, and n is the number of data points, shall be applied.
- g. The permittee or its contract laboratory is required to annually analyze an external quality control reference sample for each pollutant. These are available through the EPA Regional Quality Assurance Coordinator, or other EPA-approved supplier. Results shall be included in the annual report, required in paragraph c above.
- h. The permittee and/or its contract laboratory is required to maintain an up-to-date and continuous record of the method used, of any deviations from the method or options employed in the reference method, of reagent standardization, of equipment calibration and of the data obtained in a, b and f above.
- i. If a contract laboratory is utilized, the permittee shall report the name and address of the laboratory and the parameters analyzed together with the monitoring data required.

6. Records

- a. For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

¹ Duplicate samples are not required for the following parameters: color, temperature, and turbidity.

² Spiked samples are not required for the following parameters: acidity, alkalinity, bacteriological, benzidine, chlorine, color, dissolved oxygen, hardness, pH, oil & grease, radiological, residues, temperature, turbidity, BOD₅, and total suspended solids. Procedures for spiking samples are available through the EPA Regional Quality Assurance Coordinator.

- 1) The date, exact place and time of sampling or measurements;
 - 2) The person(s) who performed the sampling or measurements;
 - 3) The date(s) and time(s) analyses were performed;
 - 4) The individual(s) who performed each analysis;
 - 5) The analytical techniques or methods used;
 - 6) The results of each analysis; and
 - 7) The quality assurance information as stated above.
- b. An operator log must be kept on site at all times. This log should include time spent at the treatment facility on any date, and the nature of operation and maintenance performed.
7. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (EPA No. 3320-1). Such increased frequency shall also be indicated.

8. Records Retention

All records and information resulting from the monitoring activities required by this permit including hard copies of any electronically generated Discharge Monitoring Reports, all records of analyses performed, records of calibration and maintenance of instrumentation, and recording from continuous monitoring instrumentation shall be retained for three (3) years. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Department.

Part II

A. Management Requirements

1. Duty to Comply

- a. The permittee must comply with all the terms and conditions of this permit. All discharges authorized herein shall be consistent with the terms and conditions of this permit.
- b. The discharge of any pollutant more frequently than, or at a level in excess of that identified and authorized herein, shall constitute a violation of the terms and conditions of this permit. The violation of any effluent limitation or of any other condition specified in this permit is a violation of 7 *Del. C.* Chapter 60, and the Act and is grounds for enforcement as provided in 7 *Del. C.* §§6005, 6013, and 6018, for permit termination or loss of authorization to discharge pursuant to this permit, for permit revocation and reissuance, or permit modification, or denial of a permit renewal application. The Department may seek voluntary compliance by way of warning, notice or other educational means, pursuant to 7 *Del. C.* §6019, or any other means authorized by law. However, the Law does not require that such voluntary means be used before proceeding by way of compulsory enforcement.
- c. Any person violating Sections 301, 302, 306, 307, 318, or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative, and/or criminal penalties as set forth in 40 C.F.R., Parts 122.41(a)(2) and 122.41(a)(3).

2. Notification

a. Notification of Planned Changes

The permittee shall notify the Department in writing of any anticipated expansion or alteration of this permitted facility, any production increases, process modifications, or other changes which could result in new, different or increased discharges of pollutants. Notice is required only when such alteration, addition or change:

- 1) may justify the application of permit conditions that are different from those specified in this permit, or
- 2) may justify the application of permit conditions that are absent from this permit, or
- 3) meets any one of the following criteria:
 - a) The alteration or addition to this permitted facility may meet one of the criteria for determining whether a facility is a new source, as defined in the section, "New Source", of Delaware's *Regulations Governing the Control of Water Pollution*, or
 - b) As a result of the alteration or addition, the nature of the discharge is or could be substantially different from that represented in the application originally submitted for the discharge(s) authorized herein, upon which this permit is based; or
 - c) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, including any uses or disposal sites not identified in the application for this permit or during this permit's issuance process; or
 - d) The planned change in permitted facility or activity may result in noncompliance with the requirements of this permit.

Upon notification of a planned change, the Department may require the submission of a new application. The permittee is encouraged to notify the Department and submit any application well in advance of the scheduled date for the anticipated alteration or addition to allow sufficient time to process any modifications of this permit necessitated by the change and to avoid any resultant project delays.

b. Notification of Noncompliance

The permittee shall report all instances of noncompliance with this permit to the Department as outlined herein:

- 1) If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation or maximum instantaneous concentration specified in this permit, the permittee shall report such incident within 24 hours and provide the Department with the following information, in writing, within five (5) days of becoming aware of such conditions:
 - a) A description of the discharge and cause of noncompliance;
 - b) The period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time when the discharge will return to compliance; and
 - c) Actions taken or to be taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.
- 2) If, for any reason, the permittee does not comply with any daily average or average monthly effluent limitation or standard specified in this permit, the permittee shall provide the information outlined above in paragraph b.1) with the discharge monitoring report (DMR) submitted in accordance with Part I.D.2. of this permit.
- 3) In the case of any upset or unanticipated bypass that exceeds any permitted effluent or discharge limitation, the permittee shall notify the Department within 24 hours. If this notification is provided orally, a written report shall be submitted within 5 days.
- 4) In the case of any discharge subject to any toxic pollutant effluent standard under Section 307(a) of the Act, the permittee shall notify the Department within 24 hours from the time the permittee becomes aware of a noncomplying discharge. Notification shall include the information outlined above in paragraph b.1). If this information is provided orally, a written submission covering these points shall be provided within five days of the time the permittee becomes aware of the circumstances covered by this paragraph.
- 5) In the case of any other discharges which could constitute a threat to human health, welfare, or the environment, the information required above in paragraph b.1) shall be provided as quickly as possible upon discovery and after activating the appropriate emergency site plan, unless circumstances exist which make such a notification impossible. A delay in notification shall not be considered a violation of this permit when the act of reporting may delay the mitigation of the discharge and/or the protection of public health and the environment. A written submission covering these points must be provided within five days of the time the permittee becomes aware of the circumstances covered by this paragraph.

- 6) The permittee shall report all instances of noncompliance not otherwise reported under the preceding paragraphs at the time the discharge monitoring report (DMR) is submitted. The report shall contain the information outlined above in paragraph b.1).
 - 7) The Department may waive the written report as required herein on a case-by-case basis, if an oral report was provided within 24 hours.
- c. Reporting Discharge(s) of Pollutants Pursuant to 7 *Del. C.*, "Report of discharge of pollutant or air contaminant"

Any person who causes or contributes to the discharge of a pollutant into waters of the State or the United States either in excess of any conditions specified in this permit or in absence of a specific permit condition shall report such an incident to the Department as required under 7 *Del. C.*, "Report of discharge of pollutant or air contaminant".

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all collection and treatment facilities and systems (and related appurtenances) installed or used by the permittee for water pollution control and abatement to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, effective performance (based upon the facilities' design), adequate funding, effective management, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, when necessary, to achieve compliance with the terms and conditions of this permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to State waters resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and extent of the noncomplying discharge.

5. Failure

The permittee, in order to maintain compliance with this permit, shall control production and all discharges as necessary upon reduction, loss, or failure of the treatment facility until the treatment facility is restored or an alternative method of treatment is provided. The need to halt or reduce the permitted activity in order to maintain compliance with this permit shall not be a defense for a permittee in any enforcement action.

6. Alternative Power Source

In order to ensure compliance with the terms and conditions of this permit, the Department may require that the permittee provide an alternative power supply which is sufficient to operate the permittee's wastewater collection, conveyance and treatment facilities.

7. Removed Substances

Any solids, sludges, filter backwash, or other pollutants removed in the collection, conveyance or treatment of wastewater shall be disposed of in such manner as to prevent any pollutant from such materials from entering surface waters or ground waters.

8. Bypass

- a. The Secretary may prohibit the intentional diversion or bypass of waste streams from any portion of the facility regulated herein in consideration of the adverse effect of the proposed bypass or where the proposed bypass does not meet the conditions set forth below in Part II.A.8.b.
- b. The intentional diversion or bypass of waste streams from any portion of the facility regulated herein is prohibited unless:
 - 1) The bypass is necessary to perform essential maintenance and auxiliary equipment, a redundant or back-up system or an alternate mode of operation is utilized to maintain treatment performance; or
 - 2) The following four conditions are met:
 - a) Bypass is unavoidable to prevent loss of human life, personal injury or severe property damage;
 - b) There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, plant shutdown or maintenance during normal periods of equipment down-time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent the bypass;
 - c) The permittee notifies the Department of the bypass or of the need to bypass as outlined below in paragraph 8.c below; and
 - d) The permittee is utilizing or will utilize all available alternative operating procedures or interim control measures to reduce the impact of the bypass on State waters.
- c. Notice
 - 1) If the permittee knows in advance of the need for a bypass, the permittee shall notify the Secretary, in writing, at least ten days before the date of the bypass, if possible.
 - 2) In the event of an unanticipated or unintentional bypass, the permittee shall notify the Department within twenty-four hours of discovery. Notice may be provided orally, but shall be followed up with submission of a written report that provides the information outlined in Part II.A.2.b.1) within five (5) days.
 - 3) The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible.

9. Upset

- a. An upset shall constitute an affirmative defense to an action brought for noncompliance with any technology based permit effluent limitations established herein, if the requirements of Part II.A.9.b below are met.
- b. To establish an affirmative defense for an upset, the permittee shall demonstrate, through properly signed and authenticated, contemporaneous operating logs, or by other relevant evidence that:
 - 1) An upset occurred and that the permittee can identify the specific cause(s) of the upset;

- 2) The permitted facility was at the time being operated in a prudent and workman like manner and in compliance with proper operation and maintenance procedures;
 - 3) The permittee submitted notice of the upset as required in Part II.A.2.b.3) (i.e., within 24 hours of becoming aware of the upset); and
 - 4) The permittee took all reasonable measures necessary to minimize any adverse impact to State waters.
- c. Burden of proof. The permittee shall have the burden of proving an upset in any case where an upset is claimed as a defense.

B. Responsibility

1. Right of Entry

The permittee shall allow the Secretary of the Department, the EPA Regional Administrator, or their authorized representatives, jointly and severally, upon the presentation of his or her credentials:

- a. To enter upon the permittee's premises where the regulated facility, treatment works, or discharge(s) is located or the regulated activity is conducted or where any records required to be kept under the terms and conditions of this permit are located;
- b. To have access to and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;
- c. To inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
- d. To inspect at reasonable times any facilities, equipment, management or control practices, or operations regulated or required under this permit; and
- e. To sample at reasonable times any discharge or substance at any location for the purpose of assuring compliance with this permit or otherwise determine whether a violation of the Law or these regulations exists, as provided in 7 *Del. C.*, "Right of Entry".

2. Duty to Provide Information Requested by the Department

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit or to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee shall also furnish, upon request, copies of records required to be kept by this permit.

3. Duty to Provide Information Found to be Missing or Inaccurate

When the permittee discovers that it failed to submit any relevant facts in a permit application or that it submitted any incorrect information in any permit application or in any report to the Department, it shall promptly submit such facts or information.

4. Availability of Reports

Except for any data and information that is deemed to be confidential and claimed as such when submitted, and that is entitled to protection as trade secrets under State law, all reports prepared

in accordance with the terms and conditions of this permit shall be available for public inspection at the Department's offices. This permit, the permit application and any information submitted to support the application (other than information entitled to protection as trade secrets pursuant to State law) and any effluent or discharge monitoring data shall not be deemed confidential and any claims of confidentiality will be denied. Knowingly making any false statement in any such report may result in the imposition of criminal penalties as provided under 7 Del. C., Chapter 60, "Criminal penalties".

5. Signatory Requirements

All applications, reports, or information submitted to the Department shall be signed and certified as required in the section "Identity of Signatories to NPDES Forms" of Delaware's *Regulations Governing the Control of Water Pollution*.

6. Permit Transfer

- a. This permit is not transferable to any person, except after notice to and with the concurrence of the Secretary.
- b. In the event of a change in ownership or control of the facilities from which the authorized discharge(s) emanate(s), this permit may be transferred if:
 - 1) The permittee notifies the Department, in writing, of the proposed transfer, in advance; and
 - 2) The permittee submits to the Department a written agreement signed by all parties to the transfer, containing a specific date for transfer of permit responsibility, coverage and liability to the new permittee. The written agreement shall expressly acknowledge the current permittee is responsible and liable for compliance with the terms and conditions of this permit up to the date of transfer and the new permittee is responsible and liable for compliance from that date on; and
 - 3) The Department within thirty (30) days of receipt of the notification of the proposed transfer does not notify the current permittee and the new permittee of its intent to modify, to revoke and reissue or to terminate this permit and require that a new application be submitted.
- c. The permittee is encouraged to provide as much advance notice as possible of any proposed transfer, to allow sufficient time for the Department to modify this permit to identify the new permittee and to incorporate such other requirements as may be necessary under the Law or the Act.

7. Modification, Termination, or Revocation and Reissuance

This permit may be modified, terminated or revoked and reissued in whole or in part, during its term, for cause as provided in the section "Modification, Revocation and Reissuance, and Termination" of Delaware's *Regulations Governing the Control of Water Pollution*. The filing of a request for permit modification, or revocation and reissuance, or termination, or a notification of any planned changes or anticipated noncompliance does not stay any permit condition.

8. Reapplication for a Permit

- a. The permittee must apply for and obtain a new permit if the permittee wishes to continue the activity regulated by this permit beyond its expiration date;

- b. At least 180 days before the expiration date of this permit, the permittee shall submit a new application or notify the Department of the permittee's intent to cease discharging by the expiration date;
- c. In the event that a timely and sufficient reapplication has been submitted and the Department is unable, through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit are continued and remain fully effective and enforceable;

9. Compliance with Effluent Standards for Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish such standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

10. Construction Authorization

This permit does not approve or authorize the construction, installation or modification of any wastewater/liquid waste collection, transmission or treatment facilities, system, or any other pollution control equipment or device necessary to achieve or to maintain compliance with the terms and conditions of this permit. Separate authorization for the construction, installation or modification of such pollution control facilities must be obtained from the Secretary.

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in navigable waters.

11. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privileges.

12. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under 7 Del. C. Chapter 60, or any other State law or regulation.

13. Severability

The provisions of this permit are severable. If any provision of this permit is held invalid, the remainder of this permit shall not be affected. If the application of any provision of this permit to any circumstance is held invalid, its application to other circumstances shall not be affected.

Part III

A. *Special Conditions*

1. Supersedes previous permit

This permit supersedes NPDES Permit DE0000299 and State Permit WPCC 3131E/76, effective on May 1, 2006, effective date, as modified on September 6, 2011.

2. Permit Reopener Clause

The Department or agencies under its supervision may perform or direct the performance of analyses or biosurveys on the receiving waters in the immediate vicinity of the permittee's discharge or further downstream, after the issuance of this permit. Such analyses or biosurveys may include evaluating impingement, entrainment, and thermal impacts the permittee's facility poses on its intake and receiving waters. If the results of these analyses or biosurveys suggest that the permittee's discharge is causing, or has the potential to cause, diminished attainment of designated protected uses (as defined by the State of Delaware's "Surface Water Quality Standards") then this permit may be reopened and modified after notice and opportunity for a public hearing. At that time, additional effluent limitations, monitoring requirements and/or special conditions may be included in the permit. If it is determined that additional equipment is needed to meet the revised permit conditions, the permittee shall install the necessary equipment.

3. Biomonitoring

The permittee shall conduct a one-time chronic biomonitoring test on effluent in accordance with the following requirements. This test shall be conducted and submitted as part of the permit renewal application due six months before the permit expiration date. Dependent on the results of the initial tests, outlined in 3.a, the permittee may be required to perform confirmation testing as outlined in 3.b below. Dependent on the results of the confirmation testing, the permittee may be required to perform a Toxicity Reduction Evaluation as outlined in 3.c below.

These tests shall be performed using a 100% representative composite effluent sample. All testing shall be performed in accordance with the test procedure requirements under 40 CFR 136. At a minimum these tests shall include the following:

- a. The permittee shall simultaneously perform EPA 7-day chronic test methods 1000.0 Pimphales promelas Larval Survival and Growth Test, and 1002.0 Ceriodaphnia Survival and Reproduction Test. Alternative species may be used, if approved by the Department in writing. Each test shall be initiated no later than 36 hours after the collection of the representative composite effluent sample.

Within 30 days of the completion of these tests, the results shall be reported to the Department. This report shall follow the general format and include the information listed in Section 10, pages 55-57, of EPA/600/4-91/002.

- b. If either the survival, growth, or reproductability rate of the effluent is significantly less than (at the 95% confidence level using the Student T's Test) the same rate of the control, the permittee shall perform two (2) confirmation tests on species which was found to be the most sensitive in 3.a.

Within 30 days of the completion of each test, the results shall be reported to the Department in accordance with the general format and information requirements referenced in 3.a.

- c. If through either of the confirmation tests, the survival or reproductability rate of the effluent sample is found to be significantly less than the same rate of the control, the permittee shall submit a plan for reducing the effluent toxicity to the Department. This plan shall be submitted within 60 days of the completion date of the testing described in 3.b. This plan shall outline a schedule, as well as identify the test methods to be used for the plan to reduce effluent toxicity.

For a purpose of these tests, a representative composite sample is a 24-hour composite sample as defined in Part I, Section 3.f. If the instantaneous flow rate does not vary by more than +/- 15 percent of the average flow rate, a time-interval composite will be an acceptable representative sample. Otherwise, a flow-weighted composite sample must be used. All composite samples shall be representative of 24 hours of typical operations.

The Department shall be notified in writing at least thirty (30) days in advance of the day when a bioassay test is planned to commence. The permittee shall split the composite samples used to perform a bioassay test with the Department upon request. All documentation pertaining to these tests shall be maintained at the facility as required in Part I.D and shall be made available for inspection, upon request.

4. Compliance with Oil & Grease Limits

The permittee shall demonstrate compliance with the Oil and Grease limits using the 40 CFR 136 approved test procedure, EPA Method No. 1664A. The Department may approve use of an alternative test method in writing, if that alternative method is approved under 40 CFR 136.

- a. On the sampling day, three grab samples shall be taken at evenly spaced time intervals; at least a four (4) hour time interval is required between each sample. Each grab sample shall be analyzed separately; for each sampling day,
 - 1) "daily concentration" = arithmetic mean of the three grab samples.
 - 2) "daily load" (lbs/day) = "daily concentration" (mg/L) x flow on sampling day (MGD) x 8.34 (lbs/gal)
- b. For compliance purposes, results reported in the Discharge Monitoring Reports (DMR) for each reporting period shall be calculated as follows:
 - 1) "Average concentration" = the arithmetic mean of all the "daily concentration" values,
 - 2) "Maximum concentration" = the highest "daily concentration" value,
 - 3) "Average Load" = the arithmetic mean of all the "daily load" values, and
 - 4) "Maximum Load" = the highest "daily load" value.

5. Storm Water Plan

The permittee shall continue to implement and maintain a Storm Water Plan (SWP) that is designed to limit the exposure of industrial materials and activities to precipitation and to minimize the discharge of contaminated storm water from the permittee's facility. The SWP shall be implemented and maintained in accordance with the requirements of Section 9.1.5 of the Department's *Regulations Governing the Control of Water Pollution*.

In addition, the SWP shall specifically address the management practices needed to prevent or minimize the discharge of nutrients (nitrogen and phosphorus) and enterococci associated with

the runoff from the site. The permittee shall update and adjust those management practices as necessary to ensure their performance is adequate to satisfy the requirements of the "Total Maximum Daily Loads (TMDLs) Regulation for the Broadkill River Watershed, Delaware", dated December 1, 2006. An updated SWP must be submitted to the Department for review and approval within sixty (60) days of the permit effective date.

6. Moving 12-Month Cumulative Load Limit for Total Nitrogen

The moving 12-month cumulative loads shall be calculated by adding the individual monthly discharge loads for the most current twelve months of operation. Individual monthly loads shall be calculated by using the following formula:

$$\text{average monthly concentration (mg/l)} \times \text{total monthly flow (MG)} \times 8.34 \text{ (lb/gal)} = \text{monthly total discharge load (pounds/month)}$$

This load for the month will be added to the calculated loads for the previous eleven (11) months and reported on the DMR as the moving 12-month cumulative load.

7. Sludge Disposal – Requirements

The permittee shall comply with all existing Federal and State laws and regulations that apply to its sludge use or disposal practice(s) including, but not limited to, federal regulations outlined in 40 C.F.R., Part 258, Section 28, *Liquids Restrictions*, 40 C.F.R., Part 503, *Standards for the Use and Disposal of Sludge* (February, 1993) and the Department's *Guidance and Regulations Governing the Land Treatment of Wastes*, including Part III.B., *The Regulations Governing the Use and Disposal of Wastewater Sludge* (October, 1999). If the Department determines that additional requirements or permit conditions are needed to insure compliance with the referenced regulations, or if the Federal Government promulgates new regulations under Section 405(d) of the Act governing, (a) the treatment or disposal of sewage sludge, (b) sewage sludge management practices, or (c) concentrations of pollutants in sewage sludge, this permit may be reopened, and after notice and opportunity for public hearing, modified accordingly during its term.

8. Sludge Disposal – Record Keeping

The permittee shall maintain monthly sludge inventory data. This data shall include at a minimum (a) quantity of sludge generated, (b) quantity of sludge stored on site, and (c) quantity of sludge transported off site. Transportation records shall include the date, quantity, carrier used, and the final destination for each shipment. The inventory data shall be maintained at the facility and be made available to the Department in accordance with Part I.D.8. "Records Retention", of this permit, except that records shall be retained for five (5) years.

9. Sludge Disposal – Planned Changes

Prior to any planned change in the permittee's sludge use or disposal practice(s), the permittee shall notify the Department in accordance with the requirements of Part II.A.2.a, "Notification of Planned Changes" of this permit. A change in the permittee's sludge use or disposal practice(s) shall be considered cause for this permit to be modified, or revoked and reissued, under Part II.B.7, "Modification, Termination, or Revocation and Reissuance" of this permit.

10. Wastewater Treatment Plant Operator Licensing

The wastewater treatment facility described in Part I.A. of this permit is a "Class IV" facility. The wastewater treatment facility shall be under the direct supervision of a Delaware licensed/certified wastewater treatment plant operator(s) in Direct Responsible Charge, whose competency is licensed by the Secretary in a classification corresponding to, or higher than, the classification of the wastewater treatment plant. All operators who perform duties of a wastewater treatment plant operator, shall be licensed by the Secretary. All activities and licensing shall comply with the *"State of Delaware Regulations for Licensing Operators of Wastewater Facilities"*.

11. Compliance with "Non Detectable" Total Residual Chlorine Limits

The permittee shall demonstrate compliance with the "none detectable" total residual chlorine limit using the following 40 CFR 136.3 approved inorganic test procedures: Iodometric Method I; DPD Ferrous Titrimetric Method; DPD Colorimetric Method; or an equivalent method currently approved in 40 CFR 136. These methods also correspond to Standard Methods (18th Edition) test procedures 4500-Cl B, 4500-Cl F, and 4500-Cl G, respectively.

Unless otherwise notified in writing by the Department, the permittee shall use the most sensitive method of these test procedures appropriate for the sample matrix. Residual chlorine concentrations less than or equal to the minimum detection level for the selected test procedure shall be considered in compliance with the "none detectable" residual chlorine limit.



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES &
ENVIRONMENTAL CONTROL
DIVISION OF WATER
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

Surface Water Discharges Section

Telephone: (302) 739-9946
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Fact Sheet – February 1, 2016

Allen Harim Foods, LLC
18752 Harbeson Road
Harbeson, Delaware 19951

NPDES Permit No. DE 0000299
State Permit No. WPCC 3131F/76

Allen Harim Foods, LLC, in Harbeson, Delaware applied for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit to discharge treated process water, sanitary waste water, and storm water to Beaverdam Creek which discharges to the Broadkill River. Allen Family Foods, Inc. transferred ownership of the site to Allen Harim Foods, LLC, as of September 6, 2011.

Proposed Permit Changes

Allen Harim Foods, LLC, requested in the permit application that daily average flow limit of 1.25 MGD be increased to 2.00 MGD.

The Delaware Department of Natural Resources and Environmental Control (DNREC) proposes to reissue the permit with following changes:

1. Granted request for flow increase, but implemented the Broadkill TMDL mandated limits for Total Nitrogen (TN), Total Phosphorus (TP), Biological Oxygen Demand (BOD₅), Ammonia and Enterococcus. Corresponding concentration limits have been reduced in proportion to the flow increase for TMDL mandated parameters. Concentration limits for other parameters have been reduced in proportion to flow increase.
2. Implemented 12-month cumulative average annual load limit for Total Nitrogen (TN), based on the TMDL for the Broadkill River Watershed.
3. Implemented daily average load limit for Total Nitrogen (TN) during the months of May through September based on the TMDL for the Broadkill River Watershed.
4. Implemented daily average load limit for Total Phosphorus (TP), Biological Oxygen Demand (BOD₅), and Ammonia based on the TMDL for the Broadkill River Watershed.
5. Added "Schedule of Compliance" to Part I, C. of the permit requiring the permittee to comply with the final effluent limitations requirements for TN no later than 42 months from issue date of the permit.
6. Established water quality-based limits for aluminum and a 42 month compliance schedule to achieve compliance with these limits.
7. Special Condition about "Storm Water Plan" has been modified to include the Broadkill TMDL requirements.

Facility Location

This facility is located at 18752 Harbeson Road in Harbeson, Sussex County, Delaware.

Activity Description

Allen Harim Foods, LLC is a poultry processing plant which involves: the transportation of live birds from the poultry farms, slaughtering, defeathering, eviscerating, chilling, packing, and the shipping of poultry meat to the distributors. The industrial wastewater and domestic wastewater from the poultry plant flow into their sanitary treatment plant (STP). The STP consists of primary screening, dissolved air flotation, biological nutrient removal (anoxic basins followed by aerobic basins), secondary clarifiers, chlorination, and dechlorination. Process related storm water is collected in sumps with pumping of first flush to the STP. Sludge treatment consists of aerobic digestion, dewatering by filter press and land application.

Description of Discharges

Outfall 001 consists of treated sanitary wastewater, treated process waste water from the poultry processing operation, and treated storm water.

Outfall 002 (West Fence) is storm water runoff from the screening area, trucks parking and cleaning area, loading and unloading area and live holding shed area. Outfall 003 (South Fence) is storm water runoff from the truck parking and live holding shed area. Outfalls 002 and 003 each flow through a separate concrete sump equipped with a pump that pumps first flush water to the influent of the process wastewater treatment system.

Outfall 004 is storm water runoff from access driveway and the employee parking area.

Receiving Stream Classification

The permittee has four outfalls to Beaverdam Creek, which flows into the Broadkill River and finally to the Delaware Bay. The designated uses of the Broadkill River in the area of the discharge are: Industrial Water Supply; Primary Contact Recreation; Secondary Contact Recreation; Protection of Fish, Aquatic Life, and Wildlife; and Agricultural Water Supply.

Statutory and Regulatory Basis

The discharges are subject to certain effluent discharge limitations, monitoring requirements and other terms and conditions identified in the permit. Section 402 of the federal Clean Water Act, as amended and 7 Del. C. Chapter 60 provides the authority for permit issuance. Federal and state regulations promulgated pursuant to these statutes are the regulatory bases for permit issuance.

Proposed Effluent Limitations

The Delaware Department of Natural Resources and Environmental Control (DNREC) has examined the application, discharge monitoring data, and related information. The Department proposes to reissue the facility's NPDES permit to discharge, for a period not to exceed five (5) years. Following is the basis for the proposed limitations.

Basis for Effluent Limitations

The following Table 1 below outlines the bases for the proposed effluent limitations.

TABLE 1 – Bases for Effluent Limits and Monitoring (Notes are at the end of this table)							
Outfall	Parameter	Lim/Mon.	Water Quality-Based ¹	Technology-based			
				DRBC ²	Effluent Limitation Guidelines ³	Performance-Based ⁴	RGCWP ⁵
001	Flow	Limit				✓	
	BOD5	Limit	✓				
	Total Suspended Solids	Limit			✓	✓	
	Oil & Grease	Limit			✓	✓	
	Total Phosphorus (as P)	Limit	✓				
	Ammonia (as N)	Limit	✓				
	Total Nitrogen	Limit	✓				
	Aluminum	Limit	✓				
	Enterococcus	Limit	✓				
	Total Residual Chlorine	Limit	✓				
	Biomonitoring	Monitoring	✓				
	pH	Limit					✓
	"Free From ... "	Limit	✓				
002 & 003	BOD5	Limit			✓		
	Total Suspended Solids	Limit			✓		
	Oil & Grease	Limit			✓		
	Total Phosphorus (as P)	Monitoring					
	Ammonia (as N)	Limit			✓		
	Total Nitrogen	Limit			✓		
	Enterococcus	Limit	✓				
	"Free From ... "	Limit	✓				
004	"Free From ... "	Limit	✓				

1. State of Delaware Surface Water Quality Standards (**SWQS**), as amended June 1, 2011, <http://regulations.delaware.gov/AdminCode/title7/7000/7400/7401.shtml>.
2. Delaware River Basin Commission.
3. Final Effluent Limitations Guidelines and New Source Performance Standards for the Meat and Poultry Products (MPP) Point Source Category were published in the Federal Register on September 8, 2004 and promulgated in the Code of Federal Regulations at 40 CFR Part 432. Subpart K. - Poultry First Processors applies to the discharges from this facility.
4. Performance-based limits are based on the provisions of 40 CFR 122.45(b)(2)(I).
5. §8.03(b), "Effluent Limitations Based on a Practicable Level of Pollutant Removal Technology", of the State of Delaware Regulations Governing the Control of Water Pollution (**RGCWP**), as amended September 1, 2012, <http://regulations.delaware.gov/AdminCode/title7/7000/7200/7201.pdf>.

TABLE 2
Comparison of Effluent Guideline Derived Limits with Current Permit Limits.

Parameter	Daily Average		Daily Maximum	
	Concentration Limit (mg/L)		Concentration Limit (mg/L)	
	Current Permit	40 CFR 432 Subpart K	Current Permit	40 CFR 432 Subpart K
BOD ₅	16	16	23	26
TSS	20	20	23	30
O&G	8.0	8.0	14	14
NH ₃ – N	4.0	4.0	8.0	8.0
Total Nitrogen	103	103	147	147

BOD5

Based on the TMDL for the Broadkill River Watershed allocation for this facility, a daily average load limit of 104.3 lb/day is proposed for BOD5. Proposed daily average and maximum load limits are more stringent than the 40 CFR Part 432, Subpart K limits.

Oil and Grease Limits

For O&G, the daily average and daily maximum concentration limits in the current permit are the same as the 40 CFR Part 432, Subpart K concentration limits. The current load limits are based on the concentration limits and the flow limit of 1.25 MGD. The standard practice is to maintain current load limits and reduce the concentration limits in proportion to the flow increase. However, doing so would reduce the average concentration limit to 4 mg/L which is below the method detection limit (MDL). Demonstrating compliance with such a standard would not be practicable. As a result, the proposed daily average effluent limit has been set at the MDL of 5 mg/L. The daily maximum concentration limit is proposed to be 7.5 mg/L and the load limits are based on the concentration limits and the design flow of 2.0 MGD.

TSS Limits

The daily average and daily maximum concentration limits in the current permit are the same as 40 CFR Part 432, Subpart K concentration limits. The current TSS load limits are proposed to be maintained and the concentration limits have been reduced in proportion to the flow increase.

Ammonia Limits

Based on the TMDL for the Broadkill River Watershed allocation for this facility, a daily average load limit of 10.4 lb/day is proposed for Ammonia. Proposed daily average and maximum load limits are more restrictive than the 40 CFR Part 432, Subpart K mass limits.

Total Nitrogen (TN) Limits

The TMDL for the Broadkill River Watershed specifies a WLA of 73.0 lb/day for TN for this facility. This WLA has been implemented in the permit as a moving 12-month cumulative average load limit of 26,645 pounds. Additionally, a daily average load limit of 73.0 lb/day for May 1 through September 30 is proposed based on the TMDL. The effluent limitations for TN are proposed to become effective 42 months after the permit effective date. The proposed permit includes a schedule of compliance for meeting the final effluent limitations, and requires the permittee to submit a report on an annual basis outlining progress made towards compliance with the final effluent limitations and the interim milestones included in the compliance schedule.

Total Phosphorus (TP) Limits

Based on the TMDL for the Broadkill River Watershed allocation, a daily average load limit of 5.21 lb/day is proposed for TP.

Enterococcus Limits

As the Broadkill TMDL Enterococcus load limits have been imposed for this permittee, it supersedes the limits in the current permit. Further these limits have been reduced in proportion to flow increase. The proposed limits are 113 col/100 mL for daily maximum and 63 col/100 mL for daily average.

Biomonitoring

The current permit requires chronic biomonitoring on 100% effluent, based on the low dilution available in the receiving waters. The facility passed biomonitoring tests, as per results submitted with the permit application and therefore, as in the current permit, one time chronic biomonitoring test is due prior to permit expiration date.

Reasonable Potential Analysis and Water Quality-based Limits for Aluminum, Copper, and Zinc

The reasonable potential analysis and calculations of potential metals limits are based on the procedures recommended in the “Technical Support Document for Water Quality-based Toxics Control”, U.S.E.P.A., Office of Water (EN-336), EPA/505/2-90-001, PB91-127415, March, 1991. The following analysis is based upon two (2) 24 hr. composite samples taken during November, 2014.

TABLE 3
Reasonable Potential Analysis

Limits at flow = 2.0 mgd						
Parameter	Outfall 001 Values Used (ppm)	Effluent as % of WLA	WLA (ppm)	Limit or Monitoring Needed?	Avg. Limit	Max. Limit
Aluminum, Total	0.193	139%	0.139	Limits	0.114	0.228
	0.0873	63%		Monit.		
Copper, Total Dis.	0.004	12%	0.033	No	0.028	0.053
	<0.0026	8%		No		
Zinc, Total Dis.	0.0663	16%	0.420	No	0.265	0.420
	0.0514	12%		No		

The limiting water quality criteria are the freshwater chronic criterion for aluminum, and the freshwater acute criteria for copper and zinc. These copper and zinc criteria are hardness dependent, so effluent and ambient water hardness were considered in calculating limits. Reasonable potential analysis is based on the following:

TABLE 4
Receiving Water Characteristics

Parameter	Value Used
Effluent water hardness	411.5 ppm as CaCO ₃
Ambient water hardness	32 ppm as CaCO ₃
Upstream 1Q10 river flow	1.25 cfs
Upstream 7Q10 river flow	1.84 cfs
Effluent flow	3.09 cfs (=2.0 mgd)

Aluminum

Aluminum chloride is added in the wastewater treatment process for the removal of phosphorus. The results of the reasonable potential analysis indicate limits are needed for aluminum. A compliance schedule, to attain proposed permit limits, has been added to proposed permit.

Copper and Zinc

The results of the reasonable potential analysis indicate neither copper nor zinc needs to be monitored.

Monitoring Frequency

All monitoring frequencies have been retained from the current permit.

**TABLE 5
Proposed Monitoring Frequencies for Outfall 001 Parameters**

Effluent Parameter	Monitoring Requirement		Sample Type
	Proposed Measurement Frequency	Current Measurement Frequency	
Flow	Continuous	Continuous	Recording/Totalizing
Total Residual Chlorine	Once per day	Once per day	Grab
pH	Once per day	Once per day	Grab
BOD ₅	Once per week	Once per week	Composite
Total Suspended Solids	Once per week	Once per week	Composite
Oil & Grease	Once per week	Once per week	Grab/shift
Phosphorus, Total (as P)	Once per week	Once per week	Composite
Ammonia (as N)	Once per week	Once per week	Composite
Nitrogen, Total (as N)	Once per week	Once per week	Composite
Aluminum	Once per week	-----	Composite
Enterococcus	Once per week	Once per week	Grab
Biomonitoring	Once per permit cycle	Once per permit cycle	Composite

**TABLE 6
Proposed Monitoring Frequencies for Outfalls 002 and 003 Parameters**

Effluent Parameter	Monitoring Requirement		Sample Type
	Proposed Measurement Frequency	Current Measurement Frequency	
Flow	Proposed monitoring frequency of once per month, is same as current permit.		Estimate
BOD ₅			Grab
Total Suspended Solids			Grab
Oil and Grease			Grab
Phosphorus, Total (as P)			Grab
Ammonia (as N)			Grab
Nitrogen, Total			Grab
pH			Grab
Enterococcus			Grab

Special Conditions

Special Condition No. 1 states that this permit supersedes NPDES Permit DE0000299 and the State Permit WPCC 3131E/76, which became effective on May 1, 2006.

Special Condition No. 2 is a standard permit reopener clause.

Special Condition No. 3 specifies screening chronic biomonitoring on 100% effluent.

Special Condition No. 4 specifies the methodology of oil & grease analysis.

Special Conditions No. 5 requires continued implementation and maintenance of a Storm Water Plan (SWP) to reduce pollution in storm water run-off.

Special Condition No. 6 outlines the requirements to meet the moving 12-month cumulative average load effluent limitation for TN.

Special Condition Nos. 7, 8, and 9 require proper disposal of sludge in accordance with state and federal requirements.

Special Condition No. 10 specifies requirements for a licensed treatment plant operator.

Special Condition No. 11 specifies the total residual chlorine (TRC) test procedures.

Antidegradation Statement

The proposed effluent limitations in the NPDES permit comply with the applicable portions of Delaware's *Surface Water Quality Standards*, Section 5.0, "Antidegradation and ERES Waters Policies".

Public Notice and Process for Reaching a Final Decision

The public notice of the Department's receipt of the application and of reaching the tentative determinations outlined herein was published in the *Wilmington News Journal* and the *Delaware State News* on August 26, 2015. Interested persons were invited to submit their written views on the draft permit and the tentative determinations made with respect to this NPDES permit application. The Department received a request for a public hearing on September 25, 2015. A public hearing was held on November 18, 2015, to receive comments on the proposed NPDES Permit. Based upon the public hearing record and subsequent Hearing Officer's Report, this permit was issued pursuant to Secretary's Order No. **2015-W-00xx**.

Department Contact for Additional Information

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