Facility Name: **SNF-Riceboro**
City: Riceboro
County: Liberty
AIRS #: 04-13-179-00011 Application #: 503345

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Permit No: 2899-179-0011-V-03-B

Program	Review Engineers	Review Managers
SSPP	Tyneshia Tate	Heather Brown
SSCP	Daniel Slade	Steve Allison
ISMU	Marcus Cureton	Dan McCain
TOXICS	Sherry Waldron	Steven Damaske
Permitting Program Manager		Eric Cornwell

Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and draft operating permit amendment. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Sections 391-3-1-.03(1) and 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public comment period and EPA review process will be described in an addendum to this narrative.

I. Facility Description

A. Existing Permits

Table 1 below lists the current Title V permit, and all administrative amendments, minor and significant modifications to that permit, and 502(b)(10) attachments.

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Description
2899-179-0011-V-03-0 App No. 22840	01/19/2016	Title V Renewal Permit
2899-179-0011-V-03-1 App No. 40425	2/11/2016-C 4/8/2016-O	MAW: SNF proposes to produce a new liquids product called "Product H" in existing permitted Liquids Product Lines 1 and 2. The project will involve the installation and operation of two new mix tanks (MT01 and MT02). The mix tanks will be used to combine raw materials before they are transferred to the Liquids Product Lines 1 and 2 reactors. The emissions will vent to existing scrubber CE4A/B. A baghouse (CPQL) will be installed to control particulate matter emissions from the hopper.
2899-179-0011-V-03-2 App No. 40459	4/27/2016-C 7/6/2016-O	MAW: SNF is proposing to install two new reactors (MAN7 and MAN8) and a maleic anhydride tank (MAA1) at the Mannich Plant. The equipment will be used to produce a new Liquids product ("Product I"). Emissions from the reactors will be routed to existing permitted Scrubber SC2. SNF is also proposing to install six new Powder Plant grinders with associated product blending, bagging, and truck loading equipment (PGTL). The Powder Plant material to be processed will come from existing Powder Plant 10 (UL) and P11 (UM). The new operations will be located in the same building as the permitted but uninstalled Powder Plant P12 (UN). Nine new baghouses (CP2K through CP2N and CP2P through CP2T) will be installed to control particulate emissions.
Off-Permit App No. 23790	5/5/2016	The installation and operation of a chelating agent dilution operation and combining the stack for the existing Emulsion Plant Lines EM12 and EM14 reactors.
Off-Permit App No. 23854	6/10/2016	Revise the dryer capacity of Line P10 to 27.9 MMBtu/hr. Revise the dryer capacity of Line P11 to 30.5 MMBtu/hr.
Off-Permit App No. 23855	6/14/2016	The replacement of the burner on existing Boiler B4 with an ultra-low NOx burner.
Off-Permit App No. 23910	8/4/2016	Installation of tank MAA1 as a heated, insulated tank vented to existing scrubber SC2.
2899-179-0011-V-03-3 App No. 41041	8/8/2016	MAWO: For a change in the scrubbant flow rate excursion value for Scrubber CE9A/CE9B.
Off-Permit	10/11/2016	The manufacture of concentrated emulsion products

App No. 24003		for Emulsion Line EM32.
Off-Permit App No. 24077	12/5/2016	The operation of the AMPS process in existing and new equipment at Emulsion Line EM32.
2899-179-0011-V-03-4 App No. 42303	1/4/2017	MAWO: Removal of monitoring and reporting requirements associated with Scrubber CE8A/CE8B.
Off-Permit App No. 24184	3/9/2017	Requests authorization to produce a new wet strength polymer in Chemtall Plant – Mannich Plant reactor WSB2).
2899-179-0011-V-03-5 App No. 24152	4/4/2017	502(b)(10): Requests authorization to produce emulsion products that contain acrylamide and/or acrylic acid in Emulsion Line 32. Permit incorporates monitoring for the scrubbers in series servicing this line. The scrubbers are identified as CE8A/CE8B.
Off-Permit App No. 26192	10/17/2017	Install an additional reactor in the Chemtall Plant – Liquids Product Line 13. The additional reactor will vent through existing scrubbers CE7A/B.
2899-179-0011-V-03-7 App No. 44087	12/7/2017	MAW: Construction and operation of the Flocryl Acrylates Batch AD6 Plant, Chloromethylation Line 8 (continuous), Boilers B203, B204, and B205 (updated the maximum heat input for these boilers).
Off-Permit App No. 26323	12/21/2017	Addition of Acrylamide Plant product filtration systems.
2899-179-0011-V-03-8 App No. 220387	7/2/2018	SAWO: Modify Permit Condition 3.2.10.a as it pertains to the Liquids Product Lines.
Off-Permit Change App No. 26751	11/6/2018	Modifications to Powder Plants P10 and P11 ventilation systems.
Off-Permit Change App No. 26904	1/30/2019	Install two new reactors and associated product storage tanks at the Chemtall Mannich Plant.
2899-179-0011-V-03-9 App No. 321012	5/22/2019	MAW: Consists of the modification to the Chemtall-Chloromethylation Plant.
Off-Permit Change App No. 27298	12/6/2019	Installation and operation of a new Chemtall-Powder Plant product railcar loading station.
Off-Permit Change App No. 27357	1/14/2020	Inclusion of a filter drying step as part of acrylamide filtration operations for permitted Flocryl Acrylamide Plant lines V1 through V4.
Off-Permit Change App No. 27392	2/7/2020	Installation and operation of two new reactors (LQ15 and LQ16) at the Chemtall-Mannich Plant.
Off-Permit Change App No. 27483	4/20/2020	Request to modify product formulations and batch procedures for "Product G" produced in Liquids Lines 11 and 12 (LQ11 and LQ12) at the Chemtall Liquids Plant (Phase IV).
2899-179-0011-V-03-A App No. 460115	4/22/ 2020	MAW: Replacement of scrubber with ID No. SC2.

B. Regulatory Status

1. PSD/NSR/RACT

The facility is classified as one of the 28 named listed source categories under 40 CFR 52.21 which means the PSD/NSR major source threshold for *regulated NSR pollutants* is 100 tons per year. SNF is classified as an existing major Title I site for volatile organic compounds (VOC), nitrogen oxides (NOx), and carbon monoxide (CO).

SNF operates with the following PSD Avoidance limits:

Table 2: PSD Avoidance Limits

Plant	Condition No.	Pollutant	Limit
CHEMTALL	3.2.1	VOC	The Permittee shall not discharge or cause the discharge into the atmosphere from Chloromethylation Lines 1 through 3 and 6 through 8 (Source Codes CM1 through CM3 and CM6 through CM8), emissions of VOC in an amount exceeding 41.5 tons during any consecutive 12-month period. The emissions limit includes fugitive process emissions.
	3.2.11	VOC	The Permittee shall not produce more than 262,800 tons of IPA-dispersants in Liquids Product Lines 1 through 10 (Source Codes LQ01 through LQ10) during any consecutive 12-month period.
	3.2.12	SO_2	The Permittee shall not discharge into the atmosphere from Liquids Product Lines 1 through 10 (Source Codes LQ01 through LQ10) emissions of sulfur dioxide in amount equal to or exceeding 40 tons during any consecutive 12-month period.
	3.2.14	VOC	The Permittee shall not produce IPA-dispersants in Liquids Product Line 11 or 12 (Source Codes LQ11 and LQ12).
	3.2.16	VOC	The Permittee shall not produce IPA-dispersants in Liquids Product Line 13 (Source Code LQ13)

2. Title V Major Source Status by Pollutant

Table 3: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the Pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	Y			✓
PM_{10}	Y			✓
$PM_{2.5}$	Y			✓
SO_2	Y			✓
VOC	Y	✓		
NO_x	Y	✓		
CO	Y	✓		
TRS	N			
H_2S	N			

Individual HAP	Y	✓		
Total HAPs	Y	✓		

II. Proposed Modification

A. Description of Modification

According to Application Number 503345, SNF-Riceboro proposes the following new and modified sources:

- Re-permit the Flocryl Acrylates AD6 Batch Plant as a continuous plant, the Flocryl Acrylates AD6 Continuous Plant (AD6 plant).
- Modify the permitted capacity for thermal oxidizer TO02, which is permitted to control emissions from the AD6 plant, and change the designation to CT02.
- Modify the number and capacities for raw material, process, and product storage tanks, previously permitted as part of the batch AD6 plant.
- Modify the permitted capacity for AD6 plant boilers B203, B204, and B205.
- Increase the product production capacity of the existing Flocryl Acrylates Continuous (South) Plant.
- Permit trailer loading operations for the existing Flocryl Acrylates Batch (North) and Continuous (South) Plants.
- Remove two permitted filtration operations for the Flocryl Acrylamide Plant lines.
- Remove Emulsion Plant Phase I lines and associated scrubber CE5, which are being permanently removed from operation. The throughput for some raw material storage tanks associated with the Phase I lines will decrease.
- Group production for lines venting to each permitted Emulsion Plant scrubber as one source and group production for lines venting to atmosphere as one source.
- Permit Emulsion Plant Line 32 (EM32) to produce only emulsion products and change the designation for scrubber CE8A/B to CE3A/B to be consistent with plant terminology.
- Modify performance testing requirements for Emulsion Phase III Scrubber SE3A/B and Liquids Phase IV Scrubber CE4A/B.
- Remove fines dryers and associated dust collectors installed as part of Powder Plants P8 (UH) and P9 (UJ).
- Modify, install, and remove various insignificant activities and equipment.

In addition, SNF-Riceboro requests to incorporate the Off-Permit Changes listed in Table 1 above into the permit. For a detailed discussion of the proposed modification see Section 2.0 of the narrative associated with Application Number 503345.

B. Emissions Change

The information provided below is as included in the narrative associated with Application Number 503345.

Table 3: Emissions Change Due to Modification

Pollutant	Is the Pollutant Emitted?	Net Actual Emissions Increase (Decrease) (tpy)	Net Potential Emissions Increase (Decrease) (tpy)
PM	Y	+2.97	+2.97
PM_{10}	Y	+2.97	+2.97
$PM_{2.5}$	Y	+2.97	+2.97
SO_2	Y	+2.44	+2.44
VOC	Y	+10.47	+10.47
NO_x	Y	+21.26	+21.26
CO	Y	-17.32	-17.32
TRS	N	-	-
H_2S	N	-	-
Individual HAP			
Acrylamide	Y	-0.18	-0.18
Acrylic Acid	Y	-0.31	-0.31
Methanol	Y	+1.61	+1.61
Total HAPs	Y	+0.92	+0.92

C. PSD/NSR Applicability

The proposed modifications included in this application do not trigger PSD/NSR. See Section 4.3.2 of the narrative associated with Application 503345 for a detailed explanation of PSD applicability analysis. The emissions following table is as provided in Table 3 in the narrative associated with Application 503345.

Source	Proposed Emission Increases (tons/year)						
	VOC	NOx	CO	PM	PM_{10}	$PM_{2.5}$[6]	SO_2
Potential-to-Emit: Current Project AD6/Chemtall and Off-Permit Changes Incorporated into Application[1]							
AD6 Continuous Plant, including tanks and fugitives[2]	8.98						
Thermal Oxidizer CT02	0.06	1.07	0.90	0.08	0.08	0.08	0.01
Boilers, B203-B205[3]	3.64	20.91	21.05	6.25	6.25	6.25	1.10
Miscellaneous Insignificant Equipment[4]	4.07	3.70	0.48	0.09	0.09	0.09	0.23
Acrylamide Filtration Operations	0.00			0.00	0.00	0.00	
Acrylates Trailer Loading Operations	0.05						
Acrylic acid storage tanks	0.67						
Powder Plant Railcar Loading				0.15	0.15	0.15	
New Liquids Lines LQ15, LQ16	0.53						
LQ11, LQ12 Modifications	0.55						
Total PTE:	18.56	25.69	22.44	6.57	6.57	6.57	1.34
Potential-to-Emit: Potentially Related Projects within the Past 3 Years[5]							
Generator GT26	0.02	2.27	0.31	0.08	0.08	0.08	0.16
Total PTE:	0.02	2.27	0.31	0.08	0.08	0.08	0.16
Total Increases[7]							
Total Permitted Emissions Increase:	**18.6**	**28.0**	**22.7**	**6.7**	**6.7**	**6.7**	**1.5**
PSD Significant Threshold:	**40**	**40**	**100**	**25**	**15**	**10**	**40**
Above PSD Significant Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**	**No**

Notes

- HAP emissions not included since there are no PSD significant thresholds for HAPs.

1 -Although some of the projects in this section are separate business decisions, for simplicity, emissions were combined when determining whether there was a significant emissions increase.

2 - The permitted but uninstalled Acrylates AD6 Batch Plant and associated thermal oxidizer is proposed to be installed as a continuous plant with an associated thermal oxidizer (see report text for details).

3 - Boilers B203-B205 were permitted for the Acrylates AD6 Batch Plant in the current permit. These boilers are proposed to be replaced with boilers with a greater heat input capacity.

4 - Includes new and modified insignificant tanks, new and modified emergency generators (GT01, GT04, GT08, GT22), diesel storage tanks for generators, and two new bulk diesel fuel storage tanks (MP-CS-GAL, MP-C4-GAL).

5 - The addition of generator GT26 is related to the AD6 project and the EM32 modifications are related to other EM32 projects included in the analysis. Since there are zero emissions from AMPS in EM32, the emissions were not included in this table.

6 - Assume PM2.5 = total PM10

7 - To be conservative, baseline/historical actual emissions were not estimated.

III. Facility Wide Requirements

A. Emission and Operating Caps:

The proposed modification does not add, remove, or modify any existing facility wide emission and/or operation caps.

B. Applicable Rules and Regulations

Rules and Regulations Assessment –

The proposed modification does not add, remove, or modify any facility wide rule and/or regulations.

Emission and Operating Standards –

The proposed modification does not add, remove, or modify any existing facility wide emission and/or operation standards.

C. Compliance Status

Application Number 503345 does not address facility wide compliance status.

D. Permit Conditions

The proposed modification does not add, remove, or modify any permit conditions in Section 2.0 of the Title V Permit.

IV. Regulated Equipment Requirements

A. Brief Process Description

Currently, the facility is permitted for two batch plants (North and AD6 plants) and one continuous plant (South plant). Both the North and South plants have been installed. The AD6 batch plant has not been installed.

As part of this modification, the facility proposes to re-permit the AD6 plant batch line as a second continuous acrylates plant (AD6 plant). The continuous (South) plant consists of distillation processes in series followed by an alcohol co-product recovery area and a saponification process. In the saponification process the contents from reaction/distillation are saponified with sodium hydroxide to produce a sodium-acrylate salt. The AD6 plant process will be similar to the existing South plant; however, there will be no saponification process. Also, the production capacity of the AD6 plant will be greater than the production capacity of the South plant.

Thermal oxidizer CT02, which was previously permitted as TO02, will be installed to control emissions from applicable equipment at the AD6 plant. The capacity of CT02 will be decreased from what was previously permitted.

Raw materials for the AD6 plant will include methyl acrylate (MA), dimethylaminoethanol (DMOH), and hexane. The raw materials will be received by either railcar or truck and stored in storage tanks.

In the AD6 plant process (AD6), the reaction step is a transesterification with a reactant ester (MA) reacting with a reactant alcohol (DMOH) to produce the product ester (ADAM) plus an alcohol co-product (methanol). Raw material is charged into transesterification columns followed by separation in decanters and a catalyst recovery process. The product ester will be transferred to the production distillation area for purification.

Alcohol co-product will be recovered in an alcohol recovery area (M3). For flexibility, the alcohol recovery area will be capable of processing material from lines producing ADAM product at the existing North and South plants, in addition to the AD6 plant. The alcohol co-product purification process will yield a composition of greater than 94 percent methanol and less than five percent of both MA and hexane combined. The alcohol co-product will be either sold to offsite customers or used as fuel in the AD6 plant boilers.

Emissions from the AD6 plant process, as well as the following non-exempt process and storage tanks, will vent to thermal oxidizer CT02. Additional process tanks associated with the process operations described above that do not have dedicated vents to the thermal oxidizer (e.g., tank vents to column) are not specifically listed below.

- Evaporator bottoms tank T151
- Recycle reactant tank T175
- Shutdown tanks T290 (currently permitted as TSD1) and T291
- Alcohol co-product tanks T10A and T10B (currently permitted as T222 and T223)
- Hexane tank T020 (currently permitted as THX1)

- Methyl acrylate tanks T50A and T50B (currently permitted as TMA1 and TMA2)

Tank truck loading stations are proposed to be installed for alcohol co-product, ADAM product, and catalyst residue. Each loading station will be vapor balanced with the applicable storage tank(s) being unloaded.

Since the AD6 batch plant is being re-permitted as the AD6 continuous plant, the emission unit IDs associated with the AD6 batch plant that are not being re-used as part of the continuous plant are requested to be removed from the permit.

The facility is proposing to increase the heat input capacity from 36.5 million British Thermal Units per hour (10^6 Btu/r) for each boiler to 42 x 10^6 Btu/hr for each boiler for permitted boilers B203, B204, and B205, which will be installed in support of the AD6 plant. These boilers will remain capable of combusting either natural gas or alcohol co-product from the AD6 plant.

Since the production capacity of the AD6 continuous plant will be greater than that of the AD6 batch plant, the amount of alcohol co-product available to be combusted in the boilers will increase.

SNF-Riceboro is proposing to increase the ADAM/MADAM production capacity of the existing Flocryl Acrylates Continuous (South) Plant. There are no anticipated process emission increases as a result of the increase in production since the level in the process equipment is constant and should not fluctuate, according to Application Number 503345. Also, since the raw material storage tanks are vapor balanced with the truck/rail car during unloading operations, working losses are negligible; therefore, there are only breathing losses from the tanks and the increase in material throughput in the storage tanks will not result in an increase in emissions.

ADAM/MADAM product loading operations are vapor balanced with the ADAM/MADAM product storage tanks; therefore, since emissions are negligible, an increase in the amount of ADAM/MADAM in the transfer racks will not result in an increase in emissions.

Since only the ADAM/MADAM production is being increased (i.e., no increase to the permitted alcohol co-product recovery process), there will be no increase in the alcohol co-product storage tank throughputs.

Increasing the ADAM/MADAM production capacity will not increase the production capacities of other processes at Riceboro since the proposed modification will alleviate the need to obtain ADAM/MADAM from off-site facilities according to Application Number 503345.

For the existing Flocryl Batch (North) and Continuous (South) plants, decanter bottoms is transferred from permitted alcohol co-product-water/azeotrope tanks (T300, T620, or T22) to an alcohol co-product distillation area (M1 or M2) for purification. Since the tank level must be minimized to avoid potential issues further downstream, the facility proposes to permit the transfer of decanter bottoms from one or more of these tanks to a trailer, when necessary, to avoid a process shutdown. The decanter bottoms will either be re-worked back into the process or transferred offsite for disposal.

Acrylamide product filtration operations are permitted as part of Flocryl Acrylamide process lines V1 through V4. There is currently one filtration operation permitted for each line. SNF-Riceboro has determined that only one filtration process is needed for every two lines. Since only two filtration operations will be installed for the four Acrylamide process lines, the facility is proposing to remove two of the permitted filtration operations.

Filtration operations consist of buffer tanks, washing water tanks, recovery water tanks, and diatomaceous earth preparation tanks, hoppers, and filters. Since the buffer tanks and filters will vent to one or more of the existing permitted scrubbers, this equipment will remain permitted as part of process lines V1 through V4. Since these operations are not listed separately from V1 through V4, no modifications to Table 3.1 in the permit will be required.

The emulsion lines associated with Emulsion Plant Phase I are proposed to be removed from the permit since the equipment has been permanently removed from operation. Phase I equipment includes lines EM1, EM1A, EM2, EM4 through EM12, EM14 through EM16. Scrubber CE5 associated with some of the Phase I lines is also requested to be removed from the permit.

Throughputs for other raw materials are not based on production capacity for Phase I lines (e.g., acrylamide throughput is based on the permitted capacity of acrylamide production lines V1 through V4); therefore, there will be no decrease in storage tank throughput for other raw materials.

Multiple surfactants are currently used in lines associated with Emulsion Plant Phases II and III. SNF-Riceboro is proposing to permit additional surfactants that may contain low concentrations of ethanol and methanol, which are volatile organic compounds (VOCs) and/or hazardous air pollutants (HAPs) not previously permitted as being emitted from the emulsion plant lines.

For emulsion lines venting to a scrubber, although the scrubber is expected to provide some control for the methanol and ethanol emissions generated from use of the surfactants, no emissions control reduction is being applied in the emission estimates.

SNF-Riceboro would like to add the flexibility to increase production in an individual emulsion plant line without increasing the total production permitted for each release point (e.g., scrubber). Since some scrubbers associated with emulsion lines have permit emissions limits, SNF-Riceboro proposes to group permitted production from lines venting to a particular release point.

For emulsion lines venting directly to atmosphere, permitted production from each of these lines will be combined to represent the maximum production for uncontrolled lines.

For emulsion lines venting to scrubbers, permitted production from each line venting to a specific scrubber will be combined to represent the maximum production. As a result, permit emission limits will not increase since overall permitted production to each scrubber will remain the same. See application form 2.06 in Appendix A of the narrative of Application Number 503345 for permitted production values for each group of emulsion lines.

Currently, Emulsion Line 32 (EM32) is permitted to produce emulsion products, an aqueous concentrated hydroxamate, and concentrated emulsions. The dissolution tank can also be used for 2-acrylomido-2-methylpropane sulfonic acid (AMPS) solids handling. Since SNF-Riceboro no longer requires the flexibility to produce products other than emulsions, the facility requests to remove the ability to produce concentrated hydroxamate, concentrated emulsions, and AMPS. Since only emulsion products will be produced, when in operation, the equipment associated with this line will vent to existing scrubber CE3A/B (currently identified as CE8A/B in the permit – see below). SNF also proposes to change the designation for scrubber CE8A/B to CE3A/B to be consistent with plant terminology.

There is currently one emulsion line (EM42) permitted for Emulsion Plant Phase III and two liquids lines (LQ09 and LQ10) permitted at the Liquids Plant that have not been installed. The emulsion line will vent to existing scrubber SE3A/B and the liquids lines will vent to existing scrubber CE4A/B.

Condition 4.2.12 in the current permit requires the facility to conduct additional performance tests on the applicable scrubber after startup of each additional line or group of lines to demonstrate compliance with acrylamide, acrylic acid, and/or sulfur dioxide permit limits. After a certain number of lines is installed, adding lines to a scrubber does not increase the maximum emission rate to the scrubber since it is not feasible to vent all lines at a maximum rate at the same time. Therefore, the facility proposes to modify permit Condition 4.2.12 to allow SNF to waive performance testing if there is no change to maximum representative operating conditions as a result of the startup of additional lines.

SNF-Riceboro typically operates multiple lines in a staggered sequence since the following process limitations prevent all permitted lines from operating at the same stage (e.g., a worst case emission vent stage) in the production process:

- Limited raw material piping (e.g., one pipe from raw material storage tank to the plant) may result in being able to fill only one dissolution tank or reactor at the same time.

- The temperature of the reactors must be controlled during the batch process. Limited cooling capacity at the plant means that a limited number of reactions can be occurring at one time. Exceeding the cooling capacity by attempting to run all lines at the same time (or in close to the same sequence) may create a safety issue, as well as operational issues.

- Equipment (e.g. dissolution tanks, catalyst/surfactant preparation tanks) may be shared across multiple lines. Therefore, multiple reactors cannot be filled at once since material can only be transferred to one reactor at a time.

- To safely operate the equipment, plant personnel must carefully watch over each stage of the production process for each line. During certain critical production steps (e.g., reaction exotherm), it may not be advisable to run multiple reactors in the same critical step and/or perform multiple operations (transfers, etc.) at the same time.

As a result of the above limitations, during performance testing, the production stage in each line must still be staggered when adding additional lines. Some production steps that may be occurring in one or more lines that do not vent acrylamide, acrylic acid, and/or sulfur dioxide emissions include transfers to product storage tanks or charging the reaction heel (oil, water) prior to transfer of raw material and/or catalyst. As a result, after a certain number of lines is installed, installing one or more additional lines does not change the maximum representative operating conditions at which a performance test is conducted. According to an email dated January 21, 2021 from Alysia M. Hague, P.E., Senior Project Manager of *Global Environmental Solutions, Inc.*, the maximum representative operating conditions at which the performance test is conducted have already been reached. Without process and/or equipment modifications, installing additional lines will no longer change the worst case operating conditions.

SNF-Riceboro proposes to remove the fines dryers installed at both Powder Plants P8 (UH) and P9 (UJ). Although the associated baghouse on each fines dryer (CP8D and CP9D) is proposed to be removed from operation, the baghouses are requested to remain permitted for future use.

At each plant, fines from the fluidized bed dryer are routed to fluidized bed dryer cyclones, which are designed for product recovery, prior to being transferred to the fines dryer. The fines dryer baghouse vents to the main stack.

The fines dryers at P8 and P9 were originally installed in 2006 following the observation of excess particulate matter (PM) from the main stack. At the time, the type of product (highly brittle products) being produced in P9 was believed to be the cause of the excess PM. To decrease the fines loading on the cyclones and prevent the release of excess PM from the main stack, a fines dryer and dust collector were installed.

Although the excess particulate matter issue at P8 was resolved by minimizing the recycling of excess dust, SNF proceeded with installing a fines dryer and dust collector at P8 as well.

Following the installation of the fines dryers, SNF-Riceboro discovered that the true cause of excess PM emissions at P9 was that valve seals at the bottom of the fluidized bed dryer cyclones at P9 were damaged/defective. As a result, excess PM was being released from the main stack. Although the valves were replaced, the fines dryer remained in operation.

Since the fines dryer is not necessary for production purposes or emission reduction, the facility would like to remove the fines dryers. The true cause for the excess PM emissions in 2006 has been identified and corrected (recycling of fines at P8 and valve seals at the bottom of the cyclones at P9); thus, excess PM should no longer be an issue.

SNF-Riceboro provided off-permit change notification letters to Georgia EPD for notification of projects that the facility will be completing that do not require a construction permit due to emissions from the projects being below the cumulative modification exemption threshold under *Georgia Rule 391-3-1-.03(6)(i)3*. Table 1 of this document describes the off-permit change notifications approved by the Division for which SNF-Riceboro is either seeking to include in the Title V permit or listed as an insignificant activity.

B. Equipment List for the Process

3.1.B Updated Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
FLOCRYL ACRYLATES CONTINUOUS PLANT					
FLOCAD6 – Flocryl Acrylates Continuous Plant (AD6)					
AD6 M3	Continuous Transesterification/Distillation / Catalyst Recovery Process No. 3 Alcohol Co-Product Purification Process	40 CFR 63 Subpart FFFF[1] 40 CFR 60 Subpart RRR 40 CFR 60 Subpart NNN	3.3.9 through 3.3.12, 3.3.15, 3.3.17, 3.3.43, 4.2.1, 4.2.14, 5.2.1, 5.2.6, 6.1.7, 6.2.10 through 6.2.13, and 6.2.15 through 6.2.19*	CT02	Thermal Oxidizer
T10A T10B T175	Alcohol Co-Product Tank Alcohol Co-Product Tank Recycle Reactant Tank	40 CFR 63 Subpart FFFF[1]	3.3.11, 3.3.12, 3.3.15, 3.3.17, 3.3.43, 4.2.1, 4.2.14, 5.2.1, 5.2.6, 6.1.7, 6.2.10 through 6.2.13, and 6.2.15 through 6.2.19*	CT02	Thermal Oxidizer
T020	Hexane Storage Tank	40 CFR 63 Subpart FFFF[1]	3.3.11, 3.3.12, 3.3.16, 3.3.17, 3.3.43, 4.2.1, 4.2.14, 5.2.1, 5.2.6, 6.1.7, 6.2.10 through 6.2.13, and 6.2.15 through 6.2.19*	CT02	Thermal Oxidizer
T50A T50B	Methyl Acrylate Storage Tanks	40 CFR 60 Subpart Kb	5.2.13, 5.2.14, 6.2.64*	CT02	Thermal Oxidizer
T151	Evaporator Bottoms Tank	40 CFR 63 Subpart FFFF[4]	3.3.11, 3.3.12, 3.3.17, 3.3.43, 4.2.1, 4.2.14, 5.2.1, 5.2.6, 6.1.7, 6.2.10 through 6.2.13, and 6.2.15 through 6.2.19*	CT02	Thermal Oxidizer
T290 T291	Shutdown Tanks	40 CFR 63 Subpart FFFF[4]	3.3.11, 3.3.12, 3.3.17, 3.3.43, 4.2.1, 4.2.14, 5.2.1, 5.2.6, 6.1.7, 6.2.10 through 6.2.13, and 6.2.15 through 6.2.19*	CT02	Thermal Oxidizer
FUGAD6 – Fugitive Emissions from Equipment Leaks for Flocryl Acrylates Continuous Plant (AD6)					
FALA FFLA FFOA PRLA FPLA FPOA FVLA FVOA	Agitators Flanges Flanges Pressure Relief Devices Pumps Pumps Valves Valves	40 CFR 63 Subpart FFFF 40 CFR 63 Subpart UU 40 CFR 60 Subpart VVa	3.3.11 through 3.3.13, 3.3.19, 3.3.56 through 3.3.69, 4.2.16, 6.2.10 through 6.2.13, and 6.2.37 through 6.2.41*	None	None
Other (South and AD6)					
N/A	Alcohol Co-Product Transfer Operations	40 CFR 63 Subpart FFFF[1]	3.3.11, 3.3.12, 3.3.18, and 6.2.10 through 6.2.12*	None	Vapor Balance System
N/A	Process Wastewater	40 CFR 63 Subpart FFFF[2,5]	3.3.11, 3.3.12, 3.3.20, 6.2.7, and 6.2.10 through 6.2.12*	None	None
N/A	Maintenance Wastewater	40 CFR 63 Subpart FFFF	3.3.11, 3.3.12, 3.3.21, ~~and~~ 6.2.8, and 6.2.10 through 6.2.12*	None	None
N/A	Cooling Tower System	40 CFR 63 Subpart FFFF	3.3.11, 3.3.12, 3.3.22, 5.2.7, and 6.2.9 through 6.2.12*	None	None
FLOCRYL ACRYLATES BATCH PLANT					
~~**FLOB – Flocryl Acrylates Batch Process (AD6)**~~					

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
~~R6~~ ~~D6~~ ~~RC6~~ ~~M3~~ ~~T307 T622~~ ~~T623 TSD1~~	~~Batch Reactor Process R6~~ ~~Product Distillation Process D6~~ ~~Catalyst Recovery Process RC6~~ ~~No. 3 Alcohol Co-Product Purification Process~~ ~~Alcohol Co-Product Wash Tank~~ ~~Alcohol Co-Product Water Tank~~ ~~Alcohol Co-Product Water~~	~~40 CFR 63 Subpart FFFF~~[1]	~~3.3.23, 3.3.24, 3.3.26, 3.3.28, 3.3.43, 4.2.2, 4.2.14, 5.2.1, 5.2.6, 6.1.7, 6.2.10 through6.2.13, 6.2.15 through 6.2.19, and 6.2.63*~~	~~TO02~~	~~Thermal Oxidizer~~
~~T222~~ ~~T223~~	~~Alcohol Co-Product Storage Tank~~ ~~Alcohol Co-Product Storage Tank~~	~~40 CFR 63 Subpart FFFF~~[1]	~~3.3.23, 3.3.24, 3.3.27, 3.3.28, 3.3.43, 4.2.2, 4.2.14, 5.2.1, 5.2.6, 6.1.7, 6.2.10 through 6.2.13, 6.2.15 through6.2.19, and 6.2.63*~~	~~TO02~~	~~Thermal Oxidizer~~
~~THX1~~	~~Hexane Storage Tank~~	~~40 CFR 63 Subpart FFFF~~[1]	~~3.3.23, 3.3.24, 3.3.27, 3.3.28, 3.3.43, 4.2.2, 4.2.14, 5.2.1, 5.2.6, 6.1.7, 6.2.10 through 6.2.13, 6.2.15 through 6.2.19, and 6.2.63*~~	~~TO02~~	~~Thermal Oxidizer~~
~~V551~~	~~Catalyst Residue Tank~~	~~40 CFR 63 Subpart FFFF~~[2]	~~3.3.23, 6.2.10 through 6.2.13, and 6.2.63*~~	~~None~~	~~None~~
~~TMA1 TMA2~~	~~Methyl Acrylate Storage Tanks~~	~~40 CFR 60 Subpart Kb~~	~~5.2.1, 6.1.7, and 6.2.63*~~	~~TO02~~	~~Thermal Oxidizer~~
FUGB - Fugitive Emissions from Equipment Leaks for Flocryl Acrylates Batch Plant (North ~~and AD6~~)					
FAL FFL FFO FPL FPO FRL FVL FVO	Agitators Flanges Flanges Pumps Pumps Pressure Relief Devices Valves Valves	~~North and AD6 Plants~~ 40 CFR 63 Subpart FFFF 40 CFR 63 Subpart UU ~~North Plant~~ 40 CFR 60 Subpart VV ~~AD6 Plant~~ ~~40 CFR 60 Subpart VVa~~	3.3.23 through 3.3.25, 3.3.30, 3.3.56 through 3.3.69, 4.2.16, 6.2.10 through 6.2.12, and 6.2.37 through 6.2.41*	None	None
Other (North ~~and AD6~~)					
N/A	Alcohol Co-Product Transfer Operations	40 CFR 63 Subpart FFFF[1]	3.3.23, 3.3.24, 3.3.2~~9~~39, and 6.2.10 through 6.2.12~~13~~*	None	Vapor Balance System
N/A	Process Wastewater	40 CFR 63 Subpart FFFF[2,5]	3.3.23, 3.3.24, 3.3.31, 6.2.7, and 6.2.10 through 6.2.~~13~~	None	None
N/A	Maintenance Wastewater	40 CFR 63 Subpart FFFF	3.3.23, 3.3.24, 3.3.32, 5.2.7, and ~~6.2.9~~ 6.2.10 through 6.2.~~13~~12*	None	None
N/A	Cooling Tower System	40 CFR 63 Subpart FFFF	3.3.23, 3.3.24, 3.3.33, 5.2.7, and 6.2.9 through 6.2.~~13~~12*	None	None
FLOCRYL ACRYLATES BATCH (NORTH) AND CONTINUOUS (SOUTH) PLANTS					
Other – (North and South)					
DTLO	Decanter Bottoms Trailer Loading Operations	40 CFR 63 Subpart FFFF[5]	3.3.11, 3.3.12, 3.3.20, 3.3.23, 3.3.24, 3.3.31, 6.2.10, and 6.2.12*	None	None
CHEMTALL PLANT					
PP – Powder Plant					
PPRL	Powder Plant Railcar Loading Station	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.4, 5.2.5, and 6.1.7*	CPRC	Dust Collector

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
EM – Emulsion Plant					
~~EM1 EM1A EM2 EM4 EM5 EM8 EM11 EM12 EM14 through EM16~~	~~Emulsion Plant Phase I Lines 1, 1A, 2, 4, 5, 8, 11, 12, and 14-16~~	~~40 CFR 63 Subpart FFFF~~[2]	~~3.3.34 and 6.2.10 through 6.2.12*~~	~~None~~	~~None~~
~~EM6 EM7 EM9 EM10~~	~~Emulsion Plant Phase I Lines 6, 7, 9, and 10~~	~~40 CFR 63 Subpart FFFF~~[2]	~~3.2.7, 3.3.34, 5.2.2, 6.1.7, 6.2.10 through 6.2.12, 6.2.23, and 6.2.24*~~	~~CE5~~	~~Packed-Bed Scrubber~~
EM32	Emulsion Plant Phase II Line 32	40 CFR 63 Subpart FFFF[2]	3.3.34, 5.2.2, 6.1.7, and 6.2.10 through 6.2.12~~*~~, 6.2.62*	~~CE8A~~ CE3A ~~CE8B~~ CE3B	Packed-Bed Scrubber

*Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

[1]Group 1 source. [2]Group 2 source. [3]Group 1 source ~~for~~ when using MMA/Group 2 source ~~for~~ when using MA but controlled at all times. ~~[4]Not subject to regulation but controlled at all times.~~ ~~[4]Not subject to regulation but controlled at all times.~~ [4] These tanks will vent to the thermal oxidizer at all times to demonstrate compliance with 40 CFR 63 Subpart FFFF. [5]If decanter bottoms are transferred offsite for disposal, the decanter bottoms will be considered a Group 1 process wastewater and the trailers, along with T300, T620, and/or T22 will be defined as MON Rule wastewater containers.

C. Equipment & Rule Applicability

Emission and Operating Caps –

The facility had acrylamide and acrylic acid emissions limit for Emulsion Plant Lines 6, 7, 9, 10 per the Toxics Guidelines. These limits are no longer applicable since these Emulsion Plant Lines are to be removed per this permit modification.

Applicable Rules and Regulations –

40 CFR 60 New Source Performance Standard (NSPS) Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

This regulation is applicable to storage tanks with a capacity between 19,813 and 39,891 gallons and containing volatile organic liquids with a vapor pressure greater than or equal to 15.0 kilo Pascals (kPa) (2.18 pounds per square inch atmosphere [psia]) or storage tanks with a capacity greater than 39,891 gallons and containing volatile organic liquids with a vapor pressure greater than or equal to 3.5 kPa (0.51 psia) that were constructed or modified after June 23, 1984. Pressure vessels operated above 204.9 kPa (29.7 psia) and process tanks, including surge control vessels and bottoms receivers, are not subject to this standard. The applicability of this standard to the proposed new or modified (physical modification) storage tanks is as follows:

- According to Application Number 503345, although the capacity of DMOH tanks T040A and T040B and ADAM product tanks T030A and T030B will each be greater than 39,981 gallons, the maximum vapor pressure will be less than 0.51 psia; therefore, these tanks are not subject to the standard.

- The capacities of catalyst residue tank T090 and hexane tank T020 will each be less than 19,813 gallons; therefore, these tanks are not subject to the standard according to Application Number 503345.

- The capacity of methyl acrylate tanks T50A and T50B will each be greater than 39,981 gallons. Since the maximum vapor pressures of the tanks will be greater than 0.51 psia, these tanks will be subject to the standard according to Application Number 503345.

- The capacity of CM Plant inhibitor storage tank QT3_CP1-IB is less than 19,813 gallons and the vapor pressure of the material is negligible; therefore, this tank is not subject to the standard according to Application Number 503345.

For methyl acrylate storage tanks T50A and T50B, since the capacity of each tank will be greater than 39,891 gallons and the maximum vapor pressure will be greater than 0.75 psia and less than 11.1 psia, per 40 CFR 60.112b(a)(3), the tanks will be vented to the new thermal oxidizer (CT02), which will provide a VOC control efficiency of 95 percent or better. Visual inspections and monitoring will be performed on the closed vent system according to 40 CFR 60.485(b) (40 CFR 60.112b(a)(3)). As required per 40 CFR 60.113b(c)(1) and 60.7(a), an operating plan for CT02 and the closed vent system will be submitted to the Division for approval within 30 days of startup of T50A and T50B according to Application Number 503345.

40 CFR 60 Subpart VVa—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

This regulation is applicable to affected facilities in the SOCMI as defined in 40 CFR 60.481a within a process unit that commences construction, reconstruction, or modification after November 7, 2006. According to Application Number 503345, the Flocryl Acrylates AD6 plant is a SOCMI facility since it will manufacture one or more of the chemicals specifically listed in 40 CFR 60.489 (i.e., methanol). Since the AD6 plant will be constructed after November 7, 2006, the AD6 plant will be subject to Subpart VVa. Since the AD6 plant will also be subject to 40 CFR 63 Subpart FFFF (discussed below) 40 CFR 63.2535(k) states that a source can elect to comply with only the 40 CFR 63, Subpart FFFF leak detection and repair (LDAR) requirements. The facility is electing to comply with 40 CFR 63 Subpart FFFF LDAR requirements in cases where there is overlap with the NSPS Subpart VVa requirements. Components in hazardous air pollutant (HAP) service will also be subject to 40 CFR 63 Subpart FFFF LDAR requirements according to Application Number 503345.

40 CFR 60 Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From SOCMI Distillation Operations

This regulation is applicable to each affected facility designated in 40 CFR 60.660(b) that is part of a process unit that produces any of the chemicals listed in 40 CFR 60.667 as a product, co-product, by-product, or intermediate, except as provided in 40 CFR 60.660(c). According to Application Number 503345, the new Flocryl Acrylates AD6 continuous plant transesterification distillation column and alcohol recovery distillation column are subject to this standard. Since the vents will be routed to thermal oxidizer CT02, the operations will be in compliance with the requirements of 40 CFR 60.662(a).

40 CFR 60 Subpart RRR - Standards of Performance for VOC Emissions From SOCMI Reactor Processes

This regulation is applicable to each affected facility designated in 40 CFR 60.700(b) that is part of a process unit that produces any of the chemicals listed in 40 CFR 60.707 as a product, co-product, by-product, or intermediate, except as provided in 40 CFR 60.700(c). With the exception to maintain a process design description per 40 CFR 60.705(r), the Flocryl Acrylates AD6 continuous plant transesterification and alcohol recovery reactor processes are not subject to this standard since they vent to distillation operations that are subject to NSPS Subpart NNN according to Application Number 503345.

40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (ICE)

This regulation is applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in 40 CFR 60.4200 (a)(1) through 40 CFR 60.4200 (a)(4).

According to Application Number 503345, for the new/replacement emergency generators (GT01[model year: 2000 with a maximum engine power of 197 brake horsepower], GT08 [model year: 2016 with a maximum engine power of 755 brake horsepower], and GT22 [model year: 2015 with a maximum engine power of 755 brake horsepower]), the facility will install and operate these emergency stationary CI ICE to meet the following requirements found in this Subpart:

- For emergency engines, the equipment will meet the emission limitations found in 40 CFR 60.4202.
- Diesel-fuel used will meet the standards found in 40 CFR 60.4207.
- Each IC engine will be equipped prior to startup of the engine with a non-resettable hour meter per 40 CFR 60.4209(a).
- The equipment will be operated per manufacturer's written instructions or procedures for operation and maintenance as required by 40 CFR 60.4211(a).
- The equipment will be operated less than 100 hours per year for maintenance checks and readiness checks per 40 CFR 60.4211(f).

- Per 40 CFR 60.4214(b), no initial notification is required for this engine since it will be operated as an emergency stationary ICE.

40 CFR 63 Subpart G - National Emission Standards for Organic Hazardous Air Pollutants From the SOCMI for Process Vents, Storage Vessels, Transfer Operations, and Wastewater
This regulation is applicable to all process vents, storage vessels, transfer racks, wastewater streams, and in-process equipment subject to 40 CFR 63.149 within a source subject to 40 CFR 63 Subpart F,

According to Application Number 503345, the Acrylamide Plant is the only Hazardous Organic National Emission Standards for Hazardous Air Pollutants (HON) Rule source addressed by this permit application. Regulatory requirements for this application will only address the filtration equipment.

- Buffer tanks and filters: The buffer tanks will be surge control vessels which, by definition, are not storage tanks (40 CFR 63.101). Therefore, vents from these tanks will be classified as process vents. Since these tanks and the filters may vent to scrubbers that have already been permitted, emissions from the filtration operations would be combined with other emission sources currently venting to the scrubbers. The vents to these permitted scrubbers are currently classified as Group 2 HON Rule process vents. Since there is a negligible emissions increase from the new operations, the vents would remain Group 2 HON Rule vents.

  If the buffer tanks and filters vent to new scrubbers in the future, uncontrolled HAP emissions would remain below the Group 1 process vent threshold of 50 parts per million volume (ppmv) and the vent will be subject to the Group 2 HON Rule process vent provisions. Since Group 2 HON Rule process vents are not required to reduce emissions, the scrubbers would not be subject to HON Rule requirements.

- Washing water storage tanks: These tanks will store wash water that contains HAPs as impurities and the capacity of each tank will be less than 10,000 gallons (38 cubic meters); therefore, the tanks will not be classified as storage tanks per 40 CFR 63.101 and will not be subject to the HON Rule storage tank regulations.

- Recovery water storage tanks: These tanks will be less than 10,000 gallons each (38 cubic meters) and may contain water with HAPs as impurities; therefore, they are not classified as storage tanks per 40 CFR 63.101 and will not be subject to the HON Rule storage tank regulations.

- Diatomaceous earth prep tanks and hoppers: These tanks and hoppers will not contain HAPs; therefore, they will not be subject to the HON Rule regulations.

- Collection tanks: Although the collection tanks are not expected to store acrylamide, acrylamide vapors from drying the filter cake will vent through these tanks. Liquid may accumulate over time in the tanks before being transferred to the diatomaceous earth preparation tanks. Since each tank will have a capacity of less than 10,000 gallons (38 cubic meters), the tanks will not be classified as storage tanks per 40 CFR 63.101 and will not be subject to the HON Rule storage tank regulations.

- Process wastewater: The only constituent that may be subject to the HON Rule process wastewater provisions is acrylonitrile (Table 9 to Subpart G). Since potential wastewater from the acrylamide filtration process is expected to contain less than 100 ppmw of acrylonitrile, the stream will be a Group 2 wastewater. Therefore, controls will not be required.

  Since there are no changes to the Group 2 status for process vents and wastewater and the above tanks/equipment are not subject to the HON Rule, information required to be submitted under 40 CFR 63.151 that was supplied in the original Acrylamide Plant permit applications does not need to be revised.

  40 CFR 63 Subpart FFFF - National Emission Standards for Hazardous Air Pollutants (NESHAP): Miscellaneous Organic Chemical Manufacturing
  This regulation establishes NESHAP for miscellaneous organic chemical manufacturing. This regulation also establishes requirements to demonstrate initial and continuous compliance with the emission limits, operating limits, and work practice standards. According to Application Number 503345, the Miscellaneous Organic NESHAP (MON) Rule applicability determinations and compliance methods for sources addressed in this application are as follows:

- Acrylates AD6 plant process vents – The AD6 plant process vents are defined as MON Rule Group 1 continuous process vents and will vent to a thermal oxidizer (CT02). Compliance with initial notification requirements in 40 CFR 63.5(a)(1) and 40 CFR 63.9(b) is not required since the AD6 Plant is an existing source rather than a new or reconstructed source according to an email dated January 21, 2021 from Alysia M. Hague, P.E., Senior Project Manager of *Global Environmental Solutions, Inc.*

- Acrylates AD6 plant liquids catalyst and inhibitor process tanks (T400, T410, T420) – These tanks are defined as MON Rule process tanks; therefore, they are potentially subject to MON Rule batch process vent (BPV) requirements per the definition of "batch process vent" in 40 CFR 63.2550(i). Uncontrolled HAP emissions from the catalyst and inhibitor tanks are less than 200 pounds per year and the HAP concentration in the inhibitor tanks will be less than 50 ppmv. Therefore, these tanks are not regulated as MON Rule BPVs per 40 CFR 63.2550(i)(8) and there are no MON Rule requirements for these tanks.

- Acrylates AD6 plant surge control vessels and bottoms receivers – Per 40 CFR 63.2450(r), surge control vessels (T10A, T10B, T060, T070, T080, T085, T175, T204A, T204B, T250) and bottoms receiver (T151) must meet the emission limitations in MON Rule Table 4 for Group 1 storage tanks if the surge vessels or bottoms receivers meet the capacity and vapor pressure thresholds for Group 1 storage tanks.

  Alcohol co-product tanks T10A and T10B and recycle reactant tank T175 meet the thresholds for a Group 1 storage tank; therefore, these vessels will vent to a thermal oxidizer (CT02) to comply with the MON Rule emission control requirements.

  Since T080, T085, and T151 do not meet the capacity and vapor pressure thresholds for Group 1 storage tanks, they will not be subject to MON Rule emission control requirements.

Since T060, T070, T204A, T204B, and T250 either do not contain HAPs or contain HAPs as impurities and do not meet the capacity and vapor pressure thresholds for Group 1 storage tanks, they will not be subject to MON Rule emission control requirements.

- Hexane storage tank T020 for AD6 plant - The hexane storage tank will be classified as a MON Rule Group 1 storage tank; therefore, it will vent to a thermal oxidizer (CT02) to comply with the MON Rule emission control requirements.

- Shutdown tanks T290 and T291 for AD6 plant - The shutdown tanks will be classified as MON Rule maintenance vents. Maintenance vents are not required to have emission controls at all times per the MON Rule. However the facility voluntarily controls these tanks with the thermal oxidizer at all times therefore demonstrating compliance with the MON Rule, according to an email dated January 21, 2021 from Alysia M. Hague, P.E., Senior Project Manager of *Global Environmental Solutions, Inc.*

- DMOH, methyl acrylate, ADAM product, and catalyst residue tanks (T040A, T040B, T50A, T50B, T030A, T030B, T090) for AD6 plant - Since these tanks either do not store HAPs or store HAPs as impurities, they are not subject to the MON Rule (40 CFR 63.2550(i)). Although not required for the MON Rule, the methyl acrylate storage tanks (T50A and T50B) will vent to a new thermal oxidizer (CT02) as required by 40 CFR 60 Subpart Kb (see Section 4.3.3 in Application Number 503345 text).

- Alcohol co-product, ADAM product, and catalyst residue tank truck loading operations for AD6 plant - The proposed new alcohol co-product tank truck loading operations will be classified as a MON Rule Group 1 transfer rack; therefore, the tank truck will be vapor balanced with the alcohol co-product tanks (T10A, T10B), as allowed by Table 5 of 40 CFR 63.

  ADAM product and catalyst residue tank truck loading operations will not be defined as MON Rule transfer racks since they do not typically contain HAPs (HAPs may be present as impurities in negligible quantities).

- Existing Acrylates Continuous (South) Plant Process and ADAM/MADAM product storage tanks (T32, T33) - Production increases at the South plant do not result in changes to MON Rule applicability or new requirements. As part of the MON Rule, the South plant must comply with applicable provisions of 40 CFR 63 Subpart SS. Per 40 CFR 63.997(e)(1)(i), performance tests were conducted in July 2017 to account for the increase in the South plant production rate proposed in this application. Therefore, additional performance testing will not be required.

  Since the ADAM/MADAM product tanks either do not store HAPs or store HAPs as impurities, they are not subject to the MON Rule (40 CFR 63.2550(i)).

- Existing Acrylates Batch (North) and Continuous (South) Plants Process Wastewater: The capacity of the trailers used to store decanter bottoms are less than 10,000 gallons. If the decanter bottoms is re-used in the process, the trailers will be classified as MON Rule Group 2 storage tanks and emission controls will not be required.

If the decanter bottoms is transferred offsite for disposal, the decanter bottoms will be considered a Group 1 process wastewater and the trailers will be defined as wastewater containers. The wastewater containers will be in compliance with the MON Rule for Group 1 process wastewater and the requirements for liquid streams in open systems. The potential MON Rule applicability of these trailers was discussed in the 2020 First Title V semi-annual compliance report. Therefore, there have been no modifications to MON Rule applicability that have not been previously reported to Georgia EPD.

- CM Plant Inhibitor Preparation Tank (QT3_CP1-IB): Since this process tank does not process materials with HAPs, it is not defined as a MON Rule BPV and is not subject to the MON Rule (§63.2550(i)).

- Powder Plants P8 and P9 and Railcar Loading Station (PPRL): As noted in the October 2008 Notification of Compliance Status (NCS) report, the MON Rule does not apply to the Powder Plants.

- Emulsion Plant Phases II and III Lines: These lines use materials with HAPs and vent to atmosphere or existing Scrubbers CES1, CES2, CE3A/B (currently permitted as CE8A/B), or SE3A/B.

  The equipment either vents to atmosphere or a scrubber and are potentially subject to MON Rule BPV requirements per the definition of "batch process vent" in 40 CFR 63.2550(i).

  Since uncontrolled HAP emissions from some of the vents are less than 200 pounds per year, the vents are not regulated as MON Rule BPVs per §63.2550(i)(8); therefore, there are no MON Rule requirements for the vents.

  For the vents which are currently defined as MON Rule Group 2 BPVs, since uncontrolled HAP emissions from the combination of BPVs are less than 10,000 pounds per year after the modifications, the vents remain defined as a MON Rule Group 2 BPV.

  The scrubbers on BPVs were not installed to comply with emission control requirements since there are no emission control requirements for Group 2 BPVs.

  A revised MON Rule Group 2 Process Vent Group Status Evaluation was completed for the vents at the facility associated with the production of Emulsion products. According to Application Number 503345, the evaluation is a conservative approach which accounts for the actual anticipated products, production rates, and emission rates for the modifications discussed in Section 2.4 of the application. The evaluation is included in Appendix F of the narrative for Application Number 503345.

- Liquids Reactors LQ15 and LQ16 at Mannich Plant: Since these reactors do not use materials with HAPs, they are not defined as batch process vents and are not subject to the MON Rule (§63.2550(i)).

- Liquids Lines LQ11 and LQ12: These lines use materials with HAPs and vent to existing Scrubber CE9A/B, which is defined as a MON Rule Group 2 BPV. The scrubber was not installed to comply with emission control requirements since there are no emission control requirements for Group 2 BPVs. After the modifications, the vent will remain classified as a Group 2 BPV.

  A revised MON Rule Group 2 Process Vent Group Status Evaluation was completed for the vents at the facility associated with the production of Liquids products. According to Application Number 503345, the evaluation is a conservative approach which accounts for the actual anticipated products, production rates, and emission rates for the modifications discussed in Section 2.7.4 of the application. The evaluation is included in Appendix F of the narrative for Application Number 503345.

Per 40 CFR 63.2520(c) and 40 CFR 63.2520(e)(10)(ii), a Precompliance Report addressing the applicability determination and compliance methods for the applicable new and modified AD6 sources in this application must be submitted with the application. The MON Rule Precompliance Report is included in Appendix E of the narrative for Application Number 503345.

As required by 40 CFR 63.2515(b) and 40 CFR 63.9(b), an initial notification must be submitted for the sources covered by this regulation. Per 40 CFR 63.9(b)(1)(iii), the information in the "application for approval of construction" can be used to fulfill the initial notification requirements. This permit application contains the information required for an "application for approval of construction".

A notification of the actual date of startup of the new and modified sources will be provided within 15 calendar days after that date, per 40 CFR 63.9(b)(4)(v).

A summary of the applicability of this regulation to the proposed modifications is summarized in Table 1 of Appendix F of the narrative of Application Number 503345.

40 CFR 63, Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)

This regulation establishes emission limits and operating standards for HAPs emitted from RICE. According to Application Number 503345, Emergency engine GT01 will be rated at less than 500 brake horsepower (bhp). Therefore, per 40 CFR 63.6590(c)(6), the engine must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII – NSPS for Stationary Compression Ignition Internal Combustion Engines. No further requirements of Subpart ZZZZ apply for this generator.

Per 40 CFR 63.6590(b)(i), emergency engines GT08 and GT22, which are rated at greater than 500 bhp, must only meet the initial notification requirements of 40 CFR 63, Subpart ZZZZ. According to Application Number 503345, these initial notifications were submitted as required to the Division in a letter dated November 30, 2016 (note that GT22 was identified as GT25 in the letter).

As required by 40 CFR 63.6645(f) and 40 CFR 63.9(b) (Subpart A), an initial notification must be submitted for the sources covered by this regulation. As explained above, an initial notification was already submitted as required for GT08 and GT22.

40 CFR 64 Compliance Assurance Monitoring (CAM)
This regulation applies to pollutant specific emission units (PSEUs) meeting the following criteria: (1) The PSEU is located at a major source and is not a utility unit as defined in the CAM Rule. (2) The PSEU is subject to an emission limitation or standard, with the exception of a NSPS or NESHAP regulation proposed after November 15, 1990 (note, the CAM Rule lists several other exemptions which are not applicable to this site). (3) The PSEU uses a control device to achieve compliance with the emission limitation or standard. (4) The PSEU has a pre-controlled potential to emit for the applicable regulated pollutant of greater than 100 percent of the major source threshold.

According to Application Number 503345, the CAM Rule applicability for proposed new sources which have control equipment is as follows:

- AD6 plant: The new thermal oxidizer (CT02) will not be subject to the CAM Rule since it is being installed to comply with the requirements in the MON Rule, which is a NESHAP promulgated after November 15, 1990.

- Powder Plant: The Powder Plant railcar loading dust collector (CPRC) is not considered a control device since it will be used for product recovery. Also, uncontrolled particulate emissions from the Powder Plant are less than the major source threshold; therefore, the dust collector will not be subject to the CAM Rule.

40 CFR 68 Chemical Accident Prevention Provisions
This regulation specifies the list of regulated substances and thresholds of regulated substances and thresholds, the petition process for adding or deleting substances to the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accidental releases, and the State accidental release prevention programs approved under section 112(r). The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR 68 do not limit in any way the general duty provisions under section 112(r)(1). According to Application Number 503345, the facility is currently subject to the Risk Management Program (RMP) under 40 CFR 68. The facility has developed a RMP to comply with the requirements of 40 CFR 68.

Georgia Rule for Air Quality Control (Georgia Rule) 391-3-1-.02(2)(b) Emission Limitations and Standards Visible Emissions
This regulation limits opacity to less than or equal to forty (40) percent, except as may be provided in other more restrictive or specific rules or subdivisions of Georgia Rule 391-3-1-.02(2). This limitation applies to direct sources of emissions such as stationary structures, equipment, machinery, stacks, flues, pipes, exhausts, vents, tubes, chimneys or similar structures.

Georgia Rule 391-3-1-.02(2)(d) Emission Limitations and Standards Fuel Burning Equipment
This regulation limits particulate emissions from fuel burning equipment. For fuel burning equipment in operation or under construction after January 1, 1972, particulate matter emissions shall not exceed 0.5 pounds per MMBtu heat input for equipment less than 10 MMBtu/hr input, and shall not exceed 0.5 $(10/R)^{0.5}$ pounds per MMBtu heat input for equipment greater than or equal to 10 MMBtu/hr and less than or equal to 250 MMBtu/hr heat input, where R is the heat input of the fuel-burning equipment in MMBtu/hr.

Georgia Rule 391-3-1-.02(2)(e) – Emission Limitations and Standards – Particulate Emission from Manufacturing Processes

Equipment is subject to Georgia Rule 391-3-1-.02(2)(e)1(i) because it is a source of particulate emissions and will be put into operation or extensively altered after July 2, 1968. Georgia Rule 391-3-1-.02(2)(e)1(i) limits PM emissions based on the following equations:

$E = 4.1P^{0.67}$; for process input weight rate up to and including 30 tons per hour.
$E = 55P^{0.11} - 40$; for process input weight rate greater than 30 tons per hour.

In the equation, E is the emission rate in pounds per hour and P is the process input weight rate in tons per hour.

Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide

This regulation regulates fuel sulfur content, by weight. Georgia Rule 391-3-1-.02(2)(g)2. which limits the weight sulfur content of fuel fired in sources with a heat input rating less than 100×10^6 Btu/hr to 2.5 percent or less.

Georgia Rule 391-3-1-.02(2)(n) – Fugitive Dust

This regulation limits emissions from fugitive dust sources. The opacity from applicable sources is limited to twenty (20) percent in accordance with Georgia Rule 391-3-1-.02(2)(n).

Georgia Rule 391-3-1-.02(2)(a)3(ii) – Georgia Air Toxic Guidelines

The guidelines are used in the review of air quality permit applications to construct/modify potential sources which emit any Toxic Air Pollutant (TAP) listed in Appendix A of the guideline document with emissions above the Minimum Emission Rate (MER) and in other cases at the Director's discretion.

Table 4 in the narrative of Application Number 503345, provides a comparison of total site-wide constituent emissions for when emissions were last modeled compared to total site-wide requested permitted emissions after completion of the modifications proposed in this application. Emissions for all constituents (except ethanol) will decrease from what was previously modeled. Ethanol emissions will be less than the MER listed in Appendix A of Georgia EPD's "Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions" (Air Toxics Guideline); therefore, air dispersion modeling to demonstrate compliance with the Air Toxics Guideline was not completed according to Application Number 5503345.

D. Permit Conditions

Table 3.1.B was added to address updated equipment associated with this modification.

Permit Condition 3.2.7 specified toxics guidelines limitations for Emulsion Plant Lines 6, 7, 9, and 10. This condition will be deleted since Emulsion Plant Lines 6, 7, 9, and 10 are requested to be removed from the permit per this permit modification.

Permit Condition 3.3.11 specifies applicability of 40 CFR 63 Subpart FFFF to applicable equipment. This condition was modified to add 40 CFR 63 Subpart FFFF applicability of maintenance vents at the Flocryl Acrylates Continuous Plants.

Permit Condition 3.3.12 requires the preparation of SSM plans per the MON Rule. This condition will be modified to address potential requirements for the continuous AD6 Plant and MON Rule amendments regarding the elimination of exemptions from emission limitations for emissions during SSM events.

Permit Condition 3.3.13 specifies applicability of 40 CFR 60 Subpart VV. This condition will be modified to address the requirements for the continuous AD6 Plant, which is subject to 40 CFR 60 Subpart VVa since it will be installed after November 7, 2006.

Permit Conditions 3.3.15 and 3.3.16 specifies the compliance methods/requirements for applicable equipment. These conditions will be modified to include the new thermal oxidizer controlling emissions from applicable sources from the continuous AD6 Plant.

Permit Condition 3.3.19 specifies rule applicability for applicable equipment for control of HAP emissions. This condition will be modified since the continuous AD6 Plant will be subject to 40 CFR 60 Subpart VVa. The South plant will continue to be subject to 40 CFR 60 Subpart VV.

Permit Condition 3.3.20 requires record keeping and reporting for equipment applicable to the MON Rule. This condition will be modified to include the potential applicability of Group 1 process wastewater streams.

Permit Conditions 3.3.25 through 3.3.27 and 3.3.30 specify rule applicability/continuous compliance applicability of certain equipment. Conditions 3.3.25 through 3.3.27 and 3.3.30 will be modified since the AD6 Batch plant is being re- permitted as a continuous plant.

Permit Condition 3.3.31 specifies MON Rule reporting requirements for applicable wastewater streams. This condition will be modified to include the potential applicability of Group 1 process wastewater streams.

Permit Condition 3.3.81 specifies applicability of 40 CFR 60 Subpart Kb. This condition will be modified to re-permit the Flocryl Acrylates AD6 Batch Plant as a continuous plant.

Permit Condition 3.3.82 specifies the requirements of 40 CFR 60 Subpart Kb for applicable equipment. This condition will be modified to address changing the designation of TMA1 and TMA2 to T50A and T50B.

V. Testing Requirements (with Associated Record Keeping and Reporting)

Permit Condition 4.2.1 was a reserved condition. Permit Condition 4.2.1 was added to include performance testing for the proposed new AD6 Plant Thermal Oxidizer.

Permit Condition 4.2.2 specified performance testing requirements for the Flocryl Acrylates Batch Plant. The condition will be modified as a result of the request to re-permit the Flocryl Acrylates AD6 Batch Plant as a continuous plant.

Permit Condition 4.2.12 specifies the performance testing for the Chemtall Plant. This condition will be modified to account for process limitations that result in no change to operating conditions that would result in a worst-case emissions scenario as a result of the startup of additional lines. Since LQ11 and LQ12 are both in operation, it is no longer necessary to reference condition 4.2.10.

VI. Monitoring Requirements (with Associated Record Keeping and Reporting)

Permit Condition 5.2.1 specifies monitoring requirements for the Flocryl Acrylates Plants. This condition is proposed to be modified to include monitoring for the AD6 Continuous Plant Thermal Oxidizer and to clarify that (a)(i) is only associated with the South Plant. This condition will also be modified to re-permit the Flocryl Acrylates AD6 Batch Plant as a continuous plant.

Permit Condition 5.2.2 specifies monitoring requirements for the Chemtall Plant. This condition will be modified since Emulsion Plant Phase I lines venting to Scrubber CE5 will be removed. This condition will also be modified to change the designation of Scrubber CE8A/CE8B to CE3A/CE3B to be consistent with plant terminology. As requested in Application Number 503345, since the emulsion line venting to this scrubber will only produce emulsion products, the clarification that monitoring is only required when producing emulsion products is no longer necessary.

Permit Conditions 5.2.13 and 5.2.14 specify monitoring requirements for applicable equipment per 40 CFR 60, Subpart Kb. These conditions will be modified to change the designation of tanks TMA1 and TMA2 to T50A and T50B, respectively, to be consistent with plant terminology. In addition, the designation of thermal oxidizer TO02 is requested to be changed to CT02 per Application Number 503345.

VII. Other Record Keeping and Reporting Requirements

Permit Condition 6.1.7.b specifies reporting of exceedances for applicable equipment. Permit Condition 6.1.7.b.ii will be deleted since Emulsion Plant Lines 6, 7, 9, and 10 are requested to be removed in this application.

Permit Condition 6.1.7.c specifies reporting of excursions for applicable equipment. Permit Condition 6.1.7.c.iii will be modified to include monitoring for the AD6 Continuous Plant thermal oxidizer and to clarify that 6.1.7.c.iii.(A) is only associated with the South Plant.

Permit Condition 6.1.7.c.iv will be modified as part of the request to re-permit the Flocryl Acrylates AD6 Batch Plant as a continuous plant.

Permit Condition 6.1.7.c.xi will be deleted since Scrubber CE5 is requested to be removed from the permit in this application.

Permit Condition 6.1.7.c.xxx will be modified to change the designation of Scrubber CE8A/CE8B to CE3A/CE3B to be consistent with plant terminology.

Permit Condition 6.2.7 specifies applicable reporting requirements for wastewater streams. This condition will be modified to show the potential applicability of Group 1 wastewater streams and to specify that (a) is only applicable to Group 2 wastewater streams.

Permit Condition 6.2.13 specifies notification requirements for applicable equipment. This condition will be modified to re-permit the Flocryl Acrylates AD6 Batch Plant as a continuous plant.

Permit Conditions 6.2.23 and 6.2.24 specify reporting of production and performance testing for applicable equipment. These conditions have been modified to show that condition 3.2.7 no longer applies since the applicable Emulsion Plant Phase I lines will be removed from the permit as part of this permit modification.

Permit Condition 6.2.56, requires the facility to notify the Division of the startup of Emulsion and Liquids lines that are permitted but not yet in operation. The facility proposes modify this condition to ensure the Division is aware that there are no changes to worst case operating conditions.

Permit Condition 6.2.62 required record keeping for the Scrubber CE8A/CE8B. This condition was added to the permit since EM32 was only permitted to vent to the scrubber when producing emulsion products. This condition will be deleted since the facility no longer requires the flexibility to produce products other than emulsions.

Permit Condition 6.2.63 requires initial notification for the AD6 plant. This condition will be modified to address re-permitting the Batch AD6 Plant as a continuous plant.

Permit Condition 6.2.64 specifies record keeping requirements for 40 CFR 60 Subpart Kb. This condition will be modified to address changing the designation of TMA1 and TMA2 to T50A and T50B, respectively, to be consistent with plant terminology.

VIII. Specific Requirements

A. Operational Flexibility

This modification does not specify operational flexibility for this facility.

B. Alternative Requirements

This modification does not specify alternative requirements for this facility.

C. Insignificant Activities

The following modifications are proposed for emergency generators:

- Install one generator (GT22) for operations at Powder Plant P12 (UN). This generator has been in operation since 2016; however, since the generator is considered insignificant, approval to construct or operate was not required.

- Replace existing generators GT01, GT04, and GT08 with larger capacity units. GT08 has been in operation since 2016; however, since the generator is considered insignificant, approval to construct or operate was not required.

- Remove generator GT05 since it is no longer being used at the facility.

- Potential-to-emit (PTE) estimates for emergency generators for all but one generator (GT26) are currently based on 100 hours per year (hr/yr), which is consistent with the requirements in 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ to limit the amount of hours a generator is used for maintenance and testing to 100 hr/yr. For this application, PTE estimates for these generators were revised to reflect a basis of 500 hr/yr rather than 100 hr/yr to be consistent with *Georgia Rules 391-3-1-.03(6)(b)11(v)(I) and .03(10)(g)2(iv)(I)*, which state that a generator must operate less than 500 hr/yr to be considered an emergency generator that is an insignificant activity with respect to Title V air permitting.

The following additions and modifications are proposed for insignificant process and storage tanks:

- Modify the capacity and designation of permitted DMOH storage tanks TDM1 and TDM2 associated with the AD6 plant. SNF proposes to increase the permitted capacity for these two tanks and change the designations from TDM1 and TDM2 to T040A and T040B, respectively, to be consistent with plant terminology.

  Although not required per federal or state regulations, these tanks may vent to proposed thermal oxidizer CT02 for odor control according to Application Number 503345. CT02 is expected to provide some control for emissions generated from the tanks; however, no emissions control reduction is being applied in the emission estimates in Appendix D.

- Modify the number, capacity, and designation of permitted ADAM product storage tanks. Currently, four tanks (AD01 through AD04) associated with the AD6 plant are permitted to store ADAM product. The facility proposes to only install two ADAM product tanks, both with a larger capacity than the tanks that are currently permitted. The designations for these tanks will be changed from AD01 and AD02 to T030A and T030B, respectively, to be consistent with plant terminology. AD03 and AD04 will be removed from the number of insignificant storage tanks in Appendix B of the permit.

  Although not required per federal or state regulations, these tanks may vent to proposed thermal oxidizer CT02 for odor control. CT02 is expected to provide some control for emissions generated from the tanks; however, no emissions control reduction is being applied in the emission estimates.

- Install two ADAM product check tanks (T204A and T204B) for the AD6 plant. Although not required per federal or state regulations, these tanks may vent to proposed thermal oxidizer CT02 for odor control. CT02 is expected to provide some control for emissions generated from the tanks; however, no emissions control reduction is being applied in the emission estimates.

- The capacity of permitted catalyst residue tank V551 will be decreased and the designation will be changed to T090 to be consistent with plant terminology. Although not required per federal or state regulations, T090 may vent to proposed thermal oxidizer CT02 for odor control. CT02 is expected to provide some control for emissions generated from this tank; however, no emissions control reduction is being applied in the emission estimates.

- Modify the capacity and designation of permitted recycle water process tank TRW1 for the AD6 plant. SNF proposes to decrease the permitted capacity for this tank and change the designation from TRW1 to T250 to be consistent with plant terminology. TRW1 will be removed from the number of insignificant storage tanks in Appendix B of the permit and added to the list of "Insignificant Activities Based on Emission Levels" in Appendix B of the permit.

- Install one recycle catalyst tank (T085) for the AD6 plant. Although not required per federal or state regulations, these tanks may vent to proposed thermal oxidizer CT02 for odor control. CT02 is expected to provide some control for emissions generated from the tanks; however, no emissions control reduction is being applied in the emission estimates.

- Install new liquids catalyst mixing equipment to be used for the AD6 plant. The equipment will consist of a catalyst mix tank (T400) and a catalyst day tank (T080). Although not required per federal or state regulations, these tanks may vent to proposed thermal oxidizer CT02 for odor control. CT02 is expected to provide some control for emissions generated from the tanks; however, no emissions control reduction is being applied in the emission estimates.

- Install new inhibitor make-up equipment to be used for the AD6 plant. Inhibitor mix tanks T410 and T420 and day tanks T060 and T070 are proposed to be installed. Although not required per federal or state regulations, these tanks may vent to proposed thermal oxidizer CT02 for odor control. CT02 is expected to provide some control for emissions generated from the tanks; however, no emissions control reduction is being applied in the emission estimates.

- Increase the throughput in existing Acrylates Continuous (South) plant ADAM/MADAM product storage tanks T32 and T33.

- There is some insignificant equipment associated with the Acrylamide Plant filtration operations that is currently permitted under Source Codes V1 through V4. SNF proposes to include the following as insignificant equipment in the permit:

  - Washing water storage tanks (AM2_C1-EL and AM2_C2-EL)
  - Recovery water storage tanks (AM2_C1-EP and AM2_C2-EP)
  - Diatomaceous earth prep tanks (B02_CP1-DIA and B02_CP2-DIA) and hoppers (B02_TRE1-DIA and B02_TRE2-DIA)

- Install one inhibitor preparation tank (QT3_CP1-IB) to be used at the Chemtall Chloromethylation (CM) Plant. The material in this tank, 4-methoxyphenol (MEHQ) mixed with water, has a negligible vapor pressure; therefore, emissions will be negligible.

- Install one diesel fuel tank (B01-C1-GE1) associated with proposed emergency generator GT22.

- Modify the capacity of diesel fuel storage tanks B06-C1-GE1, B07-C1-GE1, and B14-C1- GE1 associated with emergency generators GT01, GT04, and GT08, respectively.

- Remove diesel fuel storage tank GT05-DIESEL associated with generator GT05 since the generator was removed from the facility.

- Install two bulk diesel fuel storage tanks, MP-C4-GAL and MP-C5-GAL.

- Modify the throughput for existing permitted emulsion plant oil tanks (OIL1 through OIL5). The maximum throughput in permitted acrylic acid storage tanks (TAC1 through TAC9, AC10) and oil storage tanks (OIL1 through OIL5) will decrease as a result of the removal of the Phase I lines since facility-wide throughput is considered when determining potential emissions from these tanks.

Storage tanks T040A, T040B, T030A, T030B, T32, T33, AM2_C1-EL, AM2_C2-EL, AM2_C1-EP, AM2_C2-EP, B01-C1-GE1, B06-C1-GE1, B07-C1-GE1, B14-C1-GE1, MP-C4-GAL, MP-C5-GAL, and OIL1 through OIL5 are included the insignificant activities list.

Process tanks T204A, T204B, T250, T060, T070, T080, T085, T090, T400, T410, T420, as well as B02_CP1-DIA, B02_CP2-DIA, B02_TRE1-DIA, B02_TRE2-DIA, and QT3_CP1-IB, are included the insignificant activities list.

Ethylene glycol/water storage tanks EG13 and EG14, which were proposed as part of the AD6 Batch plant, are proposed as part of the AD6 continuous plant. There will be no modifications to these tanks. These tanks will remain included in the number of insignificant storage tanks in Appendix B of the permit.

Insignificant equipment are summarized in the table below:

Insignificant Activities Associated with this Amendment				
Source Code	**Capacity (gallons)**	**Contents**	**Installation Date**	**True Vapor Pressure (psia)**
T32*	Insignificant Activity	ADAM/MADAM	2004	≤ 0.19 psia
T33*	Insignificant Activity	ADAM/MADAM	2004	≤ 0.19 psia
T030A*	Insignificant Activity	ADAM	Proposed	≤ 0.19 psia
T030B*	Insignificant Activity	ADAM	Proposed	≤ 0.19 psia
T040A*	Insignificant Activity	DMOH	Proposed	≤ 0.19 psia
T040B*	Insignificant Activity	DMOH	Proposed	≤ 0.19 psia
AM2_C1-EL	Insignificant Activity	Washing water	Proposed	≤ 0.19 psia
AM2_C2-EL	Insignificant Activity	Washing water	Proposed	≤ 0.19 psia
AM2_C1-EP	Insignificant Activity	Recovery water	Proposed	≤ 0.19 psia
AM2_C2-EP	Insignificant Activity	Recovery water	Proposed	< 0.19 psia
B01-C1-GE1	Insignificant Activity	Diesel fuel	2016	≤ 0.5 psia
B06-C1-GE1*	Insignificant Activity	Diesel fuel	2020	≤ 0.5 psia
B07-C1-GE1*	Insignificant Activity	Diesel fuel	2020	≤ 0.5 psia
B14-C1-GE1*	Insignificant Activity	Diesel fuel	2016	≤ 0.5 psia
MP-C4-GAL	Insignificant Activity	Diesel fuel	Proposed	≤ 0.5 psia
MP-C5-GAL	Insignificant Activity	Diesel fuel	Proposed	≤ 0.5 psia
GT01*	Insignificant Activity	Diesel fuel	2016	≤ 0.5 psia
GT04*	Insignificant Activity	Diesel fuel	2020	≤ 0.5 psia
GT08*	Insignificant Activity	Diesel fuel	2020	≤ 0.5 psia
GT22	Insignificant Activity	Diesel fuel	2016	≤ 0.5 psia

*This equipment was included as an insignificant activity in previous permit applications. Equipment is requested to be modified or replaced. Since the emission increases for emergency generators not listed in this table are the result of a change to the calculation method and not from a physical change or change in the method of operation, those emission units were not included in this table. These emission units are included in the totals for stationary engines on the Insignificant Activities Checklist in Appendix B.

Insignificant Activities Checklist

- There are no updates required to the number of emergency generators since one generator was added (GT22) and one was removed (GT05).

- Two bulk diesel fuel storage tanks (MP-C4-GAL and MP-C5-GAL) were added and one diesel fuel tank (B01-C1-GE1) was added for the new emergency generator.

- The number of storage tanks with a vapor pressure less than 0.19 psia will be updated and includes the removal of AD03 (not being installed), AD04 (not being installed), and TRW1 (changed designation to T250 and included in the "insignificant activities based on emission levels" section of Appendix B of the permit) and the addition of AM2_C1-El, AM2_C2-El, AM2_C1-EP, and AM2_C2-EP.

Insignificant Activities Based on Emission Levels

- This section will be modified to include equipment and processes that are proposed to be "insignificant activities based on emission levels" per the requirements detailed in GEOS Title V forms Section C.1.2.

- Concentrated emulsions in Emulsion Plant Line 32 are to be deleted in this table because the facility no longer requires the flexibility to produce products other than standard emulsions.

- TRW1 was previously permitted as a storage tank and is now proposed to be used as a process vessel. Since the tank remains an insignificant activity, it was moved to this section.

Generic Emission Groups

- This section will be modified to remove the above previously permitted activities as part of a request to produce only standard emulsion products in Emulsion Plant Line 32.

D. Temporary Sources

This modification does not specify temporary sources for this facility.

E. Short-Term Activities

This modification does not specify short-term activities for this facility.

F. Compliance Schedule/Progress Reports

Application Number 503345 does not specify compliance schedule/process reports for this facility.

G. Emissions Trading

This modification does not specify emissions trading for this facility.

H. Acid Rain Requirements/CAIR/CSPAR

This modification does not change applicability of Acid Rain Requirements/CAIR/CSPAR for this facility.

I. Prevention of Accidental Releases

This modification does not change applicability of prevention of accidental releases for this facility.

J. Stratospheric Ozone Protection Requirements

This modification does not change applicability of stratospheric ozone protection requirements for this facility.

K. Pollution Prevention

This modification does not change applicability of pollution prevention for this facility.

L. Specific Conditions

This modification does not add specific conditions for this facility.

Addendum to Narrative

The 30-day public review started on month day, year and ended on month day, year. Comments were/were not received by the Division.

//If comments were received, state the commenter, the date the comments were received in the above paragraph. All explanations of any changes should be addressed below.//