



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 9-1464-00164/00117

Renewal Number: 1

Modification Number: 4 10/20/2011

Facility Identification Data

Name: 3M TONAWANDA
Address: 305 SAWYER AVE
TONAWANDA, NY 14150

Owner/Firm

Name: 3M CO
Address: 3M CENTER BOX 33331
SAINT PAUL, MN 55133-3331, USA
Owner Classification: Corporation/Partnership

Permit Contacts

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Air Permitting Contact:
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TONAWANDA, NY 14150
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Permit Description

Introduction

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

Summary Description of Proposed Project

This permit modification consolidates three applications, including one (1) significant permit modification and two (2) minor permit modifications as follows:

REN1 MOD4 – Significant Modification:



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This project is for the removal of the continuous emission monitors (CEM) for sulfur dioxide (SO₂) and carbonyl sulfide (COS) located in the Main Stack (Emission Point (EP) U-NCS01). In addition, the SO₂ CEM located at the RTO stack (EP SEPAR) will be removed. Permit requirements for SO₂ and COS CEM's have been removed. The Main Stack SO₂ CEM has not been relevant since 2005 when the wet air oxidation (WAO) process began operating in place of the B2 process/scrubber that generated high SO₂ emissions. The CEMs for COS and SO₂ are not required by NYSDEC or USEPA regulations.

Compliance with emission capping and other permit requirements will be determined using emission factors for SO₂ and COS derived from stack test data and RATA reports. To demonstrate compliance with the 28.43 lb SO₂/hr limit for EP SEPAR, 3M will continuously monitor the pH of the liquor leaving the separator as a surrogate for SO₂ emissions. The pH of this liquor directly affects the WAO process, and thus affects the amount of SO₂ generated by the RTO and exhausted through EP SEPAR. It is critical to maintain the pH of the solution above a level of 2.3 to minimize the volatilization of reducible sulfur compounds. Compliance with the SO₂ hourly and annual limit will be verified monthly using facility derived emission factors.

REN1 MOD3 – Minor Modification:

This project consisted of the installation of a dust collector, Emission Source Control (ESC) C0084 to control particulate emissions from Emission Point MC001. A redundant dust collector (ESC C0085), that may or may not be installed in the future, was also added to the permit. ESC C0084 and ESC C0085 are both associated with Process MCO and are contained in Emission Unit U-MAKOT. A decision to install the redundant system, which includes Emission Source 00085 and EP MC002 (both added to permit in REN 1 MOD 2, but never installed), will be made at a later date. However, 3M has requested that this system be left in the permit to avoid any delays (permit) should they decide to install the second system. Particulate emissions will not increase as a result of this project.

REN1 MOD5 – Minor Modification:

This project is for the installation of two (2) new blenders for viscose production (aging). Each blender will be vented to the facility's existing Solvent Recovery Unit (SRU). In addition, 3M requested that the removal of the Bun Coagulation Tanks, Emission Source 00030 from the Title V permit which were physically dismantled in January 2011.

Attainment Status

3M TONAWANDA is located in the town of TONAWANDA in the county of ERIE.

The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)



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Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter< 10µ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	MARGINAL NON-ATTAINMENT
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

** NOx has a separate ambient air quality standard in addition to being an ozone precursor.

Facility Description:

This facility produces cellulose sponges by a stepwise batch process. Emission sources include viscose shredders, sponge mixers, coagulation, purification lines, and salt recovery. Associated sources include boilers for steam and heat production, storage tanks, and sources related to processing reinforcing fibers and additives.

Permit Structure and Description of Operations

The Title V permit for 3M TONAWANDA

is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process. A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device. [NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

- combustion - devices which burn fuel to generate heat, steam or power
- incinerator - devices which burn waste material for disposal
- control - emission control devices
- process - any device or contrivance which may emit air contaminants that is not included in the above categories.

3M TONAWANDA is defined by the following emission unit(s):

Emission unit UMAKOT - Existing sponge making consists of viscose/salt production and block making. This emission unit consists of the sources associated with sponge making that do not vent to the main stack (NCS01).



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Emission unit UMAKOT is associated with the following emission points (EP):
AGERM, B1000, B3000, BKFWW, BKPBS, FN000, FS000, LNMEZ, LSMEZ, MC001, MC002,
MMIX1, MMIX2, MRE03, MRE04, MRE05, MRE06, MRE15, MRE20, MRE23, MRE30, TRNOV
Process: MCO is located at Building 1-20 - Two pulp feed systems for viscose production. The pulp feed system will break up the pulp. The pulp will then be sprayed with caustic solution and fed into each of four existing viscose shredders.

Process: OTH is located at MAIN, Building 1-23 - Sources in the sponge making process that do not vent to the main stack include:

1. Particulate from material handling operation for process materials used in sponge making located in Bldg. 1-21 and 1-41.
2. Uncaptured emissions from EC cooker, EC mixer, reclamation tank , and ML wash sources (i.e. main stack sources), located in bldg. 1-21 and 1-23.
3. Emissions from viscose handling, the conveying of unwashed sponge blocks, mother liquor collection and storage system, salt crystallizing and handling system, and washing of sponge blocks, located in bldg. 1-20, 1-21, 1-23.
4. Uncaptured emissions from lam line mixers and lam line cook tables located in bldg 1-04.

Emission unit USEPAR - The process technology converts contaminants in the salt reclamation process by oxidation to sulfate and carbon dioxide.

Emission unit USEPAR is associated with the following emission points (EP):

SEPAR

Process: SEP is located at Building 1-72 - The process technology converts contaminants in the waste liquor under pressure and temperature to sulfate and carbon dioxide.

Emission unit UNCS01 - Sponge making sources associated with viscose production, material weight out and transfer, sponge mixing, sponge cooking, wash tables, continuous salt processing, and reclamation operation that vent to the main stack. It also includes by pass emissions from the mother liquor treatment operation, emission unit USEPAR.

Emission unit UNCS01 is associated with the following emission points (EP):

NCS01

Process: NCS is located at MAIN, Building NE 1-72 - Low carbon disulfide process sources that vent directly to emission point NCS01 associated with sponge manufacturing.

Process: SRU is located at Building NE 1-72 - Higher carbon disulfide concentration process sources that vent to carbon absorption control equipment and exhaust out NCS01 (main stack) associated with sponge manufacturing.

Process: WAO is located at Building NE 1-72 - The process technology converts contaminants in the waste liquor under pressure and temperature to sulfate and carbon dioxide. This process vents to emission



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Emission unit UBOILS - Two new boilers will be installed to supply steam for plant use and will replace Boilers identified in emission unit U THERM. The new boilers are rated for: 60.4 mmBTU/hr when burning No. 2 oil and 63.2 mmBTU/hr when burning natural gas.

Emission unit UBOILS is associated with the following emission points (EP):

BOIL1, BOIL2

Process: 278 is located at Building 1-72 - Emission Source BOI01 and BOI02, two boilers, rated at 63.2 mmbtu/hr each, when firing natural gas as primary fuel.

Process: 279 is located at Building 1-72 - Emission Source BOI01 and BOI02, 2 boilers rated at 60.4mmbtu/hr when firing on # 2 low sulfur oil as backup to natural gas use.

Emission unit UCONVT - The emission unit consists of coaters used to apply adhesive. The coater also utilizes a heating unit.

Emission unit UCONVT is associated with the following emission points (EP):

BND00

Process: 277 is located at main, Building 1-34 - This process consists of a coater used to apply adhesive. The coater utilizes a heater to melt the adhesive.

Emission unit UTANKS - This emission unit includes the non-exempt storage tanks, exempt carbon disulfide storage tank, and the water blanket used in carbon disulfide tank secondary containment dike.

Emission unit UTANKS is associated with the following emission points (EP):

ACID3, BL004, CS20C, CS20D, NAOH7

Process: 266 is located at GROUND ELEVATION, Building TANKS - The NaOH7, ACID3, BLOO4, tanks each have one emission point associated with them, the CS203 tank has two. CS20C is the dike where displaced water is aerated to remove carbon disulfide. CS20D is the pressure relief vent line for the tank.

Title V/Major Source Status

3M TONAWANDA is subject to Title V requirements. This determination is based on the following information:

3M is major for VOC emissions and Hazardous Air Pollutants.

Program Applicability

The following chart summarizes the applicability of 3M TONAWANDA with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	NO
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	YES
NSPS	YES

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TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	YES
SIP	YES

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NSR New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NESHAP National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's).

MACT Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

NSPS New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's (hydrofluorocarbons) or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state



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air pollution control regulations which specifically regulate VOC and NOx emissions.

SIP State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status

Facility is in compliance with all requirements.

SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis

of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code

Description

2821	PLASTICS MATERIALS AND RESINS
3089	PLASTICS PRODUCTS, NEC

SCC Codes

SCC or Source Classification Code is a code developed and used" by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information.Each SCC represents

a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code

Description

1-02-006-02	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - NATURAL GAS 10-100 MMBtu/Hr
1-03-005-01	EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL COMMERCIAL/INSTITUTIONAL BOILER - DISTILLATE OIL Grades 1 and 2 Oil
3-01-810-01	CHEMICAL MANUFACTURING CHEMICAL MANUFACTURING - GENERAL PROCESSES Air Oxidation Units
3-01-870-01	CHEMICAL MANUFACTURING CHEMICAL MANUFACTURING - INORGANIC CHEMICAL STORAGE (FIXED ROOF TANKS) HYDROCHLORIC ACID: BREATHING LOSS_** (USE 3-01-870-33)
3-02-032-01	FOOD AND AGRICULTURE FOOD AND AGRICULTURE - BAKERIES Bread Baking: Sponge-Dough Process
3-07-003-99	PULP & PAPER AND WOOD PRODUCTS PULP & PAPER & WOOD - NEUTRAL SULFITE SEMICHEMICAL PULPING

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OTHER NOT CLASSIFIED
 SURFACE COATING OPERATIONS
 SURFACE COATING OPERATIONS - PAPER COATING
 COATING APPLICATION: KNIFE COATER

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Service code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
000075-07-0	ACETALDEHYDE	1103.8	
000107-02-8	ACROLEIN	73.6	
000075-15-0	CARBON DISULFIDE	675800	
000630-08-0	CARBON MONOXIDE		>= 40 tpy but < 50 tpy
000463-58-1	CARBONYL SULFIDE		> 0 but < 10 tpy
0NY100-00-0	HAP		>= 250 tpy but < 75,000 tpy
007783-06-4	HYDROGEN SULFIDE	66240	
007439-92-1	LEAD		> 0 but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN		>= 50 tpy but < 100 tpy
0NY075-00-0	PARTICULATES		>= 10 tpy but < 25 tpy
0NY075-00-5	PM-10		>= 10 tpy but < 25 tpy
007446-09-5	SULFUR DIOXIDE	188480	
007664-93-9	SULFURIC ACID	32000	
0NY998-00-0	VOC		>= 250 tpy but < 75,000 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.



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- (a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
 - (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
 - (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.
- (c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 201-1.10(b)

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item C: Timely Application for the Renewal of Title V Permits -6 NYCRR Part 201-6.3(a)(4)

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.



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Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.5(a)(5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

Item H: Property Rights - 6 NYCRR 201-6.5(a)(6)

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

Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless



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the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item L: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all

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emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
-- FACILITY	ECL 19-0301	53	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 52-A.21	27, 28, 4 -4	Prevention of Significant Deterioration
U-BOILS/-/279	40CFR 60-A.11 (e) (1)	39	General provisions - compliance with standards and maintenance requirements
U-BOILS	40CFR 60-Dc.42c (d)	38	Standard for Sulfur Dioxide Firing Oil. (see narrative)
U-BOILS/-/279	40CFR 60-Dc.44c (h)	40	Alternative Compliance and Performance Test Methods and Procedures for Sulfur Dioxide.
FACILITY	40CFR 63-UUUU.5505 (a)	31, 32	Cellulose Products Manufacturing NESHAP - Emission Limits
U-TANKS	40CFR 63-UUUU.5505 (a)	52	Cellulose Products Manufacturing NESHAP - Emission Limits
U-NCS01	40CFR 63-UUUU.5505 (b)	43	Cellulose Products Manufacturing NESHAP - Operating Limits
U-SEPAR	40CFR 63-UUUU.5505 (b)	49	Cellulose Products Manufacturing NESHAP - Operating Limits
FACILITY	40CFR 63-UUUU.5515 (c)	33	Cellulose Products Manufacturing NESHAP - Startup, shutdown, malfunction plan
FACILITY	40CFR 63-UUUU.5545 (a)	34	Cellulose Products Manufacturing NESHAP - Site Specific



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FACILITY	40CFR 63-UUUU.5580(a)	35	Monitoring Plan Cellulose Products Manufacturing NESHAP - Reporting requirements
FACILITY	40CFR 68	21	Chemical accident prevention provisions
FACILITY	40CFR 82-F	22	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	10	Maintenance of equipment.
FACILITY	6NYCRR 201-1.4	4 -10	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	11	Recycling and Salvage
FACILITY	6NYCRR 201-1.8	12	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2(a)	13	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	14	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	23, 36, 37	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.5(a)(4)	15	General conditions
FACILITY	6NYCRR 201-6.5(a)(7)	4 -1	General conditions Fees
FACILITY	6NYCRR 201-6.5(a)(8)	16	General conditions
FACILITY	6NYCRR 201-6.5(c)	3	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(c)(2)	4	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201- 6.5(c)(3)(ii)	5	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(d)(5)	17	Compliance schedules
FACILITY	6NYCRR 201-6.5(e)	6	Compliance Certification
FACILITY	6NYCRR 201-6.5(f)(6)	18	Off Permit Changes
FACILITY	6NYCRR 201-6.5(g)	24	Permit shield
FACILITY	6NYCRR 201-7	25, 27, 28, 29, 4 - 4, 4 -6	Federally Enforceable Emissions Caps
FACILITY	6NYCRR 202-1.1	4 -3	Required emissions tests.
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.1	4 -5	General Prohibitions - air pollution prohibited



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FACILITY	6NYCRR 211.2	4	-11	General Prohibitions - visible emissions limited.
U-MAKOT	6NYCRR 212.10	41		NOx and VOC RACT required at major facilities
U-NCS01/-/NCS	6NYCRR 212.10	44		NOx and VOC RACT required at major facilities
U-NCS01/-/SRU	6NYCRR 212.10	46		NOx and VOC RACT required at major facilities
U-SEPAR/SEPAR	6NYCRR 212.10 (c) (4) (i)	51		NOx and VOC RACT required at major facilities
U-NCS01/NCS01/NCS/00120	6NYCRR 212.10 (c) (4) (iii)	1	-1	General Process Emission Sources - NOx and VOC RACT required at major facilities
U-NCS01/-/SRU	6NYCRR 212.11 (b) (3)	4	-8	Sampling and monitoring
U-MAKOT/-/MCO	6NYCRR 212.4 (c)	4	-7	General Process Emission Sources - emissions from new processes and/or modifications
U-NCS01	6NYCRR 212.4 (c)	42		General Process Emission Sources - emissions from new processes and/or modifications
U-SEPAR/SEPAR	6NYCRR 212.5 (d)	4	-9	Applicable emission standards
FACILITY	6NYCRR 212.6 (a)	30		General Process Emission Sources - opacity of emissions limited
U-NCS01/-/SRU	6NYCRR 212.9	45		Tables.
U-SEPAR	6NYCRR 212.9 (b)	48		General Process Emission Sources - tables
FACILITY	6NYCRR 215.2	4	-2	Open Fires - Prohibitions
U-BOILS	6NYCRR 227-1.2 (a) (2)	56		Particulate Emissions Firing Liquid Fuels Excluding Distillate Oil. (see narrative)
FACILITY	6NYCRR 231-2	29		New Source Review in Nonattainment Areas and Ozone Transport Region

Applicability Discussion:

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-0301

This section of the Environmental Conservation Law establishes the powers and duties assigned to the Department with regard to administering the air pollution control program for New York State.

6 NYCRR 200.6

Acceptable ambient air quality - prohibits contravention of ambient air quality standards without



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6 NYCRR 200.7

Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6 NYCRR 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6 NYCRR 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6 NYCRR 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6 NYCRR 201-3.2 (a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6 NYCRR 201-3.3 (a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6 NYCRR Subpart 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

6 NYCRR 201-6.5 (a) (4)

This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.



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6 NYCRR 201-6.5 (a) (7)

This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

6 NYCRR 201-6.5 (a) (8)

This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

6 NYCRR 201-6.5 (c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

6 NYCRR 201-6.5 (c) (2)

This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

6 NYCRR 201-6.5 (c) (3) (ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6 NYCRR 201-6.5 (d) (5)

This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

6 NYCRR 201-6.5 (e)

Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6 NYCRR 201-6.5 (f) (6)

This condition allows changes to be made at the facility, without modifying the permit, provided the changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

6 NYCRR 201-6.5 (g)

Permit Exclusion Provisions - specifies those actions, such as administrative orders, suits, claims for natural resource damages, etc that are not affected by the federally enforceable portion of the permit, unless they are specifically addressed by it.



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6 NYCRR 202-1.1

This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

6 NYCRR 202-2.1

Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calENDar year.

6 NYCRR 202-2.5

This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

6 NYCRR 211.2

This regulation limits opacity from sources to less than or equal to 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

40 CFR Part 68

This Part lists the regulated substances and there applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act AmENDments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

Facility Specific Requirements

In addition to Title V, 3M TONAWANDA has been determined to be subject to the following regulations:

40 CFR 52.21

This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions;

ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i) .

40 CFR 60.11 (e) (1)

This is a requirement for monitoring opacity from the boilers. Opacity limitation with periodic monitoring is detailed in the condition.

40 CFR 60.42c (d)



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This regulation requires that on or after the date on which the initial performance test is completed or required to be completed under section 60.8 of 40 CFR 60 Subpart A, no owner or operator of an affected facility that combusts oil, shall combust oil with a sulfur content in excess of 0.5 percent by weight.

40 CFR 60.44c (h)

This regulation requires facilities demonstrating compliance through vendor certification to follow the compliance procedures listed in the appropriate paragraphs of 40 CFR 60-Dc.48c.

40 CFR 63.5505 (a)

40 cfr 5505a specifies the emission limit and work practice requirements for this facility. Applicable is the 75% overall reduction of Carbon Disulfide emissions, nitrogen blanket on the Carbon disulfide storage tank, and the monitoring of the by pass valves. In the monitoring detailed in the permit under this rule EPA has allowed for alternate method of monitoring the control equipment bypass. The rule required a flow indicator or lock and key mechanism. This facility has been approved to install a valve position indicator and electronic recorder of position. This type of bypass monitoring is cited as an acceptable means of determining compliance in other NESHAP regulations.

40 CFR 63.5505 (b)

This section of the NESHAP regulation applicable to this facility requires monitoring of carbon regeneration rates to insure operation is as demonstrated during the compliance test. The facility operates a continuous emission rate monitoring system on the inlet and outlet of the carbon absorber. the system generates ppm , pounds per hour and ton per year emission rates for carbon disulfide, the pollutant of concern. This is considered better and more accurate in determining compliance with the requirements of the NESHAP for cellulose products manufacturing.

40 CFR 63.5515 (c)

This section of the regulation requires the facility to develop a written startup, shutdown and malfunction plan.

40 CFR 63.5545 (a)

This section of the rule contains details for the quality assurance and quality control of the continuous emission monitors (CEM's) and for continuous parameter monitoring systems, (CPMS) at the facility. 3M maintains a CEM on emission point NCS01 for carbon disulfide, and hydrogen sulfide. Emission unit U-SEPAR uses a thermal Oxidizer for control and the temperature limit is considered a CPMS.

Also a flow indicator at emission unit U-SEPAR, emission point SEPAR, and Emission Unit U-NCS01, emission point NCS01, utilize an EPA alternative method of bypass line flow indication. This is listed under condition for 40 cfr 63.5505(a). The approved method is a flow control position indicator.

40 CFR 63.5580 (a)

This condition specifies the records, reports and general provisions that apply. They are listed in Tables 8, 9, and 10 of the regulation.

6 NYCRR 211.1

This rule requires that no person cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property.

Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or



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deleterious emission, either alone or in combination with others.

6 NYCRR 212.10

212.10 is the Reasonable Available Control Technology requirements (RACT) for VOC and NOx emissions from general process sources. This condition requires a RACT review prior to exceeding the 3 pound per hour emission rate. RACT is not required by rule for emissions less than 3 pounds per hour.

6 NYCRR 212.10 (c) (4) (i)

VOC removal efficiency greater than 81% is considered RACT.

6 NYCRR 212.10 (c) (4) (iii)

This rule allows those sources which cannot achieve an overall removal efficiency of 81% or use coatings that don't exceed 3.5 lbs. VOC/gallon as applied for technological or economic reasons to use process specific reasonably available control technology (RACT) demonstrations for sources of volatile organic compounds (VOC) which are acceptable to the department and have been submitted to EPA for approval as a revision to the State Implementation Plan by the department.

6 NYCRR 212.11 (b) (3)

212.11(b)(3) details the quality assurance and quality control requirements for maintaining the carbon disulfide continuous emission rate monitoring system. on emission point NCS01.

6 NYCRR 212.4 (c)

This rule requires existing sources (in operation after July 1, 1973) of solid particulates with environmental rating of B or C which are not subject to Table 5 "Processes for which Permissible Emission Rate is Based on Process Weight, to be limited to an particulate emission rate not to exceed 0.05 grains per dry standard cubic foot.

6 NYCRR 212.5 (d)

This section specifies that if best available control technologies are implemented the commissioner may specify, under certain situations, a less restrictive emission rate.

6 NYCRR 212.6 (a)

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all process emission sources.

6 NYCRR 212.9

This section of the regulation contains the descriptions and definitions of the environmental ratings system and the tables which set the emission standards for each rating.

6 NYCRR 212.9 (b)

This section refers to Table 2 which specifies the degree of control required for Gases and Liquid Particulate Emissions (Environmental Rating of A, B, C or D) and Solid Particulate Emissions (Environmental Rating A or D) but excluding Volatile Organic Compound Emissions in the New York City Metropolitan Area.

6 NYCRR 227-1.2 (a) (2)



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This rule limits particulate emissions to 0.20 pound per million Btu heat input from any stationary combustion installation with a maximum heat input capacity exceeding 50 million Btu per hour but no greater than 250 million Btu per hour using oil (other than distillate oil), coal tar, or any liquid fuel derived from coal.

6 NYCRR Subpart 201-7

This regulation sets forth an emission cap that cannot be exceeded by the facility. In this permit that cap is

6 NYCRR Subpart 231-2

The provisions of Subpart 231-2 apply to new or modified major facilities. The contaminants of concern state-wide are nitrogen oxides and volatile organic compounds since New York State is located in the ozone transport region and because there are ozone non-attainment areas within the state. In addition, particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County.

Non Applicability Analysis

List of non-applicable rules and regulations:

Location Facility/EU/EP/Process/ES	Regulation	Short Description
U-TANKS/CS20D	40 CFR Part 60, Subpart Kb	NSPS for volatile organic liquid storage vessels- applicability and designation of affected facilities

Reason: This tank is designed to operate in excess of 204.9 kPa and will not have emissions to the atmosphere. The requirements 40 cfr 60, subpart Kb, do not apply per the exemption listed in 40 cfr 60.110b(d) (2) .

NOTE: Non-applicability determinations are cited as a permit condition under 6 NYCRR Part 201-6.5(g). This information is optional and provided only if the applicant is seeking to obtain formal confirmation, within an issued Title V permit, that specified activities are not subject to the listed federal applicable or state only requirement. The applicant is seeking to obtain verification that a requirement does not apply for the stated reason(s) and the Department has agreed to include the non-applicability determination in the issued Title V permit which in turn provides a shield against any potential enforcement action.

Compliance Certification

Summary of monitoring activities at 3M TONAWANDA:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring

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U-BOILS/-/279	39	intermittent emission testing
U-BOILS	38	work practice involving specific operations
U-BOILS/-/279	40	monitoring of process or control device parameters as surrogate
FACILITY	31	monitoring of process or control device parameters as surrogate
FACILITY	32	record keeping/maintenance procedures
U-NCS01	43	record keeping/maintenance procedures
U-SEPAR	49	monitoring of process or control device parameters as surrogate
FACILITY	34	record keeping/maintenance procedures
FACILITY	35	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	4-4	monitoring of process or control device parameters as surrogate
FACILITY	27	monitoring of process or control device parameters as surrogate
FACILITY	28	monitoring of process or control device parameters as surrogate
FACILITY	29	monitoring of process or control device parameters as surrogate
FACILITY	7	record keeping/maintenance procedures
U-MAKOT	41	record keeping/maintenance procedures
U-NCS01/-/NCS	44	monitoring of process or control device parameters as surrogate
U-NCS01/-/SRU	46	continuous emission monitoring (cem)
U-SEPAR/SEPAR	51	monitoring of process or control device parameters as surrogate
U-NCS01/NCS01/NCS/00120	1-1	intermittent emission testing
U-NCS01/-/SRU	4-8	continuous emission monitoring (cem)
U-MAKOT/-/MCO	4-7	monitoring of process or control device parameters as surrogate
U-NCS01	42	monitoring of process or control device parameters as surrogate
U-SEPAR/SEPAR	4-9	monitoring of process or control device parameters as surrogate
FACILITY	30	record keeping/maintenance procedures
U-NCS01/-/SRU	45	continuous emission monitoring (cem)
U-SEPAR	48	monitoring of process or control device parameters as surrogate
U-BOILS	56	intermittent emission testing

Basis for Monitoring

The facility monitors emissions of Carbon Disulfide continuously with recorders on the main stack, emission point NCS01 and the inlet/outlet of the carbon adsorption system. The facility permit specifies an annual 12 month rolling cap for emissions of VOC, SO₂ and Hydrogen Sulfide. CEM's along with data from past stack tests and process parameters are used to verify compliance. Maintenance of the carbon adsorption unit and the wet air oxidation process to manufacturer's specifications is also required to insure compliance.

Acidity/Alkalinity is continuously monitored as a surrogate for sulfur dioxide emissions at Emission Unit SEPAR. To ensure compliance with the 28.43 lb SO₂/hr mass emission limit for EP SEPAR, the pH of the liquor at the outlet of the separator is limited to not less than 2.3 pH units. A lower pH would result in the volatilization of sulfur compounds that would subsequently increase SO₂ emissions leaving the Thermal Oxidizer at EP SEPAR.



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The permit also has conditions to track uncontrolled VOC emissions from several emission points. These sources were also stack tested and a rate of emission associated with production is used to track emissions. 6 NYCRR Part 212-10 requires control of VOC emissions over 3 pounds per hour. There are two sources of particulate emissions and both are equipped with baghouses. Monitoring of pressure drop insures proper maintenance and compliance with the 0.050 grains/dscf limit. Opacity is checked weekly at the facility. Opacity should not be an issue. The boilers burn natural gas and # 2 low sulfur fuel oil. Monitoring of Fuel receipts for sulfur content will insure compliance with the .5% sulfur in fuel limit. This addresses most of the monitoring requirements at the facility.