

**New York State Department of Environmental Conservation
Facility DEC ID: 9290900107**



**PERMIT
Under the Environmental Conservation Law (ECL)**

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 9-2909-00107/00001
Effective Date: 09/12/2005 Expiration Date: 09/11/2010

Permit Issued To: VANDEMARK CHEMICAL INC
1 NORTH TRANSIT RD
LOCKPORT, NY 14094

Facility: VANDEMARK CHEMICAL INC
1 NORTH TRANSIT RD
LOCKPORT, NY 14094

Contact: MATTHEW BARMASSE
VANDEMARK CHEMICAL INC
1 NORTH TRANSIT RD
LOCKPORT, NY 14094-2399
(716) 433-6764

Description:
ISOCHEM, Inc.
Title V Permit Renewal

This Title V permit renewal describes the applicable requirements for ISOICHEM, Inc, formerly Vandemark Inc., located in Lockport, New York. ISOICHEM is a manufacturer of custom chemicals on a batch or semi-continuous basis. Custom chemicals include but are not limited to phosgene and phosgene derivatives. The facility is subject to the Title V major source permitting requirements of 40 CFR Part 70 and 6NYCRR, Part 201-6 as determined by actual emissions of carbon monoxide (CO) in excess of 100 tons per year.

Additional contaminants emitted from the facility include but are not limited to nitrogen oxides, sulfur dioxide, volatile organic compounds, and various hazardous air pollutants such as phosgene, chlorine, chlorobenzene, and hydrogen chloride. Attached to this permit is an operational flexibility protocol to address minor modifications as per the requirements of 6NYCRR, Part 201-6.5(f)(2).

This renewal contains previously established emission caps limiting emissions of volatile organic compounds to less than 50 tons during any consecutive twelve month period to avoid applicability to the reasonably available control requirements of 6NYCRR, Part 212.10 (Major Sources of VOC and NO_x) and 6NYCRR, Part 229 (Volatile Organic Liquid Storage Tanks). The permit also restates the cap limiting emissions of sulfur dioxide during the production of Carbaester to less than the 40 ton deminimus for PSD applicability. For this renewal, ISOICHEM has chosen to limit sulfur dioxide



New York State Department of Environmental Conservation
Facility DEC ID: 9290900107

emissions from the entire facility to less than 40 tons in order to avoid the need for any future applicability determinations and noticing requirements in the event of the modification or addition of new sources emitting sulfur dioxide.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: DAVID S DENK
 DIVISION OF ENVIRONMENTAL PERMITS
 270 MICHIGAN AVE
 BUFFALO, NY 14203-2999

Authorized Signature: _____ Date: ___ / ___ / _____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

Facility Inspection by the Department

Relationship of this Permit to Other Department Orders and Determinations

Applications for Permit Renewals and Modifications

Permit Modifications, Suspensions and Revocations by the Department

Facility Level

Submission of Applications for Permit Modification or Renewal -REGION 9
HEADQUARTERS



DEC GENERAL CONDITIONS

****** General Provisions ******

For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions

GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department
Applicable State Requirement: ECL 19-0305

Item 1.1:

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations
Applicable State Requirement: ECL 3-0301.2(m)

Item 2.1:

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for Permit Renewals and Modifications
Applicable State Requirement: 6NYCRR 621.13

Item 3.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:



New York State Department of Environmental Conservation
Facility DEC ID: 9290900107

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 4: Permit Modifications, Suspensions and Revocations by the Department
Applicable State Requirement: 6NYCRR 621.14

Item 4.1:

The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of Applications for Permit Modification or Renewal -REGION 9 HEADQUARTERS
Applicable State Requirement: 6NYCRR 621.5(a)

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits
270 Michigan Avenue
Buffalo, NY 14203-2999
(716) 851-7165



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

IDENTIFICATION INFORMATION

Permit Issued To: VANDEMARK CHEMICAL INC
1 NORTH TRANSIT RD
LOCKPORT, NY 14094

Facility: VANDEMARK CHEMICAL INC
1 NORTH TRANSIT RD
LOCKPORT, NY 14094

Authorized Activity By Standard Industrial Classification Code:
2834 - PHARMACEUTICAL PREPARATIONS
2869 - INDUSTRIAL ORGANIC CHEMICALS,NEC

Permit Effective Date: 09/12/2005

Permit Expiration Date: 09/11/2010



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1 6NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6NYCRR 201-6.5(a)(7): Fees
- 3 6NYCRR 201-6.5(c): Recordkeeping and reporting of compliance monitoring
- 4 6NYCRR 201-6.5(c)(2): Monitoring, Related Recordkeeping, and Reporting Requirements.
- 5 6NYCRR 201-6.5(c)(3)(ii): Compliance Certification
- 6 6NYCRR 201-6.5(e): Compliance Certification
- 7 6NYCRR 202-2.1: Compliance Certification
- 8 6NYCRR 202-2.5: Recordkeeping requirements
- 9 6NYCRR 215: Open Fires Prohibited at Industrial and Commercial Sites
- 10 6NYCRR 200.7: Maintenance of Equipment
- 11 6NYCRR 201-1.7: Recycling and Salvage
- 12 6NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6NYCRR 201-3.2(a): Exempt Sources - Proof of Eligibility
- 14 6NYCRR 201-3.3(a): Trivial Sources - Proof of Eligibility
- 15 6NYCRR 201-6.5(a)(4): Standard Requirement - Provide Information
- 16 6NYCRR 201-6.5(a)(8): General Condition - Right to Inspect
- 17 6NYCRR 201-6.5(d)(5): Standard Requirements - Progress Reports
- 18 6NYCRR 201-6.5(f)(6): Off Permit Changes
- 19 6NYCRR 202-1.1: Required Emissions Tests
- 20 6NYCRR 211.3: Visible Emissions Limited
- 21 40CFR 68: Accidental release provisions.
- 22 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 23 6NYCRR 201-6: Emission Unit Definition
- 24 6NYCRR 201-6.5(f)(2): Compliance Certification
- 25 6NYCRR 236.6(e)(3): Compliance Certification
- 26 40CFR 82: Recycling and emissions reduction.
- 27 40CFR 82, Subpart A: Production and Consumption Controls
- 28 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 29 40CFR 82.154, Subpart F: Class I/II recycling and emissions reduction

Emission Unit Level

- 30 6NYCRR 201-6: Emission Point Definition By Emission Unit
- 31 6NYCRR 201-6: Process Definition By Emission Unit

EU=U-DERVI

- 32 6NYCRR 212.4(a): Compliance Certification
- 33 6NYCRR 212.4(a): Compliance Certification
- 34 6NYCRR 212.4(a): Compliance Certification
- 35 6NYCRR 212.4(a): Compliance Certification
- 36 6NYCRR 212.4(a): Compliance Certification



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

- 37 6NYCRR 212.4(c): Compliance Certification
- 38 6NYCRR 212.6(a): Compliance Certification
- 39 40CFR 68.10(a), Subpart A: Applicability
- 40 40CFR 68.10(e), Subpart A: Facility no longer meets eligibility

EU=U-DERV1,EP=00SC4,Proc=CM1,ES=SIST2

- 41 6NYCRR 229.3(e)(2)(v): VOL storage tanks less than 10000 gallons

EU=U-DERV1,EP=00SC4,Proc=CM1,ES=SIST3

- 42 6NYCRR 229.3(e)(2)(iv): VOL storage tanks from 10000 - 20000 gallons

EU=U-DERV1,EP=00SC4,Proc=CM1,ES=SIST8

- 43 6NYCRR 229.3(e)(2)(v): VOL storage tanks less than 10000 gallons

EU=U-TANK1

- 44 6NYCRR 229.1(d)(2)(vii): VOL storage tanks from 10000 - 20000 gallons - 3
- 45 6NYCRR 229.1(d)(2)(viii): VOL storage tanks less than 10000 gallons - 3

EU=U-TANK1,EP=00ST1,Proc=ST1,ES=00ST1

- 46 6NYCRR 229.3(e)(2)(iv): VOL storage tanks from 10000 - 20000 gallons

EU=U-TANK1,EP=00ST7,Proc=ST1,ES=00ST7

- 47 6NYCRR 229.3(e)(2)(v): VOL storage tanks less than 10000 gallons

EU=U-TANK1,EP=0ST14,Proc=ST1,ES=0ST14

- 48 6NYCRR 229.3(e)(2)(v): VOL storage tanks less than 10000 gallons

EU=U-TANK1,EP=0ST21,Proc=ST1,ES=0ST21

- 49 6NYCRR 229.3(e)(2)(iv): VOL storage tanks from 10000 - 20000 gallons

EU=U-TANK1,EP=0ST22,Proc=ST1,ES=0ST22

- 50 6NYCRR 229.3(e)(2)(iv): VOL storage tanks from 10000 - 20000 gallons

EU=U-TANK1,EP=0ST36,Proc=ST1,ES=0ST36

- 51 40CFR 60.116b, NSPS Subpart Kb: Compliance Certification

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 52 ECL 19-0301: Contaminant List
- 53 6NYCRR 201-1.4: Unavoidable noncompliance and violations
- 54 6NYCRR 201-7: Facility Permissible Emissions
- *55 6NYCRR 201-7: Capping Monitoring Condition
- *56 6NYCRR 201-7: Capping Monitoring Condition
- 57 6NYCRR 211.2: Air pollution prohibited
- 58 6NYCRR 221.2: Asbestos containing surface coatings prohibited
- 59 6NYCRR 617.11(d): Compliance Demonstration

New York State Department of Environmental Conservation
Permit ID: 9-2909-00107/00001 Facility DEC ID: 9290900107



Emission Unit Level

EU=U-PLAB1,EP=LAB02

60 6NYCRR 212.4(a): Compliance Demonstration

NOTE: * preceding the condition number indicates capping.



FEDERALLY ENFORCEABLE CONDITIONS

****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.

Item A: Emergency Defense - 6NYCRR Part 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.

(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 - 6NYCRR Part 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

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR 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.

Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6NYCRR Part 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

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



order to maintain compliance with the conditions of this permit.

Item H: Property Rights - 6 NYCRR Part 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

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



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 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



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

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.

MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.

Condition 1: Acceptable Ambient Air Quality
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 200.6

Item 1.1:

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Condition 2: Fees
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-6.5(a)(7)

Item 2.1:

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0302.

Condition 3: Recordkeeping and reporting of compliance monitoring
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-6.5(c)

Item 3.1:

The following information must be included in any required compliance monitoring records and reports:

- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii) The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;
- (v) The results of such analyses including quality assurance data where required; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.3 of this Part 201.

Condition 4: Monitoring, Related Recordkeeping, and Reporting Requirements.
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-6.5(c)(2)

Item 4.1:

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

Condition 5: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-6.5(c)(3)(ii)

Item 5.1:

The Compliance Certification activity will be performed for the Facility.

Item 5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

(1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



(2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.

(3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring report required above.

(4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.3(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets. Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.5(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2006.
Subsequent reports are due every 6 calendar month(s).

Condition 6: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-6.5(e)

Item 6.1:

The Compliance Certification activity will be performed for the Facility.

Item 6.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requirements for compliance certifications with terms and conditions contained in this facility permit include the

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



following:

- i. Compliance certifications shall contain:
 - the identification of each term or condition of the permit that is the basis of the certification;
 - the compliance status;
 - whether compliance was continuous or intermittent;
 - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related recordkeeping and reporting requirements of this permit;
 - such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions;and
 - such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.
- iv. All compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA representative for the Administrator, at the following address:

USEPA Region 2

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



Air Compliance Branch
290 Broadway
New York, NY 10007-1866

The address for the RAPCE is as follows:

270 Michigan Avenue
Buffalo, NY 14203-2999

The address for the BQA is as follows:

NYSDEC
Bureau of Quality Assurance
625 Broadway
Albany, NY 12233-3258

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2006.
Subsequent reports are due on the same day each year

Condition 7: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 202-2.1

Item 7.1:
The Compliance Certification activity will be performed for the Facility.

Item 7.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Emission statements shall be submitted on or before April
15th each year for emissions of the previous calendar
year.

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due by April 15th for previous calendar year

Condition 8: Recordkeeping requirements
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 202-2.5



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Item 8.1:

(a) The following records shall be maintained for at least five years:

- (1) a copy of each emission statement submitted to the department; and
- (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

Condition 9: Open Fires Prohibited at Industrial and Commercial Sites
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 215

Item 9.1:

No person shall burn, cause, suffer, allow or permit the burning in an open fire of garbage, refuse, rubbish for salvage, or rubbish generated by industrial or commercial activities.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS SUBJECT
TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE**

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period. [NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]

Condition 10: Maintenance of Equipment
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 200.7

Item 10.1:

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively.

Condition 11: Recycling and Salvage
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-1.7



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Item 11.1:

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air

Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-1.8

Item 12.1:

No person shall remove, handle or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Condition 13: Exempt Sources - Proof of Eligibility

Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-3.2(a)

Item 13.1:

The owner and/or operator of an emission source or unit that is eligible to be exempt may be required to certify that it operates within the specific criteria described in this Subpart. The owner or operator of any such emission source 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 which contains 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.

Condition 14: Trivial Sources - Proof of Eligibility

Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-3.3(a)

Item 14.1:

The owner and/or operator of an emission source or unit that is listed as being trivial in this Part may be required to certify that it operates within the specific criteria described in this Subpart. The owner or operator of any such emission source 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 which contains 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.

Condition 15: Standard Requirement - Provide Information

Effective between the dates of 09/12/2005 and 09/11/2010



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Applicable Federal Requirement: 6NYCRR 201-6.5(a)(4)

Item 15.1:

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

Condition 16: General Condition - Right to Inspect
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-6.5(a)(8)

Item 16.1:

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

- (i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- (ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and
- (iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

Condition 17: Standard Requirements - Progress Reports
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-6.5(d)(5)

Item 17.1:

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

- (i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
- (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

preventive or corrective measures adopted.

Condition 18: Off Permit Changes
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-6.5(f)(6)

Item 18.1:

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in section 6 NYCRR 201-6.6 shall not apply to any change made pursuant to this paragraph.

Condition 19: Required Emissions Tests
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 202-1.1

Item 19.1:

For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time. Such person shall bear the cost of measurement and preparing the report of measured emissions. Failure of such person to submit a report acceptable to the commissioner within the time stated shall be sufficient reason for the commissioner to suspend or deny a certificate to operate.

Condition 20: Visible Emissions Limited
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 211.3

Item 20.1:

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Condition 21: Accidental release provisions.
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 40CFR 68

Item 21.1:

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

- a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;
- b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:
 - 1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or,
 - 2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center
C/O CSC
8400 Corporate Dr
Carrollton, Md. 20785

Condition 22: Recycling and Emissions Reduction
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 40CFR 82, Subpart F

Item 22.1:

The permittee shall comply with all applicable provisions of 40 CFR Part 82.

**The following conditions are subject to annual compliance certification requirements
for Title V permits only.**

Condition 23: Emission Unit Definition
Effective between the dates of 09/12/2005 and 09/11/2010



Applicable Federal Requirement: 6NYCRR 201-6

Item 23.1:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-DERV1

Emission Unit Description:

ISOCHEM's phosgene and phosgene derivative production area. This emission unit includes emission points: 00SC4-the main scrubber exhaust; 00SC8-plant ventilation and emergency scrubbing system, 000P5-phosgene production area ventilation and emergency scrubber, 00S17-drum filling station; 00S18-centrifuge; 00S20-vent condenser; 00S21-Vac-u-max baghouse in D-3; 00S22-solids addition baghouse in C-1 for D-3; 00S28-dust collector for solids addition room in C-1; 00S29-Vac-u-max baghouse in D-7, 00DC5-dust collector for D-7 and D-9; 00S40-filter dryer vent condenser; OPT33-receiver tank; OPT34-wash tank; OPT19-centrifuge wash tank; OPT20-vacuum pump cooling tank; 00S19-D3 vent condenser; 00S30-HCL purification unit; OPT29-waste water holding tank; and 00S41 filter Neutche.

Building(s): A-AREA
B-AREA
C-AREA
D-AREA
E-AREA

Item 23.2:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-FUG01

Emission Unit Description:

Process fugitive emissions.

Building(s): A-AREA
B-AREA
C-AREA
D-AREA
E-AREA
FUG AREA

Item 23.3:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-PLAB1

Emission Unit Description:

U-PLAB1 describes exempt laboratory activities and at times may have production activities. This unit has two



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

potentially regulated emission points LAB01, a scrubber, and LAB02, an activated carbon drum. If commercial products are being made and there are applicable requirements, the appropriate monitoring will be conducted.

Building(s): A-AREA
 B-AREA

Item 23.4:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-TANK1

Emission Unit Description:

ISOCHEM storage vessels. VOC storage tanks include emission points ST119, 0ST14, 0ST22, 0ST25, 0ST26, 0ST27, 0ST28 0ST29, and 0ST30 in C-Area and emission points 00ST7, 0ST32, 0ST35, and 0ST36 in the D-Area.

Building(s): C-AREA
 D-AREA

Condition 24: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 201-6.5(f)(2)

Item 24.1:

The Compliance Certification activity will be performed for the Facility.

Item 24.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

ISOCHEM, Inc., is a custom chemical batch manufacturer which operates a facility in Lockport, New York and produces both primarily phosgene and phosgene derivatives at this location. The phosgene is produced on a semi-continuous basis in B Area Process emissions are controlled by sodium hydroxide scrubbing systems, 00SC4, 00SC8, and 00P5. The batch chemical processes occur in the D-Area. Emissions are controlled at the 00SC4 scrubbing system and emergency/ventillation scrubber 00SC8.

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



ISOCHEM is a major source subject to Title V permitting requirements due to emissions of carbon monoxide in excess of 100 tons. Additional contaminants emitted include but not limited to are: particulates, nitrogen oxides, volatile organic compounds (VOC), sulfur dioxide, and various hazardous air pollutants (HAPs) such as hydrogen chloride, hexane, chlorine, phosgene, monochlorobenzene, toluene, methyl alcohol, 1,4-dioxane, n,n-dimethyl formamide, hydrazine, n-ndiethylaniline, methylene chloride, methyl t-butyl ether, phenol, triethyl amine, and xylene. The facility uses various batch chemical reactors, mixing vessels, process vents, tanks, dryers, condensers, scrubbers, fabric filters, and carbon vapor drums in the manufacture of its products and the control of air pollutants emitted from these processes.

Because of the variable nature of the batch chemical industry, it is critical for ISOCHEM to be able to respond to requests for new custom products in an expedient manner. Therefore, consistent with the provisions of 6NYCRR, Part 201-6.5(f)(2), ISOCHEM has submitted and this Department has approved the flexibility protocol attached to this permit. This protocol will allow ISOCHEM to:

- add new emission sources
- modify existing emission sources
- add new control devices
- modify existing control devices
- emit new contaminants, and
- change emissions of existing contaminants
- add new storage tanks per 6NYCRR Part 229

Modifications to existing process emission sources, the addition of new emission sources or the relocation of emission sources may occur within any of the identified emission units; U-DERV1, U-PLAB1, U-TANK1, and UFUG01.

Modifications that are considered minor per 6NYCRR, Part 201-6 are not considered part of this protocol.

Notifications:

Prior to making changes under the terms of this



flexibility protocol, ISOICHEM will notify the Department in writing 30 days prior and will include all information necessary to substantiate that the changes are consistent with this protocol and will ensure compliance with all applicable requirements. The information to be submitted includes but is not limited to: a description of the changes to be made; the addition or modification of process and control equipment; the specific contaminants to be emitted; calculations of emission rate potentials and potential to emit based on AP-42 emission factors, stack tests, material balance and/or engineering calculations; the proposed environmental rating and an Air Guide 1 demonstration if required by the Department.

If the submission of this information demonstrates that the changes to be made are not consistent with the terms of this protocol, then the Department will require a permit modification to be submitted.

Recordkeeping:

ISOICHEM shall maintain records of all modifications made under this flexibility protocol. These modifications will be incorporated into the Title V permit at the time of renewal.

6NYCRR, Part 212 Process Emission Sources:

New contaminants from existing or new emission sources:

The production of custom chemicals may result in the emission of contaminants not already addressed within the Title V permit. Additional contaminants can include volatile organic compounds and hazardous air pollutants, criteria pollutants or other pollutants not currently specified in the Title V permit. In order to ensure that ISOICHEM complies with the Air toxics provisions of 6NYCRR, Part 212, the facility will evaluate the addition of new contaminants from existing or new process sources by calculating an emission rate potential (ERP) for the new constituent. ERP's will be calculated in accordance with AP-42 methods or best engineering practices and evaluated in accordance with the control requirements of 6NYCRR, Part 212.9(b), Table 2. An environmental rating based on Air Guide 1 toxicity ratings will be proposed as

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



follows:

As a rule contaminants designated as, but not limited to, 'high toxicity' in Air Guide 1 will receive an 'A' environmental rating. For emissions of these contaminants, a calculated emission rate potential(ERP) > 1 pound per hour, will require a minimum of 99% control of emissions. An Air Guide 1 analysis of emissions will be conducted to determine if that level of control from existing or new equipment is sufficient or if additional control equipment will be required. If a BACT (Best Available Control Technology) analysis or a variance is required, the change will not be allowed under the terms of this flexibility protocol and a permit modification will be required. Contaminants currently rated within this permit will retain those ratings for future modifications.

An environmental rating of 'B' will be proposed for moderate toxicity contaminants and VOC's designated as HAPs having a low toxicity threshold. An ERP greater than 10 pounds per hour and less than 100 pounds per hour, will require a minimum of 91% control of emissions. An Air Guide 1 analysis of emissions will be conducted to determine if that level of control is acceptable.

An environmental rating of 'C' will be proposed for low toxicity contaminants which are not HAPs. An ERP of greater than 10 and less than 100 pounds per hour will require a minimum of 75% control of emissions.

The Department reserves the right to review and to accept or reject the proposed ratings.

Evaluation of Particulate Emissions-212.4(c):

In order to demonstrate compliance with the particulate emission limits of 6NYCRR, Part 212.4(c). The non-HAP particulate ERP will be calculated from new or modified existing sources using mass balance, engineering estimates, or AP-42 emission factors. If the ERP exceeds .05 grains per dscf, then particulate control equipment such as either a fabric filter, high-efficiency cyclone, or scrubber will be required. Calculations must demonstrate that the control efficiency will be sufficient to ensure compliance with the standard.

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



-Source will be visually inspected and if there are visible emissions it will be shut-down and repaired. Records of repairs will be maintained as required by the permit.

-Semi-annual maintenance on the control device will be conducted and records maintained as required by the permit.

Evaluation of VOC Emissions-212.10-VOC RACT:

Total emissions of volatile organic compounds from facility-wide existing emission sources and proposed new emission sources or modifications of existing sources must remain less than 50 tons during any consecutive rolling 12 month period. Facility-wide emissions shall be calculated using production records, the current version of EPA TANKS software, the most current AP-42 emission factors, chemical engineering mass balance calculations, and/or engineering estimates. If controls are needed to maintain total VOC emissions to less than 50 tons per rolling 12 month period, one of the following methods may be used:

Operational hours: ISOCHEM must demonstrate in their construction notification and document in a log the hours of operation and appropriate emissions factors to demonstrate compliance with the rolling monthly total.

New scrubber: ISOCHEM must provide the Department in their notification of construction letter, operational parameters- scrubber flow, and caustic strength- to demonstrate continuous compliance.

Use of existing D-area packed tower system: ISOCHEM must provide the Department, in notification submission, documentation showing that the existing equipment can accommodate the emissions increase.

Use of a condenser: ISOCHEM shall maintain records that include control efficiency and required operating temperature limits. Hourly temperature readings shall be maintained to demonstrate continuous compliance.

Use of a carbon absorber: Carbon absorption systems

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



shall be monitored daily, when in use, by a device capable of detecting contaminant breakthrough at the action level, or 10 ppm.

Any proposed new emissions which bring the total rolling 12 month emissions to greater than 50 tons will not be allowed under this protocol and the Department will require a significant permit modification under 6NYCRR, Part 201-6.7(d) to be submitted.

6NYCRR, Part 229-Volatile Organic Liquid Storage and Transfer:

As a result of the production of new chemical products ISOCHEM may add new product storage tanks or change the use of existing storage tanks within emission unit U-TANK1 and U-DERV1. Under the provisions of this flexibility protocol, ISOCHEM will be allowed to freely add VOL storage tanks having a capacity less than 20,000 gallons provided that:

Total actual facility-wide emissions of VOC from existing and new emission sources are to remain less than 50 tons during any consecutive rolling 12-month period. Any proposed new emissions which bring the total rolling 12 month emissions to greater than 50 tons will not be allowed under this protocol and the Department will require a significant permit modification under 6NYCRR, Part 201-6.7(d) to be submitted.

Under the provisions of this flexibility protocol, ISOCHEM will be allowed the following storage facilities:

- fixed roof storage tanks having a capacity of 20,000 gallons or greater and storing a VOL liquid with a maximum true vapor pressure of 4.0 or greater provided that the tank is equipped with an internal floating roof with a liquid mounted primary seal and gasketed fittings, or equivalent control.

- fixed roof storage tanks greater than or equal to 10,000 gallons but less than 20,000 gallons provided the tank is equipped with submerged fill.

- volatile liquid storage tanks with a capacity of less than 10,000 gallons provided the tank is equipped with a

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



conservation vent or submerged fill.

40 CFR Part 60: New Source Performance Standards

There are currently several New Source Performance Standards (NSPS) which could be triggered by ISOCHEM as a result of future changes or modifications:

Subpart Dc 60.40c-Small
Industrial/Commercial/Institutional Steam Generating
Units:

Under the terms of this protocol ISOCHEM may add a new combustion unit greater than 10 M/hr and less than 100 MMBTU/hr provided that:

The facility must submit notification to this Department and the EPA of the date of construction and start-up that includes the design input capacity and identification of all fuels combusted.

If natural gas is the only fuel combusted then the facility shall comply with section 60.48c(a) only.

Oil-fired combustion units greater than 30 MMBTU per hour will not be allowed under the terms of this protocol. Oil shall not be combusted in the affected facility that contains greater than 0.5 weight percent sulfur. Compliance shall be based on certification from the fuel supplier as described under 60.48c(f)(1) and/or (2). Each affected facility subject to the fuel sulfur limitations shall keep records from the oil supplier that affirms compliance with the limit. Quarterly reports shall be submitted in accordance with 60.48c(d), (e), and (f).

The performance test for sulfur dioxide shall consist of the certification from the supplier.

The facility shall keep records of the amount of each fuel combusted each day.

Record-keeping shall include the amount of fuel combusted each day and these records shall be kept for a period of five years.

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



A PSD/NSR applicability determination must be made prior to the construction or modification of any new combustion unit.

Coal or wood fired units will not be allowed to commence construction under the provisions of this plan.

Subpart Kb 60.110b Volatile Organic Liquid Storage Vessels

With the production of new chemical products, ISOCHEM may add new storage tanks to its production and storage capacity. Tanks can range over 10,000 gallons currently there is one tank over 20,000 gallons. This subpart applies to tanks over 75 cubic meters (19,814) gallons.

Under the terms of this protocol Vandemark will evaluate each proposed new tank for applicability and can add additional tanks to emission units U-DERV1 and U-TANK1 without a modification of the Title V permit as long as the following criteria are met:

If the tank is greater than or equal to 75 m³ and less than 151 m³ storing a maximum true vapor pressure less than 15 kPa then it is exempt from the General Provisions of Subpart Kb 60.110b(b). ISOCHEM will maintain records for the life of the source showing the dimension of the storage vessel and an analysis showing the capacity. If a tank is between 75 m³ and 151m³, ISOCHEM will maintain records showing that no material with a maximum true vapor pressure of greater than 15kPa is stored in the tank.

Synthetic Organic Chemicals Manufacturing Industry (SOCMI) Regulations

Subpart VV 60.480 Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI)
Subpart NNN 60.660 VOC Emissions from SOCMI Distillation Operations
Subpart RRR 60.700 VOC Emissions from SOCMI Reactor Processes

ISOCHEM manufactures one SOCMI chemical-phosgene. The manufacturing unit pre-dates the NSPS January 5, 1981 applicability date. ISOCHEM's chemical derivatives group

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



does not manufacture any SOCOMI chemicals. They will be allowed to manufacture SOCOMI chemicals as long as no applicable thresholds are triggered.

40 CFR Part 63 National Emission Standards For Hazardous Air Pollutants (NESHAP):

The MACT standards are applicable to facilities that emit or have the potential to emit considering controls an aggregate of 10 tons per year or greater of any individual HAP and/or 25 tons per year or more of any combined HAPs. ISOICHEM will limit their total facility wide emissions of HAPs from existing and any new emission source (s) to less than the major source thresholds through the use of emissions control equipment and therefore will be subject to only area source requirements, if any.

ISOICHEM will evaluate individual emissions from any proposed new source or modification and include the result in the facility wide total. If it is anticipated that total emissions exceed the major source thresholds, ISOICHEM will not be allowed to proceed under the terms of this protocol.

Monitoring to demonstrate compliance with the limits will be consistent with that described for specific control equipment identified under the 212.10 RACT provisions.

New NESHAP's

Any new NESHAPs promulgated will be evaluated by ISOICHEM for applicability. If additional control equipment and performance tests are required to be installed to meet new requirements, they will not be allowed to do so under the provisions of this protocol and permit modifications will be required.

6 NYCRR, Part 231-2: New Source Review
40 CFR Part 52 Prevention of Significant
Deterioration:

Any new or modified emission source shall not be part of a source project that results in a significant net emissions increase that exceeds the NSR major source threshold or that would require the establishment of a new federally enforceable emission cap to avoid NSR

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



requirements.

Confidentiality:

Because of the competitive nature of the batch chemical industry, ISOICHEM requests that all material submitted with respect to the production of new chemical products, be designated confidential.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).

Condition 25: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 236.6(e)(3)

Item 25.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000075-44-5 PHOSGENE

Item 25.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

ISOICHEM, Inc. as a producer of Phosgene is subject to the Reasonably Available Control Technology(RACT) requirements of 6NYCRR, Part 236 for Synthetic Organic Chemical Manufacturing Facility Component Leaks. As per 236.6(e)(3) ISOICHEM has submitted an alternative method of compliance with the requirements of this Part and this Department has determined these procedures to exceed the control and repair requirements of this Part and therefore constitute RACT. This alternative method of compliance was submitted to the United States Environmental Protection Agency as a source specific revision to the New York State Implementation Plan. These procedures are summarized as follows:

1) The Phosgene production and handling facilities are

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



enclosed and vented to a scrubbing system with a minimum 99% control efficiency.

2) A leak as defined by Part 236.1(b)(10) is an emission of Phosgene greater than or equal to 10,000 ppmv. At ISOCHEM equipment is continuously monitored for chemical leaks through detection monitors strategically placed in the production area. These monitors detect Phosgene at 0.1 ppmv and are alarmed to immediately alert personnel of chemical leaks.

3) The Phosgene monitors shall be maintained and calibrated according to current manufacturers' recommendations. The current calibration procedures shall be made accessible to Department representatives on request.

4) All repairs to leaking components will be completed within three days of leak detection or equipment will be taken out of service.

5) All leaks are recorded on internal incident reporting documents and will include the following information: date on which leak occurred, type of component, location of component, date on which the component was repaired.

6) Records will be retained for a minimum of five years.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).

Condition 26: Recycling and emissions reduction.
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 40CFR 82

Item 26.1: The permittee shall comply with all applicable provisions of 40 CFR Part 82.

Condition 27: Production and Consumption Controls
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 40CFR 82, Subpart A



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Item 27.1:

If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

Condition 28: Recycling and Emissions Reduction
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 40CFR 82, Subpart F

Item 28.1:

The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVAC's in Subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR Part 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR Part 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR Part 82.161.
- d. Persons disposing of small appliances, MVAC's, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR Part 82.166. ("MVAC-like appliance as defined at 40 CFR Part 82.152)
- e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR Part 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR Part 82.166.

Condition 29: Class I/II recycling and emissions reduction
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 40CFR 82.154, Subpart F

Item 29.1:

Facilities maintaining, servicing, repairing, or disposing of appliances must comply with the provisions of this section.

**** Emission Unit Level ****

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



**Condition 30: Emission Point Definition By Emission Unit
Effective between the dates of 09/12/2005 and 09/11/2010**

Applicable Federal Requirement: 6NYCRR 201-6

Item 30.1:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-DERV1

Emission Point: 000P5

Height (ft.): 36

Diameter (in.): 30

NYTMN (km.): 4787.92

NYTME (km.): 198.729

Building: B-AREA

Emission Point: 00DC5

Height (ft.): 24

Diameter (in.): 12

NYTMN (km.): 4787.9

NYTME (km.): 198.7

Building: D-AREA

Emission Point: 00S17

Height (ft.): 26

Diameter (in.): 12

NYTMN (km.): 4787.92

NYTME (km.): 198.729

Building: C-AREA

Emission Point: 00S18

Height (ft.): 30

Diameter (in.): 2

NYTMN (km.): 4787.92

NYTME (km.): 198.729

Building: D-AREA

Emission Point: 00S19

Height (ft.): 25

Diameter (in.): 3

NYTMN (km.): 4787.92

NYTME (km.): 198.729

Building: D-AREA

Emission Point: 00S20

Height (ft.): 4

Diameter (in.): 2

NYTMN (km.): 4787.92

NYTME (km.): 198.729

Building: D-AREA

Emission Point: 00S21

Height (ft.): 9

Diameter (in.): 5

NYTMN (km.): 4787.92

NYTME (km.): 198.729

Building: C-AREA

Emission Point: 00S22

Height (ft.): 42

Diameter (in.): 3

NYTMN (km.): 4787.92

NYTME (km.): 198.729

Building: D-AREA

Emission Point: 00S28

Height (ft.): 26

Diameter (in.): 12

NYTMN (km.): 4787.92

NYTME (km.): 198.729

Building: C-AREA

Emission Point: 00S29



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Height (ft.): 48 NYTMN (km.): 4787.9	Diameter (in.): 12 NYTME (km.): 198.7	Building: D-AREA
Emission Point: 00S30 Height (ft.): 2 NYTMN (km.): 4787.9	Diameter (in.): 1 NYTME (km.): 198.7	Building: D-AREA
Emission Point: 00S40 Height (ft.): 41 NYTMN (km.): 4787.9	Diameter (in.): 3 NYTME (km.): 198.7	Building: D-AREA
Emission Point: 00S41 Height (ft.): 43 NYTMN (km.): 4787.9	Diameter (in.): 3 NYTME (km.): 198.8	Building: D-AREA
Emission Point: 00SC4 Height (ft.): 60 NYTMN (km.): 4787.92	Diameter (in.): 12 NYTME (km.): 198.729	Building: D-AREA
Emission Point: 00SC8 Height (ft.): 65 NYTMN (km.): 4787.92	Diameter (in.): 16 NYTME (km.): 198.729	Building: D-AREA
Emission Point: OPT19 Height (ft.): 42 NYTMN (km.): 4787.9	Diameter (in.): 2 NYTME (km.): 198.7	Building: D-AREA
Emission Point: OPT20 Height (ft.): 3 NYTMN (km.): 4787.9	Diameter (in.): 2 NYTME (km.): 198.7	Building: D-AREA
Emission Point: OPT29 Height (ft.): 53 NYTMN (km.): 4787.9	Diameter (in.): 10 NYTME (km.): 198.7	Building: D-AREA
Emission Point: OPT33 Height (ft.): 43 NYTMN (km.): 4787.92	Diameter (in.): 2 NYTME (km.): 198.7	Building: D-AREA
Emission Point: OPT34 Height (ft.): 43 NYTMN (km.): 4787.92	Diameter (in.): 2 NYTME (km.): 198.7	Building: D-AREA

Item 30.2:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-PLAB1



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Emission Point: LAB01
Height (ft.): 36 Diameter (in.): 4
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: B-AREA

Emission Point: LAB02
Height (ft.): 36 Diameter (in.): 2
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: A-AREA

Item 30.3:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-TANK1

Emission Point: 00ST1 Removal Date: 04/01/2005
Height (ft.): 25 Diameter (in.): 2
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: C-AREA

Emission Point: 00ST7
Height (ft.): 42 Diameter (in.): 2
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: D-AREA

Emission Point: 0ST14
Height (ft.): 25 Diameter (in.): 2
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: C-AREA

Emission Point: 0ST21
Height (ft.): 25 Diameter (in.): 2
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: C-AREA

Emission Point: 0ST22
Height (ft.): 32 Diameter (in.): 2
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: C-AREA

Emission Point: 0ST25
Height (ft.): 34 Diameter (in.): 2
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: C-AREA

Emission Point: 0ST26
Height (ft.): 34 Diameter (in.): 2
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: C-AREA

Emission Point: 0ST27
Height (ft.): 33 Diameter (in.): 2
NYTMN (km.): 4787.92 NYTME (km.): 198.729 Building: C-AREA

Emission Point: 0ST28



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Height (ft.): 33	Diameter (in.): 2	
NYTMN (km.): 4787.92	NYTME (km.): 198.729	Building: C-AREA
Emission Point: OST29		
Height (ft.): 33	Diameter (in.): 2	
NYTMN (km.): 4787.92	NYTME (km.): 198.729	Building: C-AREA
Emission Point: OST30		
Height (ft.): 33	Diameter (in.): 2	
NYTMN (km.): 4787.92	NYTME (km.): 198.729	Building: C-AREA
Emission Point: OST32		
Height (ft.): 33	Diameter (in.): 2	
NYTMN (km.): 4787.92	NYTME (km.): 198.729	Building: D-AREA
Emission Point: OST35		
Height (ft.): 37	Diameter (in.): 2	
NYTMN (km.): 4787.92	NYTME (km.): 198.729	Building: C-AREA
Emission Point: OST36		
Height (ft.): 18	Diameter (in.): 2	
NYTMN (km.): 4789.92	NYTME (km.): 198.729	Building: C-AREA
Emission Point: ST119		
Height (ft.): 25	Diameter (in.): 2	
NYTMN (km.): 4787.9	NYTME (km.): 198.7	Building: C-AREA

**Condition 31: Process Definition By Emission Unit
Effective between the dates of 09/12/2005 and 09/11/2010**

Applicable Federal Requirement: 6NYCRR 201-6

Item 31.1:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-DERV1	
Process: CMI	Source Classification Code: 3-01-999-99
Process Description:	

This is the D-area production unit. Phosgene is used as a reactant to produce phosgene derivatives. A scrubbing system consisting of two packed towers S3 and S4, emission point 00SC4 is used to control emissions of phosgene, hydrogen chloride, chloroformates, sulfur dioxide and chlorine. There is a large scrubbing tower, S8, emission point 00SC8, which is used in by-pass and emergency situations for emissions normally venting to emission point 00SC4. This scrubber column normally handles plant

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



ventilations, pressure relief devices, vacuum pumps in
D-Area and the D-3 addition blower.

Emission Source/Control: 000D5 - Control
Control Type: VAPOR RECOVERY SYS(INCL.
CONDENSERS,HOODING, OTHER ENCLOSURES)

Emission Source/Control: 000D6 - Control
Control Type: VAPOR RECOVERY SYS(INCL.
CONDENSERS,HOODING, OTHER ENCLOSURES)

Emission Source/Control: 00AC1 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: 00AC2 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: 00DC5 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00SC4 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00SC8 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 0C1C1 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 0C1C2 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 0D7C1 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 0D9C1 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 0D9C2 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 0D9C3 - Control
Control Type: REFRIGERATED CONDENSER

Emission Source/Control: 0D9C4 - Control
Control Type: ACTIVATED CARBON ADSORPTION

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



Emission Source/Control: 0D9C5 - Control
Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: CV-33 - Control
Control Type: CONSERVATION VENT

Emission Source/Control: CV-34 - Control
Control Type: CONSERVATION VENT

Emission Source/Control: 00C1B - Process

Emission Source/Control: 00S30 - Process

Emission Source/Control: 00SA1 - Process

Emission Source/Control: 00SA2 - Process

Emission Source/Control: 00SA3 - Process

Emission Source/Control: 00SA4 - Process

Emission Source/Control: 0D7C2 - Process

Emission Source/Control: 0D9FD - Process

Emission Source/Control: 0D9FN - Process

Emission Source/Control: OPT19 - Process

Emission Source/Control: OPT20 - Process

Emission Source/Control: OPT29 - Process

Emission Source/Control: OPT33 - Process

Emission Source/Control: OPT34 - Process

Emission Source/Control: 0S1D1 - Process

Emission Source/Control: 0S1D3 - Process

Emission Source/Control: 0S1D7 - Process

Emission Source/Control: 0S1D9 - Process

Emission Source/Control: PE1D1 - Process



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Emission Source/Control: S1T15 - Process

Emission Source/Control: S1T21 - Process

Emission Source/Control: S1T22 - Process

Emission Source/Control: S1T23 - Process

Emission Source/Control: S1T24 - Process

Emission Source/Control: S1T25 - Process

Emission Source/Control: SIST2 - Process

Emission Source/Control: SIST3 - Process

Emission Source/Control: SIST8 - Process

Item 31.2:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-DERV1

Process: DMI

Source Classification Code: 3-01-999-99

Process Description:

Phosgene production gases are vented to the main scrubber columns S3 and S4, emission point point 00SC4. Phosgene production fugitive emissions and chlorine are vented to emission point 000P5, a caustic scrubber. This scrubber may be used in an emergency situation for phosgene production.

Emission Source/Control: 000P5 - Control

Control Type: WET SCRUBBER

Emission Source/Control: 0S1B1 - Process

Emission Source/Control: 0S1B5 - Process

Item 31.3:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-FUG01

Process: FUG

Source Classification Code: 3-01-999-99

Process Description: Process fugitive emissions.

Emission Source/Control: 00DRV - Process



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Emission Source/Control: 00PHS - Process

Emission Source/Control: 0MISC - Process

Item 31.4:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-PLAB1

Process: PL1

Source Classification Code: 3-01-999-99

Process Description:

Pilot lab off-gases vent through emission point LAB01 and are destroyed in a caustic scrubber. Emission point LAB01 is located in the B-Area while processes are located in the A-Area. Pilot lab processes off-gases vented through emission point LAB02 are located in A-Area and absorbed in the activated carbon units.

Emission Source/Control: A10VS - Control

Control Type: ACTIVATED CARBON ADSORPTION

Emission Source/Control: LH6B5 - Control

Control Type: WET SCRUBBER

Emission Source/Control: 00A10 - Process

Emission Source/Control: 00LH6 - Process

Item 31.5:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-TANK1

Process: ST1

Source Classification Code: 3-01-830-01

Process Description: Volatile organic compound storage tanks.

Emission Source/Control: 00SF1 - Control

Control Type: SUBMERGED FILL LINE

Emission Source/Control: 00SF7 - Control

Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0CV14 - Control

Control Type: CONSERVATION VENT

Emission Source/Control: 0SF21 - Control

Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0SF25 - Control

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0SF26 - Control
Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0SF27 - Control
Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0SF28 - Control
Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0SF29 - Control
Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0SF30 - Control
Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0SF32 - Control
Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0SF35 - Control
Control Type: SUBMERGED FILL LINE

Emission Source/Control: 0SF36 - Control
Control Type: SUBMERGED FILL LINE

Emission Source/Control: 00ST1 - Process

Emission Source/Control: 00ST7 - Process

Emission Source/Control: 0ST14 - Process

Emission Source/Control: 0ST21 - Process

Emission Source/Control: 0ST22 - Process

Emission Source/Control: 0ST25 - Process

Emission Source/Control: 0ST26 - Process

Emission Source/Control: 0ST27 - Process

Emission Source/Control: 0ST28 - Process

Emission Source/Control: 0ST29 - Process

Emission Source/Control: 0ST30 - Process

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



Emission Source/Control: OST32 - Process

Emission Source/Control: OST35 - Process

Emission Source/Control: OST36 - Process

Condition 32: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 212.4(a)

Item 32.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-DERV1

Regulated Contaminant(s):
CAS No: 000075-44-5 PHOSGENE

Item 32.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Process and control parameters will be monitored to demonstrate that Phosgene emissions from these sources, 00SC4, 00SC8, and 000P5, are controlled to a minimum of 99% by the scrubber system as required by 6NYCRR Part 212.4(a) and Table 2 Part 212.9. A daily log is to be kept on site which will record monitored parameters as specified in procedures VC-0094 and PH0033(current editions) including % caustic, and caustic feed pressure/flow rate. Records of control equipment maintenance and repairs which will demonstrate continuous compliance with the regulatory requirements are to be kept on-site for a period of five years and made available to department representatives during normal business hours.

Parameter Monitored: PHOSGENE
Lower Permit Limit: 99 percent reduction by weight
Monitoring Frequency: PER SHIFT
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE - SEE MONITORING DESCRIPTION
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

The initial report is due 1/30/2006.
Subsequent reports are due every 6 calendar month(s).

Condition 33: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 212.4(a)

Item 33.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-DERV1

Regulated Contaminant(s):

CAS No: 000079-22-1 METHYL CHLOROCARBONATE (C₂H₃ClO₂)

Item 33.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Process and control parameters will be monitored to demonstrate that chloroformate emissions from 00SC4 and 00SC8 are controlled to a minimum of 99% by the scrubber system as required by 6NYCRR Part 212.4(a) and Table 2 Part 212.9. A daily log is to be kept on site which will record monitored parameters as specified in procedure VC0094 (current edition) including % caustic and caustic feed pressure/flow rate. Records of control equipment maintenance and repairs which will demonstrate continuous compliance with the regulatory requirements are to be kept on-site for a period of five years and made available to department representatives during normal business hours.

Parameter Monitored: METHYL CHLOROCARBONATE (C₂H₃ClO₂)

Lower Permit Limit: 99 percent reduction by weight

Monitoring Frequency: PER SHIFT

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).

Condition 34: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Applicable Federal Requirement: 6NYCRR 212.4(a)

Item 34.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-DERV1

Regulated Contaminant(s):

CAS No: 007647-01-0 HYDROGEN CHLORIDE

Item 34.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Process and control parameters will be monitored to demonstrate that Hydrogen Chloride emissions from these sources, 00SC4, 00SC8, and 000P5, are controlled to a minimum of 99% by the scrubber system as required by 6NYCRR Part 212.4(a) and Table 2 Part 212.9. A daily log is to be kept on site which will record monitored parameters as specified in procedures VC-0094 and PH0033(current editions) including % caustic, and caustic feed pressure/flow rate. Records of control equipment maintenance and repairs which will demonstrate continuous compliance with the regulatory requirements are to be kept on-site for a period of five years and made available to department representatives during normal business hours.

Parameter Monitored: HYDROGEN CHLORIDE

Lower Permit Limit: 99 percent reduction by weight

Monitoring Frequency: PER SHIFT

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).

Condition 35: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 212.4(a)

Item 35.1:



The Compliance Certification activity will be performed for:

Emission Unit: U-DERV1

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 35.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The packed tower scrubbing system will be operated according to established maintenance procedures.

The percent caustic and caustic feed pressure/flow rate shall be recorded each shift to demonstrate that sulfur dioxide emissions from emission points 00SC4 and 00SC8, are controlled to the minimum 91% by the scrubber system as required by 6NYCRR, Part 212.4(a) and Table 2 of Part 212.9. A daily log is to be kept on-site which will record the % caustic, and caustic feed pressure/flow rate.

Records of control equipment maintenance and repairs which will assist in demonstrating compliance with the regulatory requirements are to be kept on-site for a period of five years and made available to Department representatives during normal business hours.

Parameter Monitored: SULFUR DIOXIDE

Lower Permit Limit: 91 percent reduction by weight

Monitoring Frequency: PER SHIFT

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).

Condition 36: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 212.4(a)

Item 36.1:



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

The Compliance Certification activity will be performed for:

Emission Unit: U-DERV1

Regulated Contaminant(s):

CAS No: 007782-50-5 CHLORINE

Item 36.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Process and control parameters will be monitored to demonstrate that chlorine emissions from emission points 00SC4, 00SC8, and 000P5 are controlled to a minimum of 99% by the scrubber system as required by 6NYCRR Part 212.4(a) and Table 2 Part 212.9. A daily log is to be kept on site which will record monitored parameters as specified in procedure VC0094 and PH0033(current editions) including % caustic and caustic feed pressure/flow rate.

Records of control equipment maintenance and repairs which will demonstrate continuous compliance with the regulatory requirements are to be kept on-site for a period of five years and made available to department representatives during normal business hours.

Parameter Monitored: CHLORINE

Lower Permit Limit: 99 percent reduction by weight

Monitoring Frequency: PER SHIFT

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).

Condition 37: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 37.1:

The Compliance Certification activity will be performed for:



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Emission Unit: U-DERV1

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 37.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emissions of solid particulates from emission points 00S21, 00S22, 00S28, 00S29, and 00DC5, shall not exceed 0.050 grains of particulate per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis. Maintenance of bag filters will be performed as necessary or when indicated by visual observations. Maintenance records will be kept on-site for a period of five years.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).

Condition 38: Compliance Certification

Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 212.6(a)

Item 38.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-DERV1

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 38.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No person shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source,

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



except only the emission of uncombined water. The facility owner/operator shall conduct daily visible emissions observation of emission points 00021, 00S22, 00S28, 00S29 and 00DC5 when in operation. If visible emissions are observed, the process equipment shall be shut down until corrective action is completed. The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).

Condition 39: Applicability

Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 40CFR 68.10(a), Subpart A

Item 39.1:

This Condition applies to Emission Unit: U-DERV1

Item 39.2:

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under §68.115, shall comply with the requirements of this part no later than the latest of the following dates:

- (1) June 21, 1999;
- (2) Three years after the date on which a regulated substance is first listed under §68.130; or
- (3) The date on which a regulated substance is first present above a threshold quantity in a process.

The New York State Department of Environmental Conservation is not implementing the Chemical Accident Prevention Program (Part 68). All questions and plan submittals should be sent to the US Environmental Protection Agency, Region 2, New York City.

Condition 40: Facility no longer meets eligibility

Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 40CFR 68.10(e), Subpart A

Item 40.1:



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

This Condition applies to Emission Unit: U-DERV1

Item 40.2:

If at any time a covered process no longer meets the eligibility criteria of its Program level, the owner or operator shall comply with the requirements of the new Program level that applies to the process and update the Risk Management Plan as provided in §68.190

The New York State Department of Environmental Conservation is not implementing the Chemical Accident Prevention Program (Part 68). All questions and plan submittals should be sent to the US Environmental Protection Agency, Region 2, New York City.

**Condition 41: VOL storage tanks less than 10000 gallons
Effective between the dates of 09/12/2005 and 09/11/2010**

Applicable Federal Requirement: 6NYCRR 229.3(e)(2)(v)

Item 41.1:

This Condition applies to Emission Unit: U-DERV1 Emission Point: 00SC4
Process: CM1 Emission Source: SIST2

Item 41.2:

Volatile organic liquid tanks with a capacity of less than 10,000 gallons must be equipped with a conservation vent.

**Condition 42: VOL storage tanks from 10000 - 20000 gallons
Effective between the dates of 09/12/2005 and 09/11/2010**

Applicable Federal Requirement: 6NYCRR 229.3(e)(2)(iv)

Item 42.1:

This Condition applies to Emission Unit: U-DERV1 Emission Point: 00SC4
Process: CM1 Emission Source: SIST3

Item 42.2:

Volatile organic liquid tanks with a capacity greater than or equal to 10,000 gallons but less than 20,000 gallons must be equipped with submerged fill.

**Condition 43: VOL storage tanks less than 10000 gallons
Effective between the dates of 09/12/2005 and 09/11/2010**

Applicable Federal Requirement: 6NYCRR 229.3(e)(2)(v)

Item 43.1:

This Condition applies to Emission Unit: U-DERV1 Emission Point: 00SC4
Process: CM1 Emission Source: SIST8



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Item 43.2:

Volatile organic liquid tanks with a capacity of less than 10,000 gallons must be equipped with a conservation vent.

Condition 44: VOL storage tanks from 10000 - 20000 gallons - 3
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 229.1(d)(2)(vii)

Item 44.1:

This Condition applies to Emission Unit: U-TANK1

Item 44.2:

The owner or operator of processes subject to this requirement must have been in compliance with this Part or have had its permits modified to limit its annual potential to emit below the applicability criteria by 6/1/95.

Condition 45: VOL storage tanks less than 10000 gallons - 3
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 229.1(d)(2)(viii)

Item 45.1:

This Condition applies to Emission Unit: U-TANK1

Item 45.2:

The owner or operator of processes subject to this requirement must have been in compliance with this Part or have had its permits modified to limit its annual potential to emit below the applicability criteria by 6/1/95.

Condition 46: VOL storage tanks from 10000 - 20000 gallons
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 229.3(e)(2)(iv)

Item 46.1:

This Condition applies to Emission Unit: U-TANK1 Emission Point: 00ST1
Process: ST1 Emission Source: 00ST1

Item 46.2:

Volatile organic liquid tanks with a capacity greater than or equal to 10,000 gallons but less than 20,000 gallons must be equipped with submerged fill.

Condition 47: VOL storage tanks less than 10000 gallons
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 229.3(e)(2)(v)

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



Item 47.1:

This Condition applies to Emission Unit: U-TANK1 Emission Point: 00ST7
Process: ST1 Emission Source: 00ST7

Item 47.2:

Volatile organic liquid tanks with a capacity of less than 10,000 gallons must be equipped with a conservation vent.

Condition 48: VOL storage tanks less than 10000 gallons
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 229.3(e)(2)(v)

Item 48.1:

This Condition applies to Emission Unit: U-TANK1 Emission Point: 0ST14
Process: ST1 Emission Source: 0ST14

Item 48.2:

Volatile organic liquid tanks with a capacity of less than 10,000 gallons must be equipped with a conservation vent.

Condition 49: VOL storage tanks from 10000 - 20000 gallons
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 229.3(e)(2)(iv)

Item 49.1:

This Condition applies to Emission Unit: U-TANK1 Emission Point: 0ST21
Process: ST1 Emission Source: 0ST21

Item 49.2:

Volatile organic liquid tanks with a capacity greater than or equal to 10,000 gallons but less than 20,000 gallons must be equipped with submerged fill.

Condition 50: VOL storage tanks from 10000 - 20000 gallons
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 6NYCRR 229.3(e)(2)(iv)

Item 50.1:

This Condition applies to Emission Unit: U-TANK1 Emission Point: 0ST22
Process: ST1 Emission Source: 0ST22

Item 50.2:

Volatile organic liquid tanks with a capacity greater than or equal to 10,000 gallons but less than 20,000 gallons must be equipped with submerged fill.

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



Condition 51: Compliance Certification
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable Federal Requirement: 40CFR 60.116b, NSPS Subpart Kb

Item 51.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-TANK1 Emission Point: OST36
Process: ST1 Emission Source: OST36

Regulated Contaminant(s):
CAS No: 0NY998-00-0 VOC

Item 51.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

ISOCHEM will not store volatile organic liquids having a true vapor pressure greater than 15.0 kPa in tank ST36 (capacity greater than 75 m³ and less than 151 m³) and therefore will not be subject to this subpart.

ISOCHEM will keep records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel as per 60.116b(b). These records are to be kept for the life of the source.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).



STATE ONLY ENFORCEABLE CONDITIONS

****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

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 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.

STATE ONLY APPLICABLE REQUIREMENTS

The following conditions are state applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.

Condition 52: Contaminant List
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable State Requirement: ECL 19-0301

Item 52.1:

Emissions of the following contaminants are subject to contaminant specific requirements in this

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000123-91-1
Name: 1,4-DIETHYLENE DIOXIDE

CAS No: 007782-50-5
Name: CHLORINE

CAS No: 007647-01-0
Name: HYDROGEN CHLORIDE

CAS No: 000079-22-1
Name: METHYL CHLOROCARBONATE (C₂H₃ClO₂)

CAS No: 0NY075-00-0
Name: PARTICULATES

CAS No: 000075-44-5
Name: PHOSGENE

CAS No: 007446-09-5
Name: SULFUR DIOXIDE

CAS No: 0NY998-00-0
Name: VOC

**Condition 53: Unavoidable noncompliance and violations
Effective between the dates of 09/12/2005 and 09/11/2010**

Applicable State Requirement: 6NYCRR 201-1.4

Item 53.1:

At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordkeeping and reporting requirements must be adhered to in such circumstances.

- (a) The facility owner and/or operator shall compile and maintain records of all equipment maintenance or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative.

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superseded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.

(c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted.

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

(e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

Condition 54: Facility Permissible Emissions
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable State Requirement: 6NYCRR 201-7

Item 54.1:

The sum of emissions from the emission units specified in this permit shall not equal or exceed the following

Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 007446-09-5 PTE: 79,999 pounds per year
Name: SULFUR DIOXIDE

CAS No: 0NY998-00-0 PTE: 99,999 pounds per year
Name: VOC

Condition 55: Capping Monitoring Condition
Effective between the dates of 09/12/2005 and 09/11/2010

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



Applicable State Requirement: 6NYCRR 201-7

Item 55.1:

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

40CFR 52-A.21(i)(1)

Item 55.2:

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 55.3:

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.

Item 55.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 55.5:

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 55.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 55.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

ISOCHEM will accept federally enforceable permit conditions to limit its potential to emit of sulfur dioxide from the production of Carbester to less than the

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



40 ton significant emissions increase for a major modification subject to Prevention of Significant Deterioration. Therefore, a non-applicability determination has been made relative to 40 CFR Subpart A 52.21(1)(1) Prevention of Significant Deterioration (PSD).

1. ISOCHEM, a chemical process plant, is one of the 28 source categories for which a major stationary source is defined as having a potential to emit of 100 tons per year of any pollutant for which there is a national ambient air quality standard (NAAQS). Actual emissions of carbon monoxide exceed 100 tons per year.

2. ISOCHEM will limit potential emissions of sulfur dioxide, during the production of Carbester, to less than the major modification de minimus of 40 tons by maintaining the efficiency of its scrubbing system to the minimum 91% control of sulfur dioxide required by 6NYCRR, Part 212.4(a).

3. A performance test was performed on the scrubbers and the removal efficiency for sulfur dioxide was determined to be greater than the required minimum 91% required by 6NYCRR Part 212.4(a). The scrubbers are monitored per the standard operating procedure VC00094 (current edition).

In addition, ISOCHEM has chosen to limit total facility-wide sulfur dioxide emissions from all emission sources (process and combustion) to less than 40 tons during any consecutive twelve month period in order to avoid possible future PSD applicability for any new source project with the potential to emit sulfur dioxide.

Records will be maintained on-site for a minimum of five years and made available to Department representatives during normal business hours.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Reports due 30 days after the reporting period.
The initial report is due 1/30/2006.
Subsequent reports are due every 6 calendar month(s).

Condition 56: Capping Monitoring Condition
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable State Requirement: 6NYCRR 201-7

Item 56.1:

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6NYCRR 212.10(a)(2)
6NYCRR 229.1(d)(2)(vii)
6NYCRR 229.1(d)(2)(viii)

Item 56.2:

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 56.3:

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.

Item 56.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 56.5:

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 56.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY998-00-0 VOC

Item 56.7:



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Actual emissions of volatile organic compounds(VOCs), as of 03/13/1997 are limited to less than 50 tons per each rolling twelve month period in order to avoid the reasonably available control requirements(RACT) of 6NYCRR, Part 212.10 and Part 229. Production records, the current version of EPA TANKS Software, AP-42 fuel emission factors, and engineering estimates will be used to calculate the rolling monthly total of VOC emissions.

1) Emission control equipment will be monitored and maintained as follows in order to ensure that the control efficiency used in the VOC actual emissions calculations and required to comply with this emissions cap is demonstrated.

a) Process and control parameters will be monitored to demonstrate that VOC emissions from the ISOICHEM scrubbing system, 00SC4, and the phosgene scrubbing system, (when used as the main scrubber for phosgene production), 000P5, are controlled to a minimum 99.9%. A daily log is to be kept on-site which will record monitored parameters as specified in the standard operating procedure manuals VC-0094 and PH0033 (current editions) including % caustic, and caustic feed /flow rate. These procedure manuals are to be made available to Department representatives for their review upon request.

b) The vent condensers for emission point 00S20, the vacuum tray dryer, and emission point 00S19, the D-3 vacuum pump discharge, and emission point 00S40 are to be operated as specified in the ISOICHEM standard operating procedures. These procedures will be made to Department representatives for their review upon request. These standard operating procedures specify that the activated carbon drums associated with emission points 00S19, 00S20, 00S40, and 00S41 are to be monitored for breakthrough of VOC's. Emission point 00S20 is to be monitored twice daily when in operation utilizing an appropriate field monitoring device and the carbon drum replaced when breakthrough is detected at 10 parts per million (PPM) to ensure a minimum 70% control efficiency. Emission point



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

00S19 is to be monitored weekly when in operation using an appropriate field monitoring device. Detection of VOC at levels of 10 PPM will initiate drum replacement and ensure 99% removal of VOC. Emission points 00S40 and 00S41 are to be monitored once per shift (12 hours) when in operation, using an appropriate field monitoring device. Detection of VOC at levels of 10 PPM will initiate drum replacement and ensure the removal efficiency required for that process.

2) Records are to be maintained on-site which are to include the hours of operation, monthly production rate, tank contents, tank throughput, fuel use, and carbon drum replacement.

3) These records are to be maintained on-site for a period of five years and made available to Department representatives during normal business hours.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).

Condition 57: Air pollution prohibited
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable State Requirement: 6NYCRR 211.2

Item 57.1:

No person shall 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 deleterious emission, either alone or in combination with others.

Condition 58: Asbestos containing surface coatings prohibited
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable State Requirement: 6NYCRR 221.2

Item 58.1:

No person shall engage in or allow surface coating by the spraying of asbestos or asbestos-containing



New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107

materials.

Condition 59: Compliance Demonstration
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable State Requirement: 6NYCRR 617.11(d)

Item 59.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 000075-44-5 PHOSGENE

Item 59.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Phosgene production at ISOCHEM is limited to 16,100,000 pounds per year. Any proposal for an increase in phosgene production beyond this limit will require a full State Environmental Quality Review(SEQR) and may result in a positive declaration. Records of annual phosgene production are to be kept on-site for a period of 5 years and made available to representatives of this department on request.

Monitoring Frequency: ANNUALLY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2006.
Subsequent reports are due every 6 calendar month(s).

****** Emission Unit Level ******

Condition 60: Compliance Demonstration
Effective between the dates of 09/12/2005 and 09/11/2010

Applicable State Requirement: 6NYCRR 212.4(a)

Item 60.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: U-PLAB1 Emission Point: LAB02

New York State Department of Environmental Conservation

Permit ID: 9-2909-00107/00001

Facility DEC ID: 9290900107



Regulated Contaminant(s):

CAS No: 000123-91-1 1,4-DIETHYLENE DIOXIDE

Item 60.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Ventsorb drums will be inspected weekly and changed out as they become saturated. Two drums will be operated in series; the first drum will be checked for breakthrough during the process step that creates 1.11 lb/hr emissions of 1,4 dioxane and the second drum will serve as control if there is breakthrough on the first drum. Records of inspection and drum change-out will be maintained and made available to Department representatives on request.

Parameter Monitored: 1,4-DIETHYLENE DIOXIDE

Lower Permit Limit: 99 percent reduction by weight

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2006.

Subsequent reports are due every 6 calendar month(s).