

Facility DEC ID: 7034600218

PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 7-0346-00218/00001
Effective Date: 03/30/2020 Expiration Date: 03/29/2030

Permit Issued To: Sungeel MCC Americas LLC
222 Bloomingdale Rd
White Plains, NY 10603

Contact: Yum Kwanghyun
222 Bloomingdale Rd
White Plains, NY 10603
(914) 714-2541

Facility: SMCC LIB Recycling Facility
801 Clark St
Endicott, NY 13760

Description:
This permit authorizes the construction and operation of a lithium-ion battery recycling facility.

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: SCOTT E SHEELEY
NYSDEC - HEADQUARTERS
625 BROADWAY
ALBANY, NY 12233-1750

Authorized Signature: _____ Date: ____ / ____ / ____

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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 compliance 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 any 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.

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- 5 5 Submission of application for permit modification or renewal-REGION 7 HEADQUARTERS

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DEC GENERAL CONDITIONS
****** General Provisions ******
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, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

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 the expiration of permits for Title V and State Facility Permits.

Item 3.3
 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 or revocations by the Department

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Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:

The Department reserves the right to exercise all available authority 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 application for permit modification or renewal-REGION 7 HEADQUARTERS

Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:

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

NYSDEC Regional Permit Administrator
Region 7 Headquarters
Division of Environmental Permits
615 Erie Blvd West
Syracuse, NY 13204-2400
(315) 426-7400

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ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY PERMIT

IDENTIFICATION INFORMATION

Permit Issued To: Sungeel MCC Americas LLC
222 Bloomingdale Rd
White Plains, NY 10603

Facility: SMCC LIB Recycling Facility
801 Clark St
Endicott, NY 13760

Authorized Activity By Standard Industrial Classification Code:
5093 - SCRAP AND WASTE MATERIALS

Permit Effective Date: 03/30/2020

Permit Expiration Date: 03/29/2030

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FEDERALLY ENFORCEABLE CONDITIONS

FINAL

**** Facility Level ****

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Sealing - 6 NYCRR 200.5

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6

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

Item C: Maintenance of Equipment - 6 NYCRR 200.7

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.

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Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Recycling and Salvage - 6 NYCRR 201-1.7

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 6 NYCRR.

Item F: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8

No person shall unnecessarily 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.

Item G: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)

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 6 NYCRR Subpart 201-3. 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 6 NYCRR Subpart 201-3, 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 H: Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR 201-3.3 (a)

The owner and/or operator of an emission source or unit

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that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. 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 6 NYCRR Subpart 201-3, 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 I: Required Emission Tests - 6 NYCRR 202-1.1

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item J: Open Fires Prohibitions - 6 NYCRR 215.2

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

Item K: 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 L: 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

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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.

FEDERAL APPLICABLE REQUIREMENTS
The following conditions are federally enforceable.

Condition 1: Acceptable Ambient Air Quality
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable Federal Requirement:6 NYCRR 200.6

Item 1.1:

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit 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: Maintenance of Equipment
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable Federal Requirement:6 NYCRR 200.7

Item 2.1:

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 3: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable Federal Requirement:6 NYCRR 200.6

Item 3.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 3.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

No later than 180 days after the effective date of this permit and prior to commencing operation, the owner or

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operator shall submit to the Department a plan to ensure that battery types with known chemistry, physical and electrical properties (such as charge level) are accepted.

The plan shall be designed to minimize the risk of fire, and include procurement requirements, visual on-site inspections and sorting, proper storage in fire containment areas and procedures to handle unacceptable batteries.

This plan shall be updated annually as needed.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 4: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable Federal Requirement:6 NYCRR 200.6

Item 4.1:

The Compliance Demonstration activity will be performed for the facility:
 The Compliance Demonstration applies to:

Emission Unit: 1-RECYC	Emission Point: 00001
Emission Unit: 1-RECYC	Emission Point: 00002
Emission Unit: 1-RECYC	Emission Point: 00003
Emission Unit: 1-RECYC	Emission Point: 00004

Regulated Contaminant(s):
 CAS No: 0NY075-00-0 PARTICULATES

Item 4.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

No owner or operator shall cause or allow emissions of particulate matter in excess of 0.01 gr/dscf. Compliance will be determined using stack testing conducted at the request of the Department in accordance with a protocol approved by the Department and 6 NYCRR 202-1.

Test reports shall be submitted within 60 days of completing the stack test.

Parameter Monitored: PARTICULATES
 Upper Permit Limit: 0.05 grains per dscf
 Reference Test Method: EPA Method 5
 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

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DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 5: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable Federal Requirement:6 NYCRR 200.7

Item 5.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

1. Not later than 180 days after commencing operation, the owner or operator shall submit to the Department an Operation and Maintenance (O&M) manual for the air pollution control equipment installed at the facility. The O&M manual shall include:
 - i. operating parameters, such as baghouse inlet temperature, baghouse pressure drop, scrubber recycle flow rate, scrubber pH, and afterburner operating temperatures;
 - ii. procedures for monitoring and recording the parameters identified in item i;
 - iii. preventive maintenance schedules, and
 - iv. procedures to record when malfunctions occur.
2. The owner or operator shall submit to the Department, within two operating days of the occurrence of any malfunction, a description of such malfunction, the cause, the corrective action taken and the duration of such malfunction.
3. Process equipment shall be shut down if any control equipment failure lasts for more than 30 minutes after discovery.
4. On an annual basis, the owner or operator shall submit to the Department a report of each malfunction and a statement whether he or she has complied with this condition.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

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DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)
 Reports due 30 days after the reporting period.
 The initial report is due 1/30/2021.
 Subsequent reports are due every 12 calendar month(s).

Condition 6: Non Applicable requirements
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable Federal Requirement:6 NYCRR 201-6.4 (g)

Item 6.1:

This section contains a summary of those requirements that have been specifically identified as being not applicable to this facility and/or emission units, emission points, processes and/or emission sources within this facility. The summary also includes a justification for classifying any such requirements as non-applicable.

40 CFR Part 60, Subpart CCCC
 Reason: This facility is not subject to 40 CFR Part 60,
 Subpart CCCC, as described in a letter dated July 16, 2019
 from Robert Buettner, EPA Region 2 to Danish Mir,
 President, SungEel MCC Americas, LLC.

Condition 7: Visible Emissions Limited
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable Federal Requirement:6 NYCRR 211.2

Item 7.1:

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 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 8: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable Federal Requirement:6 NYCRR 212-1.6 (a)

Item 8.1:

The Compliance Demonstration activity will be performed for the facility:
 The Compliance Demonstration applies to:

Emission Unit: 1-RECYC	Emission Point: 00001
Emission Unit: 1-RECYC	Emission Point: 00002
Emission Unit: 1-RECYC	Emission Point: 00003
Emission Unit: 1-RECYC	Emission Point: 00004
Emission Unit: 1-RECYC	Emission Point: 0001B

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Item 8.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

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: UPON REQUEST BY REGULATORY AGENCY

Condition 9: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable Federal Requirement:6 NYCRR Subpart 212-2

Item 9.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: 1-RECYC	Emission Point: 00001
Emission Unit: 1-RECYC	Emission Point: 00002
Emission Unit: 1-RECYC	Emission Point: 00003
Emission Unit: 1-RECYC	Emission Point: 00004

Item 9.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

1. On a calendar quarter basis, the owner or operator shall collect a grab sample of the dust collected in each fabric filter at the facility. Each sample shall be analyzed for the following metals: Arsenic, Beryllium, Cadmium, Chromium, Chromium(VI), Lead, Manganese, and Nickel. The owner or operator shall submit the results of such analyses to the Department no later than 30 days after the end of each calendar quarter. In addition, the owner or operator shall state the amounts of each type of battery processed in that prior quarter and the number of

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operating hours.

Sampling frequency may be reduced by written notification from the Department.

2. Stack emission testing shall be conducted upon written request by the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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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: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department 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 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 and maintained;

(3) During the period of the emergency the facility owner 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 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 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 Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)

Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records

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required to comply with the request within sixty working days of written notification by the Department.

Item C: **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 only enforceable.

Condition 10: Contaminant List

Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement:ECL 19-0301

Item 10.1:

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000050-00-0

Name: FORMALDEHYDE

CAS No: 001746-01-6

Name: 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

CAS No: 007439-96-5

Name: MANGANESE

CAS No: 007440-02-0

Name: NICKEL METAL AND INSOLUBLE COMPOUNDS

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

CAS No: 018540-29-9
Name: CHROMIUM(VI)

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

Condition 11: Malfunctions and start-up/shutdown activities
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement:6 NYCRR 201-1.4

Item 11.1:

- (a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.
- (b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, 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 department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.
- (c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.
- (d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.
- (e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 12: Emission Unit Definition

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Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 12.1:

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

Emission Unit: 1-RECYC

Emission Unit Description:

The 1-RECYC emission unit incorporates all the recycling processes that have potential air emissions as follows: a rotary dryer (indirect heated), a natural gas furnace used to indirectly heat the rotary dryer, two grinding and screening machines and an unloading bin. The rotary dryer shall not operate above 625 degrees C. The afterburner shall operate at 800 degrees C or above.

Building(s): SMCC

Condition 13: Compliance Demonstration

Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 13.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 13.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

1. To insure that Lithium Ion Battery off gases that are generated in the rotary dryer do not leak into the combustion flue gases or into the plant, a pressure differential between the combustion chamber (the outside annulus of the dryer) and the inner drying chamber (treating the LIBs) of 0.5 inches or greater must be maintained, such that if there is leakage it is inward to the drying chamber.
2. Pressure measuring devices shall be installed, operated and maintained showing that if there is leakage, it is into the dryer section. Such measurements shall be recorded on a data handling and acquisition system.
3. If pressure differential is not maintained at or above 0.5 inches water, or if the pressure sensing devices fail, the facility must notify the Department no later than 48 hours (business hours) after the occurrence. The averaging period shall be one hour.

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4. The requirements in Items 1 - 3 may be waived by the Department if the owner or operator demonstrates that a pressure differential is, by design, and proven with operations, always such that if leakage between the combustion chamber and the battery chamber occurs, it will be into the battery treatment chamber.

Parameter Monitored: PRESSURE

Upper Permit Limit: 0.5 inches of water

Reference Test Method: Pressure monitors

Monitoring Frequency: CONTINUOUS

Averaging Method: 1 HOUR MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 14: Renewal deadlines for state facility permits
Effective between the dates of 03/30/2020 and 03/29/2030**

Applicable State Requirement:6 NYCRR 201-5.2 (c)

Item 14.1:

The owner or operator of a facility having an issued state facility 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.

**Condition 15: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030**

Applicable State Requirement:6 NYCRR 201-5.3 (c)

Item 15.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 15.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

Division of Air Resources
NYS Dept. of Environmental Conservation
Region 7
615 Erie Blvd West
Syracuse, NY 13204

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2021.

Subsequent reports are due every 12 calendar month(s).

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Condition 16: Air pollution prohibited
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement:6 NYCRR 211.1

Item 16.1:

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 17: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement:6 NYCRR 212-2.1 (a)

Item 17.1:

The Compliance Demonstration activity will be performed for the facility:
 The Compliance Demonstration applies to:

Emission Unit: 1-RECYC	Emission Point: 00001
Emission Unit: 1-RECYC	Emission Point: 00002
Emission Unit: 1-RECYC	Emission Point: 00003
Emission Unit: 1-RECYC	Emission Point: 00004
Regulated Contaminant(s):	
CAS No: 007439-96-5	MANGANESE

Item 17.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

1. Facility-wide annual emissions of manganese compounds shall not exceed the mass emission limit in 6 NYCRR 212-2.2, Table 2. Compliance shall be determined as the product of an emission rate, in pounds per hour, and the number of operating hours in the prior 12 month rolling period. The emission rate shall be determined through emissions testing conducted in accordance with a protocol approved by the Department and 6 NYCRR 202-1. The results of the first emissions test shall be used to compute emissions from the first day of operation. Thereafter, the emission rate from the most recent test

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shall be used to compute emissions, looking forward.

2. Testing shall be conducted no later than 180 operating days after first commencing operation, and at any other time when so requested by the Department.
3. Test reports shall be submitted to the Department within 60 days of completion of the tests.

Parameter Monitored: MANGANESE

Upper Permit Limit: 10 pounds per year

Reference Test Method: EPA Method 29 or DEC approved

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: Arithmetic average of stack test runs

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 18: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement: 6 NYCRR 212-2.1 (a)

Item 18.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: 1-RECYC Emission Point: 00001

Regulated Contaminant(s):
 CAS No: 000050-00-0 FORMALDEHYDE

Item 18.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

1. Facility-wide annual emissions of formaldehyde shall not exceed the mass emission limit in 6 NYCRR 212-2.2, Table 2. Compliance shall be determined as the product of an emission rate, in pounds per hour, and the number of operating hours in the prior 12 month rolling period. The emission rate shall be determined through emissions testing conducted in accordance with a protocol approved by the Department and 6 NYCRR 202-1. The results of the first emissions test shall be used to compute emissions from the first day of operation. Thereafter, the emission rate from the most recent test shall be used to compute emissions, looking forward.
2. Testing shall be conducted no later than 180 operating

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days after first commencing operation, and at any other time when so requested by the Department.

3. Test reports shall be submitted to the Department within 60 days of completion of the tests.

Parameter Monitored: FORMALDEHYDE
 Upper Permit Limit: 100 pounds per year
 Reference Test Method: EPA Method 323 or DEC approved
 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
 Averaging Method: Arithmetic average of stack test runs
 Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 19: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement: 6 NYCRR 212-2.1 (a)

Item 19.1:

The Compliance Demonstration activity will be performed for the facility:
 The Compliance Demonstration applies to:

Emission Unit: 1-RECYC	Emission Point: 00001
Emission Unit: 1-RECYC	Emission Point: 00002
Emission Unit: 1-RECYC	Emission Point: 00003
Emission Unit: 1-RECYC	Emission Point: 00004
Regulated Contaminant(s):	
CAS No: 018540-29-9	CHROMIUM(VI)

Item 19.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

1. Facility-wide annual emissions of chromium(VI) shall not exceed the mass emission limit in 6 NYCRR 212-2.2, Table 2. Compliance shall be determined as the product of an emission rate, in pounds per hour, and the number of operating hours in the prior 12 month rolling period. The emission rate shall be determined through emissions testing conducted in accordance with a protocol approved by the Department and 6 NYCRR 202-1. The results of the first emissions test shall be used to compute emissions from the first day of operation. Thereafter, the emission rate from the most recent test shall be used to compute emissions, looking forward.

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2. Testing shall be conducted no later than 180 operating days after first commencing operation, and at any other time when so requested by the Department.
3. Test reports shall be submitted to the Department within 60 days of completion of the tests.

Parameter Monitored: CHROMIUM(VI)
 Upper Permit Limit: 0.10 pounds per year
 Reference Test Method: EPA Method 29
 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
 Averaging Method: Arithmetic average of stack test runs
 Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 20: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement: 6 NYCRR 212-2.1 (a)

Item 20.1:

The Compliance Demonstration activity will be performed for the facility:
 The Compliance Demonstration applies to:

Emission Unit: 1-RECYC	Emission Point: 00001
Emission Unit: 1-RECYC	Emission Point: 00002
Emission Unit: 1-RECYC	Emission Point: 00003
Emission Unit: 1-RECYC	Emission Point: 00004

Regulated Contaminant(s):
 CAS No: 007440-02-0 NICKEL METAL AND INSOLUBLE COMPOUNDS

Item 20.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
 Monitoring Description:

1. Facility-wide annual emissions of nickel compounds shall not exceed the mass emission limit in 6 NYCRR 212-2.2, Table 2. Compliance shall be determined as the product of an emission rate, in pounds per hour, and the number of operating hours in the prior 12 month rolling period. The emission rate shall be determined through emissions testing conducted in accordance with a protocol approved by the Department and 6 NYCRR 202-1. The results of the first emissions test shall be used to

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compute emissions from the first day of operation. Thereafter, the emission rate from the most recent test shall be used to compute emissions, looking forward.

- 2. Testing shall be conducted no later than 180 operating days after first commencing operation, and at any other time when so requested by the Department.
- 3. Test reports shall be submitted to the Department within 60 days of completion of the tests.

Parameter Monitored: NICKEL METAL AND INSOLUBLE COMPOUNDS
 Upper Permit Limit: 10 pounds per year
 Reference Test Method: EPA Method 29
 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
 Averaging Method: Arithmetic average of stack test runs
 Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 21: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement: 6 NYCRR 212-2.1 (a)

Item 21.1:

The Compliance Demonstration activity will be performed for the facility:
 The Compliance Demonstration applies to:

Emission Unit: 1-RECYC	Emission Point: 00001
Emission Unit: 1-RECYC	Emission Point: 00002
Emission Unit: 1-RECYC	Emission Point: 00003
Emission Unit: 1-RECYC	Emission Point: 00004

Item 21.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
 Monitoring Description:

- 1. Facility-wide annual emissions of any High Toxicity Air Contaminant shall not exceed the mass emission limit in 6 NYCRR 212-2.2, Table 2. Compliance shall be determined as the product of an emission rate, in pounds per hour, and the number of operating hours in the prior 12 month rolling period. The emission rate shall be determined through emissions testing conducted in accordance with a protocol approved by the Department and 6 NYCRR 202-1, or using an emission factor approved by the

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Department. The results of the first emissions test shall be used to compute emissions from the first day of operation. Thereafter, the emission rate from the most recent test shall be used to compute emissions, looking forward.

2. Stack emission testing shall be conducted when so requested by the Department.
3. Stack test reports shall be submitted to the Department within 60 days of completion of the tests.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 22: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement: 6 NYCRR 212-2.1 (a)

Item 22.1:

The Compliance Demonstration activity will be performed for the facility:
 The Compliance Demonstration applies to:

Emission Unit: 1-RECYC

Emission Point: 00001

Regulated Contaminant(s):

CAS No: 001746-01-6 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

Item 22.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

1. Facility-wide annual emissions of polychlorinated dibenzodioxin and dibenzofuran compounds shall not exceed the mass emission limit in 6 NYCRR 212-2.2, Table 2. Except as provided in Item 2 of this condition, compliance shall be determined as the product of an emission rate, in pounds per hour, and the number of operating hours in the prior 12 month rolling period. The emission rate shall be determined through emissions testing conducted in accordance with a protocol approved by the Department and 6 NYCRR 202-1. The results of the first emissions test shall be used to compute emissions from the first day of operation. Thereafter, the emission rate from the most recent test shall be used to compute emissions, looking forward.
2. If the owner or operator documents that no chlorine is

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contained in the raw materials and that no hydrogen chloride is in the exhaust exiting the afterburner, emissions testing for dioxin/furans may be waived by the Department.

3. Testing shall be conducted no later than 180 operating days after first commencing operation, and at any other time when so requested by the Department.

4. Test reports shall be submitted to the Department within 60 days of completion of the tests.

Parameter Monitored: 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

Upper Permit Limit: 0.0001 pounds per year

Reference Test Method: EPA Method 23

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: Arithmetic average of stack test runs

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 23: Compliance Demonstration
Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement: 6 NYCRR 212-2.1 (b)

Item 23.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: 1-RECYC Emission Point: 00001

Regulated Contaminant(s):
 CAS No: 007647-01-0 HYDROGEN CHLORIDE

Item 23.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

1. Facility-wide annual emissions of hydrogen chloride shall not exceed 100 pounds per year. Compliance shall be determined as the product of an emission rate, in pounds per hour, and the number of operating hours in the prior 12 month rolling period. The emission rate shall be determined through emissions testing conducted in accordance with a protocol approved by the Department and 6 NYCRR 202-1. The results of the first emissions test shall be used to compute emissions from the first day of operation. Thereafter, the emission rate from the most recent test shall be used to compute emissions, looking forward.

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2. Testing shall be conducted no later than 180 operating days after first commencing operation, and at any other time when so requested by the Department.
3. Test reports shall be submitted to the Department within 60 days of completion of the tests.

Parameter Monitored: HYDROGEN CHLORIDE
 Upper Permit Limit: 100 pounds per year
 Reference Test Method: EPA 26A
 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
 Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
 Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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

**Condition 24: Emission Point Definition By Emission Unit
 Effective between the dates of 03/30/2020 and 03/29/2030**

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 24.1:

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

Emission Unit: 1-RECYC			
Emission Point: 00001			
Height (ft.): 111	Diameter (in.): 30		
NYTMN (km.): 4662.236	NYTME (km.): 412.886	Building: SMCC	
Emission Point: 00002			
Height (ft.): 60	Diameter (in.): 12		
NYTMN (km.): 4662.236	NYTME (km.): 412.886	Building: SMCC	
Emission Point: 00003			
Height (ft.): 60	Diameter (in.): 18		
NYTMN (km.): 4662.236	NYTME (km.): 412.886	Building: SMCC	
Emission Point: 00004			
Height (ft.): 60	Diameter (in.): 18		
NYTMN (km.): 4662.236	NYTME (km.): 412.886	Building: SMCC	
Emission Point: 0001B			
Height (ft.): 111	Diameter (in.): 30		
NYTMN (km.): 4662.236	NYTME (km.): 412.886	Building: SMCC	

Condition 25: Process Definition By Emission Unit

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Effective between the dates of 03/30/2020 and 03/29/2030

Applicable State Requirement:6 NYCRR Subpart 201-5**Item 25.1:**

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

Emission Unit: 1-RECYC

Process: BIN

Source Classification Code: 3-14-011-01

Process Description:

Dried cells drop from the RK dryer into a bin and are carried by a conveyor to the No. 2 Machines. This process collects dust from the bin and passes through a fabric filter before exhausting through EP 00002.

Emission Source/Control: BINFF - Control

Control Type: FABRIC FILTER

Emission Source/Control: RKBIN - Process

Item 25.2:

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

Emission Unit: 1-RECYC

Process: DRY

Source Classification Code: 3-14-011-01

Process Description:

Spent Lithium ion battery cells, after being electrically discharged and depackaged, are dried in the rotary dryer, operating at a temperature not to exceed 600 degrees C, to eliminate residual electrical charges and to prepare them for grinding for metal recovery. The battery cells flow from the upper dryer to the lower cooling tumbler then into a collection bin/conveyor (process BIN). Emissions from the dryer are controlled by an afterburner, then flow to a waste heat boiler, a heat exchanger, a fabric filter and a wet scrubber. The afterburner operates at or above 800 degrees C. The waste heat boiler and heat exchanger provide temperature control ahead of the fabric filter. The wet scrubber provides final treatment by injecting a neutral pH water through 40 nozzles at 105 gpm (10 liter per nozzle per minute). The scrubber water is recirculated, pH adjusted and make-up water is added as needed.

Emission Source/Control: RKAFB - Control

Control Type: DIRECT FLAME AFTERBURNER

Emission Source/Control: RKBGF - Control

Control Type: FABRIC FILTER

Emission Source/Control: RKSCR - Control

Control Type: SCRUBBER - PACKED BED

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Emission Source/Control: RKDRY - Process

Item 25.3:

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

Emission Unit: 1-RECYC

Process: GRD

Source Classification Code: 3-14-011-01

Process Description:

After drying, spent battery cells are ground in the two grinding machines (No. 2 Machines). This ground material contains the recovered metals. Dust from the grinding machines is collected in a cyclone and further treated by a fabric filter before exhausting.

Emission Source/Control: 2MCAC - Control

Control Type: CENTRIFUGAL

Emission Source/Control: 2MCAF - Control

Control Type: FABRIC FILTER

Emission Source/Control: 2MCBC - Control

Control Type: CENTRIFUGAL

Emission Source/Control: 2MCBF - Control

Control Type: FABRIC FILTER

Emission Source/Control: 2MC-A - Process

Emission Source/Control: 2MC-B - Process