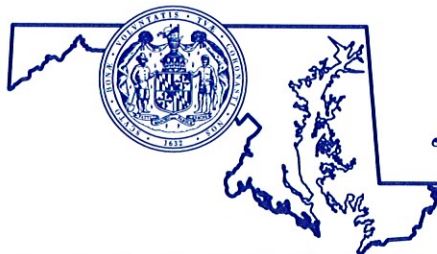


Wes Moore
GovernorSerena McIlwain
Secretary

State of



Maryland

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230☒ Construction Permit☐ Operating Permit

PERMIT NO. As listed on Page 2

DATE ISSUED October 23, 2026

PERMIT FEE \$5,500.00 (Paid)

EXPIRATION DATE In accordance with
COMAR 26.11.02.04B

LEGAL OWNER & ADDRESS

W. R. Grace & Co. – CONN
Curtis Bay Works
5500 Chemical Rd.
Baltimore, MD 21226

Attention: Mr. Jeff Lukowski, Sr. Site Director

SITE

W. R. Grace & Co. – CONN
Curtis Bay Works
5500 Chemical Rd.
Baltimore, MD 21226510-0076
AI # 2102

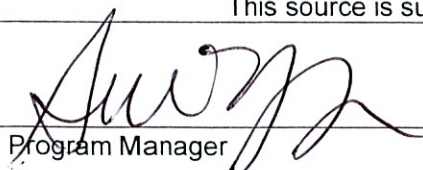
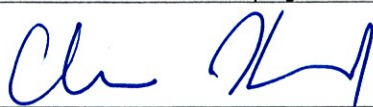
SOURCE DESCRIPTION

This permit authorizes the addition of four (4) new washpots and sixteen (16) wash baskets to the Magnapore Catalyst Plant (510-0076-7-1024) to increase annual production; it authorizes the expansion of the Industrial Catalyst Operations Plant (510-0076-7-1094) to add a third manufacturing line (Line 3) and to replace two existing hammermills; it requires the removal of the Automobile Emissions Operations Spheres Plant (510-0076-7-1077); and allows the Catalyst Additives Operations Plant (510-0076-7-1076) to remove obsolete equipment from air permits.

This permit is issued in conjunction with all valid permits to construct issued to ARA Registration No(s). 510-0076-7-1024, -7-1076, -7-1077, and -7-1094.

This source is subject to the conditions described on the attached pages.

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Program Manager
Director, Air and Radiation Administration

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PERMIT No. 510-0076-7-1024, -7-1076, -7-1077 & -7-1094**

INDEX

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction and Operating Conditions
Part D – Notifications, Testing and Monitoring
Part E – Record Keeping and Reporting
Part F – New Equipment

This permit-to-construct incorporates requirements for the following registered installations:

Plant Name and General 3-Letter Designation	ARA Registration Number	General Process Description	Date of Initial Operation
Magnapore and Magnapore Expansion (MAG and MGX) Plants	510-0076-7-1024	The MAG and MGX plants produce silica gel impregnated with titanium and chromium. Operations include mixing of raw materials, washing crude product with inorganic solutions to remove salts, azeotroping with solvent to remove water, drying in a dryer to remove excess solvent, recovery of solvent by distillation, sizing product with screens and grinders, calcining to remove residual solvent, homogenizing (blending), and packaging.	1980 for MAG and 1991 for MGX, Modified 2026
Catalyst Additives Operations (CAO) Plant	510-0076-7-1076	The CAO plant produces molecular sieves that are either shipped in bulk or slurried for use in other plants at the facility. Operations include crystallization of a mixture of raw materials, washing the crystallized material to obtain a molecular sieve, recovering raw materials washed out during the initial washing step, washing the molecular sieve, stripping ammonia generated during this second washing step and converting the ammonia back to ammonium sulfate, drying the molecular sieve, recovering ammonia released during the drying step, and pneumatically conveying product to storage silos.	1940 (Est.) Modified 2026

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Plant Name and General 3-Letter Designation	ARA Registration Number	General Process Description	Date of Initial Operation
Automobile Emissions Operations (AEO) Plant (This Plant is also referred to as the Hydroprocessing Catalyst Plant)	510-0076-7-1077	The AEO plant includes four (4) processes as follows: 1. Alumina process where raw materials are reacted to produce a dried powder product. 2. Spheres plant where material from the alumina process is formed into spheres and dried. 3. Spherical Hydroprocessing Plant where additional chemicals can be added to spheres material. 4. Extruded Hydroprocessing Plant where additional chemicals are added to the material from the alumina process and formed into extrudates.	1973 Modified 2026
Industrial Catalyst Operations (ICO) Plant (This plant is also referred to as the Polyolefin Plant or the Poly Plant.)	510-0076-7-1094	Silica gel, with or without chrome, is dried into catalysts or catalyst raw materials.	1950 Modified 2026

Part A – General Provisions

- (1) The following Air and Radiation Administration (ARA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:
- (a) Two (2) applications for Processing or Manufacturing Equipment (Form 5) received June 25, 2025 and one application (Form 5) received March 31, 2026.
 - (b) Two (2) Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstrations (Form 5T) received June 25, 2025 and March 31, 2026.
 - (c) Eight (8) Emission Point Data Forms (Form 5EP) received June 25, 2025.

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- (d) Supplemental Information including a facility and project description, emissions calculations, a toxic air pollutant analyses, federal and state regulatory applicability, new source review analysis, public engagement and environmental justice summary with EJ score report, site location map, process flow diagrams, control equipment specification sheets, toxics modeling reports received on June 25, 2025; an addendum received on March 31, 2026 that includes MDE question sets and responses, emission calculation method explanations and examples, revised new source review analysis, revised Air Toxics demonstration reports, equipment updates for the AEO and CAO plants, and revised emissions estimates and calculations; on April 7, 2026 company confidential direct fired burner capacities.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

- (2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Baltimore City Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:
 - (a) inspect any construction authorized by this permit;
 - (b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;
 - (c) inspect any monitoring equipment required by this permit;
 - (d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit;
 - (e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit; and

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- (f) exercise its right of entry through use of an unmanned aircraft system to conduct inspections, collect samples, or make visual observations through photographic or video recordings to determine compliance with the requirements of this permit.
- (3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.
- (4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of a nuisance or air pollution.
- (5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.
- (6) This permit is issued in conjunction with all other valid Permits to Construct issued to ARA Registration No. 510-0076-7-1024, -7-1076, -7-1077 & -7-1094.
- (7) Subsequent to issuance of this permit, the Department may impose additional and modified requirements that are incorporated into a Title V Operating Permit issued pursuant to COMAR 26.11.03.

Part B – Applicable Regulations

- (1) This source is subject to all applicable federal air pollution control requirements including, but not limited to, the following:

All applicable terms, provisions, emissions standards, testing, monitoring, record keeping, and reporting requirements included in the National Emissions Standards for Hazardous Air Pollutants (NESHAP) promulgated under 40 CFR 63, Subparts A and VVVVV for Chemical Manufacturing Area Sources.

Note: The sixteen (16) new wash baskets and four (4) new washpots in the MAG/MGX plants are subject to the NESHAP Subpart VVVVV.

All notifications required under 40 CFR 63, Subparts A and VVVVV shall be submitted to both of the following:

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The Administrator
Compliance Program
Maryland Department of the Environment
Air and Radiation Administration
1800 Washington Boulevard, STE 715
Baltimore MD 21230

and

United States Environmental Protection Agency
Region III, Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

- (2) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:
- (a) COMAR 26.11.01.05 – 1, which requires that the Permittee submit an annual certification of emissions for volatile organic compounds (VOC) and nitrogen oxides (NO_x).
 - (b) COMAR 26.11.01.07C, which requires that the Permittee report to the Department occurrences of excess emissions.
 - (c) COMAR 26.11.02.04B, which states that a permit to construct or an approval expires if, as determined by the Department:
 - (i) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;
 - (ii) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or
 - (iii) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval.

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- (d) COMAR 26.11.02.09A, which requires that the Permittee obtain a permit-to-construct if an installation is to be modified in a manner that would cause changes in the quantity, nature, or characteristics of emissions from the installation as referenced in this permit.
- (e) COMAR 26.11.02.19C & D, which require that the Permittee submit to the Department annual certifications of emissions, and that the Permittee maintain sufficient records to support the emissions information presented in such submittals.
- (f) COMAR 26.11.06.02C(2), which prohibits visible emissions other than uncombined water.

Exceptions. COMAR 26.11.06.02A(2) establishes that "the visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:

- (1) The visible emissions are not greater than 40 percent opacity; and
 - (2) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."
- (g) COMAR 26.11.06.03B(2), which limits the concentration of particulate matter in any exhaust gases to not more than 0.03 grains per standard cubic foot of dry exhaust gas.
 - (h) COMAR 26.11.06.03C and D, which requires that the Permittee take reasonable precautions to prevent particulate matter from unconfined sources and materials handling and construction operations from becoming airborne.

Note: COMAR 26.11.06.03C and D apply to fugitive sources.

- (i) COMAR 26.11.09.08J, which establishes requirements with regard to control of NO_x emissions from installations other than fuel burning equipment.

Note: COMAR 26.11.09.08J applies to the direct-fired combustion sources.

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- (3) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:
- (a) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.
 - (b) COMAR 26.11.15.05, which requires that the Permittee implement “Best Available Control Technology for Toxics” (T – BACT) to control emissions of toxic air pollutants.
 - (c) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions would unreasonably endanger human health.

Part C – Construction and Operating Conditions

- (1) Except as otherwise provided in this part, all installations and modifications to the Magnapore and Magnapore Expansion (MAG and MGX) Plants (510-0076-7-1024), Catalyst Additives Operations (CAO) Plant (510-0076-7-1076), Automobile Emissions Operations (AEO) Plant (510-0076-7-1077), and the Industrial Catalyst Operations (ICO) Plant (510-0076-7-1094) shall be constructed in accordance with specifications included in the incorporated applications.
- (2) Except as otherwise provided in this part, the MAG/MGX, ICO, CAO and AEO Plants shall be operated in accordance with any operating procedures recommended by equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures.
- (3) The Permittee shall maintain and operate all installations and associated air pollution control equipment so as to assure full and continuous compliance with all applicable air pollution control regulations and permit conditions.
- (4) This permit authorizes the Permittee to install four (4) new washpots and sixteen (16) new wash baskets in the MAG/MGX Plant.
- (5) This permit authorizes the Permittee to install one (1) new ICO Plant manufacturing line (Line 3), including the following equipment:
 - (a) One (1) mill feed tank (ET-30102);

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- (b) Two (2) Line 3 mills (EM-30702, EM-30712);
- (c) One (1) mill receiver tank (ET-30103);
- (d) One (1) spray dryer feed tank (ET-30104);
- (e) One (1) Line 3 spray dryer (EST-35801) with an 11 MMBtu/hr natural gas direct fired ultra-low NOx burner and baghouse (EBH35601);
- (f) One (1) coarse classifier feed hopper (EV-35114) with a bin vent (EBV-35614);
- (g) One (1) coarse classifier (ECL-35704) with a coarse classifier baghouse (EBH-35604);
- (h) One (1) baghouse (EBH-35670) controlling emissions from baghouses EBH-35604 & EBH-35605 prior to discharge to ICO-131;
- (i) One (1) coarse classifier sacking station (ES-35604);
- (j) One (1) fines classifier feed hopper (EV-35115) with a bin vent (EBV-35615);
- (k) One (1) fines classifier (ECL-35705) with a fines classifier baghouse (EBH-35605);
- (l) One (1) fines sacking station (ES-35605);
- (m) One (1) finished product packaging silo (EV-35125) with a bin vent (EBV-35606);
- (n) Two (2) drum packaging stations (ES-35606, ES-35607);
- (o) One (1) sack filling station (ES-35608);
- (p) One (1) fugitive dust collector;
- (q) One (1) baghouse (EBH-35671) controlling emissions from the fugitive dust collector prior to discharge to emission point ICO-133;
- (r) One (1) central vacuum system with a baghouse (EBH-35680); and

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- (s) One (1) building vent for indoor emissions.
- (6) This permit authorizes the Permittee to install two (2) replacement hammermills (H-7701S, H-7701N), rated for 8.28 tons/hr each, in the ICO Plant that are common to all three (3) manufacturing lines.
- (7) The following CAO Plant equipment shall be permanently removed from service prior to commencing operation of any new equipment authorized by this permit:
 - (a) Calciner 806 and 806A, associated with emission points CAO-12, CAO-13, CAO-14A, CAO-15, & CAO-16;
 - (b) Calciner 806B, associated with emission points CAO-17A, CAO-18, CAO-19, CAO-20, & CAO-21;
 - (c) Dryer 811 associated with emission point CAO-43;
 - (d) Airveyor 498 associated with emission point CAO-44; and
 - (e) Calciner feed silo 199C associated with emission point CAO-82.
- (8) The following AEO Plant Spheres process equipment, associated with emission point AEO-11, shall be permanently removed from service prior to commencing operation of any new equipment authorized by this permit:
 - (a) Spheres dryer K-720;
 - (b) Alumina Spheres Columns FC-710A, B, C, & D;
 - (c) Separator F-706;
 - (d) Centrifuge CN-001;
 - (e) Holding Tanks T-710A, B, C, & D;
 - (f) Filtrate Tank T-707;
 - (g) Solids Tanks T-601A & B;
 - (h) Centrifuge Tanks T-711A & B;

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- (i) SBA Reactor T-713; and
 - (j) CAMET Catalytic Converter CC-720.
- (9) Prior to operation of the modified MAG/MGX and ICO Plants authorized by this permit, the Permittee shall submit an application for a significant modification to the facility's current Title V-Part 70 Operating Permit to the Department.
- (10) Unless an alternate fuel is approved by the Department, the ICO Plant Line 3 spray dryer (EST-35801) shall only combust natural gas.
- (11) The ICO Plant Line 3 spray dryer (EST-35801) shall be equipped with an ultra-low NO_x burner that is designed to meet 10 ppm at 3% oxygen.
- (12) The Permittee shall limit particulate matter in any exhaust from the ICO Plant to not more than 0.03 grains per standard cubic foot of dry exhaust gas.
[Reference: COMAR 26.11.06.03B(2)]
- (13) The Permittee shall take reasonable precautions to prevent particulate matter from unconfined sources and materials handling and construction operations from becoming airborne. **[Reference: COMAR 26.11.06.03C&D]**
- (14) In accordance with COMAR 26.11.09.08J, for the ICO Plant direct-fired combustion units, including the Line 3 spray dryer (EST-35801), the Permittee shall:
- (a) maintain good operating practices as recommended by the equipment vendor to minimize NO_x emissions;
 - (b) prepare and implement a written in-house training program for operators of the affected installation that includes instruction with regard to good operating and maintenance practices for the particular installation. In accordance with COMAR 26.11.09.08B(5)(a), the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation;
 - (c) maintain and make available to the Department upon request the written in-house operator training program;

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- (d) burn only gas in the installation, where gas is available, during the period May 1 through September 30 of each year; and
 - (e) maintain operator training attendance records for each operator on the site for at least 5 years and make these records available to the Department upon request.
- (15) In order to preclude applicability of 40 CFR Part 63 Subpart VVVVV, and in accordance with COMAR 26.11.15 & 16 which require the Permittee to demonstrate compliance with ambient impact screening levels, the following equipment shall not process trivalent chromium:
- (a) All new equipment authorized by this permit for ICO Plant Line 3; and
 - (b) The Hammermills associated with ICO-60 (H-7701S, H-7701N) common to all three (3) ICO Plant manufacturing lines.
- [Reference: COMAR 26.11.15 &16]**
- (16) For each CMPU subject to the requirements of 40 CFR 63, Subpart VVVVV, including the four (4) new MAG/MGX Plant washpots, the Permittee shall comply with the following management practices: each process vessel must be equipped with a cover or lid that must be closed at all times when it is in metal HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. This requirement does not apply to process vessels containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form).
[Reference: 40 CFR §63.11495(a)(1)]

Part D – Notifications, Testing and Monitoring

- (1) The Permittee shall submit written or electronic notification to the Department of the actual date of initial startup of any new MAG/MGX Plant wash basket or washpot authorized by this permit, within 10 days of such date.
- (2) The Permittee shall submit written or electronic notification to the Department of the actual date of initial startup of any new ICO Plant equipment authorized by this permit, within 10 days of such date.

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- (3) Within 180 days after initial startup, an initial Method 9 visible emissions observation shall be performed for each particulate emission source including MAG-09, ICO-60, and ICO-130 to ICO-134. During the visible emissions observation the equipment being tested shall operate at 90% or higher of its rated capacity, unless the Permittee obtains approval from the Department to conduct the observation using a different operating scenario.
- (4) The Permittee shall perform an observation for visible emissions from each emission point, MAG-09, ICO-60, and ICO-130 to ICO-134, once per day on each day that a source emitting to that emission point is in operation. The observation shall be performed during daylight hours. Each required observation shall endure for at least one (1) minute.
 - (a) If visible emissions are found during an observation, the Permittee shall either initiate immediate shutdown of all installations contributing to the visible emissions or shall:
 - (i) inspect all process and/or control equipment with potential to contribute to the visible emissions. For combustion sources (e.g., fuel burning equipment), inspect all combustion control systems and all combustion operations with potential to contribute to the visible emissions;
 - (ii) where practical, perform within 24 hours all repairs and/or adjustments to all process equipment, control equipment, combustion control systems and/or combustion sources necessary to eliminate visible emissions; and
 - (iii) make written records of any repairs and/or adjustments to process equipment, control equipment, combustion control systems and/or combustion sources that were necessary to eliminate visible emissions.
 - (b) If visible emissions have not been eliminated within 24 hours, the Permittee shall either:
 - (i) conduct at least once per day EPA Reference Method 9 visible emissions evaluations for a period of at least 12 minutes per evaluation until visible emissions have been eliminated; or

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- (ii) shut down all equipment contributing to the visible emissions and effect all maintenance and repairs necessary to re-establish operation without visible emissions before re-starting.
- (5) The Permittee shall revise as necessary the operations and maintenance plans for the MAG/MGX Plant and the ICO Plant that incorporates all of the following for the new equipment authorized by this permit:
 - (a) information that is sufficient to demonstrate that air emissions from each emissions unit within the plant can be expected to comply with all applicable limits and standards during periods of normal operation. Examples of types of information that could be included to support the required demonstrations would be design criteria, vendor specifications and performance guarantees, approved computer modeling studies, and results of testing programs in which approved test methods and procedures were utilized;
 - (b) procedures that provide for proper operation and maintenance of all active emissions units and air pollution control equipment within the plant;
 - (c) provisions for periodic monitoring of operating parameters and emissions as necessary to determine that emissions units and air pollution control equipment are functioning properly;
 - (d) descriptions of procedures to be followed and corrective actions to be taken when monitoring information indicates that an emissions unit or pollution control device is not functioning properly; and
 - (e) provisions for developing written or printable electronic records that will show whether prescribed operating, maintenance and monitoring procedures are consistently followed, and whether timely and appropriate corrective actions are taken when malfunctions occur.
- (6) The Permittee shall conduct annual inspections of the direct fired combustion unit associated with the ICO Plant Line 3 spray dryer (EST-35801) and shall review pertinent operating logs and records to determine the compliance status of operations with regard to implementation of "good operating practices" as recommended by equipment vendors to minimize NOx emissions.

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- (7) For the four (4) new MAG/MGX Plant washpots, to demonstrate compliance with 40 CFR §63.11495(a)(1) and to determine that process vessels and equipment are sound and free of leaks, the Permittee must conduct inspections of process vessels and equipment for each CMPU in metal HAP service, as specified in 40 CFR §63.11495(a)(3)(i), (ii), (iv), and (v) as follows:
- (a) Inspections must be conducted at least quarterly.
 - (b) For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless you demonstrate that the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be HAP in one quarterly monitoring period, the Permittee must still perform the inspection and demonstration in the next quarterly monitoring period.
 - (c) Inspections must be conducted while the subject CMPU is operating.
 - (d) No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required.
- [Reference: 40 CFR §63.11495(a)(3), (a)(3)(i), (ii), (iv), and (v)]**

Part E – Record Keeping and Reporting

- (1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:
- (a) All required notifications;
 - (b) Chemical composition of inputs to the ICO Plant Line 3 and the two (2) hammermills (H-7701S, H-7701N) in order to demonstrate that they have not been in trivalent chromium service, on a monthly basis;
 - (c) Type and amount of fuel combusted in the ICO Plant Line 3 spray dryer (EST-35801) on a monthly basis;
 - (d) Documentation of reasonable precautions taken to prevent particulate matter from unconfined sources and materials handling and construction operations from becoming airborne;

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- (e) All required visible emission observations, including required Method 9 visible emissions observations;
- (f) All required operations and maintenance plans;
- (g) Records demonstrating that the operations and maintenance plans are consistently followed, and whether timely and appropriate corrective actions are taken when malfunctions occur;
- (h) A written description of good operating practices as recommended by the equipment vendor to minimize NO_x emissions from the ICO Plant Line 3 spray dryer (EST-35801);
- (i) Records regarding the required training program concerning NO_x minimization techniques for operations of the ICO Plant Line 3 spray dryer (EST-35801). These records shall include a written description of training program content, the date(s) on which the training was administered, and identification of all employees who attended training;
- (j) Annual inspections of the direct fired combustion unit associated with the ICO Plant Line spray dryer (EST-35801) to determine the compliance status of operations with regard to implementation of "good operating practices" as recommended by equipment vendors to minimize NO_x emissions, and records of the results of the annual inspection and any adjustments made as a result of the annual inspection;
- (k) For the four (4) new MAG/MGX Plant washpots, the Permittee must maintain files of all information required by 40 CFR 63, Subpart VVVVV for at least five (5) years following the date of each occurrence according to the requirements in 40 CFR §63.10(b)(1). If applicable, the Permittee must comply with the recordkeeping and reporting requirements of 40 CFR §63.10(b)(2)(iii) and (vi) through (xiv), and the applicable requirements specified in 40 CFR §63.11501(c)(1) as follows:
 - (i) The Permittee must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair. **[Reference: 40 CFR §63.11495(a)(5) and §63.11501(c)(1)(i)]**

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- (ii) If the Permittee's current estimate is that total uncontrolled metal HAP emissions from a CMPU subject to 40 CFR 63, Subpart VVVVV are less than 400 lb/yr, then the Permittee must keep records of either the number of batches operated per month (batch vents) or the process operating hours (continuous vents). Also, the Permittee must reevaluate your total emissions before the Permittee makes any process or operational change that affects emissions of metal HAP. If projected emissions increase to 400 lb/yr or more, then the Permittee must be in compliance with one of the options for metal HAP process vents in Table 4 to 40 CFR 63, Subpart VVVVV upon initiating operation under the new operating conditions. **[Reference: 40 CFR §63.11496a(f) and (f)(2) and §63.11501(c)(1)(v)]**
 - (iii) The Permittee must keep records of all emissions calculations including all recalculated emissions determinations. To determine the mass emission rate, the Permittee may use process knowledge, engineering assessment, or test data. **[Reference: 40 CFR §63.11496(f)(1) and §63.11501(c)(1)(v)]**
 - (iv) Records of the date, time, and duration of each malfunction of operation of process equipment, control devices, recovery devices, or continuous monitoring systems used to comply with 40 CFR 63, Subpart VVVVV that causes a failure to meet a standard. The record must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. **[Reference: 40 CFR §63.11501(c)(1)(vii)]**
 - (v) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.11495(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **[Reference: §63.11501(c)(1)(viii)]**
- (2) The Permittee shall maintain for the life of the equipment, and shall make available to the Department upon request, records of the following information:

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- (a) Documentation to demonstrate the installation of the ultra-low NO_x burner in the ICO Plant Line 3 spray dryer (EST-35801); and
 - (b) Design information to demonstrate that each stack associated with equipment authorized by this permit will comply with the particulate matter limit of 0.03 grains per dry standard cubic foot of dry exhaust gas.
- (3) The Permittee shall submit semiannual compliance reports for semiannual periods during which the Permittee experiences any of the following events:
- (a) Deviations. The Permittee must clearly identify any deviation from the requirements of 40 CFR 63, Subpart VVVVVV.
 - (b) Delay of leak repair. The Permittee must provide the following information for each delay of leak repair beyond 15 days for any process equipment: information on the date the leak was identified, the reason for the delay in repair, and the date the leak was repaired.
 - (c) Process change. The Permittee must report each process change that affects a compliance determination and submit a new certification of compliance with the applicable requirements in accordance with the procedures specified in 40 CFR §63.501(b).
 - (d) If a malfunction occurred during the reporting period, the report must include the number of instances of malfunctions that caused emissions in excess of a standard. For each malfunction that caused emissions in excess of a standard, the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. The report must also include a description of actions the Permittee took during a malfunction of an affected source to minimize emissions in accordance with 40 CFR §63.11495(d), including actions taken to correct a malfunction.
- [Reference: 40 CFR §63.501(d), (d)(1), (2), (3), (4) and (8)]**
- (4) The Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, records necessary to support annual certifications of emissions and demonstrations of compliance for toxic air pollutants. Such records shall include, if applicable, the following:

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- (a) mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each registered source of emissions;
- (b) accounts of the methods and assumptions used to quantify emissions;
- (c) all operating data, including operating schedules and production data, that were used in determinations of emissions;
- (d) amounts, types, and analyses of all fuels used;
- (e) any records, the maintenance of which is required by this permit or by State or federal regulations, that pertain to the operation and maintenance of continuous emissions monitors, including:
 - (i) all emissions data generated by such monitors;
 - (ii) all monitor calibration data;
 - (iii) information regarding the percentage of time each monitor was available for service; and
 - (iv) information concerning any equipment malfunctions.
- (f) information concerning operation, maintenance, and performance of air pollution control equipment and compliance monitoring equipment, including:
 - (i) identifications and descriptions of all such equipment;
 - (ii) operating schedules for each item of such equipment;
 - (iii) accounts of any significant maintenance performed;
 - (iv) accounts of all malfunctions and outages; and
 - (v) accounts of any episodes of reduced efficiency.
- (g) limitations on source operation or any work practice standards that significantly affect emissions; and

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- (h) other relevant information as required by the Department.
- (5) The Permittee shall submit to the Department by April 1 of each year a certification of emissions for the previous calendar year. The certifications shall be prepared in accordance with requirements, as applicable, adopted under COMAR 26.11.01.05 – 1 and COMAR 26.11.02.19D.
- (a) Certifications of emissions shall be submitted on forms obtained from the Department.
 - (b) A certification of emissions shall include mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each of the facility's registered sources of emissions.
 - (c) The person responsible for a certification of emissions shall certify the submittal to the Department in the following manner:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”
- (6) The Permittee shall submit to the Department by April 1 of each year a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. Such analysis shall include either:
- (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
 - (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

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- (7) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Administration.
- (8) Federal-only enforceable accidental release provisions:
 - (a) The Permittee shall submit risk management plans by the date specified in 40 CFR §68.150.
 - (b) The Permittee shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

[Reference: COMAR 26.11.03.03B(23) and 40 CFR 68]

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Part F – New Equipment

Emission Point ID	Emission Unit			Air Pollution Control Equipment	
	ID	Description	Status	ID	Description
Magnapore Expansion (MGX) Plant (510-0076-7-1024)					
MAG-09	N/A	Four (4) new washpots in the Magnapore Catalyst Plant (MAG/MGX) with sixteen (16) new wash baskets. <i>MAG-09 is listed as an insignificant activity in the Title V-Part 70 Operating Permit.</i>		None	None
Industrial Catalyst Operations (ICO) Plant (510-0076-7-1094)					
ICO-60	H-7701S H-7701N	Replacement of two (2) existing hammermills (H-7701S & H-7701N), common to all three (3) ICO lines, with a capacity of 8.28 tons/hr. <i>Emissions from these hammermills will be routed to the existing emission point ICO-60.</i>		None	None
ICO-130	EST-35801 EBH-35601	Line 3 Spray Dryer (EST-35801) with an 11 MMBtu/hr, natural gas, direct fired ultra-low NOx burner and baghouse (EBH-35601).		None	None
ICO-131	ECL-35704 EBH-35604 ECL-35705 EBH-35605 EBH-35670	Coarse Classifier (ECL-35704) with a coarse classifier baghouse (EBH-35604) and a fines classifier (ECL-35705) with a fines classifier baghouse (EBH-35605). Baghouses EBH-35604 and EBH-35605 are used for material recovery.		EBH-35670	Baghouse
ICO-132	EV-35125 EBV-35606	Finished product packaging silo (EV-35125) with a bin vent (EBV-35606).		None	None
ICO-133	ES-35604 ES-35605 ES-35606 ES-35607 ES-35608 EBH-35671	Fugitive dust collector with a baghouse (EBH-35671), controlling emissions from one (1) coarse sacking station (ES-35604), one fines sacking station (ES-35605), two (2) drum packaging stations (ES-35606, ES-35607), and one (1) sack filling stations (ES-35608).		EBH-35671	Baghouse
ICO-134	EBH-35680	Central vacuum system with a baghouse (EBH-35680).		EBH-35680	Baghouse

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Emission Point ID	Emission Unit			Air Pollution Control Equipment	
	ID	Description	Status	ID	Description
ICO-135	ET-30102 EM-30702 EM-30712 ET-30103 ET-30104 EV-35114 EBV-35614 EV-35115 EBV-35615	Indoor emissions via building vents, including: one (1) mill feed tank (ET-30102), two (2) Line 3 mills (EM-30702, EM 30712), one (1) mill receiver tank (ET-30103), one (1) spray dryer feed tank (ET-30104), one (1) coarse classifier feed hopper (EV-35114) with a bin vent (EBV-35614), and one (1) fines classifier feed hopper (EV-35115 with a bin vent (EBV-35615).		None	None