MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

January 17, 2017

PERMIT TO INSTALL 91-09A

ISSUED TO HyCAL Corporation

LOCATED AT 27800 West Jefferson Avenue Gibraltar, Michigan

Wayne

STATE REGISTRATION NUMBER P0766

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

 DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

 September 27, 2016

 DATE PERMIT TO INSTALL APPROVED:
 SIGNATURE:

 January 17, 2017
 SIGNATURE:

 DATE PERMIT VOIDED:
 SIGNATURE:

 DATE PERMIT REVOKED:
 SIGNATURE:

PERMIT TO INSTALL

Table of Contents

| Section | Page |
|---|------|
| Alphabetical Listing of Common Abbreviations / Acronyms | 2 |
| General Conditions | 3 |
| Special Conditions | 5 |
| Emission Unit Summary Table | 5 |
| Special Conditions for EUEMGEN | 6 |
| Flexible Group Summary Table | 11 |
| Special Conditions for FGANNEALING | 12 |
| Special Conditions for FGFACILITY | 13 |
| Appendix A: Fugitive Dust Plan | 15 |

Common Abbreviations / Acronyms

| Common Acronyms | | Pollutant / Measurement Abbreviations | | |
|-----------------|--|---------------------------------------|---|--|
| AQD | Air Quality Division | acfm | Actual cubic feet per minute | |
| BACT | Best Available Control Technology | BTU | British Thermal Unit | |
| CAA | Clean Air Act | °C | Degrees Celsius | |
| CAM | Compliance Assurance Monitoring | со | Carbon Monoxide | |
| CEM | Continuous Emission Monitoring | CO ₂ e | Carbon Dioxide Equivalent | |
| CFR | Code of Federal Regulations | dscf | Dry standard cubic foot | |
| СОМ | Continuous Opacity Monitoring | dscm | Dry standard cubic meter | |
| Department/ | Michigan Department of Environmental | °F | Degrees Fahrenheit | |
| department | Quality | gr | Grains | |
| EU | Emission Unit | HAP | Hazardous Air Pollutant | |
| FG | Flexible Group | Hg | Mercury | |
| GACS | Gallons of Applied Coating Solids | hr | Hour | |
| GC | General Condition | HP | Horsepower | |
| GHGs | Greenhouse Gases | H ₂ S | Hydrogen Sulfide | |
| HVLP | High Volume Low Pressure* | kW | Kilowatt | |
| ID | Identification | lb | Pound | |
| IRSL | Initial Risk Screening Level | m | Meter | |
| ITSL | Initial Threshold Screening Level | mg | Milligram | |
| LAER | Lowest Achievable Emission Rate | mm | Millimeter | |
| MACT | Maximum Achievable Control Technology | MM | Million | |
| MAERS | Michigan Air Emissions Reporting System | MW | Megawatts | |
| MAP | Malfunction Abatement Plan | NMOC | Non-methane Organic Compounds | |
| MDEQ | Michigan Department of Environmental Quality | NO _x | Oxides of Nitrogen | |
| MSDS | • | ng | Nanogram | |
| NA | Material Safety Data Sheet Not Applicable | PM | Particulate Matter | |
| NAAQS | National Ambient Air Quality Standards | PM10 | Particulate Matter equal to or less than 10 microns in diameter | |
| NESHAP | National Emission Standard for Hazardous | | Particulate Matter equal to or less than 2.5 | |
| | Air Pollutants | PM2.5 | microns in diameter | |
| NSPS | New Source Performance Standards | pph | Pounds per hour | |
| NSR | New Source Review | ppm | Parts per million | |
| PS | Performance Specification | ppmv | Parts per million by volume | |
| PSD | Prevention of Significant Deterioration Permanent Total Enclosure | ppmw | Parts per million by weight | |
| PTE | | psia | Pounds per square inch absolute | |
| PTI | Permit to Install | psig | Pounds per square inch gauge | |
| RACT | Reasonable Available Control Technology | scf | Standard cubic feet | |
| ROP | Renewable Operating Permit | sec | Seconds | |
| SC | Special Condition | SO ₂ | Sulfur Dioxide | |
| SCR | Selective Catalytic Reduction | TAC | Toxic Air Contaminant | |
| SNCR | Selective Non-Catalytic Reduction | Temp | Temperature | |
| SRN | State Registration Number | THC | Total Hydrocarbons – | |
| | Toxicity Equivalence Quotient | tpy | Tons per year | |
| USEPA/EPA | United States Environmental Protection Agency | μg | Microgram | |
| VE | Visible Emissions | µm VOC | Micrometer or Micron Volatile Organic Compounds | |
| | | voc yr | Year | |
| * F | licators the pressure measured at the gun air ca | | | |

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

GENERAL CONDITIONS

- The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. (R 336.1201(1))
- 2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. (R 336.1201(4))
- 3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. (R 336.1201(6)(b))
- 4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. (R 336.1201(8), Section 5510 of Act 451, PA 1994)
- 5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. (R 336.1219)
- 6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. (R 336.1901)
- 7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). (R 336.1912)
- 8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
- 9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
- 10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

- 11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. (R 336.1301)
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
- Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). (R 336.1370)
- 13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. (R 336.2001)

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

| Emission Unit ID | Emission Unit Description (Process Equipment & Control Devices) | Installation Date / Modification Date | Flexible Group ID |
|--|--|--|---------------------------|
| EUEMGEN | 1.76 MMBtu/hr natural gas fired emergency generator (150 KVA power supply) (est. 200 HP) | To be determined | FGFACILITY |
| EUANNEALING1-17 | Ebner Furnaces Seventeen Annealing Oven Heating Bells and Thirty Three Annealing Oven Bases 3.6 MM Btu/hour/Heating Bell Natural Gas Fired * The installation date represents the restart of nine existing heating bells that were previously installed and subsequently shut down. It also represents the installation of eight new heating bells. | June 2, 2009 | FGANNEALING FGFACILITY |
| EUCAL | Continuous anneal line. Heat treating of steel coils. Coils are attached head-to-tail using electrical resistance welding. Aqueous cleaning followed by annealing in a roller hearth furnace (Design heat input: 20.6 MMBtu/hr; fuel: natural gas) | To be determined | FGANNEALING FGFACILITY |
| EUSKINPASS | Electric temper mill (skin pass) for steel coils; no rolling solution is applied. Rust preventative coating electrostatically applied. | To be determined | NA |
| EUAIR | Four furnace air rotation units, each 2.14 MMBtu/hr natural gas. | To be determined | FGFACILITY |
| Changes to the equipm by R 336.1278 to R 33 | ient described in this table are subject to the requi 6.1290. | rements of R 336.120 | 1, except as allowed |

The following conditions apply to: EUEMGEN

DESCRIPTION: 1.76 MMBtu/hr natural gas fired emergency generator (150 KVA power supply) (est. 200 HP)

Emergency Engines subject to 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

New/Reconstructed emergency engines ≤ 500 HP constructed on or after June 12, 2006

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Testing / Monitoring Method | Underlying Applicable Requirements |
|--------------------|-------------|--|-----------|-----------------------------------|--|
| 1. NO _x | 2.0 g/HP-hr | Test Protocol* | EUEMGEN | SC III.1 | 40 CFR 60.4233(e) |
| | | | | | (Table 1) |
| 2. CO | 4.0 g/HP-hr | Test Protocol* | EUEMGEN | SC III.1 | 40 CFR 60.4233(e) |
| | | | | | (Table 1) |
| 3. VOC | 1.0 g/HP-hr | Test Protocol* | EUEMGEN | SC III.1 | 40 CFR 60.4233(e) |
| | - | | | | (Table 1) |

*Test Protocol shall specify averaging time.

II. MATERIAL LIMITS

 The permittee shall burn only natural gas in EUEMGEN except as allowed in 40 CFR 60.4243(e). Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. (R 336.1201(3), 40 CFR 60.4243(e))

III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. The permittee shall comply with the emission standards specified in 40 CFR §60.4233(3), (SC I.1, I.2, and I.3) by purchasing an engine certified to the emission standards in 40 CFR §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. **(40 CFR 60.4243(a))**
- At all times, the permittee must operate and maintain any emergency stationary reciprocating internal combustion engine (RICE), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. (40 CFR 63.6605(b))
- There is no time limit on the use of emergency stationary RICE in emergency situations. (40 CFR 63.6640(f)(1))

- 4. The permittee may operate each engine in EUEMGEN for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. (40 CFR 63.6640(f)(2))
- 5. The engine in EUEMGEN may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in §63.6640(f)(2). The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or demand response, or to generate income for the permittee to supply non-emergency power as part of a financial arrangement with another entity. (40 CFR 63.6640(f)(3))
- For existing and new/reconstructed emergency engines ≤ 500 HP, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times (other than startup) in Table 2c to Subpart ZZZZ of Part 63 apply. (40 CFR 63.6625(h))
- 7. The permittee shall operate and maintain EUEMGEN such that it meets the emission limits in 40 CFR 60.4233(e) over the entire life of the engine. (40 CFR 60.4234, 40 CFR 60.4243(b))
- 8. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60 Subpart JJJJJ, for the same model year, the permittee shall meet the following requirements for EUEMGEN:
 - a) Operate and maintain the certified engine and control device according to the manufacturer's emissionrelated written instructions,
 - b) Keep a maintenance plan and the permittee may only change those engine settings that are permitted by the manufacturer. If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and
 - c) Meet the requirements as specified in 40 CFR 1068 Subparts A through D.

If the permittee does not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and be subject to testing to determine compliance with the emission limits. (40 CFR 60.4243(b)(1) & (2))

IV. DESIGN/EQUIPMENT PARAMETERS

- 1. The permittee shall equip and maintain EUEMGEN with a non-resettable hours meter to track the operating hours. (40 CFR 60.4237(c))
- 2. The nameplate capacity of EUEMGEN shall not be less than 75 kW (100 HP) nor shall the capacity exceed 375 kW (500 HP), as certified by the equipment manufacturer. **(40 CFR 60.4233(e)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

- 1. If EUEMGEN is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
 - a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards in 40 CFR 60.4233(d), within 60 days after achieving the maximum production rate at which EUEMGEN will be operated, but not later than 180 days after initial startup of EUEMGEN, or within 1 year after EUEMGEN is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after changing emission-related settings in a way that is not permitted by the manufacturer.
 - b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244.
 - c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

If a performance test is required, no less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(40 CFR 60.8, 40 CFR 60.4243, 40 CFR 60.4244, 40 CFR 60.4245, 40 CFR Part 60 Subpart JJJJ)**

VI. MONITORING/RECORDKEEPING

- The permittee shall monitor and record the total hours of operation for EUEMGEN per calendar year, recorded through the non-resettable hours meter, in a manner acceptable to the District Supervisor, AQD. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. (40 CFR 60.4245(b))
- The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d)), 40 CFR 60.4243, 40 CFR 60.4245)
- 3. The permittee shall keep, in a satisfactory manner, the following records for EUEMGEN:
 - a) If certified: The permittee shall keep records of the documentation from the manufacturer that the EUEMGEN is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
 - b) If non-certified: The permittee shall keep records of testing required in SC V.1.

The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(1)(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4233(e), 40 CFR 60.4243, 40 CFR 60.4245(a))

- 4. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for EUEMGEN:
 - a) If certified: The permittee shall keep the manufacturer's emission-related written instructions and records demonstrating that EUEMGEN has been maintained according to them, as specified in SC III.8.
 - b) If non-certified: The permittee shall keep records of a maintenance plan, as required by 40 CFR 60.4243 and maintenance activities.

The permittee shall keep all records on file and make them available to the Department upon request. (40 CFR 60.4243, 40 CFR 60.4245(a), 40 CFR Part 60 Subpart JJJJ)

- 5. The permittee shall keep, in a satisfactory manner, either vendor emissions guarantees or the testing required by this PTI, for EUEMGEN. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(1)(a), 40 CFR 52.21(c) & (d))
- If EUEMGEN does not meet the standards applicable to non-emergency engines for the applicable size and model year then the permittee shall monitor and record the operation of EUEMGEN in emergency and nonemergency service that are recorded through the non-resettable hours meter, in a manner acceptable to the District Supervisor, AQD. The permittee shall document the time of operation of the engine and the reason the engine was in operation during that time. (R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4243, 40 CFR 60.4245(b))
- 7. The permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ, as required by this PTI, and all documentation supporting any notification. **(40 CFR 60.4245(a))**

VII. <u>REPORTING</u>

- Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EU2016EMGEN. (R 336.1216(1)(a)(v), R 336.1201(7)(a))
- The permittee shall submit a notification specifying whether EUEMGEN will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of EUEMGEN and within 30 days of switching the manner of operation. (40 CFR Part 60 Subpart JJJJ, 40 CFR 60.4245(a)(4), 40 CFR 60.4243(a)(2))
- 3. If EUEMGEN has not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231, the permittee shall submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following information:
 - a) The date construction of EUEMGEN commenced;
 - b) Name and address of the owner or operator;
 - c) The address of the affected source;
 - d) EU2016EMGEN information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - e) EU2016EMGEN emission control equipment; and
 - f) Fuel used in EU2016EMGEN.

The notification must be postmarked no later than 30 days after construction commenced for EUEMGEN. (40 CFR 60.7(a)(1), 40 CFR 60.4245(c))

- 4. The permittee shall submit an initial notification as required in 40 CFR 63.6645(f) for EUEMGEN. The notification must include the information in 40 CFR 63.9(b)(2)(i)-(v):
 - a) The name and address of the owner or operator;
 - b) The address (i.e., physical location) of the affected source;
 - c) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
 - d) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and
 - e) A statement of whether the affected source is a major source or an area source.

The notification must also include a statement that EUEMGEN has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions). (40 CFR 63.9(b)(2)(i)-(v), 40 CFR 63.6590(b)(1), 40 CFR 63.6645(f))

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

- 1. For new/reconstructed emergency spark ignition engines ≤ 500 HP, the permittee shall comply with the applicable provisions of 40 CFR 60, Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines). (40 CFR 63.6590(c))
- The permittee shall comply with the applicable provisions of the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63, Subpart A and Subpart ZZZZ, by the dates specified in 40 CFR 63.6595. (40 CFR 63 Subparts A and ZZZZ)

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

| Flexible Group ID | Flexible Group Description | Associated Emission Unit IDs |
|-------------------|--|---------------------------------|
| FGANNEALING | Seventeen natural gas fired batch annealing oven | EUANNEALING1-17 |
| | heating bells and continuous annealing line. | EUCAL |
| | All process equipment source-wide including | EUEMGEN |
| FGFACILITY | equipment covered by other permits, grand-fathered | EUANNEALING1-17 |
| | equipment and exempt equipment. | EUCAL, EUAIR |

The following conditions apply to: FGANNEALING

DESCRIPTION: Seventeen natural gas fired batch annealing oven heating bells and continuous annealing line.

Emission Units: EUANNEALING1-17, EUCAL

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

N/A

II. MATERIAL LIMITS

1. The permittee shall burn only natural gas in FGANNEALING. (R 336.1224, R 336.1225, R 336.1702, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

III. PROCESS/OPERATIONAL RESTRICTIONS

N/A

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

VII. <u>REPORTING</u>

N/A

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

N/A

IX. OTHER REQUIREMENTS

N/A

The following conditions apply Source-Wide to: FGFACILITY

I. EMISSION LIMITS

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Testing / Monitoring Method | Underlying Applicable Requirements |
|---|----------|--|------------|-----------------------------------|---|
| 1. NOx | 76.4 tpy | 12-month rolling time period as determined at the end of each calendar month. | FGFACILITY | SC VI. 1. | R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d) |
| The permittee shall calculate NO_x emissions for all equipment in FGFACILITY based on fuel usage data per special conditions identified in this table above and the manufacturer's emission factors (AP-42 when no manufacturer's emission factors are available) or, if required by the Department, testing per GC 13. | | | | | |

II. MATERIAL LIMITS

N/A

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate FGFACILITY unless the program for continuous fugitive emissions control for all plant roadways and all material handling operations specified in Appendix A has been implemented and is maintained. (R 336.1371, R 336.1372, Act 451 324.5524)

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

 The permittee shall monitor and record, in a satisfactory manner, the combined natural gas usage rates and calculate the associated NO_x emissions in tons for EUEMGEN, EUAIR, FGANNEALING, and any other equipment that generates NOx emissions, on a monthly and 12-month rolling time period basis. (R 336.1205, R 336.1702, R 336.2803, R 336.2804, 40 CFR 52.21)

VII. <u>REPORTING</u>

N/A

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

N/A

IX. OTHER REQUIREMENTS

N/A

Appendix A

FUGITIVE DUST PLAN

Purpose: This plan provides dust mitigation strategies for the HyCAL Corporation facility in Gibraltar.

- **Facility Description:** HyCAL Corporation operates a facility in Wayne County at 27800 West Jefferson, Gibraltar, Michigan 48173. The facility is bounded by industrial and commercial fields on three sides and Jefferson Avenue and a marsh on the east side. The MDEQ state registration number (SRN) for the facility is P0766. The North American Industry Classification System (NAICS) code for the facility is 331221.
- Facility Diagram: The facility diagram shows the location of all paved surfaces, unpaved surfaces, and truck haul roadways.

1. Management of On-site Roadways, Steel Haul Trucks.

- a. All on-site roadways supporting haul truck travel shall be paved.
- b. Dust on all roadways supporting haul truck travel shall be controlled by the application of water (including rainfall), sweeping, vacuuming, or other acceptable dust control method. This will occur as needed to address fugitive dust emissions resulting from truck traffic entering or leaving the facility in order to meet applicable opacity limits.
- c. The speed of haul trucks on site shall be limited to ten miles per hour. Signs shall be posted to advise drivers of the speed limitation.

2. Fugitive Dust Plan Adjustment

a. This Fugitive Dust Plan is subject to adjustment when warranted. Should any internal or external (e.g., MDEQ) inspection indicate change is needed to better manage the roads or other areas on site, adjustment to this plan will be made and documented. Plan adjustments shall be completed within 30 days of notification or determination of need for plan adjustment.

3. Recordkeeping.

- a. A record of all dust control applications on areas traveled by haul trucks shall be kept on file for a period of five years and be made available to the AQD upon request. The records shall indicate the date, time, and action taken for each occurrence of a dust control activity.
- b. A record of all adjustments made to the plan shall be kept on file for a period of five years and be made available to the AQD upon request. The records shall include the date and description of change.

