# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION 

April 10, 2018

PERMIT TO INSTALL
166-16B

ISSUED TO
UniFirst Corporation

## LOCATED AT

1300 Auburn Road
Pontiac, Michigan

IN THE COUNTY OF
Oakland

## STATE REGISTRATION NUMBER

P0758

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:
February 21, 2018

| DATE PERMIT TO INSTALL APPROVED: | SIGNATURE: |
| :--- | :--- |
| April 10, $\mathbf{2 0 1 8}$ |  |
| DATE PERMIT VOIDED: | SIGNATURE: |
| DATE PERMIT REVOKED: | SIGNATURE: |

## PERMIT TO INSTALL

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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 | ${ }^{\circ} \mathrm{C}$ | Degrees Celsius |
| CAM | Compliance Assurance Monitoring | CO | Carbon Monoxide |
| CEM | Continuous Emission Monitoring | $\mathrm{CO}_{2} \mathrm{e}$ | Carbon Dioxide Equivalent |
| CFR | Code of Federal Regulations | dscf | Dry standard cubic foot |
| COM | Continuous Opacity Monitoring | dscm | Dry standard cubic meter |
| Department/ department | Michigan Department of Environmental Quality | ${ }^{\circ} \mathrm{F}$ gr | Degrees Fahrenheit 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 | $\mathrm{H}_{2} \mathrm{~S}$ | 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 | $\begin{aligned} & \mathrm{NO}_{\mathrm{x}} \\ & \mathrm{ng} \end{aligned}$ | Oxides of Nitrogen Nanogram |
| MSDS | Material Safety Data Sheet | PM | Particulate Matter |
| NA | Not Applicable | PM10 | Particulate Matter equal to or less than 10 |
| NAAQS | National Ambient Air Quality Standards | PM10 | microns in diameter |
| NESHAP | National Emission Standard for Hazardous Air Pollutants | PM2.5 | Particulate Matter equal to or less than 2.5 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 | ppmw | Parts per million by weight |
| PTE | Permanent Total Enclosure | 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 | $\mathrm{SO}_{2}$ | Sulfur Dioxide |
| SCR | Selective Catalytic Reduction | TAC | Toxic Air Contaminant |
| SNCR | Selective Non-Catalytic Reduction | Temp | Temperature |
| SRN | State Registration Number | THC | Total Hydrocarbons |
| TEQ | Toxicity Equivalence Quotient | tpy | Tons per year |
| USEPA/EPA | United States Environmental Protection Agency | $\mu \mathrm{g}$ $\mu \mathrm{m}$ | Microgram Micrometer or Micron |
| VE | Visible Emissions | $\begin{aligned} & \text { VOC } \\ & \mathrm{yr} \end{aligned}$ | Volatile Organic Compounds Year |

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

## GENERAL CONDITIONS

1. 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. ( $\mathrm{R} \mathbf{3 3 6 . 1 2 0 1 ( 1 ) )}$
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 489097760, 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. ( $\mathbf{R} \mathbf{3 3 6 . 1 9 0 1}$ )
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 startup or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of 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.
12. 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 I Modification Date | Flexible Group ID |
| :---: | :---: | :---: | :---: |
| EUW01 | 90 lb capacity Milnor industrial washing machine. | January 2011 | FGLAUNDRY |
| EUW02 | 135 lb capacity Washex industrial washing machine. | November 2000 | FGLAUNDRY |
| EUW03 | 200 lb capacity Braun industrial washing machine. | November 2000 | FGLAUNDRY |
| EUW04 | 500 lb capacity Braun industrial washing machine. | November 2000 | FGLAUNDRY |
| EUW05 | 500 lb capacity Braun industrial washing machine. | November 2000 | FGLAUNDRY |
| EUW06 | 700 lb capacity Braun industrial washing machine. | January 2013 | FGLAUNDRY |
| EUW07 | 700 lb capacity Braun industrial washing machine. | November 2000 | FGLAUNDRY |
| EUW08 | 700 lb capacity Braun industrial washing machine. | January 2005 | FGLAUNDRY |
| EUW09 | 700 lb capacity Braun industrial washing machine. | January 2011 | FGLAUNDRY |
| EUW10 | 700 lb capacity Braun industrial washing machine. | January 2012 | FGLAUNDRY |
| EUWWT01 | On-site wastewater treatment system to pre-treat wastewater from the washing machines prior to discharge to the publicly owned wastewater system. | 2000 | FGLAUNDRY |
| EUD01 | 150 lb capacity Milnor natural gas-fired industrial dryer with a maximum heat input of $0.395 \mathrm{MMBtu} / \mathrm{hr}$. The exhaust air passes through a lint collector before being vented to the ambient air. | November 2000 | FGLAUNDRY |
| EUD02 | 700 lb capacity Braun natural gas-fired industrial dryer with a maximum heat input of $2.8 \mathrm{MMBtu} / \mathrm{hr}$. The exhaust air passes through a lint collector before being vented to the ambient air. | June 2017 | FGLAUNDRY |
| EUD03 | 600 lb capacity Challenge natural gas-fired industrial dryer with a maximum heat input of $2.9 \mathrm{MMBtu} / \mathrm{hr}$. The exhaust air passes through a lint collector before being vented to the ambient air. | November 2000 | FGLAUNDRY |
| EUD04 | 700 lb capacity Braun natural gas-fired industrial dryer with a maximum heat input of $2.8 \mathrm{MMBtu} / \mathrm{hr}$. The exhaust air passes through a lint collector before being vented to the ambient air. | January 2014 | FGLAUNDRY |
| EUD05 | 700 lb capacity Braun natural gas-fired industrial dryer with a maximum heat input of $2.8 \mathrm{MMBtu} / \mathrm{hr}$. The exhaust air passes through a lint collector before being vented to the ambient air. | June 2017 | FGLAUNDRY |
| EUST01 | A natural gas-fired steam tunnel with a maximum heat input of 0.8 MMBtu/hr to remove wrinkles from selected textiles. | May 2001 | FGLAUNDRY |
| EUBOILER01 | A natural gas-fired boiler with a maximum heat input of 10.5 MMBtu/hr. The boiler produces steam for the steam tunnel (EUST01), as well as steam and hot water for the industrial washing machines (EUW01 - EUW10). | 2000 | FGLAUNDRY |

Changes to the equipment described in this table are subject to the requirements of R 336.1201 , except as allowed by R 336.1278 to R 336.1290.

## 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 <br> Emission Unit IDs |
| :--- | :--- | :---: |
| FGLAUNDRY | Industrial laundering operation to wash and dry various <br> textiles including uniforms, floor mats, mops and shop <br> towels. There are ten (10) industrial washers, five (5) <br> natural gas-fired industrial dryers, one (1) natural gas- <br> fired wrinkle-removing steam tunnel, one (1) on-site <br> wastewater treatment system and one (1) natural gas- <br> fired process boiler. | EUW01, EUW02, EUW03, <br> EUW04, EUW05, EUW06, <br> EUW07, EUW08, EUW09, <br> EUW10, EUWWT01, <br> EUD01, EUD02, EUD03, <br> EUD04, EUD05, EUST01, <br> EUBOILER01 |
| FGFACILITY | All process equipment source-wide including equipment <br> covered by other permits, grand-fathered equipment and <br> exempt equipment. |  |

## The following conditions apply to:

 FGLAUNDRY[^0]POLLUTION CONTROL EQUIPMENT: The dryers are each equipped with a lint collector.

## I. EMISSION LIMITS

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Testing / Monitoring Method | Underlying Applicable Requirements |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. PM | 0.10 lbs per 1,000 lbs of gas ${ }^{\text {a }}$ | Hourly | Each dryer in FGLAUNDRY | $\begin{gathered} \hline \text { SC V.1, VI.4, } \\ \text { VI. } 7 \end{gathered}$ | $\begin{gathered} \text { R 336.1205(3), } \\ \text { R 336.1331(1)(a) } \\ \hline \end{gathered}$ |
| 2. PM10 | 0.0019 lbs per lb of textiles processed (soiled weight) | Hourly | Each dryer in FGLAUNDRY | $\begin{gathered} \text { SC V.1, VI.4, } \\ \text { VI.5, VI. } 7 \end{gathered}$ | $\begin{gathered} \text { R 336.1205(3), } \\ 40 \text { CFR 52.21(c)\&(d) } \end{gathered}$ |
| 3. PM2.5 | 0.0011 lbs per lb of textiles processed (soiled weight) | Hourly | Each dryer in FGLAUNDRY | $\begin{gathered} \text { SC V.1, VI.4, } \\ \text { VI.5, VI. } 7 \end{gathered}$ | $\begin{gathered} \text { R 336.1205(3), } \\ 40 \text { CFR 52.21(c)\&(d) } \end{gathered}$ |
| ${ }^{\text {a }}$ Calculated on a wet gas basis |  |  |  |  |  |

## II. MATERIAL LIMITS

1. The permittee shall process no more than 10,000 pounds of soiled shop towels per day in FGLAUNDRY. (R 336.1225, R 336.1702(a))
2. The permittee shall process no more than 191,666 pounds of soiled shop towels per calendar month in FGLAUNDRY. (R 336.1225, R 336.1702(a))
3. The permittee shall process no more than $14,925,000$ pounds (soiled weight) of textiles (uniforms, mops, shop towels, etc.) in the dryers (EUD01, EUD02, EUD03, EUD04, \& EUD05) portion of FGLAUNDRY per year, based on a 12-month rolling time period as determined at the end of each calendar month. (R 336.1205(3), 40 CFR 52.21(c) \& (d))
4. The permittee shall burn only sweet natural gas in EUBOILERO1. ( $\mathrm{R} 336.1224, \mathrm{R} 336.1225, \mathrm{R} 336.1702(\mathrm{a})$, 40 CFR 52.21(c) \& (d))
5. The permittee shall clean textiles only with water solutions of bleach or detergents in FGLAUNDRY. (R 336.1225, R 336.1702(a))
6. The permittee shall not process print towels in FGLAUNDRY. (R 336.1225, R 336.1702(a))
7. The permittee shall not process furniture towels in FGLAUNDRY. ( $\mathbf{R} \mathbf{3 3 6 . 1 2 2 5}, \mathbf{R} \mathbf{3 3 6 . 1 7 0 2 ( a ) )}$

## III. PROCESSIOPERATIONAL RESTRICTIONS

1. The heat input capacity of EUD01 shall not exceed a maximum of 0.395 MMBtu per hour. ( $\mathbf{R} \mathbf{3 3 6 . 1 2 0 5 ( 3 ) ,}$ R 336.1225, 40 CFR 52.21(c) \& (d))
2. The heat input capacity of EUD02 shall not exceed a maximum of 2.8 MMBtu per hour. ( $\mathbf{R} \mathbf{3 3 6 . 1 2 0 5 ( 3 ) ,}$ R 336.1225, 40 CFR 52.21(c) \& (d))
3. The heat input capacity of EUD03 shall not exceed a maximum of 2.9 MMBtu per hour. ( $\mathbf{R} \mathbf{3 3 6 . 1 2 0 5 ( 3 ) \text { , }}$ R 336.1225, 40 CFR 52.21(c) \& (d))
4. The heat input capacity of EUD04 shall not exceed a maximum of 2.8 MMBtu per hour. ( $\mathbf{R} \mathbf{3 3 6 . 1 2 0 5 ( 3 ) \text { , }}$ R 336.1225, 40 CFR 52.21(c) \& (d))
5. The heat input capacity of EUD05 shall not exceed a maximum of 2.8 MMBtu per hour. ( $\mathbf{R} \mathbf{3 3 6 . 1 2 0 5 ( 3 ) ,}$ R 336.1225, 40 CFR 52.21(c) \& (d))
6. The heat input capacity of EUST01 shall not exceed a maximum of 0.8 MMBtu per hour. ( $\mathbf{R} \mathbf{3 3 6 . 1 2 0 5 ( 3 )}$, R 336.1225, 40 CFR 52.21(c) \& (d))
7. The heat input capacity of EUBOILER01 shall not exceed a maximum of 10.5 MMBtu per hour. (R 336.1205(3), R 336.1225, 40 CFR 52.21(c) \& (d), 40 CFR Part 60 Subpart Dc)
8. The permittee shall implement and maintain the approved operation and maintenance plan for the lint collectors associated with the dryers (EUD01, EUD02, EUD03, EUD04, \& EUD05) portion of FGLAUNDRY. The plan shall include the following:
a. Operation and maintenance criteria for each lint collector, as well as a standardized checklist to document the operation and maintenance of the equipment;
b. The work practice standards for the lint collectors;
c. Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and
d. A systematic procedure for identifying process equipment, particulate matter control device, and monitoring equipment malfunctions and for implementing corrective actions to address such malfunctions.
( R 336.1301 , R 336.1910 )

## IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate the dryers (EUD01, EUD02, EUD03, EUD04, \& EUD05) portion of FGLAUNDRY unless all respective lint collectors are installed, maintained and operated in a satisfactory manner in accordance to the operation and maintenance plan required by SC III.8. ( $\mathbf{R} 336.1301, \mathbf{R} 336.1910$ )

## V. TESTING/SAMPLING

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

1. Upon request of the AQD District Supervisor, a demonstration, by testing at the owner's expense and in accordance with Department requirements, to show compliance with the PM emission limit in SC 1.1 for FGLAUNDRY, the PM10 emission limit in SC I. 2 for FGLAUNDRY, and the PM2.5 emission limit in SC 1.3 for FGLAUNDRY, may be required. Testing shall be performed using an approved EPA Method listed in:

| Pollutant | Test Method Reference |
| :--- | :--- |
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10/PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The permittee shall submit 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. (R 336.1205, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) \& (d))
2. Upon request of the AQD District Supervisor, testing at the owner's expense and in accordance with Department requirements, to determine the VOC emitted while laundering shop towels in FGLAUNDRY, may be required. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A, or 40 CFR Part 51, Appendix M. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The permittee shall submit 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. ( $\mathrm{R} 336.1205, \mathrm{R} 336.1225, \mathrm{R} 336.1702, \mathrm{R} \mathrm{336.2001}, \mathrm{R} \mathrm{336.2003}$, R 336.2004)

## VI. MONITORING/RECORDKEEPING

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

1. 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 , $\mathrm{R} 336.1225, \mathrm{R} 336.1702,40$ CFR 60.48c(g), 40 CFR 52.21(c) \& (d))
2. The permittee shall record the amount of soiled shop towels, in pounds per day, processed through FGLAUNDRY. (R 336.1225, R 336.1702(a))
3. The permittee shall record the amount of soiled shop towels, in pounds per calendar month, processed through FGLAUNDRY. (R 336.1225, R 336.1702(a))
4. The permittee shall record the amount of textiles (uniforms, mops, shop towels, etc.) processed through the dryers (EUD01, EUD02, EUD03, EUD04, \& EUD05) portion of FGLAUNDRY in pounds (soiled weight) per calendar month and in pounds (soiled weight) per 12-month rolling time period as determined at the end of each calendar month. (40 CFR 52.21(c) \& (d))
5. The permittee shall record the following for each calendar month:
a. The amount of natural gas delivered to the facility during the month
b. Based on the ratio of the heat input rating of EUBOILER01 to the heat input rating of all natural gasburning equipment at the facility, the amount of natural gas combusted attributable to EUBOILER01.
(40 CFR 60.48c(g)(3), 40 CFR 52.21(c) \& (d))
6. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each detergent material, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. ( $\mathbf{R} \mathbf{3 3 6 . 1 2 2 5}$, R 336.1702)
7. The permittee shall keep, in a satisfactory manner, a record of actions taken under the dryer lint collector operation and maintenance plan. The permittee shall keep all records on file at the facility and make them available to the Department upon request. ( R 336.1910 )

## VII. REPORTING

NA

## 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:

| Stack \& Vent ID | Maximum Exhaust Diameter/Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
| :---: | :---: | :---: | :---: |
| 1. SVB01 (Boiler Stack) | 18 | 31 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR 52.21(c) \& (d) } \end{gathered}$ |
| 2. SVD01 (Dryer 1 Stack)* | 16 | 28 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR } 52.21(\mathrm{c}) \&(\mathrm{~d}) \\ \hline \end{gathered}$ |
| 3. SVD02 (Dryer 2 Stack) | 28 | 33 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR 52.21(c) \& (d) } \end{gathered}$ |
| 4. SVD03 (Dryer 3 Stack) | 22 | 33 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR } 52.21(\mathrm{c}) \&(\mathrm{~d}) \end{gathered}$ |
| 5. SVD04 (Dryer 4 Stack) | 28 | 33 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR } 52.21(\mathrm{c}) \&(\mathrm{~d}) \\ \hline \end{gathered}$ |
| 6. SVD05 (Dryer 5 Stack) | 28 | 33 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR } 52.21(\mathrm{c}) \&(\mathrm{~d}) \end{gathered}$ |
| 7. SVST01 (Steam Tunnel)* | 16 | 28 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR } 52.21(\mathrm{c}) \&(\mathrm{~d}) \\ \hline \end{gathered}$ |
| 8. SVWASH01 <br> (Wash Aisle Exhaust Fan 1)** | 48x60 | 25 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR } 52.21(\mathrm{c}) \&(\mathrm{~d}) \\ \hline \end{gathered}$ |
| 9. SVWASHO2 <br> (Wash Aisle Exhaust Fan 2)** | 48x60 | 25 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR } 52.21(\mathrm{c}) \&(\mathrm{~d}) \end{gathered}$ |
| 10. SVWASH03 <br> (Wash Aisle Exhaust Fan 3)** | 48x60 | 25 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR } 52.21(\mathrm{c}) \&(\mathrm{~d}) \\ \hline \end{gathered}$ |
| 11. SVWWT01 <br> (Wastewater Treatment Area Exhaust)** | 48x60 | 25 | $\begin{gathered} \text { R 336.1225, } \\ 40 \text { CFR } 52.21(\mathrm{c}) ~ \& ~(d) \end{gathered}$ |
| * Downward Discharge <br> ** Horizontal Discharge |  |  |  |

## IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Dc for Small Industrial-CommercialInstitutional Steam Generating Units as they apply to EUBOILER01. (40 CFR Part 60 Subparts A \& Dc)

## The following conditions apply Source-Wide to: FGFACILITY

DESCRIPTION: All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

POLLUTION CONTROL EQUIPMENT: NA

## I. EMISSION LIMITS

| Pollutant | Limit | Time Period / <br> Operating <br> Scenario | Equipment | Testing / <br> Monitoring <br> Method | Underlying <br> Applicable <br> Requirements |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 1. Each <br> Individual HAP | 8.9 tpy | $12-$ month rolling time <br> period as determined <br> at the end of each <br> calendar month | FGFACILITY | SC VI.3 | R 336.1205(3) |
| 2. Aggregate <br> HAPs | 22.4 tpy | 12-month rolling time <br> period as determined <br> at the end of each <br> calendar month | FGFACILITY | SC VI.3 | R 336.1205(3) |

## II. MATERIAL LIMITS

1. The permittee shall process no more than $2,300,000$ pounds of soiled shop towels in FGLAUNDRY per year, based on a 12-month rolling time period as determined at the end of each calendar month. ( $\mathrm{R} \mathbf{3 3 6 . 1 2 0 5 ( 1 ) ( a ) \text { ), }}$ R 336.1225(1) \& (2), R 336.1702(a))

## III. PROCESS/OPERATIONAL RESTRICTIONS

NA

## IV. DESIGN/EQUIPMENT PARAMETERS

NA

## V. TESTING/SAMPLING

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

## VI. MONITORING/RECORDKEEPING

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

1. 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, R 336.1225, R 336.1702(a))
2. The permittee shall record the amount of soiled shop towels processed through FGFACILITY in pounds per calendar month and in pounds per 12-month rolling time period as determined at the end of each calendar month. ( $\mathrm{R} 336.1205(1)(\mathrm{a}), \mathrm{R} 336.1225(1)$ \& (2), $\mathrm{R} 336.1702(\mathrm{a})$ )
3. The permittee shall keep monthly records for FGFACILITY of individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month and in tons per 12-month rolling time period as determined at the end of each calendar month. For shop towel laundering, HAP emission factors in Appendix A may be used, or an alternate emission factor approved by the AQD District Supervisor. ( $\mathrm{R} 336.1205, \mathrm{R} 336.1225, \mathrm{R} 336.1702(\mathrm{a})$ )

## VII. REPORTING

NA
VIII. STACK/VENT RESTRICTIONS

NA
IX. OTHER REQUIREMENTS

NA

## APPENDICES

Appendix A: Facility-wide HAP Emission Factors for Soiled Shop Towel Laundering

| CAS Number | HAP | Facility-wide HAP Emission Factor <br> (pounds of HAP emitted per pound of <br> soiled shop towel laundered) |
| :---: | :---: | :---: |
| $71-43-2$ | Benzene | $1.22 \mathrm{E}-06$ |
| $79-01-6$ | Trichloroethene (Trichloroethylene) | $7.83 \mathrm{E}-06$ |
| $91-20-3$ | Naphthalene | $5.75 \mathrm{E}-06$ |
| $95-47-6$ | o-Xylene | $7.85 \mathrm{E}-05$ |
| $98-82-8$ | Cumene | $1.08 \mathrm{E}-06$ |
| $100-41-4$ | Ethylbenzene | $7.48 \mathrm{E}-05$ |
| $100-42-5$ | Styrene | $1.16 \mathrm{E}-06$ |
| $108-88-3$ | Toluene | $2.99 \mathrm{E}-04$ |
| $110-54-3$ | n-Hexane | $3.93 \mathrm{E}-06$ |
| $127-18-4$ | Tetrachloroethylene (Perchloroethylene) | $8.03 \mathrm{E}-04$ |
| $179601-23-1$ | m,p-Xylenes | $2.52 \mathrm{E}-04$ |
| - | Aggregate (Total) HAPs | $\mathbf{0 . 0 0 1 5}$ |


[^0]:    DESCRIPTION: Industrial laundering operation to wash and dry various textiles including uniforms, floor mats, mops and shop towels. There are ten (10) industrial washers, five (5) natural gas-fired industrial dryers, one (1) natural gas-fired wrinkle-removing steam tunnel, one (1) on-site wastewater treatment system and one (1) natural gas-fired process boiler.

    Emission Units: EUW01, EUW02, EUW03, EUW04, EUW05, EUW06, EUW07, EUW08, EUW09, EUW10, EUWWT01, EUD01, EUD02, EUD03, EUD04, EUD05, EUST01, EUBOILER01

