Date of Posting: August 13, 2025

Jose Olivas
Kinetic-Provac
East Valley Drive
Miles City MT 59301

**RE: Final and Effective Montana Air Quality Permit #2832-09**

Sent via email: jose.olivas@pro-vac.com

Dear Mr. Olivas:

Montana Air Quality Permit (MAQP) #2832-09 for the above-named permittee is deemed final and effective as of August 13, 2025, by the Montana Department of Environmental Quality (DEQ). All conditions of the Decision remain the same. A copy of final MAQP #2832-09 is enclosed.

For DEQ,

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**Montana Department of Environmental Quality**
**Air, Energy & Mining Division**
**Air Quality Bureau**

Montana Air Quality Permit #2832-09

Kinetic-Provac
East Valley Drive
Miles City MT 59301

Final and Effective Date:
August 13, 2025

# MONTANA AIR QUALITY PERMIT

Issued To: Kinetic-Provac
PO Box 99
Lucern, CO 80646

MAQP: #2832-09
Administrative Amendment (AA)
Request Received: 07/11/2025
Department's Decision on AA: 07/28/2025
Permit Final: 08/13/2025

A Montana Air Quality Permit (MAQP), with conditions, is granted to Kinetic-Provac pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

The railcar cleaning facility is located in Section 23, Township 8 North, Range 47 East, Custer County, on East Valley Drive in Miles City, Montana.

B. Current Permitting Action

On July 11, 2025, the Montana Department of Environmental Quality (DEQ), pursuant to the applicable requirements of ARM 17.8.764, Administrative Amendment to Permit, received a request to transfer ownership of the MAQP #2832-08 from Quala Services, LLC to Kinetic-Provac (Kinetic). The current permit action transfers ownership and updates the permit to reflect current permit language and rule references used by DEQ.

Section II: Limits and Conditions

A. Emission Limits

1. Railcar cleaning shall be limited to the materials contained in Appendix A to this permit, submitted as part of application #2832-02 (ARM 17.8.749).

2. All purging and depressurization vapors from railcars containing products with a vapor pressure greater than 0.5 pounds per square inch absolute (psia) shall be sent to the flare, except as provided in Section II.A.19 and 20 (ARM 17.8.752).

3. The amount of material processed by Kinetic from the pressurized cars shall not exceed the following (ARM 17.8.749):

   a. Anhydrous Ammonia 14,000,000 standard cubic feet per year (scf/yr)
   b. 1,3-Butadiene 1,168,000 scf/yr
   c. All other (non-Chlorine containing permitted materials) 37,400,000 scf/yr

4. All railcars containing residual liquids shall be de-heeled prior to cleaning (ARM 17.8.749).

5. All railcars requiring vapor control prior to cleaning must have all hatches, openings, or vents sealed or closed until the railcar is connected to degassing or purge systems. Exceptions to this requirement include necessary quick inspections for job cost estimation and openings needed for inlet air during the removal of the heels for general-purpose cars (ARM 17.8.752).

6. Kinetic shall install, operate, and maintain a flare capable of meeting the requirements contained in 40 CFR 60.18, including specifications of minimum heating value of the waste gas and maximum tip velocity (ARM 17.8.752).

7. The flare shall have a knock-out drum to remove water or condensed steam before the gases reach the flare stack (ARM 17.8.752).

8. A thermocouple or any other equivalent device shall be installed, operated, and maintained on the flare and connected to the control panel to ensure a flame is present at all times the flare is operating (ARM 17.8.752).

9. Kinetic shall perform and maintain calculations necessary to document the amount of volatile organic compounds (VOC) in the waste gas going to the flare (ARM 17.8.749).

10. Kinetic shall install, operate, and maintain a degassing system to adequately purge the general-purpose railcars (four volume exchanges) (ARM 17.8.749).

11. The flare shall operate with no visible emissions as determined by the method identified in Section II.B.1 of this permit, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours as outlined in 40 CFR 60.18(c)(1) (ARM 17.8.752).

12. Gases to be flared shall be combustible at all times. If necessary to ensure adequate combustion, sufficient sweet natural gas shall be added to make the gases combustible (ARM 17.8.752).

13. Prior to and during degassing or purging operations of the general purpose, non-pressurized railcars handling the permitted materials, the following operations must be performed (ARM 17.8.752).

    a. The pilot for the flare must be lit.

    b. Auxiliary fuel must be available.

    c. Begin burning auxiliary fuel at the flare immediately prior to degassing or purging operations.

    d. Burn auxiliary fuel after completion of degassing or purging operations until the line is clear of waste gas (i.e., after displacing a minimum of four vapor space volumes).

14. All residual hazardous or Resource Conservation and Recovery Act (RCRA) defined characteristic material or heels (ARM 17.54) shall be stored in closed containers prior to shipment off site, except when necessary to open the container to add material. Roll-off containers may be used for storage of non-hazardous materials (ARM 17.8.752).

15. According to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements, Kinetic shall clean up any spills of VOC or inorganic compounds as expeditiously as possible (ARM 17.8.749).

16. VOC emissions from the flare shall not exceed 12.70 tons per year (tons/year) contributed from pressurized railcars and 3.88 tons/year contributed from non-pressurized railcars. Ammonia emissions from the flare shall not exceed 25.2 tons/year. These emissions shall be calculated using a 99.7% flare destruction efficiency for VOC, a 92% destruction efficiency for ammonia, and other procedures outlined in Section II.C.1 of this permit (ARM 17.8.752).

17. Kinetic shall not process chlorine or chlorine containing chemicals in an amount such that emissions of hydrogen chloride (HCl) from the flare exceed 9.5 tons during any rolling 12-month period (ARM 17.8.749).

18. Kinetic shall not send any material containing 2 parts or more per million of Polychlorinated Biphenyl (PCB) to the flare (ARM 17.8.749).

19. Kinetic is authorized to burn liquefied petroleum gas (LPG) and sweet natural gas in both boilers. Also, the Superior boiler may burn 50,000 gallons per year (gal/yr) of diesel (ARM 17.8.749).

20. Kinetic is authorized to vent emissions from those general-purpose cars with no serviceable vent or connections by which the car can be connected to the flaring system, provided the VOC emissions do not exceed 14.5 tons/year (ARM 17.8.752).

21. Kinetic shall only operate one boiler at a time (ARM 17.8.749).

22. Kinetic shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions in the boilers (ARM 17.8.322).

23. Kinetic shall install, operate, and maintain a 550-gallon caustic scrubber to control HCl emissions while degassing chlorine pressure cars. The scrubber shall be utilized for all chlorine pressure cars cleaned at the facility (ARM 17.8.749).

24. Kinetic shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements of 40 CFR 60, Subpart Dc, for the 1994 Superior 25 million British thermal units per hour (MMBtu/hr) boiler (ARM 17.8.340 and 40 CFR 60, Subpart Dc).

25. Kinetic shall not process railcars such that potential emissions of any single hazardous air pollutant (HAP), which has been listed pursuant to Section 7412(b) of the Federal Clean Air Act (FCAA), exceeds 10 tons/year or 25 tons/year or more of any combination of such HAPs (ARM 17.8.749 and ARM 17.8.1204).

B. Testing Requirements

1. A visible emissions observation shall be conducted on the flare in accordance with 40 CFR 60.18(f) and compliance demonstrated with the requirement in section II.A. on an every 4-year basis or according to another testing/monitoring schedule as may be approved by DEQ in writing (ARM 17.8.105 and 17.8.749).

2. All tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. DEQ may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Kinetic shall maintain the following information on site (ARM 17.8.749).

a. For each railcar cleaned:

i. Name of each chemical contained in a railcar

ii. Molecular weight pounds per pound-mole (lb/lbmole) of each chemical routed to the flare

iii. In-bound pressure for pressurized railcars pounds per square inch gauge (psig)

iv. Method of cleaning

v. Calculated mass rate pounds per car (lb/car) of VOC and ammonia vapors purged to the flare

vi. Volume of railcar (for GP railcars purged to the flare) and volume of natural gas purge used

vii. Time and date of cleaning

viii. Running total of VOC emissions (tons) from the flare for pressurized and non-pressurized railcars, year to date

ix. Running total of VOC emissions (tons) from venting GP railcars with no serviceable vent, year to date

x. Running total of ammonia emissions (tons) from the flare, year to date

b. For all spills of VOC or inorganic compounds, Kinetic shall keep records as required by CERCLA.

2. Kinetic shall supply DEQ with annual production information for all emission points, as required by DEQ in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in Section I of this permit.

Production information shall be gathered on a calendar-year basis and submitted to DEQ by the date required in the emission inventory request. Information shall be in the units required by DEQ.

In addition, Kinetic shall submit the following information annually to DEQ by March 1 of each year. This information is required for the annual emission inventory, as well as to verify compliance with permit conditions (ARM 17.8.505).

a. Amount of VOC and ammonia vapors routed to the flare tons/year;

b. Amount and types of material processed from pressurized railcars (scf/yr);

c. Total VOC emissions from the flare contributed from pressurized and non-pressurized railcars;

d. Total VOC emissions vented from the GP cars with no serviceable vents;

e. Total HCl emissions;

f. Total ammonia from the flare;

g. Amount of natural gas consumed in the flare;

h. Amount of natural gas consumed in the boilers;

i. Amount of LPG consumed in the boilers;

j. Amount of diesel consumed in the Superior boiler; and

k. The number of hours each boiler operated.

3. Kinetic shall notify DEQ of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include ***the addition of a new emissions unit***, a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its

permitted operation or the addition of a new emission unit. The notice must be submitted to DEQ, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

4. The records compiled in accordance with this permit must be maintained by Kinetic as a permanent business record for at least 5 years following the date of the measurement, must be available at the facility for inspection by DEQ, and must be submitted to DEQ upon request (ARM 17.8.749).

5. Kinetic shall maintain detailed records of all cars processed containing chlorine or chlorine-containing chemicals. The records shall identify each car cleaned, the chemical handled by the car, and the initials of the documenting personnel (ARM 17.8.749).

6. Kinetic shall document all HCl emissions resulting from the processing of chlorine and chlorine-containing chemicals. Kinetic shall record emission calculations for each car cleaned and have the ability to summarize emissions for any rolling 12-month time period.

   Kinetic shall document, by month, all HCl emissions. By the 25$^{th}$ day of each month, Kinetic shall total the HCl emissions for the previous month. These emission calculations shall verify compliance with the limitation in Section II.A.17 and shall be consistent with the emission estimation procedures that were developed for the company's 1999 annual emission inventory. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).

7. Kinetic shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204 (3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted with the annual emission inventory information (ARM 17.8.1204).

8. Kinetic shall document all HAP emissions resulting from the cleaning of railcars at the site. Kinetic shall record emission calculations for each car cleaned and have the ability to summarize emissions for any rolling 12-month time period.

   Kinetic shall document, by month, all HAP emissions. By the 25$^{th}$ day of each month, Kinetic shall total the HAP emissions for the previous month. These emission calculations shall verify compliance with the limitation in Section II.A.25 and shall be consistent with the emission estimation procedures that were developed for the company's 1999 annual emission inventory. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).

Section III: General Conditions

A. Inspection - Kinetic shall allow DEQ's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment such as Continuous Emission Monitoring Systems (CEMS) or Continuous Emission Rate Monitoring Systems (CERMS), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if the Kinetic fails to appeal as indicated below.

C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Kinetic of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).

D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401 *et seq.*, MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by DEQ's decision may request, within 15 days after DEQ renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay DEQ's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of DEQ's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, DEQ's decision on the application is final 16 days after DEQ's decision is made.

F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit must be made available for inspection by Department personnel at the location of the permitted source.

G. Permit Fee - Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Kinetic may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board

H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

# APPENDIX A

## MATERIALS LIST

The attached materials list originated in the application for MAQP #2832-02. Kinetic is restricted to the processing of the materials included in the attached materials list only.

## LIST OF ALL MATERIALS

| MATERIAL | TYPE** | TO FLARE | VAPOR PRESSURE @ 90°F (psia) | @ 50°F (psia) | MOLECULAR WEIGHT (lb/lb-mol) | HAP? | IN RISK ASSESS-MENT |
|---|---|---|---|---|---|---|---|
| Acetic Acid | GP Railcar | No | 0.449 | 0.1 | 60.05 | No | No |
| Acetone | GP Railcar | Yes*** | 6.03 | 2.25 | 58.08 | No | No |
| Acrylate | GP Railcar | No | 0.13 | 0.1 | 72.06 | No | No |
| Acrylic Acid | GP Railcar | No | 0.13 | 0.1 | 72.06 | Yes | No |
| Acrylic Emulsion | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Acrylic Emulsion polymer | | | <0.05 | <0.05 | | No | No |
| Acrylic, latex and other common coatings | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Adhesive | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Adipic Acid | GP Railcar | No | <0.05 | <0.05 | 146.14 | No | No |
| Air Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Alfonic (ethyoxylate alcohols) | GP Railcar | No | 0.164 | 0.0352 | 90.12 | No | No |
| Alkalate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| All food products | GP Railcar | No | <0.05 | <0.05 | | No | No |
| All materials, including mixtures containing up to 90% of the pre-approved list | | | | | | | |
| All materials, including mixtures with a vapor pressure <0.05 psia | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Allyl alcohol | GP Railcar | Yes*** | 1.047 | 0.647 | 58.08 | No | No |
| Alum | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Alumina | GP Railcar | No | <0.05 | <0.05 | 101.96 | No | No |
| Ammonia Urea Nitrate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Biosulfate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Bisulfite | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Hydrogen Sulfite | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Nitrate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Phosphate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Polysulfide | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Sulfate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Sulfide | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Sulfite | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Thiosulfate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ammonium Thiosulfide | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Anhydrous Ammonia | Pressure Railcar | Yes | 212.22 | 73.154 | 17.03 | No | No |
| Aniline | GP Railcar | No | <0.05 | <0.05 | 93.13 | Yes | No |
| Aqueous Bisulphites | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Aromatic Concentrate | GP Railcar | Yes*** | 7.5* | 1* | 100* | No | No |
| Aromatic Naphtha | GP Railcar | Yes*** | 2.54 | 0.88 | 78.114 | No | No |
| Aromatic Petroleum | GP Railcar | Yes*** | 2.54 | 0.88 | 78.114 | No | No |
| Arsenic (waste arsenic) as solids | GP Railcar | No | <0.05 | <0.05 | 74.92 | Yes | No |
| Asphalt | GP Railcar | No | <0.05 | <0.05 | | No | No |

| MATERIAL | TYPE** | TO FLARE | VAPOR PRESSURE @ 90°F (psia) | @ 50°F (psia) | MOLECULAR WEIGHT (lb/lb-mol) | HAP? | IN RISK ASSESS-MENT |
|---|---|---|---|---|---|---|---|
| Acetic Acid | GP Railcar | No | 0.449 | 0.1 | 60.05 | No | No |
| Asphalt Anti-stripping compound | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Asphalt core coating compound | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Benzene | GP Railcar | Yes | 2.54 | 0.88 | 78.114 | Yes | Yes |
| Benzyl Acetate | GP Railcar | No | <0.05 | <0.05 | 150.18 | No | No |
| Betaline Liquid (feed supplement) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Biphenyl | GP Railcar | No | <0.05 | <0.05 | 154.21 | Yes | No |
| Black Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Butadiene | Pressure Railcar | No | 50.6 | 25 | 54.09 | Yes | Yes |
| Butane | Pressure Railcar | Yes | 51.67 | 17.72 | 58.12 | No | No |
| Butenediol | GP Railcar | Yes | <0.05 | <0.05 | 88.106 | No | No |
| Butyl Acetate | GP Railcar | No | 0.337 | 0.2* | 116.16 | No | No |
| Butyl Acrylate | GP Railcar | Yes*** | 8.3 | 5* | 128.17 | No | No |
| Butyl Alcohol (Butanol) | GP Railcar | No | 0.222 | 0.0436 | 74.123 | No | No |
| Butyl Phenol | GP Railcar | No | <0.05 | <0.05 | 150.22 | No | No |
| Butylene | Pressure Railcar | Yes | 62.3 | 21.9 | 56.107 | No | No |
| Butylene Glycol | GP Railcar | No | <0.05 | <0.05 | 76.1 | No | No |
| Butyraldehyde | GP Railcar | Yes*** | 2.987 | 1.026 | 72.1 | No | No |
| Calcium Bisulfite | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Calcium Carbonate | GP Railcar | No | <0.05 | <0.05 | 100.09 | No | No |
| Calcium Hydrogen Sulfide | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Capalactone Polymer | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Caprolactum | GP Railcar | No | <0.05 | <0.05 | 113.1 | No | No |
| Caprylic Acid | GP Railcar | No | <0.05 | <0.05 | 144.2 | No | No |
| Carbon Black Dispersion | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Carbon Black Oil Petroleum | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Caster Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Caustic Alkali | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Chlorine | Pressure Railcar | Yes | | | 70.91 | Yes | No |
| Chloral Anhydrous | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Choral Anhydrous inhibited | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Clarified Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Clay Slurry | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Coal Tar Distillate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Coke Cinders | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Colloidal Silica | GP Railcar | No | <0.05 | <0.05 | 60.08 | No | No |
| Cresol | GP Railcar | No | <0.05 | <0.05 | 108.14 | Yes | No |
| Crude Tall Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Cumene | GP Railcar | Yes*** | 0.5 | 0.2 | 120 | Yes | No |
| Cumyl phenol | GP Railcar | No | <0.05 | <0.05 | 212.29 | No | No |
| Cyanide | GP Railcar | No | <0.05 | <0.05 | | Yes | No |
| Cyclo Pentenone | GP Railcar | No | 0.326 | 0.0892 | 84.12 | No | No |
| Cyclohexane | GP Railcar | Yes*** | 2.62 | 0.93 | 84.16 | No | No |
| Cyclohexanone | GP Railcar | No | 0.127 | 0.021 | 98.45 | No | No |
| Cyclopentadiene | GP Railcar | Yes*** | 10.805 | 4.7345 | 66.103 | No | No |
| Cyclopentene | Pressure Railcar | Yes | 9.66 | 3.97 | 68.12 | No | No |
| Cylclopentone | GP Railcar | Yes*** | 8.1 | 3.28 | 70.13 | No | No |
| Decane | GP Railcar | No | <0.05 | <0.05 | 142.285 | No | No |
| Decant Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Decyl Alcohol | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Denatured Alcohol | GP Railcar | Yes*** | 1.35 | 0.33 | 60.96 | No | No |
| Detergent Alkylates | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Detergents | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Dicalcium Phosphates | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Dichlorobenzene | GP Railcar | No | 0.0643 | 0.0154 | 147 | Yes | No |
| Dichlorophenol | GP Railcar | No | <0.05 | <0.05 | 163 | No | No |
| Dicichlorophenoxy Propyonic | GP Railcar | No | <0.05 | <0.05 | 249.1 | No | No |
| Dichloropropane | GP Railcar | No | 1.85 | 0.614 | 112.99 | Yes | No |
| Dichloropropene | GP Railcar | Yes*** | 1.64 | 0.562 | 110.97 | No | No |

| MATERIAL | TYPE** | TO FLARE | VAPOR PRESSURE @ 90°F (psia) | VAPOR PRESSURE @ 50°F (psia) | MOLECULAR WEIGHT (lb/lb-mol) | HAP? | IN RISK ASSESS-MENT |
|---|---|---|---|---|---|---|---|
| Acetic Acid | GP Railcar | No | 0.449 | 0.1 | 60.05 | No | No |
| Dicyclopentadiene | GP Railcar | No | 0.0832 | 0.08 | 132.21 | No | No |
| Diesel Fuel | GP Railcar | No | <0.05 | <0.05 | 130 | No | No |
| Diethanolamine | GP Railcar | No | <0.05 | <0.05 | 105.14 | Yes | No |
| Diethylene Glycol | GP Railcar | No | <0.05 | <0.05 | 106.12 | No | No |
| Diglycerides | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Diisobuytl Ether | GP Railcar | Yes*** | 0.915 | 0.088 | 130.23 | No | No |
| Diisobutylene | GP Railcar | Yes*** | 1.125 | 0.396 | 112.1 | No | No |
| Diisoctyl Phthalate | GP Railcar | no | <0.05 | <0.05 | | No | No |
| Dimethyl Acetamide | GP Railcar | No | 0.0613 | 0.0136 | 87.12 | No | No |
| Dimethyl Amine | Pressure Railcar | Yes*** | 38 | 16.6 | 45.08 | No | No |
| Dimethylbutane (Neohexane) | Pressure Railcar | Yes*** | 8.06 | 5 | 86.177 | No | No |
| Dimethyl Formamide | GP Railcar | No | 0.122 | <0.05* | 73.09 | Yes | No |
| Dimethylene Triamine | GP Railcar | No | <0.05 | <0.05 | 130.17 | No | No |
| Dioctyl Phthlate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Diphenyl Oxide | GP Railcar | No | <0.05 | <0.05 | 170.21 | No | No |
| Dipropylene Glycol Methyl Ether | GP Railcar | No | <0.05 | <0.05 | 134.1 | No | No |
| Disodium Methyl Arsonate (DMA) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Dodecyl Mercaptan | GP Railcar | No | <0.05 | <0.05 | 202.4 | No | No |
| Dodecyl Phenol | GP Railcar | No | <0.05 | <0.05 | 246.44 | No | No |
| Dye | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Emulsions | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Endosulfan | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Endrin | GP Railcar | No | <0.05 | <0.05 | 380.9 | No | No |
| Erucic Acid | GP Railcar | No | <0.05 | <0.05 | 338.58 | No | No |
| Ethanol (Ethyl Alcohol) | GP Railcar | Yes*** | 1.73 | 0.46 | 46.069 | No | No |
| Ethanolamine | GP Railcar | No | <0.05 | <0.05 | 61.08 | No | No |
| Ether | GP Railcar | No | 0.18 | 0.03 | 130.23 | No | No |
| Ethoxate - by product | GP Railcar | No | <0.05 | <0.05 | 146.14 | No | No |
| Ethyl Acetate | GP Railcar | Yes*** | 2.54 | 0.827 | 88.1 | No | No |
| Ethyl Acrylate | GP Railcar | No | 1.05 | 0.317 | 100.12 | Yes | Yes |
| Ethyl Hexyl Acrylate | GP Railcar | No | <0.05 | <0.05 | 184.28 | No | No |
| Ethly Hexyl Alcohol | GP Railcar | No | <0.05 | <0.05 | 130.23 | No | No |
| Ethyl Hexyl Nitrate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Ethyl Methacrylate | GP Railcar | Yes*** | 0.573 | 0.168 | 114.14 | No | No |
| Ethyl Oxylate | GP Railcar | No | <0.05 | <0.05 | 146.14 | No | No |
| Ethylamine | Pressure Railcar | Yes | 26.4 | 11.1 | 45.08 | No | No |
| Ethylbenzene | GP Railcar | No | 0.278 | 0.075 | 106.17 | Yes | No |
| Ethylene | Pressure Railcar | Yes | | | 28.05 | No | No |
| Ethylene Dichloride | GP Railcar | Yes | | | 98.96 | Yes | Yes |
| Ethylene Glycol | GP Railcar | No | <0.05 | <0.05 | 62.068 | Yes | No |
| Ethyloxyethanol | GP Railcar | No | 0.164 | 0.0352 | 90.12 | No | No |
| Fatty Acid | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Fatty Alcohol | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Fatty Amine | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Flex Gel | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Fluid Siloxane Cyclopolydimethyl | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Formaldehyde in Solution | GP Railcar | Yes | 0.75 | 0.5 | 30.03 | Yes | Yes |
| Formalin | GP Railcar | No | <0.05 | <0.05 | 121.14 | No | No |
| Fuel Oil | GP Railcar | No | <0.05 | <0.05 | | **** | **** |
| Fulatex Polymer | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Gas Oil | GP Railcar | No | <0.05 | <0.05 | 50 | **** | **** |
| Gasoline | GP Railcar | Yes*** | 5 | 2.5 | 68 | No | No |
| Glue (adhesives) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Glutaraldehyde | GP Railcar | No | 0.161 | 0.1 | 80.09 | No | No |
| Glycerine | GP Railcar | No | <0.05 | <0.05 | 92.09 | No | No |
| Glycol | GP Railcar | No | <0.05 | <0.05 | 62.068 | No | No |
| Glycol Ether | GP Railcar | No | <0.05 | <0.05 | 106.1 | Yes | No |
| Glyconic Acid | GP Railcar | No | <0.05 | <0.05 | 196.2 | No | No |
| Gum Terpentine | GP Railcar | No | <0.05 | <0.05 | | No | No |

| MATERIAL | TYPE** | TO FLARE | VAPOR PRESSURE @ 90°F (psia) | VAPOR PRESSURE @ 50°F (psia) | MOLECULAR WEIGHT (lb/lb-mol) | HAP? | IN RISK ASSESS-MENT |
|---|---|---|---|---|---|---|---|
| Acetic Acid | GP Railcar | No | 0.449 | 0.1 | 60.05 | No | No |
| Heating Oil | GP Railcar | No | <0.05 | <0.05 | | **** | No |
| Heptane | GP Railcar | Yes*** | 1.25 | 0.395 | 100.2 | No | No |
| Hexamethylene Diamine | GP Railcar | No | <0.05 | <0.05 | 116.2 | No | No |
| Hexane | GP Railcar | Yes | 4 | 1.48 | 86.18 | Yes | Yes |
| Hexanediol | GP Railcar | No | <0.05 | <0.05 | 118.18 | No | No |
| Hexanol | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Hydrochloric Acid (aqueous) | GP Railcar | No | <0.05 | <0.05 | 36.46 | Yes | No |
| Ink | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Inorganic Salts | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Inorganic Solids | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Iron Oxide | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Isobutane (Trimethylmethane) | Pressure Railcar | Yes | 72.81 | 26.7 | 58.12 | No | No |
| Isobutanol | GP Railcar | No | 0.337 | 0.1 | 74.12 | No | No |
| Isobutyl Acrylate | GP Railcar | No | 0.209 | <0.05 | 128.17 | No | No |
| Isobutylene (isobutene) | Pressure Railcar | Yes | 63.81 | 22.511 | 56.1 | No | No |
| Isooctanoic Acid | GP Railcar | No | <0.05 | <0.05 | 144.22 | No | No |
| Isoprene (3-Methyl-1,3-Butadiene) | Pressure Railcar | Yes | 16.68 | 4.67 | 68.118 | No | No |
| Isopropyl Alcohol | GP Railcar | Yes*** | 1.35 | 0.33 | 60.096 | **** | No |
| Jet Ruel | GP Railcar | Yes*** | 4 | 2 | 80 | **** | No |
| Kerosene | GP Railcar | No | <0.05 | <0.05 | 130 | No | No |
| Latex | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Lignin Liquor | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Lime | GP Railcar | No | <0.05 | <0.05 | 136.23 | No | No |
| Linseed Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Liquid Plastic | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Liquefied Petroleum Gas | Pressure Railcar | Yes | | | 44.09 | No | No |
| Magnesium | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Magnesium Bisulfate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Magnesium Bisulfite | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Magnesium Chloride | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Magnesium Compounds | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Magnesium Diphenyl | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Magnesium Sulfonate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Malathion | GP Railcar | No | <0.05 | <0.05 | 330.363 | No | No |
| Maleic Anhydride | GP Railcar | No | <0.05 | <0.05 | 98.06 | Yes | No |
| Mercaptoethanol | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Metallic Salts | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Methanol | GP Railcar | Yes | 3.53 | 1.06 | 32.04 | Yes | No |
| Methanol Chloride | GP Railcar | No | 0.214 | 0.05 | 80.514 | No | No |
| Methoxyl Propanol | GP Railcar | No | <0.05 | 0.006 | 76.04 | No | No |
| Methyl Acetate | GP Railcar | Yes*** | 5.67 | 2.04 | 74.08 | No | No |
| Methyl Acrylate | GP Railcar | Yes*** | 2.35 | 0.79 | 86.09 | No | No |
| Methyl Acrylic Acid | GP Railcar | No | <0.05 | <0.05 | 86.09 | No | No |
| Methyl Amine | GP Railcar | Yes | 65.5 | 29.4 | 31.06 | No | No |
| Methyl Butene | GP Railcar | Yes | 22.2 | 10.2 | 70.13 | No | No |
| Methyl Chloride | Pressure Railcar | Yes | | | 50.487 | Yes | No |
| Methyl Chloroform | Pressure Railcar | Yes | 3.27 | 1.18 | 133.4 | Yes | Yes |
| Methyl Ethyl Ketone (MEK) | Pressure Railcar | Yes | 2.49 | 0.84 | 72.107 | Yes | Yes |
| Methyl Isobutyl Ketone | GP Railcar | Yes*** | 0.57 | 0.155 | 100.16 | Yes | No |
| Methyl Methacrylate Monomer | GP Railcar | Yes | 1.04 | 0.307 | 100.1 | Yes | Yes |
| Methyl Phenol | GP Railcar | No | 0.11 | 0.1* | 118.178 | No | No |
| Methyl Piperidine | GP Railcar | No | 0.328 | 0.0876 | 93.12 | No | No |
| Methyl-Tert-Butyl Ether | GP Railcar | Yes | 6.47 | 1.92 | 88.15 | Yes | Yes |
| Mineral Oil | GP Railcar | No | <0.05 | <0.05 | 130 | No | No |
| Mineral Spirits | GP Railcar | No | <0.05 | <0.05 | 130 | No | No |
| Motor Oil | GP Railcar | No | <0.05 | <0.05 | 50 | **** | No |
| Muliatic Acid | GP Railcar | No | <0.05 | <0.05 | 130 | No | No |
| Naphtha (Petroleum Ether) | GP Railcar | No | <0.05 | <0.05 | | **** | No |

| MATERIAL | TYPE** | TO FLARE | VAPOR PRESSURE @ 90°F (psia) | VAPOR PRESSURE @ 50°F (psia) | MOLECULAR WEIGHT (lb/lb-mol) | HAP? | IN RISK ASSESS-MENT |
|---|---|---|---|---|---|---|---|
| Acetic Acid | GP Railcar | No | 0.449 | 0.1 | 60.05 | No | No |
| Naphthalene | GP Railcar | No | <0.05 | <0.05 | 132.21 | Yes | No |
| Naphthenic acid | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Naphthol 50% | GP Railcar | No | <0.05 | <0.05 | 144.19 | No | No |
| Natural gas | Pressure Railcar | Yes | | | | No | No |
| Nitric acid (aqueous) | GP Railcar | No | <0.05 | <0.05 | 63.1 | No | No |
| Nitrogen | GP Railcar | No | N/A | N/A | | No | No |
| Nitrophenols | GP Railcar | No | <0.05 | <0.05 | 139.1 | Yes | No |
| Nonene (Nonylene) | GP Railcar | Yes*** | 0.0261 | 0.22 | 126.24 | No | No |
| Nonyl Phenol | GP Railcar | No | <0.05 | <0.05 | 220.35 | No | No |
| Octanoic Acid | GP Railcar | No | <0.05 | <0.05 | 144.2 | No | No |
| Octyl Phenol | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Oil Petroleum (Heavy) | GP Railcar | No | <0.05 | <0.05 | | **** | No |
| Oleic Acid | GP Railcar | No | <0.05 | <0.05 | 282.47 | No | No |
| Paint Plasticizer | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Palmitic Acid | GP Railcar | No | <0.05 | <0.05 | 256.43 | No | No |
| Paraffin | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Paraffin Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Paranox (Lube oil additives) | GP Railcar | No | 0.3 | 0.1 | 130 | No | No |
| Pentachloraphenol | GP Railcar | No | <0.05 | <0.05 | 266.34 | Yes | No |
| Pentaerythritol Tetraacetate | GP Railcar | No | <0.05 | <0.05 | 304.3 | No | No |
| Pentene | Pressure Railcar | Yes | 12.73 | 5.38 | 70.134 | No | No |
| Petrolatum (Mineral wax) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Petroleum Coke | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Petroleum Crude Oil | GP Railcar | No | <0.05 | <0.05 | | **** | No |
| Petroleum Distillate | GP Railcar | No | <0.05 | <0.05 | | **** | No |
| Petroleum Solvent | GP Railcar | Yes*** | 0.79 | 0.241 | 92.13 | **** | No |
| Phenolic Resin | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Phenols | GP Railcar | No | <0.05 | <0.05 | 94.11 | Yes | No |
| Phosphoric Acid | GP Railcar | No | <0.05 | <0.05 | 98 | No | No |
| Phosphoric Trichloride | GP Railcar | Yes*** | 3.15 | 1.16 | 137.33 | No | No |
| Phthalic Acid | GP Railcar | No | <0.05 | <0.05 | 166.13 | No | No |
| Phthalic Anhydride | GP Railcar | No | <0.05 | <0.05 | 148.12 | Yes | No |
| Picoline (turpene) | GP Railcar | No | 0.33 | 0.085 | 93.12 | No | No |
| Pine Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Pinene | GP Railcar | No | 0.138 | 0.037 | 136.24 | No | No |
| Pitch | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Plastic Pellets | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Plasticizer | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polybutene (Polybutylene) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polybutene Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polyethylene | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polylite | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polymers | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polypropylene | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polypropylene Glycol | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polystrene | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polytex | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Polyvinyl Acetate (PVAC) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Potash | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Potassium Bisulfite | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Potassium Chlorate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Potassium Salt of Modified Resin-rexol | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Potassium Thiosulfate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Potassium Trisulfate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Propane | Pressure Railcar | Yes | 188.41 | 78.54 | 44.09 | No | No |
| Propane Diamine | GP Railcar | No | 0.335 | 0.054 | 74.126 | No | No |
| Propionic Acid | GP Railcar | No | 0.114 | <0.05 | 74.08 | No | No |
| Propylene | Pressure Railcar | Yes | 228.88 | 97.195 | 42.081 | No | No |

| MATERIAL | TYPE** | TO FLARE | VAPOR PRESSURE @ 90°F (psia) | @ 50°F (psia) | MOLECULAR WEIGHT (lb/lb-mol) | HAP? | IN RISK ASSESS-MENT |
|---|---|---|---|---|---|---|---|
| Acetic Acid | GP Railcar | No | 0.449 | 0.1 | 60.05 | No | No |
| Propylene Glycol | GP Railcar | No | <0.05 | <0.05 | 76.1 | No | No |
| Propylene Tetramer (Dodecene) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Propylethylene | GP Railcar | No | <0.05 | <0.05 | | No | No |
| PVC (Poly Vinyl Chloride) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Quick Lime | GP Railcar | No | <0.05 | <0.05 | 136.23 | No | No |
| Reclaimed Engine Oil | GP Railcar | No | <0.05 | <0.05 | 50 | No | No |
| Resin Petroleum Naphtha | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Resin-Polyester | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Rock Salt | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sand | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Santicizer (Plasticizers Monsanto) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Shel Stearin | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Silicone | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Silicone Emulsion | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Silicone Fluid | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Silicone Polymer | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Siloxane | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Slack Wax | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Slurry Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Soaps | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Soda Ash (Sodium Carbonate) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium | GP Railcar | No | <0.05 | <0.05 | 22.99 | No | No |
| Sodium Bisulfite | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Carbonate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Chlorate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Hydrosulfide | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Hydroxide | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Lactate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Perborate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Perborate Monohydrate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Phosphate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Sulfate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Tripolyphosphate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sodium Vinyl Sulphonate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Solids with vp <0.05 psia | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Stearic Acid | GP Railcar | No | <0.05 | <0.05 | 284.48 | No | No |
| Stearin | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Steryl Alcohol | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Stephanate Soaps | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Styrene | GP Railcar | Yes | 0.181 | 0.045 | 104.14 | Yes | Yes |
| Styrene Resin Solution | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sulfite Stabilizer Solution | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sulfonic Acid | GP Railcar | No | <0.05 | <0.05 | 110.13 | No | No |
| Sulfur | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Sulfuric Acid | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Surfactants (Surface Active agent) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Synthetic Isopharaffinic | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Synthetic Rubber | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Synthetic Rubber latex | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Talc - Magnesium Silicate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Tall Oil (Adietic/Oleic acids) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Tall Oil Resin | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Tallows | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Terephthalic Acid (TPA) | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Terpenes | GP Railcar | No | <0.05 | <0.05 | 136.2 | No | No |
| Tetrahydrofuran | GP Railcar | Yes*** | 4.25 | 1.56 | 72.11 | No | No |
| Tetrabutylurea | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Tetraethylene Glycol | GP Railcar | No | <0.05 | <0.05 | 194.2 | No | No |

| MATERIAL | TYPE** | TO FLARE | VAPOR PRESSURE @ 90°F (psia) | @ 50°F (psia) | MOLECULAR WEIGHT (lb/lb-mol) | HAP? | IN RISK ASSESS-MENT |
|---|---|---|---|---|---|---|---|
| Acetic Acid | GP Railcar | No | 0.449 | 0.1 | 60.05 | No | No |
| Tetraethylene Pentamine | GP Railcar | No | <0.05 | <0.05 | 189.3 | No | No |
| Textile | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Therminol | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Tolan | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Toluene (Toluol) | GP Railcar | Yes | 0.79 | 0.241 | 92.13 | Yes | Yes |
| Toluene Solphonic Acid | GP Railcar | No | <0.05 | <0.05 | 122.17 | No | No |
| Toluidine | GP Railcar | No | <0.05 | <0.05 | 107.2 | Yes | No |
| Triacetin | GP Railcar | No | <0.05 | <0.05 | 178.23 | No | No |
| Trichlorobenzene | GP Railcar | No | <0.05 | <0.05 | 181.45 | Yes | No |
| Triethylene Glycol | GP Railcar | No | <0.05 | <0.05 | 15018 | No | No |
| Triethylene Tetramine | GP Railcar | No | <0.05 | <0.05 | 146.24 | No | No |
| Trimethyl Phosphite | GP Railcar | No | <0.05 | <0.05 | 182.156 | No | No |
| Trimethylamine | Pressure Railcar | Yes | 39.1 | 18.9 | 59.11 | No | No |
| Tripropylene Glycol Monoethyl Ether | GP Railcar | No | <0.05 | <0.05 | 148.2 | No | No |
| Turpentine | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Urea | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Urea Nitrate | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Used Oils | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Varnish | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Vinyl Acetate | GP Railcar | Yes | 3.06 | 1.03 | 86.09 | Yes | Yes |
| Vinyl Toluene | GP Railcar | No | 0.104 | 0.1 | 118.2 | No | No |
| Waste Petroleum Fuel Oil | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Waste Water | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Wax | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Xylene | GP Railcar | Yes | 0.244 | 0.0649 | 106.14 | Yes | Yes |
| Xylene Naphthlene | GP Railcar | No | <0.05 | <0.05 | | No | No |
| Zinc Bisulfite | GP Railcar | No | <0.05 | <0.05 | | No | No |

* Estimated

** For Solid materials, hopper cars may be used instead of the GP railcars

*** If the GP railcar is not equipped to vent to the flare and the railcar's vapor space contains less than 10% risk assessment materials, it may be vented to the atmosphere, and the resulting emissions will be limited to a total of 25 tons/year.

**** May contain HAP or risk assessment material

Montana Air Quality Permit (MAQP) Analysis
Kinetic-Provac
MAQP #2832-09

# I. Introduction/Process Description

## A. Permitted Equipment and Process Description

The permitted equipment at the Kinetic-Provac (Kinetic) facility consists of the following emission sources:

1. Elevated Flare
2. One 4.2 million British thermal units per hour (MMBtu/hr) natural gas/liquid petroleum gas-fired boiler
3. One 1994 Superior 25-MMBtu/hr natural gas and diesel-fired boiler
4. Degassing lines, purging lines, a cleaning rack, a wash-water treatment area, and a less-than-90-day accumulation area for residual hazardous waste
5. A vacuum system and two large pressure cars for the collection and storage of liquefied petroleum gas (LPG) and anhydrous ammonia (AA)
6. A 550-gallon caustic scrubber to control hydrogen chloride (HCl) emissions when de-gassing chlorine pressure cars

The flare was constructed in 1993 and the facility became completely operational on January 2, 1995.

At the Kinetic facility, railcars are brought in for cleaning. Kinetic cleans pressurized and non-pressurized general-purpose cars. The lists of chemicals Kinetic is authorized to handle are included in Appendix A to this permit, which was established in air quality Permit Application #2832-02. Kinetic connects all pressurized cars to the flare to vent the gases remaining in the car. For chemicals with high vapor pressure, Kinetic connects the identified non-pressurized railcars to a degassing or purging system to route the emissions to the flare. The flare provides approximately 99.7% control of the volatile organic compounds (VOC) sent to the flare. Steam, nitrogen, or natural gas is used to sweep the railcars.

In addition to flaring chemical cars, in 1999, a 550-gallon caustic scrubber was installed for the cleaning of chlorine pressure cars. Since chlorine cars are routed to the caustic scrubber rather than the flare, cleaning of these cars no longer results in HCl emissions. Emissions from the chlorine cars serviced by the scrubber are in the form of chlorine. Chlorine emissions from the scrubber are recorded and summarized as hazardous air pollutant (HAP) emissions.

Kinetic also installed two boilers to provide steam for cleaning. Kinetic only operates one boiler and the other is used as backup. Kinetic has the ability to burn diesel fuel or LPG gases from railcars being cleaned in the boilers. This allows Kinetic to use the gases instead of sending them to the flare.

Prior to cleaning low-pressure general-purpose cars, the liquid heels are removed and the material is placed in containers. All hazardous wastes must be managed in accordance with applicable hazardous waste regulations promulgated under the authority of the Montana Hazardous Waste and Underground Storage Tank Act. All liquid and solid wastes are shipped off site for disposal.

Because Kinetic's flare is defined as an incinerator under Montana Code Annotated (MCA) 75-2-215, a determination that the emissions from the flare will constitute a negligible risk to public health was required prior to the issuance of a permit to the facility. The model performed by Kinetic for the hazardous air pollutants from the flare demonstrated negligible risk at the limitations included in the permit.

The facility will also emit other hazardous pollutants as fugitive emissions from general-purpose railcars containing chemicals with vapor pressures below 0.5 pounds per square inch absolute (psia). These will not be controlled due to the low volatility of the gases and were not included in the risk assessment because they are not combusted in the flare.

Kinetic is required to track the emissions from the flare on a regular basis. This will allow DEQ to determine compliance with permit conditions without requiring expensive testing and monitoring. DEQ has incorporated the operational reporting requirements into the permit that are necessary for demonstrating compliance with the permit conditions.

B. Permit History

In 1993, Allwaste Container Services (Allwaste) purchased the railcar cleaning facility, located at 1200 Stevelle Road in Miles City, from Transcisco Rail Services. Allwaste operated the facility at Stevelle Road, using the existing equipment, for a number of months. Allwaste constructed a new facility, located on East Valley Drive near Miles City, to replace the original facility. The new Allwaste facility (located on East Valley Drive) contained all new equipment with the exception of a 12.6-MMBtu/hr boiler, which was moved from the original facility. On January 6, 1996, **MAQP #2832-00** was issued to Allwaste for the new facility.

On May 20, 1996, Allwaste applied for **MAQP #2832-01** requesting an extension of time for the installation of the flare fuel flow meter required by MAQP #2832-00. Allwaste was trying to develop a safer method of purging the general-purpose cars and this extension allowed this development to proceed without resulting in a situation of non-compliance with permit conditions. The flare fuel flow meter was required to be installed by December 1, 1996. If it was not installed by this date, Allwaste was not allowed to clean general-purpose railcars containing chemicals listed in Table I of MAQP #2832-00.

In addition, as a result of this extension, the required initial demonstration of compliance for visible emissions was required to be completed within 180 days of issuance of MAQP #2832-01. This permitting action did not result in an increase in emissions. MAQP #2832-01 was issued to Allwaste on July 4, 1996.

On August 19, 1996, Allwaste submitted an application for MAQP #2832-02 requesting to expand the list of chemicals that Allwaste was allowed to process, to increase the annual amount of the material processed, and to use approximately 50,000 gallons per year (gal/yr) of diesel fuel in the Superior natural gas-fired boiler. This permitting action would result in a potential increase in emissions from the flare of 4.64 tons per year (tons/year) of

oxides of nitrogen ($NO_x$), 25.6 tons/year of carbon monoxide (CO), and 6.96 tons/year of VOCs. The change of the amount of emissions from firing diesel in the boiler was determined to be minimal. **MAQP #2832-02** was issued to Allwaste on December 26, 1996.

On February 20, 1997, Allwaste submitted a request to modify MAQP #2832-02 to improve some of the wording contained in Section II.A.10 of the permit and to extend the deadline for the installation of the general-purpose railcar degassing system. This extension was necessary because of the hazards and difficulties of working through the winter. The degassing system needed to be installed and fully operational by June 1, 1997. This modification would not result in an increase in any emissions from the facility. **MAQP #2832-03** was issued to Allwaste on April 11, 1997.

Allwaste submitted a request to alter MAQP #2832-03 to exempt certain general-purpose (GP) railcars from the requirement to control emissions with the flaring system. Because some of the GP railcars were not equipped for proper vapor degassing and flaring, venting these cars to the flaring system could create significant safety and liability issues for Allwaste. Through this permitting action, Allwaste was no longer required to route to the flaring system those GP railcars with no serviceable vents or connections for the flaring system, as long as the VOC emissions do not exceed 14.5 tons/year. A proposal such as this would normally be exempt from permitting requirements, as described in the Administrative Rules of Montana (ARM) 17.8.705(1)(r); however, this action required DEQ to change a permit condition and add an emission limitation; therefore, a permit alteration was necessary.

In addition, on June 11, 1998, Allwaste submitted a request to include another project in this permitting action. Allwaste proposed to install a small vacuum system, two large pressure cars for intermediate storage, and related piping and electrical systems to transfer LPG and AA from near empty pressure cars to a new intermediate storage area. The LPG and AA can then would provide for collection for resale or used on site as fuel. This resulted in only minor fugitive emissions from flanges and valves. This project fell under the permitting exclusion contained in ARM 17.8.705(1)(r); however, it is described here to avoid future confusion. **MAQP #2832-04** replaced MAQP #2832-03.

On October 14, 1999, Allwaste submitted a request to remove reference to the nuisance odor rule (ARM 17.8.315) from MAQP #2832-04. Allwaste must still comply with the rule; however, removal of ARM 17.8.315 from the permit eliminated federal enforceability while maintaining state authority for the rule. Further, a 550-gallon caustic scrubber to control HCl emissions when degassing chlorine pressure cars was added to the equipment list. Addition of the caustic scrubber would result in potential emissions of less than 15 tons/year and was accomplished under the de minimis rule (ARM 17.8.705(1)(r)).

In addition, on June 16, 2000, Allwaste submitted to DEQ a request to incorporate federally enforceable permit limits bringing facility potential emissions to a level below Title V operating permit thresholds. Allwaste was previously subject to the Title V permitting program because potential HCl emissions, a HAP, exceeded 10 tons/year. By accepting the process limit contained in Section II.A.17, Allwaste was considered a synthetic minor source and was no longer subject to the Title V operating permit program. **MAQP #2832-05** replaced MAQP #2832-04.

On February 6, 2001, DEQ received a request from Allwaste for an administrative change

to MAQP #2832-05. The requested change involved updating emission calculation methods for demonstrating compliance with Allwaste's synthetic minor (SM) status for HCl emissions. The calculation method contained in MAQP #2832-05 reflected an average of monthly emissions for pressure cars with 1 atmosphere of chlorine, which is a reasonable worst case scenario estimate. However, Allwaste anticipated that many of the railcars containing chlorinated materials would be general-purpose cars with lower vapor pressures; thus, a more accurate calculation method is needed. DEQ worked with Allwaste to develop an appropriate method and changed the language in Section II.C.5 and II.C.6 of MAQP #2832-05 accordingly for the current permit action.

Further, chlorine cars were no longer routed to the flare; rather, they were sent to a caustic scrubber for treatment. The caustic scrubber was previously added to the facility under the de minimis rule. Chlorine emissions from the caustic scrubber are appropriately recorded and summarized as HAP emissions.

In addition, the letter submitted February 6, 2001, requested that DEQ add a specific permit condition, and associated recordkeeping/reporting requirements, to the permit limiting all HAP emissions to a level less than Title V thresholds for major sources. DEQ has added the requested permit condition and recordkeeping/reporting requirements in Section II.A.25 and Section II.C.8, respectively, as part of the current permit action.

Finally, in a separate permit change request submitted to DEQ on January 17, 2001, Allwaste notified DEQ of an equipment change at the facility. Initially, Allwaste permitted a 12.6-MMBtu/hr Johnson boiler as the back-up boiler at the facility. The Johnson boiler was taken out of service, removed from the site, and replaced by a 4.2-MMBtu/hr natural gas and liquid petroleum gas-fired Burnham boiler. The Burnham boiler was added to the facility under the de minimis provisions of ARM 17.8.705(1)(r). DEQ added the Burnham boiler to the equipment list and removed the Johnson boiler and all associated conditions from the permit. **MAQP #2832-06** replaced MAQP #2832-05.

On January 28, 2008, DEQ received a request from PSC Container Services, LLC (PSC) to change the name on MAQP #2832-06 from Allwaste Container Services to PSC. The current permit action changed the name on MAQP #2832-06 and updated the permit to reflect the current permit language and rule references used by DEQ. **MAQP #2832-07** replaced MAQP #2832-06.

On February 15, 2011, DEQ received a request from Quala to change the name on MAQP #2832-07 from PSC to Quala. The current permit action changed the name on MAQP #2832-07 and updated the permit to reflect permit language and rule references used by DEQ. **MAQP #2832-08** replaced MAQP #2832-07.

C. Current Permitting Action

On July 11, 2025, DEQ, pursuant to the applicable requirements of ARM 17.8.764, Administrative Amendment to Permit, received a request to transfer ownership of the MAQP #2832-08 from Quala Services, LLC to Kinetic-Provac (Kinetic). The current permit action transfers ownership and updates the permit to reflect current permit language and rule references used by DEQ. **MAQP #2832-09** replaces MAQP #2832-08.

D. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the ARM and are available, upon request, from DEQ. Upon request, DEQ will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of DEQ, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by DEQ.

3 ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by DEQ, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

Kinetic shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from DEQ upon request.

4. ARM 17.8.110 Malfunctions. (2) DEQ must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for $PM_{10}$

Kinetic must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Kinetic shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or allow to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.

5. ARM 17.8.316 Incinerators. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any incinerator, particulate matter in excess of 0.10 grains per standard cubic foot of dry flue gas, adjusted to 12% carbon dioxide and calculated as if no auxiliary fuel had been used. Further, no person shall cause or authorize to be discharged into the outdoor atmosphere from any incinerator emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes.

6 ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

7. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent

submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.

8. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Kinetic is considered an NSPS-affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts:

   a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:

   b. 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Subpart Dc applies to the 1994 Superior 25-MMBtu/hr boiler because it was manufactured after June 9, 1989, and has a heat input capacity greater than 10 MMBtu/hr.

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to DEQ. The current permit action is an administrative permit action and does not require an application fee.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to DEQ by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by DEQ. This operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. DEQ may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a facility to obtain an air quality permit or permit alteration if they construct, alter, or use an air contaminant source that has the potential to emit (PTE) more than 25 tons/year of any pollutant. Kinetic has the PTE more than 25 tons/year of VOCs; therefore, a permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by DEQ must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by DEQ at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Kinetic of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes DEQ's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to DEQ.

15. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to DEQ for incineration facilities subject to 75-2-215, MCA.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

   This facility is not a major stationary source because it is not a listed source and does not have a PTE greater than 250 tons/year (excluding fugitive emissions) of any air pollutant.

G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as DEQ may establish by rule;

or

c. PTE > 70 tons/year of $PM_{10}$ in a serious $PM_{10}$ nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #2832-09 for Kinetic, the following conclusions were made:

   a. The facility's PTE is less than 100 tons/year for any pollutant.

   b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.

   c. This source is not located in a serious $PM_{10}$ nonattainment area.

   d. This facility is not subject to any current NESHAP standards.

   e. The facility is currently subject to an NSPS standard (40 CFR 60, Subpart Dc).

   f. This source is not a Title IV affected source or a solid waste combustion unit.

   g. This source is not an EPA designated Title V source.

   h. ARM 17.8.1204(3). DEQ may exempt a source from the requirements to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.

      i. In applying for an exemption under this section, the owner or operator of the source shall certify to DEQ that the source's PTE does not require the source to obtain an air quality operating permit.

      ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

   Kinetic has taken federally enforceable permit limits to keep potential emissions below major source permitting thresholds. Therefore, the facility is not a major source and, thus a Title V operating permit is not required.

   DEQ determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

3. ARM 17.8.1207, Certification of Truth, Accuracy, and Completeness. Kinetic shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204 (3)(b). The annual certification shall comply with requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information.

H. MCA 75-2-215 Solid or hazardous waste incineration - additional permit requirements, including, but not limited to the following requirements:

DEQ may not issue a permit to a facility until: (d) DEQ has reached a determination that the projected emissions and ambient concentrations will constitute a negligible risk to the public health, safety, and welfare and to the environment.

DEQ has reviewed risk assessments during previous permitting actions for this facility. A risk assessment is not required for this administrative permit action because Kinetic is not proposing to increase the quantity or kind of material to be incinerated.

III. BACT Determination

A BACT determination is required for each new or altered source. Kinetic shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was not required for the current permit action because the current permit action is considered an administrative permit action.

IV. Emission Inventory

The following calculations, submitted by Quala as part of permit request for MAQP #2832-05, represent scenarios demonstrating compliance with the permit limit of 9.5 tons/year HCl.

A. 20 cars/yr * 24,000 gal/car * 1 scf/7.48 gal * 3 moles HCl/1 mole Methyl Chloroform * 36.5 lb HCl/379 scf * 0.0005 ton/lb = 9.27 tons/year

B. 60 cars/yr * 24,000 gal/car * 1 scf/7.48 gal * 1 moles HCl/1 mole Methyl Chloride* 36.5 lb HCl/379 scf * 0.0005 ton/lb = 9.27 tons/year

- Additional information on emission calculations is contained in permit application #2832-02.

V. Existing Air Quality and Impacts

The current permit action is an administrative permit action, which will not result in increased potential emissions. Therefore, DEQ has determined that no adverse air quality impacts will result as a consequence of the current permit action.

VI. Private Property Impacts

As required by 2-10-105, MCA, DEQ conducted the following private property taking and damaging assessment.

| YES | NO | |
|---|---|---|
| X | | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? |
| | X | 2. Does the action result in either a permanent or indefinite physical occupation of private property? |
| | X | 3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property) |
| | X | 4. Does the action deprive the owner of all economically viable uses of the property? |
| | X | 5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)]. |
| | | 5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests? |
| | | 5b. Is the government requirement roughly proportional to the impact of the proposed use of the property? |
| | X | 6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action) |
| | X | 7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? |
| | X | 7a. Is the impact of government action direct, peculiar, and significant? |
| | X | 7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded? |
| | X | 7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question? |
| | X | Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas) |

The proposed project would take place on private land owned by the applicant. DEQ's approval of MAQP #2832-09 permit would affect the applicant's real property. DEQ has determined, however, that the permit conditions are reasonably necessary to ensure compliance with applicable requirements under the Clean Air Act of Montana. Therefore, DEQ's approval of MAQP #2832-09 would not have private property-taking or damaging implications.

## VII. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an Environmental Assessment is not required.

Analysis Prepared By: Craig Henrikson
Date: July 15, 2025