Brian Schweitzer, Governor

P.O. Box 200901

Helena, MT 59620-0901

(406) 444-2544

Website: www.deq.mt.gov

April 8, 2011

Mrs. Beverly Burton Quala Services, LLC 3415 Edgewood Drive Miles City, MT 59301

Dear Mrs. Burton:

Montana Air Quality Permit #2832-08 is deemed final as of April 2,2011 by the Department of Environmental Quality (Department). This permit is for a rail car cleaning facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Vickie Walsh

Vickie Walsh

Air Permitting Program Supervisor Air Resources Management Bureau

(406) 444-9741

Doug Kuenzli

Environmental Science Specialist Air Resources Management Bureau

(406) 444-4267

VW:DCK Enclosure

# Montana Department of Environmental Quality Permitting and Compliance Division

Montana Air Quality Permit #2832-08

Quala Services, LLC 3415 Edgewood Drive Miles City, MT 59301

April 2, 2011



### MONTANA AIR QUALITY PERMIT

Issued To: Quala Services, LLC MAQP: #2832-08

3415 Edgewood Drive Administrative Amendment (AA)
Miles City, MT 59301 Request Received: 02/15/2011
Department Decision on AA: 3/17/11

Permit Final: 4/02/2011

AFS: #017-0005

A Montana Air Quality Permit (MAQP), with conditions, is granted to Quala Services, LLC (Quala), 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. Location

Quala's railcar cleaning facility is located in Section 26, Township 8 North, Range 47 East, Custer County, on East Valley Drive in Miles City, Montana.

## B. Current Permitting Action

On February 15, 2011, the Department of Environmental Quality – Air Resources Management Bureau (Department) received a request from Quala to change the name on MAQP #2830-07 from PSC Container Services to Quala Services, LLC. The current permit action changes the name on MAQP #2832-07 and updates the permit to reflect the current permit language and rule references used by the Department.

#### 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 Quala 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. Quala 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. Quala 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. Quala 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, Quala 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. Quala 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. Quala shall not send any material containing 2 parts or more per million of Polychlorinated Biphenyl (PCB) to the flare (ARM 17.8.749).
- 19. Quala 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. Quala 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. Quala shall only operate one boiler at a time (ARM 17.8.749).
- 22. Quala 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. Quala 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. Quala 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. Quala 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 the Department 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. The Department may require further testing (ARM 17.8.105).
- C. Operational Reporting Requirements
  - 1. Quala 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, Quala shall keep records as required by CERCLA.
  - 2. Quala shall supply the Department with annual production information for all emission points, as required by the Department 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 the Department by the date required in the emission inventory request. Information shall be in the units required by the Department.

In addition, Quala shall submit the following information annually to the Department 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. Quala shall notify the Department 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 the Department, 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 Quala 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 the Department, and must be submitted to the Department upon request (ARM 17.8.749).
- 5. Quala 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. Quala shall document all HCl emissions resulting from the processing of chlorine and chlorine-containing chemicals. Quala shall record emission calculations for each car cleaned and have the ability to summarize emissions for any rolling 12-month time period.

Quala shall document, by month, all HCl emissions. By the 25<sup>th</sup> day of each month, Quala 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. Quala 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. Quala shall document all HAP emissions resulting from the cleaning of railcars at the site. Quala shall record emission calculations for each car cleaned and have the ability to summarize emissions for any rolling 12-month time period.

Quala shall document, by month, all HAP emissions. By the 25<sup>th</sup> day of each month, Quala 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 The recipient shall allow the Department'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 (CEMS, 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 recipient fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving the permittee 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 the Department's decision may request, within 15 days after the Department 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 the Department'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 the Department'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, the Department's decision on the application is final 16 days after the Department'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 Fees Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Quala 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 Quala application for MAQP #2832-02. Quala is restricted to the processing of the materials included in the attached materials list only.

# **LIST OF ALL MATERIALS**

MATERIAL	TYPE**	TO FLARE		PRESSURE F @ 50 <sup>O</sup> 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	72.00	No	No
Acrylic Emulsion polymer	OI Italiea	1,0	< 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
	terials, including mixtu	res containing	up to 90% o	of the pre-appro	oved list	1	
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
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

MATERIAL	(psia) (psia)		F @ 50 <sup>O</sup> F	MOLECULAR WEIGHT (lb/lb-mol)	HAP	IN RISK ASSESS- MENT	
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	100.00	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	10.05	10.05	70.91	Yes	No
Chloral Anhydrous	GP Railcar	No	< 0.05	< 0.05	70.71	No	No
Choral Anhydrous inhibited	GP Railcar	No	< 0.05	< 0.05		No	No
Choral Annydrous minoried  Clarified Oil				< 0.05			
	GP Railcar	No	<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	172.203	No	No
Decyl Alcohol	GP Railcar  GP Railcar	No	<0.05	< 0.05		No	No
-		Yes***			60.06		
Denatured Alcohol	GP Railcar		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
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
Dientylene Glycol	GI Rancai	110	\U.UJ	\U.UJ	100.12	110	110

MATERIAL	TYPE**	TO FLARE	VAPOR PRESSURE @ 90°F @ 50°F		MOLECULAR WEIGHT	НАР	IN RISK ASSESS-
D. 1 . 1			(psia)	(psia)	(lb/lb-mol)	?	MENT
Diglycerides	GP Railcar	No Yes***	<0.05 0.915	<0.05 0.088	130.23	No	No No
Diisobuytl Ether	GP Railcar					No	
Diisobutylene	GP Railcar	Yes***	1.125	0.396	112.1	No	No
Diisoctyl Phthalate	GP Railcar	no	<0.05	<0.05	07.10	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	150.01	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 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	0.270	0.073	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	90.12	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		< 0.05	< 0.05		No	No
Fluid Siloxane Cyclopolydimethyl	GP Railcar GP Railcar	No No	<0.05	< 0.05		No	No
Fund Shoxane Cyclopolydimethyl Formaldehyde in Solution	GP Railcar GP Railcar	Yes	0.75	0.05	30.03	Yes	Yes
Formalin Fuel Oil	GP Railcar	No	<0.05	<0.05	121.14	No ****	No ****
Fuel Oil	GP Railcar	No No	<0.05	< 0.05			
Fulatex Polymer	GP Railcar	No No	<0.05	< 0.05	50	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	00.00	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
Heating Oil	GP Railcar	No	< 0.05	< 0.05		****	No

MATERIAL	MATERIAL TYPE** $\begin{array}{c cccc} & & & & VAPOR \ PRESSURE \\ \hline TO & @ 90^{O}F @ 50^{O}F \\ FLARE & (nsig) & (psig) \end{array}$		₹ @ 50 <sup>O</sup> F	MOLECULAR WEIGHT	НАР	IN RISK ASSESS-	
Hantona	GP Railcar	Yes***	(psia) 1.25	(psia) 0.395	(lb/lb-mol) 100.2	? No	MENT No
Heptane Hexamethylene Diamine	GP Railcar  GP Railcar	No	< 0.05	< 0.05	116.2	No	No
Hexane	GP Railcar  GP Railcar	Yes	4	1.48	86.18	Yes	Yes
Hexane	GP Railcar GP Railcar	No	< 0.05	< 0.05	118.18	No	No
Hexanol	GP Railcar  GP Railcar		<0.05	< 0.05	110.10	No	No
		No No		<0.05	26.46	Yes	No No
Hydrochloric Acid (aqueous)  Ink	GP Railcar		< 0.05	<0.05	36.46	No	No No
Ink Inorganic Salts	GP Railcar GP Railcar	No No	<0.05	<0.05			No No
		No No	< 0.05	<0.05		No	No No
Inorganic Solids	GP Railcar	No	< 0.05			No	
Iron Oxide	GP Railcar	No Yes	<0.05 72.81	<0.05 26.7	50.10	No N-	No No
Isobutane (Trimethylmethane)	Pressure Railcar				58.12	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	22.2	10.2	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	0.133	100.16	Yes	Yes
Methyl Phenol GP Railca		No	0.11	0.307	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

MATERIAL	TYPE**	TO FLARE		PRESSURE F @ 50 <sup>O</sup> F (psia)	MOLECULAR WEIGHT (lb/lb-mol)	HAP	IN RISK ASSESS- MENT
Naphtha (Petroleum Ether)	GP Railcar	No	<0.05	< 0.05	(10,10 11101)	****	No
Naphthalene	GP Railcar	No	< 0.05	< 0.05	132.21	Yes	No
Naphthenic acid	GP Railcar	No	< 0.05	< 0.05	132.21	No	No
Naphthol 50%	GP Railcar	No	< 0.05	< 0.05	144.19	No	No
Natural gas	Pressure Railcar	Yes	<0.03	<0.03	144.17	No	No
Nitric acid (aqueous)	GP Railcar	No	< 0.05	< 0.05	63.1	No	No
Nitrogen	GP Railcar	No	N/A	N/A	03.1	No	No
Nitrophenols	GP Railcar	No	<0.05	<0.05	139.1	Yes	No
•		Yes***		0.22			
Nonene (Nonylene)	GP Railcar	1	0.0261		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	70.154	No	No
Petroleum Coke	GP Railcar	No	< 0.05	< 0.05		No	No
				< 0.05		****	No
Petroleum Crude Oil	GP Railcar	No	<0.05			****	
Petroleum Distillate	GP Railcar	No	< 0.05	< 0.05	02.12	****	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  GP Railcar		<0.05	< 0.05		No	No
		No					
Polypropylene	GP Railcar	No 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 Railc		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
		1					

MATERIAL	TYPE**  TO FLARE  TO FLARE  VAPOR PRESSURE @ 90°F @ 50°F (psia) (psia)				MOLECULAR WEIGHT (lb/lb-mol)	HAP	IN RISK ASSESS- MENT
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
Propylene Glycol	GP Railcar	No	< 0.05	< 0.05	76.1	No	No
Propylene Tetramer (Dodecene)	GP Railcar	No	< 0.05	< 0.05	7,412	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  GP Railcar	No	< 0.05	< 0.05		No	No
Slack wax Slurry Oil	GP Railcar GP Railcar			<0.05			No No
•		No	<0.05			No	
Soaps	GP Railcar	No	<0.05	< 0.05		No	No
Soda Ash (Sodium Carbonate)	GP Railcar	No	<0.05	<0.05	22.00	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

		ТО	VAPOR PRESSURE @ 90°F @ 50°F (psia) (psia)		MOLECULAR		
MATERIAL	TYPE**	FLARE			WEIGHT (lb/lb-mol)	HAP	ASSESS- MENT
Terephthalic Acid (TPA)	GP Railcar	No	<0.05	(psia) <0.05	(10/10-11101)	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
Tetrahydrotaan  Tetrabutylurea	GP Railcar	No	< 0.05	< 0.05	/2.11	No	No
Tetraethylene Glycol	GP Railcar	No	< 0.05	<0.05	194.2	No	No
Tetraethylene Pentamine	GP Railcar	No	< 0.05	<0.05	189.3	No	No
Textile	GP Railcar	No	< 0.05	<0.05	167.3	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 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	1.0.2	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			< 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

<sup>\*</sup> Estimated

<sup>\*\*</sup> For Solid materials, hopper cars may be used instead of the GP railcars

<sup>\*\*\*</sup> 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.

<sup>\*\*\*\*</sup> May contain HAP or risk assessment material

## Montana Air Quality Permit (MAQP) Analysis Quala Services LLC MAOP #2832-08

#### I. Introduction/Process Description

## A. Permitted Equipment and Process Description

The permitted equipment at the Quala Services LLC (Quala) 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 Quala facility, railcars are brought in for cleaning. Quala cleans pressurized and non-pressurized general purpose cars. The lists of chemicals Quala is authorized to handle are included in Appendix A to this permit, which was established in air quality Permit Application #2832-02. Quala connects all pressurized cars to the flare to vent the gases remaining in the car. For chemicals with high vapor pressure, Quala 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.

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

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Because Quala'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 Quala 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.

Quala is required to track the emissions from the flare on a regular basis. This will allow the Department of Environmental Quality – Air Resources Management Bureau (Department) to determine compliance with permit conditions without requiring expensive testing and monitoring. The Department 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 would 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 the Department 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 be accumulated 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 the Department 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, the Department 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. The Department 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 the Department 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. The Department 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 the Department on January 17, 2001, Allwaste notified the Department 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). The Department 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, the Department 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 changes the name on MAQP #2832-06 and updates the permit to reflect the current permit language and rule references used by the Department. **MAQP #2832-07** replaces MAQP #2832-06.

## C. Current Permitting Action

On February 15, 2011, the Department received a request from Quala to change the name on MAQP #2830-07 from PSC to Quala. The current permit action changes the name on MAQP #2832-07 and updates the permit to reflect permit language and rule references used by the Department. **MAQP #2832-08** replaces MAQP #2832-07.

#### 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 the Department. Upon request, the Department 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. <u>ARM 17.8.101 Definitions</u>. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.105 Testing Requirements</u>. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, 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 the Department.
  - 3 <u>ARM 17.8.106 Source Testing Protocol</u>. The requirements of this rule apply to any emission source testing conducted by the Department, 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).

Quala 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 the Department upon request.

- 4. <u>ARM 17.8.110 Malfunctions</u>. (2) The Department 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. <u>ARM 17.8.204 Ambient Air Monitoring</u>
  - 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<sub>10</sub>

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

- C. ARM 17.8, Subchapter 3 Emission Standards, including, but not limited to:
  - 1. <u>ARM 17.8.304 Visible Air Contaminants</u>. 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. <u>ARM 17.8.308 Particulate Matter, Airborne</u>. (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, Quala 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. <u>ARM 17.8.309 Particulate Matter, Fuel Burning Equipment</u>. 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. <u>ARM 17.8.310 Particulate Matter, Industrial Processes</u>. 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 <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. 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). Quala is considered an NSPS-affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts:
  - a. <u>40 CFR 60, Subpart A General Provisions</u> apply to all equipment or facilities subject to an NSPS Subpart as listed below:
  - b. <u>40 CFR 60, Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.</u> 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. <u>ARM 17.8.504 Air Quality Permit Application Fees</u>. 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 the Department. The current permit action is an administrative permit action and does not require an application fee.
  - 2. <u>ARM 17.8.505 Air Quality Operation Fees.</u> An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. 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. The Department 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. <u>ARM 17.8.740 Definitions</u>. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.743 Montana Air Quality Permits--When Required</u>. 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. Quala has the PTE more than 25 tons/year of VOCs; therefore, a permit is required.
  - 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.
  - 4. <u>ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes</u>. 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, alteration, or use of a source. Quala was not required to submit a permit application for the current permit action because the current permit action is considered an administrative action. (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. The current permit action is an administrative amendment; therefore, it did not require publication.
  - 6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department 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. <u>ARM 17.8.752 Emission Control Requirements</u>. 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. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
  - 9. <u>ARM 17.8.756 Compliance with Other Requirements</u>. This rule states that nothing in the permit shall be construed as relieving Quala 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. <u>ARM 17.8.759 Review of Permit Applications</u>. This rule describes the Department'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. <u>ARM 17.8.762 Duration of Permit</u>. 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. <u>ARM 17.8.763 Revocation of Permit</u>. 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. <u>ARM 17.8.765 Transfer of Permit</u>. 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 the Department.
- 15. <u>ARM 17.8.770 Additional Requirements for Incinerators</u>. This rule specifies the additional information that must be submitted to the Department 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. <u>ARM 17.8.801 Definitions</u>. 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. <u>ARM 17.8.1201 Definitions</u>. (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 the Department may establish by rule; or

- c.  $PTE > 70 \text{ tons/year of } PM_{10} \text{ in a serious } PM_{10} \text{ nonattainment area.}$
- 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 #2832-08 for Quala, 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<sub>10</sub> 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). The Department 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 the Department 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.

Quala 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.

The Department 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. Quala 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. <u>MCA 75-2-215 Solid or hazardous waste incineration</u> additional permit requirements, including, but not limited to the following requirements:

The Department may not issue a permit to a facility until: (d) the Department 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.

The Department has reviewed risk assessments during previous permitting actions for this facility. A risk assessment is not required for this administrative permit action because Quala 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. Quala 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.  $20 \frac{\text{cars/yr}}{24,000} \frac{\text{gal/car}}{1 \frac{\text{scf}}{7.48} \frac{\text{gal}}{3}} \frac{\text{3 moles HCl/1 mole Methyl Chloroform}}{36.5 \text{ lb HCl/379 scf}} \frac{\text{36.5 lb HCl/379 scf}}{10.0005 \frac{\text{scf}}{10.0005}} \frac{\text{scf}}{10.0005 \frac{\text{scf}}{10.0005}} \frac{\text{scf}}{10.0005} \frac{\text{s$
- B. 60 cars/yr \* 24,000 gal/car \* 1 scf/7.48 gal \* 1 moles HCl/1 mole Methyl Chloride\* 36.5 lbHCl/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, the Department has determined that no adverse air quality impacts will result as a consequence of the current permit action.

### VI. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department 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
Λ		private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private
	Λ	property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others,
	Λ	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
	Λ	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
	Λ	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)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

## 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: Doug Kuenzli

Date: February 23, 2011