

United States Environmental Protection Agency
Region 8
Air Program
1595 Wynkoop Street
Denver, Colorado 80202



AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE

In accordance with the provisions of title V of the Clean Air Act and 40 CFR part 71 and applicable rules and regulations,

Chipeta Processing, LLC
Chipeta Gas Plant

is authorized to operate air emission units and to conduct other air pollutant emitting activities in accordance with the permit conditions listed in this permit.

This source is authorized to operate at the following location:

Uintah and Ouray Indian Reservation
Section 15, T9S, R22E, Uintah County, Utah

Terms not otherwise defined in this permit have the meaning assigned to them in the referenced regulations. All terms and conditions of the permit are enforceable by EPA and citizens under the Clean Air Act (CAA).

A handwritten signature in black ink, appearing to read "Deborah Lebow Aal".

Deborah Lebow Aal, Acting Director
Air Program
US EPA Region 8

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**AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE
Chipeta Processing, LLC
Chipeta Gas Plant**

Permit Number: V-UO-00023-2009.00
Replaces Permit No.: NA

Issue Date: March 23, 2011
Effective Date: April 1, 2011
Expiration Date: April 1, 2016

The permit number cited above should be referenced in future correspondence regarding this facility.

Permit Issuance History

DATE OF ISSUANCE	TYPE OF ACTION	SECTION NUMBER AND TITLE	DESCRIPTION OF ACTION
March 2011	Initial Permit Issuance		Initial Permit V-UO-00023-2009.00

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Abbreviations and Acronyms

AR	Acid Rain
ARP	Acid Rain Program
bbls	Barrels
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
BACT	Best Available Control Technology
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CH ₂ O	Formaldehyde
CMS	Continuous Monitoring System (includes COMS, CEMS and diluent monitoring)
COMS	Continuous Opacity Monitoring System
CO	Carbon monoxide
CO ₂	Carbon dioxide
DAHS	Data Acquisition and Handling System
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
EIP	Economic Incentives Programs
EPA	Environmental Protection Agency
FGD	Flue gas desulfurization
gal	Gallon
gpm	Gallons per minute
H ₂ S	Hydrogen Sulfide
HAP	Hazardous Air Pollutant
hr	Hour
Id. No.	Identification number
kg	Kilogram
lb	Pound
MACT	Maximum Achievable Control Technology
MVAC	Motor Vehicle Air Conditioner
Mg	Megagram
MMBtu	Million British Thermal Units
mo	Month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMHC	Non-methane hydrocarbons
NO _x	Nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
pH	Negative logarithm of effective hydrogen ion concentration (acidity)
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns in diameter
ppm	Parts per million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
psi	Pounds per square inch
psia	Pounds per square inch absolute
RICE	Reciprocating Internal Combustion Engine
RMP	Risk Management Plan
scfm	Standard cubic feet per minute
SNAP	Significant New Alternatives Program
SO ₂	Sulfur dioxide
tpy	Tons Per Year
US EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

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I. Source Information and Emission Unit Identification

I.A. Source Information

Parent Company Name: Chipeta Processing, LLC

Plant Name: Chipeta Gas Plant

Plant Location: Section 15, Township 9S, Range 22E
Latitude: 40.0344° N
Longitude: 109.4289° W

Region: 8

State: Utah

County: Uintah

Reservation: Uintah & Ouray Indian Reservation

Tribe: Ute Indian Tribe

Responsible Official: Midstream Operations Manager

SIC Code: 1321

AFS Plant Identification Number: 4904701010

Other Clean Air Act Permits: There are no other Federal CAA permits, such as minor NSR or PSD, issued to this facility.

Description of Process:

CGP is a natural gas compression and hydrocarbon dew point (HCDP) control plant. The entire plant has a minimum design pressure of 700 psig and connects to interstate pipelines to transport natural gas to the market. Light natural gas liquids (NGLs) produced at the plant are sold via pipeline or truck to local liquids markets. Condensate and debutanized natural gasoline (DNG) are also sold to local markets by truck.

Natural gas enters the facility through gathering flowlines and passes through slug catcher vessels to separate hydrocarbon liquids from the gas. Hydrocarbon liquids from the slug catcher undergo condensate stabilization before storage in a 10,000 bbl floating roof tank (TK-1601). The stabilization process uses heat medium oil (HMO) to drive off the lighter hydrocarbons and produce a less volatile liquid to reduce flash emissions. The condensate is sold by truck to local markets and the captured vapors from the stabilization process are recycled to the plant inlet. The separated natural gas stream is directed to either Train 1 or Train 2 of the plant.

In Train 1, the refrigeration plant dries the natural gas to the required water dew point with a low-emission ethylene glycol dehydration system (DEHY-LO). Liquids produced by the refrigeration process are stabilized in a de-ethanizer tower with heat from the HMO system. Two plant heaters (H-781 and H-782) are used to heat the HMO supplied to the refrigeration plant and condensate stabilization process. The natural gas enters the process at pressures between 700 and 1,000 psig and is refrigerated by exchanging heat with low-pressure propane. The propane is circulated in a refrigeration loop to remove the heat from the gas. An electric sales gas compressor boosts the gas up to interstate pipeline pressure.

Extracted liquids from Train 1 are sent through a two tower stabilization system where hydrocarbon vapors, light NGLs, and de-butanized natural gasoline (DNG) are produced. The vapors are compressed and recycled to the plant inlet and the NGLs are injected into an NGL pipeline or stored in a pressurized storage tank and trucked to local markets. The DNG is stored in two 10,000 bbl internal floating roof tanks (TK-1611 and TK-1621) and then trucked to local markets.

Natural gas entering Train 2 is dried to a very low water content in a molecular sieve dryer prior to being processed in a cryogenic turbo expander where NGLs are extracted from the natural gas stream. The natural gas stream then passes through electric residue compressors for compression before entering the sales pipeline. The NGLs are processed through an amine treatment system for CO₂ removal and then injected into an NGL pipeline. Hydrocarbon vapors that cannot be recycled to the plant inlet are routed to a Callidus Dual Mouse tip plant flare (FL-991) emissions control device.

I.B. Source Emission Points

**Table 1 - Emission Units
Chipeta Processing, LLC – Chipeta Gas Plant**

Emission Unit ID	Description	Control Equipment
H-781	Thomas Russell HMO Heater, 16.5 MMBtu/hr, natural gas fired: serial no. H106-153 Installed 12/7/2007	None
H-782	Thomas Russell HMO Heater, 8 MMBtu/hr, natural gas fired: serial no. H106-155 Installed 12/7/2007	None
H-2170	Heatech Regenerator Gas Heater, 17.38 MMBtu/hr, natural gas fired: serial no. 07-0572 Installed 4/7/2009	None
E-2590	Propak Amine Reboiler, 7.5 MMBtu/hr, natural gas fired: serial no. W070572 Installed 4/7/2009	None
TK-1601	CBI 10,000 bbl Condensate Storage Tank	Internal Floating Roof
TK-1611	CBI 10,000 bbl DNG Storage Tank	Internal Floating Roof
TK-1621	CBI 10,000 bbl DNG Storage Tank	Internal Floating Roof
L-2	Truck Loadout – Debutanized Natural Gasoline	None
TK-5050	CO ₂ Vent: Installed 4/7/2009	None
FUG	Process Fugitive Emissions (equipment leaks from valves, pumps, flanges, open-ended lines, etc...)	LDAR Program

**Table 2 – Insignificant Emission Units
Chipeta Processing, LLC – Chipeta Gas Plant**

Emission Unit Description
FL-991 – Flare
L-1 – Condensate Truck Loadout
DEHY-LO – Low Emission Ethylene Glycol Dehydration Unit
Ethylene Glycol Storage Tank
Methanol Storage Tank
3 - Produced Water Tanks (1101, 1121, & 1111)
Heat Medium Oil Tank 1141

II. Requirements for Steam Generating Units

II.A. 40 CFR Part 60, Subpart A – New Source Performance Standards, General Provisions [40 CFR 60.1 – 60.19]

This facility is subject to the requirements of 40 CFR part 60. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR part 60, subpart A.

II.B. 40 CFR Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60.40c – 60.48c]

1. This facility is subject to the requirements of 40 CFR part 60, subpart Dc. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR part 60, subpart Dc.

2. 40 CFR part 60, subpart Dc applies to the following emission units:

Unit H-781: Natural gas-fired steam generating unit with a maximum design heat input capacity of 16.5 MMBtu/hr;

Unit H-2170: Natural gas-fired steam generating unit with a maximum design heat input capacity of 17.38 MMBtu/hr.

II.C. Operating Requirements and Emission Limitations

The sole source of fuel for emission unit H-781 and H-2170 shall be natural gas as defined in §60.41c.

II.D. Notifications [40 CFR 60.48c]

The permittee shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

1. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;
2. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired;

II.E. Recordkeeping Requirements [40 CFR 60.48c]

1. The permittee shall record and maintain the following:
 - (a) Fuel used and the supplier of the fuel;

- (b) Total amount of fuel used for H-781 and H-2170 delivered to the property each calendar month; and
 - (c) A certified statement signed by the owner or operator of the affected facility that the records of fuel and fuel supplier represent all of the fuel combusted.
2. All required records shall be maintained by the permittee for a period of two (2) years.

III. Requirements for Tanks

III.A. 40 CFR Part 60, Subpart A – New Source Performance Standards, General Provisions [40 CFR 60.1 – 60.19]

This facility is subject to the requirements of 40 CFR part 60. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR part 60, subpart A.

III.B. 40 CFR Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60.110b – 60.117b]

1. This facility is subject to the requirements of 40 CFR part 60, subpart Kb. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR part 60, subpart Kb.

2. 40 CFR part 60, subpart Kb applies to the following emission units:

TK-1601: 10,000 bbl Internal Floating Roof Condensate Storage Tank; Storing a volatile organic liquid (VOL) with a capacity greater than or equal to 75 cubic meters and commenced construction after July 23, 1984.

TK-1611: 10,000 bbl Internal Floating Roof Debutanized Natural Gasoline Storage Tank; Storing a volatile organic liquid (VOL) with a capacity greater than or equal to 75 cubic meters and commenced construction after July 23, 1984.

TK-1621: 10,000 bbl Internal Floating Roof Debutanized Natural Gasoline Storage Tank; Storing a volatile organic liquid (VOL) with a capacity greater than or equal to 75 cubic meters and commenced construction after July 23, 1984.

III.C. Operating Requirements and Emission Limitations [40 CFR 60.112b]

Storage vessel units TK-1601, TK-1611, and TK-1621 shall be equipped with a fixed roof in combination with an internal floating roof that meets the specifications of 40 CFR 60.112b(1)(i) through (ix).

III.D. Notifications and Operating Plan Requirements [40 CFR 60.113b]

1. For storage vessels complying with the control requirement using a fixed roof in combination with an internal floating roof, the permittee shall perform the following:

(a) Prior to filling the storage vessel with a VOL, the internal floating roof, primary seal, and secondary seal (if present) shall be inspected. Any defects shall be repaired prior to filling.

- (b) For each storage vessel equipped with a liquid-mounted seal, mechanical shoe primary seal, or two-continuous seals (double-seal), the internal floating roof, primary seal, and secondary seal (if present) shall be inspected every 12 months after initial fill. Any defects shall be corrected within 45 days.
- (c) A visual inspection of the internal floating roof, primary seal, secondary seal (if present), gaskets, slotted membranes, and sleeve seals (if any) shall be performed each time the storage vessel is emptied and degassed. Any defects found as described in §60.113b(a)(4) shall be corrected prior to refilling. This inspection shall occur at a minimum of every 10 years except for the following:
 - (i) This inspection shall occur at a minimum of every 5 years for vessels equipped with two-continuous seals (double seal system).
- (d) The permittee shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which inspection is required by Condition 1.a. and 1.c of this permit section in order to afford the Administrator the opportunity to have an observer present. If the inspection required by Condition 1.c of this permit section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to refilling. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned.

III.E. Recordkeeping Requirements [40 CFR 60.115b]

1. The permittee shall keep copies of all reports and records for at least 2 years, except the permittee shall keep a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the source.
2. The permittee shall keep a record of each inspection performed that identifies the storage vessel, date of inspection, and the observed condition of each component.

III.F. Reporting Requirements [40 CFR 60.115b]

1. The permittee shall submit a report to the Administrator that describes the control equipment and certifies the equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). The report shall be an attachment to the notification required by §60.7(a)(3).
2. If any defect conditions are observed as specified in Condition 1.b. of Section III.D. of this permit, the permittee shall submit a report to the Administrator within 30 days of inspection that identifies the storage vessel, nature of the defects, date the vessel was emptied, and nature and date of the repair made.

3. For each inspection required for vessels with a double-system as described in Condition 1.b and 1.c of Section III.D. of this permit, a report shall be furnished within 30 days to the Administrator if any defects are observed. The report shall identify the storage vessel and the reason it did meet the specifications required, and list each repair made.

IV. Requirements for Fugitive Emissions

IV.A. 40 CFR Part 60, Subpart A – Standards of Performance for New Stationary Sources [40 CFR 60.1 – 60.19]

This source is subject to the requirements of 40 CFR part 60. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR part 60, subpart A.

[40 CFR 60.1]

IV.B. 40 CFR Part 60, Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants [40 CFR 60.630 – 60.636]

This facility is subject to the requirements of 40 CFR part 60, subpart KKK. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR part 60, subpart KKK.

[Explanatory Note: Many of the requirements of 40 CFR part 60, subpart KKK, Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants, refer to the requirements of 40 CFR part 60, subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry.]

IV.C. Affected Facilities [40 CFR 60.630]

1. The following affected facilities in onshore natural gas processing plants are subject to the provisions of 40 CFR part 60, subpart KKK:
 - (a) Each compressor in VOC service or wet gas service:
 - (b) The group of all equipment except compressors within a process unit:
2. A compressor station, dehydration unit, sweetening unit, underground storage tank, field gas gathering system, or liquefied natural gas unit is covered under this subpart if it is located at an onshore natural gas processing plant as defined in §60.631.

IV.D. Standards [40 CFR 60.632]

1. The permittee shall comply with the requirements of §§ 60.482-1(a), (b) and (d) and 60.482-2 through 60.482-10, except as provided in §60.633, as soon as practicable, but no later than 180 days after initial startup.
2. The permittee shall comply with the provisions of §60.485 except as provided in §60.633(f).

3. The permittee shall comply with the provisions of §§60.486 and 60.487, except as provided in §§60.633, 60.635 and 60.636.
4. The permittee shall use the following provision instead of §60.485(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless the permittee demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169–63, 77, or 93, E168–67, 77, or 92, or E260–73, 91, or 96 (incorporated by reference as specified in §60.17) shall be used.

[40 CFR 60.632]

IV.E. Exceptions [40 CFR 60.633]

The permittee may comply with the following exceptions to the provisions of 40 CFR part 60, subpart VV:

1. For each pressure relief device in gas/vapor service, the leak detection and repair requirements specified in §60.633(b);
2. For sampling connection systems, the exemption specified in §60.633(c);
3. For pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd)(10 million standard cubic feet per day) or more of field gas, the exemptions specified in §60.633(d);
4. For reciprocating compressors in wet gas service, the exemption specified in §60.633(f);
5. For flares used to comply with subpart KKK, the requirements specified in §60.633(g); and
6. For determining whether equipment is in heavy or light liquid service, the provisions specified in §60.633(h).

[40 CFR 60.633]

IV.F. Recordkeeping Requirements [40 CFR 60.635]

1. The permittee shall comply with the requirements of Sections IV.F.2. and 3. below in addition to the requirements of §60.486 of 40 CFR part 60, subpart VV.

[40 CFR 60.635(a)]

2. The permittee shall comply with the record keeping requirements in §60.635(b) for pressure relief devices subject to the requirements of §60.633(b)(1).

[40 CFR 60.635(b)]

3. The permittee shall comply with the following requirement in addition to the requirement of §60.486(j) of 40 CFR part 60, subpart VV:

- (a) Information and data used to demonstrate that a reciprocating compressor is in wet gas service to apply for the exemption in §60.633(f) shall be recorded in a log that is kept in a readily accessible location.

[40 CFR 60.635(c)]

IV.G. Reporting Requirements [40 CFR 60.636]

1. The permittee shall comply with the reporting requirements of §60.487 of 40 CFR part 60, subpart VV.

[40 CFR 60.636(a)]

2. All reports required under 40 CFR part 60, subpart KKK shall be sent to the Administrator at the following address as listed in §60.4:

Director, Air and Toxics Technical Enforcement Program
Office of Enforcement, Compliance and Environmental Justice
1595 Wynkoop Street, Denver, CO 80202-1129
Mail Code 8ENF-AT

[40 CFR 60.4]

3. The permittee shall include the following information in the initial semiannual report in addition to the information required in §§60.487(b)(1) through 60.487(b)(4) of 40 CFR part 60, subpart VV:

- (a) The number of pressure relief devices subject to the requirements of §60.633(b), except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4(a) of 40 CFR part 60, subpart VV and those pressure relief devices complying with §60.482-4(c) of 40 CFR part 60, subpart VV.

[40 CFR 60.636(b)]

4. The permittee shall include the following information in all semiannual reports in addition to the information required in §§60.487(c)(2)(i) through 60.487(c)(2)(vi) of 40 CFR part 60, subpart VV:

- (a) The number of pressure relief devices for which leaks were detected as required in §60.633(b)(2); and
- (b) The number of pressure relief devices for which leaks were not repaired as required in §60.633(b)(3).

[40 CFR 60.636(c)]

V. Facility-Wide Requirements

Conditions in this section of the permit apply to all emissions units located at the facility, including any units not specifically listed in Table 1 and Table 2 of Section I.B.

[40 CFR 71.6(a)(1)]

V.A. General Recordkeeping Requirements

The permittee shall comply with the following generally applicable recordkeeping requirements:

1. If the permittee determines that his or her stationary source that emits (or has the potential to emit, without federally recognized controls) one or more hazardous air pollutants is not subject to a relevant standard or other requirement established under 40 CFR part 63, the permittee shall keep a record of the applicability determination on site at the source for a period of five (5) years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination shall include an analysis (or other information) that demonstrates why the permittee believes the source is unaffected (e.g., because the source is an area source).

[40 CFR 63.10(b)(3) and 63.10(f)]

2. The permittee is the owner or operator of a glycol dehydration unit that is exempt from the control requirements under §63.764. The permittee shall retain each determination used to demonstrate that actual flowrate of natural gas throughput is less than 85,000 scm/day (3,000,000 scf/day) or the actual average benzene emissions are below 1 tpy.

[40 CFR 63.764(e)(1), 63.772(b)(2) and 63.774(d)(1)]

3. Records shall be kept of off permit changes made, as required by Section VI.Q.

V.B. General Reporting Requirements [40 CFR 71.6(a)(3)(iii)]

1. The permittee shall submit to the EPA Regional Office all reports of any required monitoring under this permit semiannually. The first report shall cover the period from the effective date of this permit through August 31, 2011. Thereafter, the report shall be submitted semi-annually, by April 1st and October 1st of each year. The report due on April 1st shall cover the six-month period ending on the last day of February before the report is due. The report due on October 1st shall cover the six-month period ending on the last day of August before the report is due. All instances of deviations from permit requirements shall be clearly identified in such reports. All required reports shall be certified by a responsible official consistent with Section VI.E. of this permit.

[Explanatory note: To help part 71 permittees meet reporting responsibilities, EPA has developed a form “SIXMON” for six-month monitoring reports. The form may be found on EPA’s website at: <http://www.epa.gov/air/oagps/permits/p71forms.html>]

2. “Deviation” means any situation in which an emissions unit fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or recordkeeping established in accordance with §71.6(a)(3)(i) and (a)(3)(ii). For a situation lasting more than 24 hours which constitutes a deviation, each 24 hour period is considered a separate deviation. Included in the meaning of deviation are any of the following:
 - (a) A situation where emissions exceed an emission limitation or standard;
 - (b) A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met; or
 - (c) A situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit.

3. The permittee shall promptly report to EPA deviations from permit requirements, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. “Prompt” is defined as follows:
 - (a) Any definition of “prompt” or a specific time frame for reporting deviations provided in an underlying applicable requirement as identified in this permit;
 - (b) Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:
 - (i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
 - (ii) For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continues for more than two (2) hours in excess of permit requirements, the report must be made within 48 hours.
 - (iii) For all other deviations from permit requirements, the report shall be submitted with the semi-annual monitoring report.
 - (c) If any of the conditions in Section V.B.3(b)(i) or (ii) above are met, the permittee must notify EPA by telephone (1-800-227-8917) or facsimile (303-312-6064)

based on the timetables listed above. *[Notification by telephone or fax must specify that this notification is a deviation report for a part 71 permit].* A written notice, certified consistent with Section VI.E. of this permit must be submitted within 10 working days of the occurrence. All deviations reported under this section must also be identified in the 6-month report required under Section V.B.1. of this permit.

[Explanatory note: To help part 71 permittees meet reporting responsibilities, EPA has developed a form "PDR" for prompt deviation reporting. The form may be found on EPA's website at: <http://www.epa.gov/air/oaqps/permits/p71forms.html>]

V.C. Permit Shield [40 CFR 71.6(f)(3)]

Nothing in this permit shall alter or affect the following:

1. The liability of a permittee for any violation of applicable requirements prior to or at the time of permit issuance;
2. The ability of the EPA to obtain information under section 114 of the CAA; or
3. The provisions of section 303 of the CAA (emergency orders), including the authority of the Administrator under that section.

V.D. Chemical Accident Prevention [Clean Air Act Sections 112(r)(1), 112(r)(3), 112(r)(7) & 40 CFR Part 68]

1. The permittee has more than a threshold quantity of a regulated substance in a process, as determined under §68.115, and shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR part 68 no later than the latest of the following dates:
 - (a) June 21, 1999; or
 - (b) Three (3) years after the date on which a regulated substance is first listed under 40 CFR §68.130; or
 - (c) The date on which a regulated substance is first present above a threshold quantity in process.

[40 CFR 68.10(a)]
 - (d) This facility is subject to 40 CFR part 68 and shall certify compliance with all requirements of 40 CFR part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by Section VI.C. of this permit.

[40 CFR 68.215(a)(ii)]

V.E. Stratospheric Ozone and Climate Protection, Recycling and Emissions Reduction

[40 CFR part 82, subpart F]

1. The following requirements apply to any air conditioning appliances at the source (“appliance” as defined in 40 CFR § 82.152) that contain Class I or Class II refrigerants, and in an amount less than 50 pounds. The permittee shall comply with applicable standards for recycling and emissions reduction pursuant to 40 CFR part 82, subpart F, except as provided for motor vehicle air conditioners (MVACs) in part 82, subpart B.
 - (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the applicable required practices pursuant to 40 CFR § 82.156.
 - (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the applicable standards for recycling and recovery equipment pursuant to 40 CFR § 82.158.
 - (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR § 82.161.
 - (d) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined in 40 CFR § 82.152) must comply with recordkeeping requirements pursuant to 40 CFR § 82.166(i). (“MVAC-like appliance” as defined at 40 CFR § 82.152)

VI. Part 71 Administrative Requirements

VI.A. Annual Fee Payment [40 CFR 71.6(a)(7) and 40 CFR 71.9]

1. The permittee shall pay an annual permit fee in accordance with the procedures outlined below.
[40 CFR 71.9(a)]
2. The permittee shall pay the annual permit fee each year no later than October 1st. The fee shall cover the previous calendar year.
[40 CFR 71.9(h)]
3. The fee payment shall be in United States currency and shall be paid by money order, bank draft, certified check, corporate check, or electronic funds transfer payable to the order of the U.S. Environmental Protection Agency.
[40 CFR 71.9(k)(1)]
4. The permittee shall send fee payment and a completed fee filing form to:

For regular U.S. Postal Service mail

(FedEx, Airborne, DHL, and UPS)
U.S. Environmental Protection Agency
FOIA and Miscellaneous Payments
U.S. EPA FOIA & Misc. Payments
P.O. Box 979078
St. Louis, MO 63197-9000

**For non-U.S. Postal Service
Express mail**

U.S. Bank
Government Lockbox 979078
Cincinnati Finance Center
1005 Convention Plaza
SL-MO-C2-GL
St. Louis, MO 63101

[40 CFR 71.9(k)(2)]

5. The permittee shall send an updated fee calculation worksheet form and a photocopy of each fee payment check (or other confirmation of actual fee paid) submitted annually by the same deadline as required for fee payment to the address listed in Section VI.E. of this permit.

[40 CFR 71.9(h)(1)]

[Explanatory note: The fee filing form “FF” and the fee calculation worksheet form “FEE” may be found on EPA website at: <http://www.epa.gov/air/oaqps/permits/p71forms.html>]

6. Basis for calculating annual fee:

- (a) The annual emissions fee shall be calculated by multiplying the total tons of actual emissions of all “regulated pollutants (for fee calculation)” emitted from the source by the presumptive emissions fee (in dollars/ton) in effect at the time of calculation.

[40 CFR 71.9(c)(1)]

- (i) “Actual emissions” means the actual rate of emissions in tpy of any regulated pollutant (for fee calculation) emitted from a part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emissions unit’s actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year.

[40 CFR 71.9(c)(6)]

- (ii) Actual emissions shall be computed using methods required by the permit for determining compliance, such as monitoring or source testing data.

[40 CFR 71.9(h)(3)]

- (iii) If actual emissions cannot be determined using the compliance methods in the permit, the permittee shall use other federally recognized procedures.

[40 CFR 71.9(e)(2)]

[Explanatory note: The presumptive fee amount is revised each calendar year to account for inflation, and it is available from EPA prior to the start of each calendar year.]

- (b) The permittee shall exclude the following emissions from the calculation of fees:

- (i) The amount of actual emissions of each regulated pollutant (for fee calculation) that the source emits in excess of 4,000 tpy;

[40 CFR 71.9(c)(5)(i)]

- (ii) Actual emissions of any regulated pollutant (for fee calculation) already included in the fee calculation; and

[40 CFR 71.9(c)(5)(ii)]

- (iii) The quantity of actual emissions (for fee calculation) of insignificant activities [defined in §71.5(c)(11)(i)] or of insignificant emissions levels from emissions units identified in the permittee’s application pursuant to §71.5(c)(11)(ii).

[40 CFR 71.9(c)(5)(iii)]

7. Fee calculation worksheets shall be certified as to truth, accuracy, and completeness by a

responsible official.

[40 CFR 71.9(h)(2)]

[Explanatory note: The fee calculation worksheet form already incorporates a section to help you meet this responsibility.]

8. The permittee shall retain fee calculation worksheets and other emissions-related data used to determine fee payment for 5 years following submittal of fee payment. [Emission-related data include, for example, emissions-related forms provided by EPA and used by the permittee for fee calculation purposes, emissions-related spreadsheets, and emissions-related data, such as records of emissions monitoring data and related support information required to be kept in accordance with §71.6(a)(3)(ii).]

[40 CFR 71.9(i)]

9. Failure of the permittee to pay fees in a timely manner shall subject the permittee to assessment of penalties and interest in accordance with §71.9(l).

[40 CFR 71.9(l)]

10. When notified by EPA of underpayment of fees, the permittee shall remit full payment within 30 days of receipt of notification.

[40 CFR 71.9(j)(2)]

11. A permittee who thinks an EPA assessed fee is in error and who wishes to challenge such fee, shall provide a written explanation of the alleged error to EPA along with full payment of the EPA assessed fee.

[40 CFR 71.9(j)(3)]

VI.B. Annual Emissions Inventory [40 CFR 71.9(h)(1) and (2)]

The permittee shall submit an annual emissions report of its actual emissions for both criteria pollutants and regulated HAPs for this facility for the preceding calendar year for fee assessment purposes. The annual emissions report shall be certified by a responsible official and shall be submitted each year to EPA by October 1st. The annual emissions report shall be submitted to EPA at the address listed in Section VI.E. of this permit.

[Explanatory note: An annual emissions report, required at the same time as the fee calculation worksheet by §71.9(h), has been incorporated into the fee calculation worksheet form as a convenience.]

VI.C. Compliance Requirements

1. Compliance with the Permit shall be as follows:

- (a) The permittee must comply with all conditions of this part 71 permit. Any permit noncompliance constitutes a violation of the CAA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[40 CFR 71.6(a)(6)(i)]

- (b) It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

[40 CFR 71.6(a)(6)(ii)]

- (c) For the purpose of submitting compliance certifications in accordance with Section VI.C.3. of this permit, or establishing whether or not a person has violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[Section 113(a) and 113(e)(1) of the Act, 40 CFR 51.212, 52.12, 52.33, 60.11(g), and 61.12]

2. Compliance Schedule

- (a) For applicable requirements with which the source is in compliance, the source will continue to comply with such requirements.

[40 CFR 71.5(c)(8)(iii)(A)]

- (b) For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis.

[40 CFR 71.5(c)(8)(iii)(B)]

3. Compliance Certifications

- (a) The permittee shall submit to EPA a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices annually by October 1st. The first certification of compliance shall cover the period from the effective date of this permit through August 31, 2011. Thereafter, the certification of compliance shall be submitted annually by October 1st, and shall cover the 12 month period ending on August 31st of the calendar year in which the certification of compliance is due. The compliance certification shall be certified as to truth, accuracy, and completeness by a responsible official consistent with §71.5(d).

[40 CFR 71.6(c)(5)]

[Explanatory note: To help part 71 permittees meet reporting responsibilities, EPA has developed a reporting form for annual compliance certifications. The form may be found on EPA website at: <http://www.epa.gov/air/oaqps/permits/p71forms.html>]

- (b) The compliance certification shall be certified as to truth, accuracy, and completeness by a responsible official consistent with §71.5(d).

[40 CFR 71.6(c)(5)]

- (c) The certification shall include the following:

- (i) Identification of each permit term or condition that is the basis of the certification;
- (ii) The identification of the method(s) or other means used for determining the compliance status of each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the CAA, which prohibits knowingly making a false certification or omitting material information;
- (iii) The status of compliance with each term and condition of the permit for the period covered by the certification based on the method or means designated in (ii) above. The certification shall identify each deviation and take it into account in the compliance certification;
- (iv) Such other facts as the EPA may require to determine the compliance status of the source; and
- (v) Whether compliance with each permit term was continuous or intermittent.

[40 CFR 71.6(c)(5)(iii)]

VI.D. Duty to Provide and Supplement Information

[40 CFR 71.6(a)(6)(v), 71.5(a)(3), and 71.5(b)]

1. The permittee shall furnish to EPA, within a reasonable time, any information that EPA may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the EPA copies of records that are required to be kept pursuant to the terms of the permit, including information claimed to be confidential. Information claimed to be confidential must be accompanied by a claim of confidentiality according to the provisions of 40 CFR part 2, subpart B.

[40 CFR 71.6(a)(6)(v) and 40 CFR 71.5(a)(3)]

2. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. In addition, a permittee shall provide additional information as necessary to address any requirements that become applicable after the date a complete application is filed, but prior to release of a draft permit.

[40 CFR 71.5(b)]

VI.E. Submissions [40 CFR 71.5(d), 71.6(c)(1) and 71.9(h)(2)]

1. Any document (application form, report, compliance certification, etc.) required to be submitted under this permit shall be certified by a responsible official as to truth, accuracy, and completeness. Such certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[Explanatory note: EPA has developed a reporting form “CTAC” for certifying truth, accuracy and completeness of part 71 submissions. The form may be found on EPA website at: <http://www.epa.gov/air/oaqps/permits/p71forms.html>]

2. Except where otherwise specified, any documents required to be submitted under this permit, including reports, test data, monitoring data, notifications, compliance certifications, fee calculation worksheets, and applications for renewals and permit modifications shall be submitted to:

Part 71 Permit Contact
Air Program, 8P-AR
U.S. Environmental Protection Agency,
1595 Wynkoop Street
Denver, Colorado 80202

VI.F. Severability Clause [40 CFR 71.6(a)(5)]

The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force.

VI.G. Permit Actions [40 CFR 71.6(a)(6)(iii)]

This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

VI.H. Administrative Permit Amendments [40 CFR 71.7(d)]

1. The permittee may request the use of administrative permit amendment procedures for a permit revision that:
 - (a) Corrects typographical errors;
 - (b) Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - (c) Requires more frequent monitoring or reporting by the permittee;
 - (d) Allows for a change in ownership or operational control of a source where the EPA determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the EPA;
 - (e) Incorporates into the part 71 permit the requirements from preconstruction review permits authorized under an EPA-approved program, provided that such a program meets procedural requirements substantially equivalent to the requirements of §§71.7 and 71.8 that would be applicable to the change if it were subject to review as a permit modification, and compliance requirements substantially equivalent to those contained in §71.6; or
 - (f) Incorporates any other type of change which EPA has determined to be similar to those listed above in (a) through (e) above.

[Note to permittee: If subparagraphs (a) through (e) above do not apply, please contact EPA for a determination of similarity prior to submitting your request for an administrative permit amendment under this provision.]

VI.I. Minor Permit Modifications [40 CFR 71.7(e)(1)]

1. The permittee may request the use of minor permit modification procedures only for those modifications that:
 - (a) Do not violate any applicable requirement;
 - (b) Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
 - (c) Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

- (d) Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - (i) A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of title I; and
 - (ii) An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the CAA;
- (e) Are not modifications under any provision of title I of the CAA; and
- (f) Are not required to be processed as a significant modification.

[40 CFR 71.7(e)(1)(i)(A)]

- 2. Notwithstanding the list of changes ineligible for minor permit modification procedures above, minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in an applicable implementation plan or in applicable requirements promulgated by EPA.

[40 CFR 71.7(e)(1)(i)(B)]

- 3. An application requesting the use of minor permit modification procedures shall meet the requirements of §71.5(c) and shall include the following:

- (a) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- (b) The source's suggested draft permit;
- (c) Certification by a responsible official, consistent with §71.5(d), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- (d) Completed forms for the permitting authority to use to notify affected States as required under §71.8.

[40 CFR 71.7(e)(1)(ii)]

- 4. The source may make the change proposed in its minor permit modification application immediately after it files such application. After the source makes the change allowed by the preceding sentence, and until the permitting authority takes any of the actions authorized by §71.7(e)(1)(iv)(A) through (C), the source must comply with both the applicable requirements governing the change and the proposed permit terms and

conditions. During this time period, the source need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

[40 CFR 71.7(e)(1)(v)]

5. The permit shield under §71.6(f) may not extend to minor permit modifications.

[40 CFR 71.7(e)(1)(vi)]

VI.J. Group Processing of Minor Permit Modifications [40 CFR 71.7(e)(2)]

1. Group processing of modifications by EPA may be used only for those permit modifications:

- (a) That meet the criteria for minor permit modification procedures under Section VI.I. of this permit; and
- (b) That collectively are below the threshold level of 10 percent of the emissions allowed by the permit for the emissions unit for which the change is requested, 20 percent of the applicable definition of major source in §71.2, or 5 tpy, whichever is least.

[40 CFR 71.7(e)(2)(i)]

2. An application requesting the use of group processing procedures shall be submitted to EPA, shall meet the requirements of §71.5(c), and shall include the following:

- (a) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- (b) The source's suggested draft permit;
- (c) Certification by a responsible official, consistent with §71.5(d), that the proposed modification meets the criteria for use of group processing procedures and a request that such procedures be used;
- (d) A list of the source's other pending applications awaiting group processing, and a determination of whether the requested modification, aggregated with these other applications, equals or exceeds the threshold set under (a) above; and
- (e) Completed forms for the permitting authority to use to notify affected States as required under §71.8.

[40 CFR 71.7(e)(2)(ii)]

3. The source may make the change proposed in its minor permit modification application immediately after it files such application. After the source makes the change allowed by

the preceding sentence, and until the permitting authority takes any of the actions authorized by §71.7(e)(1)(iv)(A) through (C), the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the source need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

[40 CFR 71.7(e)(2)(v)]

4. The permit shield under §71.6(f) may not extend to group processing of minor permit modifications.

[40 CFR 71.7(e)(2)(vi)]

VI.K. Significant Permit Modifications [40 CFR 71.7(e)(3)]

1. The permittee must request the use of significant permit modification procedures for those modifications that:
 - (a) Do not qualify as minor permit modifications or as administrative amendments;
 - (b) Are significant changes in existing monitoring permit terms or conditions; or
 - (c) Are relaxations of reporting or recordkeeping permit terms or conditions.

[40 CFR 71.7(e)(3)(i)]

2. Nothing herein shall be construed to preclude the permittee from making changes consistent with part 71 that would render existing permit compliance terms and conditions irrelevant.

[40 CFR 71.7(e)(3)(i)]

3. Permittees must meet all requirements of part 71 for applications, public participation, and review by affected states and tribes for significant permit modifications. For the application to be determined complete, the permittee must supply all information that is required by §71.5(c) for permit issuance and renewal, but only that information that is related to the proposed change.

[40 CFR 71.7(e)(3)(ii), 71.8(d), and 71.5(a)(2)]

VI.L. Reopening for Cause [40 CFR 71.7(f)]

1. The permit may be reopened and revised prior to expiration under any of the following circumstances:
 - (a) Additional applicable requirements under the Act become applicable to a major part 71 source with a remaining permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable

requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to §71.7 (c)(3);

- (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit;
- (c) EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
- (d) EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

VI.M. Property Rights [40 CFR 71.6(a)(6)(iv)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

VI.N. Inspection and Entry [40 CFR 71.6(c)(2)]

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow EPA or an authorized representative to perform the following:

1. Enter upon the permittee's premises where a part 71 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. As authorized by the CAA, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

VI.O. Emergency Provisions [40 CFR 71.6(g)]

1. In addition to any emergency or upset provision contained in any applicable requirement, the permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (a) An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - (b) The permitted facility was at the time being properly operated;
 - (c) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
 - (d) The permittee submitted notice of the emergency to EPA within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirements for prompt notification of deviations.
2. In any enforcement proceeding the permittee attempting to establish the occurrence of an emergency has the burden of proof.
3. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

VI.P. Transfer of Ownership or Operation [40 CFR 71.7(d)(1)(iv)]

A change in ownership or operational control of this facility may be treated as an administrative permit amendment if the EPA determines no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to EPA.

VI.Q. Off Permit Changes [40 CFR 71.6(a)(12) and 40 CFR 71.6(a)(3)(ii)]

The permittee is allowed to make certain changes without a permit revision, provided that the following requirements are met, and that all records required by this section are kept on site at the source for a period of five (5) years:

1. Each change is not addressed or prohibited by this permit;
2. Each change shall meet with all applicable requirements and shall not violate any existing permit term or condition;
3. Changes under this provision may not include changes subject to any requirement of 40 CFR parts 72 through 78 or modifications under any provision of title I of the CAA;
4. The permittee must provide contemporaneous written notice to EPA of each change, except for changes that qualify as insignificant activities under §71.5(c)(11). The written notice must describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change;
5. The permit shield does not apply to changes made under this provision;
6. The permittee must keep a record describing all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes; and
7. The notice shall be kept on-site at the facility and made available to EPA on request, in accordance with the general recordkeeping provision of this permit.
8. Submittal of the written notice required above shall not constitute a waiver, exemption, or shield from applicability of any applicable standard or PSD permitting requirements under 40 CFR 52.21 that would be triggered by the replacement of any emission unit, or by replacement of multiple emission units.

VI.R. Permit Expiration and Renewal [40 CFR 71.5(a)(1)(iii), 71.5(a)(2), 71.5(c)(5), 71.6(a)(11), 71.7(b), 71.7(c)(1), and 71.7(c)(3)]

1. This permit shall expire upon the earlier occurrence of the following events:
 - (a) Five (5) years elapse from the date of issuance; or
 - (b) The source is issued a part 70 or part 71 permit under an EPA approved or delegated permit program.
2. Expiration of this permit terminates the permittee's right to operate unless a timely and

[40 CFR 71.6(a)(11)]

complete permit renewal application has been submitted at least 6 months but not more than 18 months prior to the date of expiration of this permit.

[40 CFR 71.5(a)(1)(iii)]

3. If the permittee submits a timely and complete permit application for renewal, consistent with §71.5(a)(2), but EPA has failed to issue or deny the renewal permit, then all the terms and conditions of the permit, including any permit shield granted pursuant to §71.6(f) shall remain in effect until the renewal permit has been issued or denied.

[40 CFR 71.7(c)(3)]

4. The permittee's failure to have a part 71 permit is not a violation of this part until EPA takes final action on the permit renewal application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit any additional information identified as being needed to process the application by the deadline specified in writing by EPA.

[40 CFR 71.7(b)]

5. Renewal of this permit is subject to the same procedural requirements that apply to initial permit issuance, including those for public participation, affected State, and tribal review.

[40 CFR 71.7(c)(1)]

6. The application for renewal shall include the current permit number, description of permit revisions and off permit changes that occurred during the permit term, any applicable requirements that were promulgated and not incorporated into the permit during the permit term, and other information required by the application form.

[40 CFR 71.5(a)(2) and 71.5(c)(5)]

VII. Appendix

VII.A. Inspection Information

1. Driving Directions to Chipeta Gas Plant from Vernal, Utah:

From U.S. Hwy 40 in Vernal, Utah

- Take UT-45 south approximately 20 miles to Glen Bench Road
- Turn right onto Glen Bench Road and drive approximately 14 miles
- Turn left onto Mountain Fuel Bridge Road and continue 1.8 miles
- Veer left onto an unnamed road for 0.1 miles
- Turn right into Chipeta Gas Plant

Note: A Ute Indian Tribe crossing permit is required, where applicable.

2. Global Positioning System (GPS) coordinates:

Latitude 40°02'11.88" N

Longitude 109°25'25.23" W

3. Safety Considerations Provided by Chipeta Processing:

There is no smoking permitted inside the plant.

Facility alarms and emergency evacuation procedures: If the evacuation alarm sounds for more than ten seconds you will need to evacuate the plant. If you are on the North side of the plant, you should muster in the Administration Building parking area. If you are on the South side of the plant, you should muster across the bridge at the furthest Southwest trailer. Role will be taken and the plant will be cleared before reentry is permitted.

There is a potential for hydrogen sulfide (H₂S) at CGP. The facility is equipped with a safety system that will shut down operations in the event that H₂S is detected in the gas stream. Your escort will have an H₂S monitor and other monitors are installed throughout the facility. If a high H₂S alarm occurs, your escort will note the wind direction, if any, and lead an evacuation in the safest route to a muster point.

Required PPE: hard hat, safety glasses, appropriate footwear, hearing protection

Cell phone use is prohibited inside the plant. Camera use is also prohibited without a Hot Work Permit unless the area has been assessed by an operator for hazards and deems that the permit is not necessary. If taking pictures is required, please ask for the area to be assessed prior to site access.

Any spills, accidents, injuries, or concerns should be reported to plant personnel immediately.

In addition to the safety and environmental policies, a Tribal access permit is required to access or cross tribal land. Access to CGP will require accessing tribal land. A tribal access permit may be obtained by contacting the Ute Tribal Office at (435) 725-4950. The names and vehicle description (make, model, year, color, and license plate number) must be on the tribal access permit.

VII.B. Consent Decree – Civil Action No. 1:07-CV-01034-WDM

The above referenced Consent Decree is attached to this permit because it contains provisions that apply to CGP. The specific provisions applicable to CGP are summarized in the Statement of Basis for this permit.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

UNITED STATES OF AMERICA,)
)
 Plaintiff,)
)
 and)
)
 STATE OF COLORADO,)
)
 Plaintiff-Intervenor,)
)
 v.) Civil Action No.
)
 KERR-McGEE CORPORATION,)
)
 Defendant.)
 _____)

CONSENT DECREE

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WHEREAS, Plaintiff, the United States of America, (the “United States”) on behalf of the United States Environmental Protection Agency (“EPA”), has simultaneously with lodging this Consent Decree filed a Complaint alleging that Kerr-McGee Corporation, or one or more of its wholly-owned subsidiaries, (collectively “Defendant” or “Kerr-McGee” and as more specifically defined below), violated requirements of the Clean Air Act (the “Act”) and the federal and state regulations implementing the Act applicable to: (i) five compressor stations referred to herein as the Hudson Facility, Dougan Facility, Frederick Facility, Fort Lupton Facility, and Platteville Facility, which are located in the Denver-Julesburg Basin in and near Adams and Weld Counties, Colorado (the “D-J Basin”), (which facilities are among those later defined as the “D-J Basin Facilities”); and (ii) three compressor stations referred to herein as the Cottonwood Wash Facility, Ouray Facility, and Bridge Station Facility which are in the Uinta Basin located near Vernal, Utah (the “Uinta Basin”) (collectively the “Uinta Basin Facilities”);

WHEREAS, EPA administers the Act’s programs for the Prevention of Significant Deterioration (“PSD”), National Emission Standards for Hazardous Air Pollutants (“NESHAP”), and federal operating permits under Title V with respect to the Uinta Basin Facilities, and the Colorado Department of Public Health and Environment (“CDPHE”) as well as EPA, through the Colorado State Implementation Plan (“SIP”), are authorized to administer the PSD, NESHAP, and Title V programs with respect to the D-J Basin Facilities;

WHEREAS, on September 9, 2004, Kerr-McGee disclosed to EPA, pursuant to EPA’s policy titled “Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations” published at 65 Fed. Reg. 19,618 - 27 (April 11, 2000), that both the Cottonwood Wash Facility and Ouray Facility, which Kerr-McGee acquired as part of a June 2004 merger

with Westport Resources Corporation, had the potential to emit greater than major source thresholds and were subject to the federal operating permit requirements of Title V of the Act. Kerr-McGee subsequently submitted applications for Title V permits for both facilities to EPA, removed the conventional dehydrators at those facilities and replaced them with new “low-emission dehydrators” (as defined herein) incorporating integral vapor recovery capabilities and emitting insignificant amounts of Volatile Organic Compounds (“VOC”) or other pollutants regulated under the Act;

WHEREAS, Plaintiff-Intervenor, the State of Colorado (“State”), on behalf of CDPHE, has simultaneously with lodging this Consent Decree, filed a Complaint in Intervention joining in the claims alleged by the United States to have occurred at the D-J Basin Facilities and additionally citing violations of the Colorado Air Pollution Prevention and Control Act (the “Colorado Act”) and its implementing regulations. CDPHE previously issued to Kerr-McGee Rocky Mountain Corporation¹: (i) a Notice of Violation (“NOV”) on or about November 4, 2005 for failure to install pollution control equipment on compressor engines (“RICE” as further defined below) at four of the D-J Basin Facilities; (ii) a Compliance Advisory on or about May 5, 2005 for violations of Operating Permit No. 95OPWE013 and Construction Permit No. 00WE0583 for the Fort Lupton Facility; (iii) a NOV on or about June 15, 2005 for violations of CDPHE Permit No. 02WE0126 Initial Approval, and Modification 1 thereof applicable to the Thermal Oxidizer at the Platteville Station’s Amine Unit; (iv) its findings that Kerr-McGee’s records for 2005, maintained pursuant to Regulation No. 7, indicated Kerr-McGee’s failure to achieve required emission reductions for 9 days between May 1, 2005, and September 30, 2005;

¹ Kerr-McGee Rocky Mountain Corporation no longer exists, and its former operating facilities in Colorado are now owned by Kerr-McGee Oil and Gas Onshore LP, a wholly-owned subsidiary of Kerr-McGee Corporation.

and (v) the preliminary findings of CDPHE on or about November 10, 2006, based on inspections during the 2006 Ozone Season of Kerr-McGee facilities with condensate storage tanks at which flares were installed to control VOC emissions pursuant to Colorado Air Quality Control Commission Regulation No. 7, Section XII, which findings indicated certain violations;

WHEREAS, Kerr-McGee does not admit the violations occurred and further does not admit any liability for civil penalties, fines, or injunctive relief to the United States or the State arising out of the transactions or occurrences alleged in the Complaint, the Complaint in Intervention, or the NOV's and Compliance Advisory issued by CDPHE;

WHEREAS, Kerr-McGee has worked cooperatively with the Plaintiff and Plaintiff-Intervenor (collectively referred to as Plaintiffs) to settle this matter and committed to reduce or avoid annual emissions in the Uinta Basin and the D-J Basin by an estimated 1,750 tons of nitrogen oxides ("NOx"), 1,156 tons of carbon monoxide ("CO"), 686 tons of sulfur dioxide (SO₂), and 2,195 tons of VOCs, and also to undertake various projects to conserve and return to the market place an estimated 456 million standard cubic feet of natural gas in the first twelve (12) months following full implementation of the Pneumatic Controller (defined herein) retrofits made pursuant to this Consent Decree;

WHEREAS, Kerr-McGee previously developed plans to extensively use electric power for a portion of its natural gas compression needs in the future development of its Uinta Basin operating assets, which if implemented will avoid the emission of significant quantities of air pollutants otherwise produced by natural gas-fired engines used for natural gas compression, and has already implemented "green completion" practices and procedures for completing new wells

in both its Uinta Basin and D-J Basin operations to prevent or minimize the flaring and/or venting of natural gas during well completion;

WHEREAS, the United States, the State, and Kerr-McGee (the “Parties”) recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and at arm’s length, will avoid litigation among the Parties, and that this Consent Decree is fair, reasonable, consistent with the goals of the Act, the Colorado Act, and their implementing regulations, and that its entry is in the best interests of the Parties and is in the public interest;

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I (Jurisdiction and Venue), and with the consent of the Parties,

IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action and the Parties pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, and Sections 113(b), 167, and 304 of the Act, 42 U.S.C. §§ 7413(b), 7477 and 7604. Venue lies in this District pursuant to Sections 113(b) and 304(c) of the Act, 42 U.S.C. §§ 7413(b) and 7604(c), and 28 U.S.C. §§ 1391(b) & (c) and 1395(a), because some of the violations alleged in the Complaint and the Complaint in Intervention are alleged to have occurred in, and Kerr-McGee conducts business in, this judicial district. The Uinta Basin Facilities are located on “Indian country” lands as defined at 18 U.S.C. § 1151 in Uintah County. For purposes of this Consent Decree, or any action to enforce this Consent Decree, Kerr-McGee consents to and will not contest the jurisdiction of the Court over

this matter. For purposes of this Consent Decree, Kerr-McGee agrees that the Complaint and the Complaint in Intervention state claims upon which relief may be granted pursuant to Sections 113, 167, and 304(a) of the Act, 42 U.S.C. §§ 7413, 7477 and 7604(a) and Sections 115, 121, and 122 of the Colorado Act, §§ 25-7-115, 121, and 122 C.R.S.

II. APPLICABILITY

2. The obligations of this Consent Decree apply to and are binding upon the United States and the State, and upon Kerr-McGee, as defined herein, and any of its successors and assigns.

3. Kerr-McGee shall ensure that any of its corporate subsidiaries or affiliates that now or in the future may own or operate any of the Uinta Basin Facilities, the D-J Basin Facilities, or other natural gas production or gathering facilities subject to any work or compliance requirements of this Consent Decree, take all necessary and appropriate actions and provide EPA and/or the State access to facilities, equipment, and information as may be required to enforce this Consent Decree so that Kerr-McGee may fully and timely comply with all requirements of this Consent Decree.

4. In any action to enforce this Consent Decree, Kerr-McGee shall not raise as a defense the failure by any of its officers, directors, employees, agents, contractors, or corporate affiliates or subsidiaries to take any actions necessary to comply with the provisions of this Consent Decree.

III. DEFINITIONS

5. Terms used in this Consent Decree that are defined in the Act or in regulations promulgated pursuant to the Act shall have the meanings assigned to them in the Act or such

regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

- a. “CDPHE” shall mean the Colorado Department of Public Health and Environment and any of its successor agencies or departments.
- b. “Consent Decree” or “Decree” shall mean this Consent Decree and all appendices attached hereto (listed in Section XXX).
- c. “Day” shall mean a calendar day unless expressly stated to be a business day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next business day.
- d. “D-J Basin Facilities” shall collectively mean the Hudson Facility, Dougan Facility, Frederick Facility, Fort Lupton Facility, Brighton Facility, Hambert Facility, and Platteville Facility, all located in the D-J Basin in Weld and Adams Counties, Colorado, as more specifically described in Appendix A. These facilities do not include wellhead facilities.
- e. “EPA” shall mean the United States Environmental Protection Agency and any of its successor departments or agencies.
- f. “HAP” shall mean hazardous air pollutant.
- g. “Kerr-McGee” shall mean Kerr-McGee Corporation, a Delaware corporation, and the wholly-owned subsidiary of Anadarko Petroleum Corporation as of August 10, 2006, and any of its corporate subsidiaries or

affiliates that own or operate any of the Uinta Basin Facilities or the D-J Basin Facilities (each as defined herein), or any other natural gas production or gathering facilities subject to any work or compliance requirements of this Consent Decree, and for which Kerr-McGee Corporation certifies pursuant to Paragraph 112 that it has authority to legally bind such entity to take all actions necessary for Kerr-McGee Corporation to comply with the provisions of this Consent Decree, including but not limited to: Kerr-McGee Oil and Gas Onshore LP, Westport Field Services LLC, Kerr-McGee (Nevada) LLC, and Kerr-McGee Gathering LLC.

- h. “Low-Emission Dehydrator” shall be defined as set forth in Paragraph 6 of this Consent Decree.
- i. “Paragraph” shall mean a portion of this Decree identified by an Arabic numeral.
- j. “Performance Optimization Review” shall mean an evaluation of energy efficiency and the potential for product recovery at certain facilities for purposes of conserving natural gas and returning it to the marketplace.
- k. “Plaintiffs” shall mean the United States and the State.
- l. “Pneumatic Controller” shall mean a natural gas-driven pneumatic controller.
- m. “Potential to Emit” or “PTE” shall mean the maximum capacity of a stationary source to emit a pollutant regulated under the Act under its

physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant regulated under the Act, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable and, as applicable, also legally and practicably enforceable by a state or local air pollution control agency.

- n. “Regulation No. 7” shall mean Colorado Air Quality Control Commission (“AQCC”) Regulation No. 7, 5 Colo. Code Regs. § 1001-9 (2007).
- o. “RICE” shall mean one or more stationary, natural gas-fired reciprocating internal combustion engines.
- p. “Section” shall mean a portion of this Decree identified by a Roman numeral.
- q. “Title V Permit” shall mean a permit issued pursuant to the federal operating permit program established by Title V of the Act, 42 U.S.C. §§ 7661 - 7661f, and as implemented by 40 C.F.R. Parts 70 (applicable to states) or 71 (applicable to EPA).
- r. “TPY” shall mean tons per year.
- s. “Uinta Basin Facilities” shall collectively mean the Cottonwood Wash Facility, Ouray Facility, and Bridge Station Facility each located in the

Uinta Basin near Vernal, Utah, as more specifically described in Appendix B.

- t. “VOC” shall mean volatile organic compounds as defined in 40 C.F.R. § 51.100(s).

IV. EMISSION REDUCTION REQUIREMENTS

A. LOW-EMISSION DEHYDRATORS

6. “Low-Emission Dehydrator.” For purposes of this Consent Decree, a “Low-Emission Dehydrator” shall meet the specifications set forth in Appendix C and shall mean a dehydration unit that:

- a. incorporates an integral vapor recovery function such that the dehydrator cannot operate independent of the vapor recovery function;
- b. either returns the captured vapors to the inlet of the facility where such dehydrator is located or routes the captured vapors to that facility’s fuel gas supply header; and
- c. has a PTE less than 1.0 TPY of VOCs, inclusive of VOC emissions from the reboiler burner.

Existing Uinta Basin Facilities

7. Kerr-McGee shall continue to operate and maintain Low-Emission Dehydrators for all gas dehydration performed at its existing Uinta Basin Facilities.

8. By no later than 30 Days after the date of lodging of this Consent Decree, Kerr-McGee shall provide a written notice to EPA and certify that each Low-Emission Dehydrator

installed at Kerr-McGee's existing Uinta Basin Facilities meets the criteria set forth in Paragraph 6.

New Facilities in the Uinta Basin

9. Beginning as of the date of lodging of this Consent Decree, and continuing for so long as this Consent Decree is in effect, Kerr-McGee shall install and operate Low-Emission Dehydrators at all compressor stations or other facilities utilizing equipment to dehydrate natural gas in the Uinta Basin.

10. Kerr-McGee shall provide written notice to EPA within 60 Days of each installation under Paragraph 9, and include a description of the equipment installed and a certification pursuant to Paragraph 112 that the Low-Emission Dehydrator meets the criteria set forth in Paragraph 6.

11. General Record-Keeping Requirement: Kerr-McGee shall maintain records and information adequate to demonstrate its compliance with the requirements of this Section IV.A., and shall report the status of its compliance with these requirements in its Annual Reports submitted pursuant to Section XII (Reporting Requirements).

B. CONDENSATE STORAGE TANKS

Cottonwood Wash and Ouray Facilities in the Uinta Basin

12. Within 180 Days after the date of lodging of this Consent Decree, Kerr-McGee shall install and operate enclosed flares at the Cottonwood Wash Facility and Ouray Facility or install a non-flare alternative pursuant to Paragraph 18 to meet a 95% or greater reduction of VOC emissions from all condensate storage tanks located at each facility.

13. Kerr-McGee shall design, install, and operate each enclosed flare required pursuant to this Section IV.B. in accordance with the requirements of 40 C.F.R. § 60.18(c)-(e) and the manufacturer's written instructions or procedures necessary to achieve the emission reductions listed in Paragraph 12. Kerr-McGee shall submit to EPA a worksheet setting forth the design calculations for each proposed enclosed flare, including heat content determination, exit velocity determination, and flow rate estimates, within 60 Days after the lodging this Consent Decree.

14. Upon startup of each enclosed flare, Kerr-McGee shall operate and maintain an auto-ignition device equipped with a thermocouple that reignites the pilot flame whenever it goes out.

15. No later than 60 Days following the start-up of each enclosed flare, Kerr-McGee shall submit a certification pursuant to Paragraph 112 to EPA that Kerr-McGee has complied with the requirements of Paragraphs 12 through 14.

16. Kerr-McGee shall inspect each enclosed flare weekly and document whether the pilot light on each enclosed flare was lit or the enclosed flare was bypassed at the time of the inspection.

17. Kerr-McGee shall notify EPA of all instances that a pilot light on each enclosed flare was not lit or the enclosed flare was bypassed, and the duration of each incident, with each Annual Report submitted pursuant to Section XII (Reporting Requirements).

18. Instead of designing, operating, maintaining, and monitoring an enclosed flare in accordance with the applicable requirements of this Section IV.B., or as a future replacement of, or preferred primary means of emission control over, an enclosed flare installed to comply with

this Section IV.B., Kerr-McGee may elect to control emissions from condensate storage tanks at these facilities by installing and operating a vapor recovery unit (“VRU”), system for cascading stabilization of condensate, or any other system to capture and beneficially use or prevent VOC emissions from condensate tanks. No later than 30 Days prior to installation, Kerr-McGee shall submit to EPA a monitoring plan to ensure the non-flare alternative meets a 95% or greater reduction in VOC emissions.

19. By no later than 60 Days after the start-up of any such enclosed flare and/or non-flare alternative, Kerr-McGee shall, where applicable, obtain all necessary federally-enforceable, non-Title V permits and amend its Title V Permit applications for the Cottonwood Wash and Ouray Facilities, as appropriate, to incorporate all enclosed flare and/or non-flare alternative installation, operation, monitoring and reporting requirements as set forth in this Section IV.B.

Brighton Facility in the D-J Basin

20. By no later than June 30, 2007, Kerr-McGee shall install and operate an enclosed flare at the Brighton Facility to meet a 95% destruction efficiency for VOC emissions from all condensate storage tanks located at the Brighton Facility.

21. Kerr-McGee shall design, install and operate the enclosed flare in accordance with the requirements of “Regulation No. 7”, and the manufacturer’s written instructions or procedures necessary to achieve the emission reductions listed in Paragraph 20.

22. By no later than June 1, 2007, Kerr-McGee shall have submitted a worksheet to CDPHE setting forth its design calculations for the proposed enclosed flare, including heat content determination, exit velocity determination, and flow rate estimates.

23. Upon startup of the enclosed flare, Kerr-McGee shall operate and maintain an auto-ignition device equipped with a thermocouple that reignites the pilot flame whenever it goes out.

24. By no later than 60 Days following start-up of the enclosed flare, Kerr-McGee shall submit a certification pursuant to Paragraph 112 to CDPHE that it has complied with the requirements of Paragraphs 20-23.

25. Kerr-McGee shall inspect the enclosed flare and document whether the pilot light on the enclosed flare was lit or the enclosed flare was bypassed at the time of the inspection, as required by Regulation No. 7.

26. Kerr-McGee shall notify CDPHE of all instances that a pilot light on the enclosed flare was not lit or the enclosed flare was bypassed, and the duration of each incident, with each Annual Report submitted pursuant to Section XII (Reporting Requirements), and any other reports required to be submitted to CDPHE under Regulation No. 7.

27. By no later than 60 Days after the start-up of such enclosed flare, Kerr-McGee shall apply to CDPHE for a construction permit and to amend its Title V Permit, as appropriate, to incorporate all enclosed flare installation, operation, monitoring and reporting requirements as set forth in this Section IV.B., or to request that CDPHE rescind its Title V Permit, as appropriate.

28. General Record-Keeping Requirement: Kerr-McGee shall maintain records and information adequate to demonstrate its compliance with the requirements of this Section IV.B., and shall report the status of its compliance with these requirements in its Annual Reports submitted pursuant to Section XII (Reporting Requirements).

C. COMPRESSOR ENGINES IN THE D-J BASIN

29. Kerr-McGee shall install, operate and maintain emission control equipment to reduce: (i) NO_x, CO and VOC emissions from seven existing two-stroke, lean-burn (“2SLB”) RICE located at the Frederick, Dougan, and Hudson Facilities; and (ii) CO and VOC emissions from four existing 2SLB RICE located at the Fort Lupton Facility, in accordance with the control requirements of this Section IV.C. Alternatively, Kerr-McGee may permanently remove from service any of these existing eleven 2SLB RICE located at the Frederick, Dougan, Hudson or Fort Lupton Facilities either before or after meeting the additional control requirements of this Section IV.C., and it may also replace one or more such existing 2SLB RICE with new RICE subject to all applicable permitting requirements then in effect, in accordance with the schedule in Paragraphs 30 and 31. Any such new RICE shall meet the requirements of Regulation No. 7, § XVII regardless of whether such new RICE is relocated from a site within the State. Such new RICE shall have a manufacture date no earlier than January 1, 2004.

30. The emission control equipment for the seven 2SLB RICE located at the Frederick, Dougan, and Hudson Facilities shall consist of: (i) new or remanufactured turbochargers; (ii) pre-combustion chambers; (iii) after-coolers with auxiliary water cooling, as needed; (iv) high-pressure fuel injection; and (v) oxidation catalysts. All such equipment shall be installed and operational, or one or more of the 2SLB RICE shall be replaced, in accordance with the following schedule:

- a. One Clark TLAD engine at the Hudson Facility - no later than January 4, 2008;

- b. A second Clark TLAD engine at the Hudson Facility - no later than February 22, 2008;
- c. A third Clark TLAD engine at the Hudson Facility - no later than April 11, 2008;
- d. The fourth and last Clark TLAD engine at the Hudson Facility - no later than May 30, 2008;
- e. One Cooper-Quad engine at the Frederick Facility - no later than November 14, 2008 or certify by November 14, 2008 pursuant to Paragraph 112 that one Cooper-Quad RICE, specifically identified by AIRS Identification Number and serial number, will be replaced no later than January 16, 2009;
- f. The second and last Cooper-Quad engine at the Frederick Facility - no later than January 16, 2009 or replace the Cooper-Quad RICE, specifically identified by AIRS Identification Number and serial number, no later than January 16, 2009; and
- g. Dougan Engine 21 (a Cooper-Quad) - no later than March 20, 2009 or replace the Cooper-Quad RICE no later than March 20, 2009.

31. The emission control equipment for the 2SLB RICE at the Fort Lupton Facility shall consist of oxidation catalysts. The oxidation catalysts shall be installed and operational, or the 2SLB RICE shall be replaced, in accordance with the following schedule:

- a. One Fairbanks-Morse MEP engine at the Fort Lupton Facility - no later than January 4, 2008 or certify by January 4, 2008 pursuant to Paragraph

112 that one Fairbanks-Morse MEP RICE, specifically identified by AIRS Identification Number and serial number, will be replaced no later than May 30, 2008;

- b. A second Fairbanks-Morse MEP engine at the Fort Lupton Facility - no later than February 22, 2008 or certify by February 22, 2008 pursuant to Paragraph 112 that one Fairbanks-Morse MEP RICE, specifically identified by AIRS Identification Number and serial number, will be replaced no later than May 30, 2008;
- c. A third Fairbanks-Morse MEP engine at the Fort Lupton Facility - no later than April 11, 2008 or certify by April 11, 2008 pursuant to Paragraph 112 that one Fairbanks-Morse MEP RICE, specifically identified by AIRS Identification Number and serial number, will be replaced no later than May 30, 2008; and
- d. The fourth and last Fairbanks-Morse MEP engine at the Fort Lupton Facility - no later than May 30, 2008 or replace the Fairbanks-Morse MEP RICE, specifically identified by AIRS Identification Number and serial number no later than May 30, 2008.

32. The emission control equipment for each existing 2SLB RICE at the Frederick, Dougan and Hudson Facilities shall meet the following control requirement for NO_x: 2.0 grams/hp-hr., or an equivalent lbs./MMBTU limit, when the RICE is operating at a 90% load or higher.

33. The emission control equipment for each existing 2SLB RICE shall have a control requirement of 58% destruction efficiency for CO when the RICE is operating at a 90% load or higher.

34. All emission control equipment shall be appropriately sized for each existing 2SLB RICE. Immediately following installation of each emission control device, Kerr-McGee shall operate and maintain each existing 2SLB RICE and associated emission control and related equipment according to all manufacturer's written instructions or procedures necessary to achieve the emission reductions listed in Paragraphs 32 and/or 33. Oxidation catalysts shall be operated in accordance with Regulation No. 7, Section XVI.

35. Kerr-McGee shall conduct an initial emission test on each existing 2SLB RICE to demonstrate compliance with the control requirements of Paragraphs 32 and/or 33 pursuant to the Test Protocols set forth in Appendix D. Such initial emission tests shall be conducted no later than 60 Days after installation of the emission control equipment and startup of each existing 2SLB RICE.

36. If any emission control equipment fails to meet the control requirements of Paragraphs 32 and/or 33, Kerr-McGee shall take appropriate steps to correct such non-compliance and retest the emission control equipment no later than 30 Days after the initial emission test. Kerr-McGee shall submit a report to CDPHE no later than 30 Days after each such retest. The retest report will include a summary of the steps taken to comply with the control requirements of Paragraphs 32 and/or 33, and the retest results.

37. Upon successful demonstration that the emission control equipment has met the control requirements of Paragraphs 32 and/or 33, Kerr-McGee shall thereafter operate and

maintain the emission control equipment to meet those requirements in accordance with the Operation and Maintenance Plan (“O&M Plan”) Kerr-McGee submits for approval to CDPHE. Kerr-McGee shall submit a proposed O&M Plan to CDPHE no later than 60 Days after a successful test or retest.

38. Kerr-McGee shall apply to CDPHE for a construction permit and amend its existing Title V Permit for each facility to incorporate the use of the emission control equipment required by this Section IV.C., as well as the applicable performance, monitoring and reporting requirements. Kerr-McGee shall submit such applications for each facility no later than 60 Days after the date of the last compliance demonstration for the last affected 2SLB RICE at each such facility.

39. General Record-Keeping Requirement: Kerr-McGee shall maintain records and information adequate to demonstrate its compliance with the requirements of this Section IV.C., and any applicable regulatory requirements, and shall report the status of its compliance with these requirements in its Annual Reports, submitted pursuant to Section XII (Reporting Requirements).

D. COMPRESSOR ENGINES IN THE UINTA BASIN

Existing RICE in the Uinta Basin

40. By no later than December 15, 2007, Kerr-McGee shall install and operate oxidation catalysts on each RICE operating in the Uinta Basin with a nameplate rating of 500 horsepower (“hp”) or greater listed in Appendix E (all of which Kerr-McGee represents are located at HAP minor sources).

41. The oxidation catalysts installed on each RICE listed in Appendix E shall achieve a 93% destruction efficiency for CO when each RICE is operating at a 90% load or higher.

42. Immediately following installation of each oxidation catalyst, Kerr-McGee shall operate and maintain each RICE and oxidation catalyst according to the catalyst manufacturer's written instructions or procedures necessary to achieve the emission reductions listed in Paragraph 41.

43. Kerr-McGee shall conduct an initial emissions test of each oxidation catalyst to demonstrate compliance with the CO destruction efficiency specified in Paragraph 41 using a portable analyzer in accordance with the Test Protocol set forth in Appendix F. An initial emissions test on each oxidation catalyst installed pursuant to the requirements of Paragraph 40 shall be completed no later than 60 Days after the last oxidation catalyst installation on the RICE listed in Appendix E.

44. If any oxidation catalyst fails to meet the destruction efficiency specified in Paragraph 41, Kerr-McGee shall take appropriate steps to correct such non-compliance and retest the oxidation catalysts within 30 Days after the initial test(s). Kerr-McGee shall submit a report to EPA no later than 30 Days after each retest. The retest report will include a summary of the steps taken to comply with the control requirement in Paragraph 41 and the retest results.

45. Upon successful demonstration that an oxidation catalyst has met the destruction efficiency as specified in Paragraph 41, Kerr-McGee shall thereafter test the oxidation catalyst emission control efficiency on a semi-annual calendar-year basis using a portable analyzer in accordance with the Test Protocol set forth in Appendix F.

46. Kerr-McGee shall report to EPA in writing concerning all activities completed pursuant to the preceding Paragraphs 40 through 45. Such report shall be submitted no later than 60 Days after the initial test deadline contained in Paragraph 43. The report shall contain the following information applicable to each RICE:

- a. RICE make, model, nameplate hp rating, location, installation date (when available) and manufacturer emission data;
- b. catalyst make, model, installation date and manufacturer emission data;
- c. initial emission test results including dates and times of test runs, names of employee(s) or contractor(s) who conducted the test, and oxygen (O₂) and CO concentration results at the inlet and outlet of the oxidation catalyst for each run; the percent reduction of CO achieved for each test run after normalizing CO concentration to a dry basis and to 15% oxygen; length of run times, and average percent engine load during each run;
- d. a catalyst maintenance log (e.g., date of last catalyst replacement, number of engine operating hours since last catalyst replacement, and date and description of any catalyst maintenance activities); and
- e. a certification pursuant to Paragraph 112 of the information contained in the report in accordance with Section XII (Reporting Requirements).

47. All subsequent semi-annual test results shall be included in Annual Reports to be submitted by Kerr-McGee regarding the RICE listed in Appendix E, as required by Section XII (Reporting Requirements), and shall include the information set forth in the preceding Paragraph 46.

48. If otherwise required by applicable regulations implementing the Act, Kerr-McGee shall apply for a permit for any RICE in Appendix E prior to termination of the Consent Decree.

New RICE in the Uinta Basin at HAP Minor Sources

49. Beginning on the date of the lodging of this Consent Decree, and continuing for so long as this Consent Decree is in effect, any new RICE with a nameplate rating of 500 hp or greater installed by Kerr-McGee at any facility in the Uinta Basin shall be lean-burn or achieve comparable emission reductions, and be equipped with catalyst controls.

50. For those RICE installed by Kerr-McGee in the Uinta Basin, the oxidation catalysts that are required to be installed pursuant Paragraph 49 shall achieve a 93% destruction efficiency for CO when each RICE is operating at a 90% load or higher.

51. By no later than 60 Days following the installation of a catalyst on any new RICE pursuant to Paragraph 49, Kerr-McGee shall conduct an initial emissions test of such catalyst to demonstrate compliance with the destruction efficiency specified in Paragraph 50, using a portable analyzer in accordance with the Test Protocol set forth in Appendix F.

52. If the catalyst fails to meet the destruction efficiency as specified in Paragraph 50, Kerr-McGee shall take appropriate steps to correct such non-compliance and retest the oxidation catalyst within 30 Days after the initial test. Kerr-McGee shall submit a report to EPA no later than 30 Days after each retest. The retest report shall include a summary of the steps taken to comply and the retest results.

53. Upon successful demonstration that the catalyst has met the destruction efficiency specified in Paragraph 50, Kerr-McGee shall thereafter test the oxidation catalyst emission

control efficiency on a semi-annual calendar-year basis using a portable analyzer in accordance with the Test Protocol set forth in Appendix F.

54. Kerr-McGee shall submit a report to EPA within 60 Days after each initial test is performed pursuant to Paragraph 51. The report shall contain the initial test results and the following information applicable to each RICE:

- a. RICE make, model, nameplate hp rating, location, installation date and manufacturer emission data;
- b. catalyst make, model, installation date and manufacturer emission data;
- c. initial emission test results including date and times of test runs, name(s) of employee(s) or contractor(s) who conducted the test, and O₂ and CO concentration results at the inlet and outlet of the oxidation catalyst for each run; the percent reduction of CO achieved for each test run after normalizing CO concentration to a dry basis and to 15% oxygen; length of run times, and percent engine load at each run;
- d. a certification pursuant to Paragraph 112 of the information contained in the report in accordance with Section XII (Reporting Requirements).

55. Kerr-McGee shall include all subsequent semi-annual results in the Annual Report submitted pursuant to Section XII (Reporting Requirements), as well as the information gathered pursuant to the preceding Paragraph 54, and a catalyst maintenance log (e.g., date of last catalyst replacement, number of engine operating hours since last catalyst replacement, and date and description of any catalyst activities).

56. If otherwise required by applicable regulations implementing the Act, Kerr-McGee shall apply for a permit for any new RICE subject to this Section IV.D. prior to termination of the Consent Decree.

57. General Record-Keeping Requirement: Kerr-McGee shall maintain records and information adequate to demonstrate its compliance with the requirements of this Section IV. D., and shall report the status of its compliance with these requirements in its Annual Reports submitted pursuant to Section XII (Reporting Requirements).

E. PNEUMATIC CONTROLLERS

Existing High-Bleed Pneumatic Controllers

58. Retrofits: Kerr-McGee shall retrofit all “high-bleed” Pneumatic Controllers listed in Appendices G and H, with “low-bleed” Pneumatic Controllers, in accordance with the requirements of this Section IV.E. For purposes of this Consent Decree, a “high-bleed” Pneumatic Controller is any Pneumatic Controller that has the capacity to bleed in excess of six standard cubic feet of natural gas per hour (50,000 scf/year) in normal operation. During the performance of such work Kerr-McGee shall, to the extent practicable, repair or replace leaking gaskets, tubing fittings and seals, and all work will be completed so as to minimize potential emissions associated with the retrofitting project.

59. By no later than September 30, 2007, Kerr-McGee shall install retrofit “low-bleed” Pneumatic Controllers on at least one-half of the high-bleed Pneumatic Controllers listed in Appendix G, and on at least one-half of the high-bleed Pneumatic Controllers listed in Appendix H.

60. Kerr-McGee shall install retrofit “low-bleed” Pneumatic Controllers on the remainder of the high-bleed Pneumatic Controllers listed in Appendices G and H by no later than May 31, 2008.

61. Replacements: By no later than two years after the date of lodging of this Consent Decree, Kerr-McGee shall replace no less than 370 additional high-bleed Pneumatic Controllers that were not amenable to retrofit with low or no-bleed Pneumatic Controllers in the Wattenberg Gas Gathering System, and as many more such high-bleed Pneumatic Controllers as may be replaced at a total cost of \$500,000 (inclusive of both capital and installation costs).

62. Within 60 Days after the retrofit of Pneumatic Controllers listed in Appendices G and H is completed, and within 60 Days after the replacement of Pneumatic Controllers required by Paragraph 61, Kerr-McGee shall provide EPA, and as applicable CDPHE, a report that certifies the completion of each such project and an accompanying spreadsheet that identifies each unit retrofitted or replaced, its site location, its service, the date the retrofit or replacement was completed, the estimated bleed rate reductions and corresponding estimates of both annual VOC reductions (on a calendar-year basis) and the amount of natural gas conserved, and the approximate cost of each retrofit and replacement.

New Construction

63. Beginning on the date of the lodging of this Consent Decree, and continuing through January 1, 2017, Kerr-McGee shall install and operate low or no-bleed Pneumatic Controllers to conserve natural gas at all newly constructed facilities in the Uinta Basin and D-J Basin, where instrument air is not otherwise available. Kerr-McGee need not, however, install

low or no-bleed controllers at sites for which Kerr-McGee can demonstrate that the use of low or no-bleed pneumatic devices would not be technically or operationally feasible.

64. Kerr-McGee shall have implemented the mandatory management directive (Appendix I) which requires the use of low-bleed Pneumatic Controllers at all newly constructed facilities in the D-J and Uinta Basins.

65. General Record-Keeping Requirement: Kerr-McGee shall maintain records and information adequate to demonstrate its compliance with the requirements of this Section IV. E., and shall report the status of its compliance with these requirements, in its Annual Reports submitted pursuant to Section XII (Reporting Requirements).

F. SULFUR REMOVAL TECHNOLOGY IN THE UINTA BASIN

66. Beginning on the date of lodging of this Consent Decree and continuing for so long as this Consent Decree is in effect, Kerr-McGee shall install and operate solid-bed or liquid-bed sulfur removal processes when necessary to remove hydrogen sulfide (“H₂S”) from natural gas in the Uinta Basin, in lieu of amine-based sulfur removal with flaring of removed H₂S.

67. Kerr-McGee shall provide written notice to EPA no later than 60 Days following each installation and startup of a liquid-bed sulfur removal unit under Paragraph 66. Such notice shall include a description and the location of all liquid-bed sulfur removal equipment installed, an estimate of the annual amount of SO₂ emissions to be avoided (on a calendar-year basis), and a summary spreadsheet showing service conditions and actual capital costs.

68. General Record-Keeping Requirement: Kerr-McGee shall maintain records and information adequate to demonstrate its compliance with the requirements of this Section IV. F.,

and shall report the status of its compliance with these requirements in its Annual Reports submitted pursuant to Section XII (Reporting Requirements).

V. ADMINISTRATIVE REQUIREMENTS

A. PLATTEVILLE FACILITY

69. Within 30 Days after the date of lodging of this Consent Decree, Kerr-McGee shall submit for CDPHE's approval and incorporation as a requirement of Colorado Construction Permit No. 02WE0126 an operation and maintenance ("O&M") plan for the reboiler that controls VOC emissions from the amine gas treatment system at the Platteville Facility.

70. Kerr-McGee's O&M plan shall:

- a. Provide a routine program to minimize soot build-up of the reboiler burner;
- b. Incorporate the burner manufacturer's written instructions or procedures necessary to ensure proper combustion; and
- c. Conform to applicable requirements of CDPHE's AQCC Common Provisions Regulation, AQCC's Regulation Nos. 1, 2, 3, and 6, and 40 C.F.R. Part 60, Subparts A and Dc.

71. CDPHE shall either approve Kerr-McGee's plan or provide written comments and requested changes within 30 Days of submission of the plan. Kerr-McGee shall have an additional 30 Days from receipt of CDPHE's written response to either amend the plan and resubmit it to CDPHE, or to begin implementation of O&M in accordance with the approved plan. Upon CDPHE's approval, the O&M plan shall become an enforceable requirement of Colorado Construction Permit No. 02WE0126.

B. FORT LUPTON FACILITY

72. Within 30 Days after the date of lodging of this Consent Decree, Kerr-McGee shall propose to CDPHE a consolidated annual allowable VOC emission limit for equipment leaks from components at the Fort Lupton Facility that are in VOC hydrocarbon service as described at 40 C.F.R. § 60.632(f). The following sources of VOC emissions shall be subject to such consolidated emission limit:

- a. Equipment leaks from those components of the Fort Lupton Facility subject to Condition 6.1 of CDPHE Operating Permit No. 95OPWE013 (30.8 TPY); and
- b. Equipment leaks from components of the natural gas liquids (“NGL”) extraction unit subject to Condition 2 of CDPHE Construction Permit No. 00WE0583 (46.4 TPY).

73. Kerr-McGee’s proposal to CDPHE shall be made as an application to amend the Title V Permit for the Fort Lupton facility. The Parties agree that incorporation of this requirement into the Title V Permit for the Fort Lupton facility may be made by “administrative amendment” under 40 C.F.R. § 70.7(d) and corresponding State Title V rules, where allowed by State law. CDPHE shall administer Kerr-McGee’s application as a routine application for a Title V permit amendment. Until such time as CDPHE has taken final agency action with regard to such application, Kerr-McGee shall comply with the following interim emission limit for the Fort Lupton Facility, consistent with applicable EPA guidance on appropriate emission factors and control percentages for components in hydrocarbon service at facilities with quarterly leak detection and repair (“LDAR”) programs in place: 77.2 TPY of VOCs during any 12-month

period (on a rolling basis) from equipment leaks at the Fort Lupton Facility subject to the requirements of 40 C.F.R. Part 60, Subpart KKK and Regulation No. 7. For the purpose of demonstrating compliance with this interim emission limit, emissions shall be calculated in accordance with the methodology contained in Appendix J.

VI. LIMITS ON POTENTIAL TO EMIT

74. The control requirements established in Sections IV.A. (Low-Emission Dehydrators), IV.B. (Condensate Storage Tanks), IV.C. (Compressor Engines in the D-J Basin), IV.D. (Compressor Engines in the Uinta Basin) and IV.E. (Pneumatic Controllers), under this Consent Decree shall be considered “federally enforceable” and, as applicable, “legally and practicably enforceable” for purposes of calculating the PTE of a source or facility as may be applicable under the Act and the Colorado Act and any implementing federal or Colorado regulations.

75. The PTE for VOCs from Low-Emission Dehydrators installed and certified pursuant to this Consent Decree at any facility in the Uinta or D-J Basins shall be limited by the control requirements set forth in Section IV.A. (Low-Emission Dehydrators), and shall be federally enforceable on that basis.

76. The PTE for VOC emissions from condensate storage tanks at the Cottonwood Wash Facility and Ouray Facility shall be limited by the requirement that such emissions will be controlled by a flare, VRU, or other non-flare alternatives pursuant to the criteria set forth in Section IV.B. (Condensate Storage Tanks) and shall be federally enforceable on that basis.

77. The PTE for CO and formaldehyde for all RICE in the Uinta Basin with a nameplate rating of 500 hp or greater shall be limited by the requirement that emissions be

controlled by catalysts which meet a destruction efficiency for CO set forth in Paragraphs 41 and 50 and shall be federally enforceable on that basis.

78. The PTE for CO for the eleven 2SLB RICE in the D-J Basin shall be limited by the requirements of Section IV.C. (Compressor Engines in the D-J Basin) that such emissions will be controlled by oxidation catalysts which meet the control requirements set forth in Paragraph 33 and shall be federally enforceable on that basis.

79. The PTE for NO_x for the 2SLB RICE at the Frederick, Dougan and Hudson Facilities shall be limited by the requirement that equipment be upgraded for purposes of reducing emissions which meet the control requirements set forth in Paragraph 32 and shall be federally enforceable on that basis.

VII. AMBIENT AIR MONITORING

80. By no later than six months after entry of this Consent Decree, Kerr-McGee shall fund the purchase, installation and initial operation of ambient air quality and meteorological monitoring station(s) in and/or adjacent to the Uinta Basin, subject to a \$300,000 cap on Kerr-McGee's total expenditures to comply with this Section VII. The ambient air quality monitor(s) shall be designed to monitor ozone, NO_x and PM_{2.5} concentrations. The meteorological station(s) shall have a 10 meter tower and be designed to monitor wind speed, wind direction, temperature and solar radiation. The station(s) shall be designed to gather multilevel meteorological data necessary for use in air quality monitoring under current federal and state laws and regulations.

81. Kerr-McGee shall work cooperatively with EPA, the Utah Department of Environmental Quality (UDEQ) and the Ute Indian Tribe of the Uintah and Ouray Reservation

(the “Northern Ute Tribe”) regarding the location of monitor(s), schedule for project implementation and coordination of their initial operation. The station(s) shall meet the siting, methodology and operational requirements of 40 C.F.R. Part 58, and shall be sited in a representative location upwind of the Uinta Basin and/or a representative central location within the Uinta Basin. Additional guidance for meteorological monitoring is contained in “Quality Assurance Handbook for Air Pollution Measurement Systems,” Vol. IV, “Meteorological Measurements.” Actual monitoring site selection shall be subject to approval by EPA and Kerr-McGee, after review and comment on proposed locations by the UDEQ and the Northern Ute Tribe. All monitoring data shall be collected in a manner reasonably calculated to meet EPA’s quality assurance/quality control (“QA/QC”) requirements of 40 C.F.R. Part 58, App. A. Additional guidance is provided in “Quality Assurance Handbook for Air Pollution Measurement Systems.”

82. Subject to a \$300,000 cost cap, Kerr-McGee shall fund the operation and maintenance of up to two (2) stations, and the collection and distribution of monitoring data for the station(s) until Kerr-McGee has expended \$300,000 in capital, installation, operation and maintenance costs. Kerr-McGee shall certify in accordance with Paragraph 112 that it has expended \$300,000 in capital, installation, operation and maintenance costs for up to two (2) stations.

VIII. MULTI-PHASE PIPING/TANKLESS WELL-SITE PILOT PROJECT

83. Kerr-McGee shall complete a study of the technical and operational feasibility of using a system to gather multi-phase fluids (liquid and gas constituents) from multiple producing natural gas well-sites for collection, separation and metering at a central facility in the Uinta

Basin (“Feasibility Study”), and if technically and operationally feasible, shall implement a pilot project to demonstrate such technology in the Uinta Basin (“Multi-Phase Pilot”), in accordance with the requirements of this Section VIII. The Feasibility Study and Multi-Phase Pilot shall focus on a proposed system to: (i) eliminate the storage of hydrocarbon liquids and produced water at individual wellhead facilities within the system; and (ii) reduce emissions of VOCs from condensate storage tanks to be located at a central collection point. Subject to the cost cap set forth in Paragraph 86, the Multi-Phase Pilot shall include: (i) at least sixteen new or existing well pads and multi-phase piping from those well pads to a central collection point; and (ii) separation, liquid storage, gas metering equipment, and VOC emission control or capture, to the extent emissions are not otherwise prevented through process changes.

84. Feasibility Study: Kerr-McGee shall complete the Feasibility Study in accordance with the scope of work (“FS SOW”) attached as Appendix K. No later than 90 Days after the date of lodging this Consent Decree, Kerr-McGee shall submit a written report of the conclusions of the Feasibility Study to EPA for review and concurrence. In the event the Feasibility Study concludes that the Multi-Phase Pilot is not technically or operationally feasible to implement, Kerr-McGee shall have no further obligations under this Section VIII.

85. Multi-Phase Pilot: If the Multi-Phase Pilot is found to be technically and operationally feasible in the Feasibility Study, Kerr-McGee shall submit to EPA for review and approval a proposed scope of work (“Multi-Phase Pilot SOW”) to implement the Multi-Phase Pilot in a manner consistent with the conclusions of the Feasibility Study. The Multi-Phase Pilot SOW shall include an estimate of “Added Incremental Costs,” which for purposes of this Section VIII, are defined as the total costs over and above the costs of conventional well-site

development, accounting for normal construction. EPA shall either approve the Multi-Phase Pilot SOW or provide written comments on requested changes within 30 Days of receipt of such Multi-Phase Pilot SOW. Kerr-McGee shall have an additional 30 Days from receipt of EPA's written response to either amend the Multi-Phase Pilot SOW and resubmit it to EPA, or to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution), and EPA shall have an additional 30 Days from resubmission to comment upon or approve such revised Multi-Phase Pilot SOW.

86. In the event that Kerr-McGee can document to EPA's satisfaction, in accordance with Paragraph 85, that the Added Incremental Costs of the Multi-Phase Pilot to be implemented pursuant to the EPA-approved Multi-Phase Pilot SOW will exceed \$750,000, Kerr-McGee shall implement the Multi-Phase Pilot at as many well pads as can be funded for \$750,000 in Added Incremental Costs. In the event that EPA and Kerr-McGee disagree on the total Added Incremental Costs, Kerr-McGee shall bear the burden of demonstrating by a preponderance of evidence that such costs exceed the \$750,000 cost cap.

87. Kerr-McGee shall provide EPA with semi-annual, calendar-year progress reports, beginning 180 Days following EPA's approval of the Multi-Phase Pilot SOW, documenting progress on the Multi-Phase Pilot. The progress report shall include a description of the schedule status for engineering, procurement, construction and start up of the Multi-Phase Pilot, and an updated estimate of "Added Incremental Costs."

88. By no later than 18 months following EPA's approval of the Multi-Phase Pilot SOW, Kerr-McGee shall have installed and begun operation of the Multi-Phase Pilot in accordance with the approved Multi-Phase Pilot SOW.

89. Within 90 Days of the installation and startup of the Multi-Phase Pilot, Kerr-McGee shall provide EPA a final report that includes the following information:

- a. A description of the project as completed, including: (i) a topographic area map showing the well pads, multi-phase pipelines, and central liquids gathering; (ii) a process description with a summary of gas, condensate and water production rates since project startup; (iii) process flow diagrams for a typical well pad and for central liquids gathering equipment; (iv) a representative condensate liquids sample analysis from a well pad and from the outlet of central liquid separation; and (v) the API gravity and RVP for such required condensate samples;
- b. A discussion of the operating challenges presented by the Multi-Phase Pilot and their means of resolution;
- c. An itemization of the Added Incremental Costs of the project as completed;
- d. An itemized estimate of both incremental added and saved operating costs compared to conventional gas gathering methods; and
- e. A description of air quality and other environmental benefits attributable to the project, together with any calculations and process simulations used to estimate air emission reductions and natural gas conserved.

90. General Record-Keeping Requirement: Kerr-McGee shall maintain records and information adequate to demonstrate its compliance with the requirements of this Section VIII, and any applicable regulatory requirements, and shall report the status of its compliance with

these requirements in its Annual Reports until the Multi-Phase Pilot is fully implemented and operating, as set forth in Section XII (Reporting Requirements).

IX. PERFORMANCE OPTIMIZATION REVIEW

91. Within one year after the date of lodging of this Consent Decree, Kerr-McGee shall complete a Performance Optimization Review (“POR”) to increase energy efficiency and enhance product recovery at five facilities in the Uinta Basin and five facilities in the D-J Basin in accordance with the Scope of Work attached as Appendix L. The five facilities in the Uinta Basin shall consist of four well-site facilities (two shall be at least five years old, one shall be less than five years old, and one shall be a new drill) and one (1) compressor station. The five facilities in the D-J Basin will consist of four well-site facilities (two shall be at least ten years old, one shall be less than ten years old, and one shall be a new drill) and the Platteville Facility.

92. Kerr-McGee’s POR shall be performed by third-party consultants acceptable to EPA and CDPHE. Performance of the POR may be temporarily suspended during entry pursuant to Paragraph 140.

93. The scope of the POR is expressly limited to the following activities, as set forth in the POR SOW:

- a. Pressure Relief Devices - repair or replace components, as appropriate, to specifically reduce product losses;
- b. Pneumatic Controllers - evaluate for use of low-bleed devices or instrument air;
- c. Production Separators - identify optimal pressures and temperatures, and reset as needed;

- d. Dehydrators - evaluate for use of condensers, flares, flash tanks and electric pumps to reduce product losses;
- e. Internal Combustion Engines - evaluate maintenance practices and planned shutdown procedures to minimize product losses from blow down and the use of starter gas;
- f. Flare and Vent Systems - evaluate flare and vent system components and associated operating procedures to reduce the loss of product, where possible;
- g. Producing Wells - install plunger lifts and perform “green completion” practices on new wells, as appropriate;
- h. Operating Pressures - review and optimize, where possible; and
- i. Component Inspections and Repairs - perform component inspections using OVA, TVA, or other CDPHE-approved leak detection field equipment and repair or replace leaking components, as appropriate, to enhance product recovery.

94. POR Reports. Within 60 Days of completion of the POR, Kerr-McGee shall submit a POR Report to EPA for the Uinta Basin and a POR Report to CDPHE for the D-J Basin which shall include:

- a. the contractor(s) used to conduct the POR;
- b. the name, location and original construction date of each of the well-site facilities and the compressor station at which the POR was completed;

- c. a general description of the components by type and service that were inspected, how they were inspected, a summary and description of any repairs made, an estimate of natural gas conserved as a result of the repairs to the extent quantifiable, and the repair cost;
- d. a general description of the pressure relief devices that were inspected, how they were inspected, a summary description of any repairs made, an estimate of natural gas conserved as a result of the repairs to the extent quantifiable, and the repair cost;
- e. an evaluation of pneumatic devices for use of low-bleed devices or instrument air, and potential product losses avoided;
- f. a description of the review of production separators, identification of those for which optimal pressures and temperatures were calculated and how that was done; a comparison of those values to prior separator operating conditions, a summary of the adjustments to pressures or temperatures that were made, an estimate of the amount of natural gas conserved as a result, and the cost if significant, to adjust pressures and temperatures;
- g. a description of the evaluation of dehydrators for the use of condensers, flares, flash tanks, and electric pumps; a summary of the projects identified as a result of such review for possible future implementation by Kerr-McGee on a voluntary basis; if sufficient data exists to prepare an estimate, an estimate of the amount of natural gas potentially conserved if such projects were implemented, and the cost to implement such projects;

- h. a description of the review of RICE shutdown procedures to reduce blow down and the use of starter gas; a summary of any changes that were made based on such review; an estimate of product losses avoided as a result of any changes made, if reasonably capable of estimation; and the cost to implement such changes;
- i. a description of the review of flare and vent systems, a summary of the repairs made, if any; an estimate of the amount of natural gas conserved as a result of repairs made, and the cost to implement such repairs;
- j. a list of well names and locations at which plunger lift systems were installed, if any, or at which green completion procedures were followed; a description of any plunger lift system(s) used and the well condition(s) that made such system(s) practicable or how new well completion procedures were “green”; an estimate of the amount of natural gas conserved as a result of POR evaluations of certain producing wells, and the cost to implement any such systems and/or procedures; and
- k. a description of how operating pressures were evaluated and, where possible, optimized; an estimate of the amount of natural gas conserved as a result of such evaluation, and an estimate of the cost, if non-negligible, to optimize operating pressures.

95. Within 120 Days of completion of the POR, Kerr-McGee may identify in writing to EPA, and as applicable CDPHE, any areas of non-compliance with the Act and the Colorado Act (including federal and state implementing regulations) that are discovered during the POR.

Under this Paragraph, for other than PSD/NSR, Kerr-McGee shall include in its written submission: (1) a certification pursuant to Paragraph 112 that it has subsequently complied with all applicable statutory and regulatory requirements, or it shall propose a schedule for coming into compliance; (2) a description of the corrective measures taken, or proposed to be taken; and (3) a proposed calculation of any economic benefit pursuant to the EPA Stationary Source Civil Penalty Policy and BEN Model. EPA and/or CDPHE will review Kerr-McGee's certifications, and/or proposed schedule for compliance, corrective measures, and economic benefit calculation(s), and will respond with written concurrence or comments. In the event that EPA and/or CDPHE do not approve of the proposed corrective measures or economic benefit calculation(s), each, as applicable, will respond with written comments. Should EPA and/or CDPHE still not agree with the economic benefit calculation(s), EPA and/or CDPHE's independent economic benefit calculations shall be final and payable. If necessary, the Parties will address any PSD/NSR violations as a new and separate enforcement action. Kerr-McGee's release from liability as specified in Section XVII (Effect of Settlement/Reservation of Rights) for the areas of non-compliance identified and corrected pursuant to this Section IX will take effect upon the Plaintiffs' written concurrence with Kerr-McGee's certification and its payment in full of any economic benefit. Any areas of non-compliance discovered by EPA or CDPHE, and any disclosures by Kerr-McGee beyond this specific 120-Day period, are not covered by this provision.

X. CIVIL PENALTY

96. Within 30 Days after the Effective Date of this Consent Decree, Kerr-McGee shall pay to the Plaintiffs a total civil penalty pursuant to Section 113 of the Act, 42 U.S.C. §

7413, in the amount of \$200,000, with interest accruing from the date on which the Consent Decree is entered by the Court at the rate specified in 28 U.S.C. § 1961 as of the date of entry.

97. Federal Payment Instructions: Of the total amount of the civil penalty, Kerr-McGee shall pay \$150,000 to the United States. Kerr-McGee shall make payment by Electronic Funds Transfer (“EFT”) to the United States Department of Justice (“DOJ”), in accordance with current EFT procedures, referencing the United States Attorney’s Office (“USAO”) File Number and DOJ Case Number 90-5-2-1-08656. Payment shall be made in accordance with instructions provided by the USAO for the District of Colorado. Any funds received after 11:00 a.m. (EST/EDT) shall be credited on the next business Day. Kerr-McGee shall provide notice of payment, referencing the USAO File Number, DOJ Case Number 90-5-2-1-08656 and the civil case name and case number, to DOJ and to EPA, as provided in Section XX (Notices).

98. State Payment Instructions: Of the total amount of the civil penalty, Kerr-McGee shall pay \$50,000 to the State. Kerr-McGee shall make payment by certified, corporate or cashier’s check drawn to the order of “Colorado Department of Public Health and Environment” and delivered to the attention of Legal Administrative Specialist, Air Pollution Control Division, 4300 Cherry Creek Drive South, APCD-SS-B1, Denver, CO 80246-1530. Kerr-McGee shall provide notice of payment, referencing USAO File Number and DOJ Case Number 90-5-2-1-08656, and the civil case name and case number, to CDPHE, as provided in Section XX (Notices).

99. No amount of the civil penalty to be paid by Kerr-McGee shall be used to reduce its federal or Colorado tax obligations.

XI. SUPPLEMENTAL ENVIRONMENTAL PROJECTS

A. Uintah County Road Dust SEP

100. Subject to approval by the Uintah County Commissioners, Kerr-McGee shall implement a Supplemental Environmental Project (“SEP”), to improve a portion of a County Road in Uintah County, Utah, in the Uinta Basin, to reduce particulate matter (road dust), in accordance with the provisions of Appendix M (the “Road Dust SEP”). The Road Dust SEP shall be completed within 12 months after entry of this Decree. In implementing the Road Dust SEP, Kerr-McGee shall spend not less than \$100,000 in eligible Road Dust SEP costs. Eligible Road Dust SEP costs include the costs of planning and implementing the Road Dust SEP, or contracting for the work through the Uintah County Roads Department.

101. Kerr-McGee is responsible for the satisfactory completion of the Road Dust SEP in accordance with the requirements of this Consent Decree. Kerr-McGee may use contractors or consultants in planning and implementing the Road Dust SEP or coordinating such planning and implementation by the Uintah County Roads Department. “Satisfactory completion” means completion of the work in accordance with all work plans and specifications for the project and expenditure of not less than \$100,000.

B. Accelerated Vehicle Retirement State SEP

102. No later than 30 Days after the Effective Date of this Consent Decree, Kerr-McGee shall implement a SEP to reduce air pollution from high-emitting vehicles in the Denver metropolitan area (the “Accelerated Vehicle Retirement State SEP”) by transferring \$150,000 (“SEP Funds”) to the Regional Air Quality Council (“RAQC”). The criteria, terms and procedures for the Accelerated Vehicle Retirement State SEP are described in Appendix N. The

transfer of funds to the RAQC shall be by certified, corporate or cashiers check made payable to the Regional Air Quality Council and delivered to the attention of Steve McCannon, Program Manager, Regional Air Quality Council, 1445 Market St., Suite 260, Denver, CO 80202. Prior to transferring the funds, Kerr-McGee shall obtain a written statement from the RAQC acknowledging and agreeing that the RAQC will expend the SEP Funds to implement the Accelerated Vehicle Retirement State SEP in accordance with the criteria, terms and procedure described in Appendix N. Within 10 days of transferring the SEP Funds, Kerr-McGee will provide a copy of the check and the RAQC's written statement to CDPHE.

C. General Requirements

103. With regard to both the Road Dust SEP and the Accelerated Vehicle Retirement State SEP, Kerr-McGee certifies the truth and accuracy of each of the following:

- a. that, as of the date of executing this Decree, Kerr-McGee was not required to perform or develop either SEP by any federal, state, or local law or regulation and was not required to perform or develop the SEPs by prior agreement, grant, or as injunctive relief awarded in any other action in any forum;
- b. that neither SEP is a project that Kerr-McGee was planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this Decree;
- c. that Kerr-McGee has not received and will not receive credit for either SEP in any other enforcement action by a government entity; and

- d. that Kerr-McGee will not receive any reimbursement for any portion of the SEP costs from any other person.

104. SEP Completion Reports: Within 30 Days after the date set for completion of each SEP, Kerr-McGee shall submit a SEP Completion Report to the United States, and with regard to the Accelerated Vehicle Retirement State SEP also to CDPHE, in accordance with Section XIX (Notices) of this Consent Decree. The SEP Completion Reports shall contain the following information:

- a. a detailed description of the SEP, as implemented;
- b. a description of any problems encountered in completing the SEP and the solutions thereto;
- c. an itemized list of all eligible SEP costs;
- d. certification pursuant to Paragraph 112 that the SEP has been fully implemented pursuant to the provisions of this Decree; and
- e. a description of the air quality benefits resulting from implementation of the SEP, including an estimate of associated emission reductions.

105. EPA, or as applicable CDPHE, may require information in addition to that described in the preceding Paragraph 104, which is reasonably necessary to determine satisfactory completion of the SEPs or eligibility of SEP costs. Kerr-McGee shall provide such additional information to which it has access.

106. Within 60 Days after receiving each SEP Completion Report, the United States and/or CDPHE shall notify Kerr-McGee whether the SEP at issue has been satisfactorily completed. If a SEP has not been satisfactorily completed in accordance with all applicable

work plans and schedules, or if the amount expended on performance of a SEP is less than the amount set forth in Paragraphs 100 and 102, stipulated penalties may be assessed under Section XIII (Stipulated Penalties) of this Consent Decree.

107. Disputes concerning the satisfactory completion of a SEP and the amount of eligible SEP costs may be resolved under Section XV (Dispute Resolution) of this Consent Decree. No other disputes arising under this Section shall be subject to Dispute Resolution.

108. Each submission required under this Section shall be signed by an official with knowledge of the SEP and shall bear the certification language set forth in Paragraph 112.

109. Any public statement by Kerr-McGee making reference to either SEP, whether oral or written, in print, film, or other media, shall include the following language: "This project was undertaken in connection with the settlement of an enforcement action taken on behalf of the U.S. Environmental Protection Agency and/or the State of Colorado for alleged violations of the Clean Air Act and/or the Colorado Air Pollution Prevention and Control Act."

XII. REPORTING REQUIREMENTS

110. Kerr-McGee shall submit the following reports:

- a. All initial performance test results, retest reports, initial status reports, progress reports, final reports, notices, and monitoring data pursuant to any specific requirement of this Consent Decree for each annual reporting period (not a cumulative requirement).
- b. By no later than March 1 of each year, Kerr-McGee shall submit an Annual Report for the preceding calendar year to EPA, and for any matters involving the D-J Basin also to CDPHE. Kerr-McGee shall

provide a paper and electronic copy of each Annual Report to EPA and, as applicable, CDPHE. The Annual Report shall: (i) describe all work or other activities that Kerr-McGee performed pursuant to any requirement of this Consent Decree during the applicable reporting period; (ii) transmit any specific (non-annual) reports to be included in an Annual Report; (iii) describe compliance status; and (iv) describe any non-compliance with the requirements of this Consent Decree and explain the likely cause(s) of the violation(s) and the remedial steps taken, or to be taken, to prevent or minimize such violation(s).

- c. If Kerr-McGee violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Kerr-McGee shall notify EPA, and as applicable CDPHE, of such violation(s), and its likely duration, in writing, within 10 Days of the Day Kerr-McGee first becomes aware of the violation(s), or potential violation(s), with an explanation of the likely cause of such violation(s) and the remedial steps taken, or to be taken, to prevent or minimize such violation(s) should it occur. If the cause of a violation cannot be fully explained at the time the notification is due, Kerr-McGee shall state this in the notice, investigate the cause of each such violation in the event that it occurs, and submit a full written explanation of the cause of the violation within 30 Days of the date that Kerr-McGee determines such cause. Nothing in this Paragraph relieves

Kerr-McGee of its obligation to provide the notice required by Section XIV (Force Majeure).

111. All reports shall be submitted to the persons designated in Section XIX (Notices) of this Consent Decree.

112. Each Annual Report submitted by Kerr-McGee shall be signed by a Responsible Official. All other reports or submissions may be signed by a delegated employee representative, unless otherwise required by applicable statute or regulation. All reports and submissions shall include the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

113. The reporting requirements of this Section shall continue until termination of this Consent Decree; however, upon written agreement by EPA, or as applicable CDPHE, where a Consent Decree reporting requirement is added to a final Title V permit or other non-Title V permit such that the permit meets or exceeds such Consent Decree reporting requirement, Kerr-McGee may fulfill that Consent Decree reporting requirement by notifying EPA, and as applicable CDPHE, that the required report has been provided pursuant to a permit requirement, and by identifying the relevant permit in Kerr McGee's Annual Reports, submitted pursuant to this Section XII (Reporting Requirements).

114. Any information provided pursuant to this Consent Decree may be used by the United States or as applicable the State in any proceeding to enforce the provisions of this

Consent Decree and as otherwise permitted by law, except for disclosures made pursuant to Paragraph 95 of this Consent Decree.

XIII. STIPULATED PENALTIES

115. Kerr-McGee shall be liable for stipulated penalties to the United States and the State for violations of this Consent Decree as specified below, unless excused under Section XIV (Force Majeure), or reduced or waived by one or both Plaintiffs pursuant to Paragraph 121 of this Decree. A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree.

a. Low-Emission Dehydrators (Section IV.A.).

	Violation	Stipulated Penalty
1.	For failure to provide written notice as required by Paragraph 8 per unit per Day.	For each unit: \$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
2.	For failure to install and operate Low-Emission Dehydrators at new facilities as required by Paragraph 9.	For each unit: \$1,000 per Day for the first 30 Days of noncompliance, \$1,500 per Day from the 31 st to 60 th Day of noncompliance, and \$2,000 per Day thereafter.
3.	For failure to provide written notice as required by Paragraph 10.	For each unit: \$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
4.	For failure to maintain records and information as required by Paragraph 11.	For each unit: \$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.

b. Condensate Storage Tanks (Section IV.B.).

	Violation	Stipulated Penalty
1.	For failure to install and operate a flare, VRU, or other non-flare alternative as required by Paragraphs 12, 18, & 20.	For each unit: \$1,000 per Day for the first 30 Days of noncompliance, \$2,500 per Day from the 31 st to 60 th Day of noncompliance, and \$5,000 per Day thereafter.
2.	For failure to submit a worksheet on flare design and certification of compliance as required by Paragraphs 13, 15, 22, & 24.	For each unit: \$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
3.	For failure to conduct inspections, submit reports, maintain records and apply to amend Title V permit applications as required by Paragraphs 16, 17, 19, 25, 26 & 27.	For each unit: \$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
4.	For failure to maintain records and information as required by Paragraph 28.	For each unit: \$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.

c. Compressor Engines (Section IV.C. & D.).

	Violation	Stipulated Penalty
1.	For failure to install emission controls on RICE or alternatively replace with new RICE as required by the dates set forth in Paragraphs 30, 31, 40, & 49.	For each engine: \$1,000 per Day for the first 30 Days of noncompliance, \$2,500 per Day from the 31 st to 60 th Day of noncompliance, and \$5,000 per Day thereafter.
2.	For failure to conduct initial performance test on the RICE emission controls as required by Paragraphs 35, 43, & 51.	For each engine: \$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter.
3.	For failure to retest and submit a report as required by Paragraphs 36, 44, & 52.	For each engine: \$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter.
4.	For failure to submit an O&M plan as required by Paragraph 37.	\$200per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
5.	For failure to conduct semi-annual tests on RICE emission controls on a semi-annual, calendar-year basis as required by Paragraphs 45 & 53.	For each engine: \$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter.
6.	For failure to submit reports as required by Paragraphs 46, 47, 54, & 55.	For each report: \$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
7.	For failure to maintain records and apply to amend Title V permits as required by Paragraphs 38, 39, 56 & 57.	For each engine: \$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
8	For failure to comply with the NO _x control requirements and CO destruction efficiency required by Paragraphs 32 and 33.	For each engine: \$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter.

d. Pneumatic Controllers (Section IV.E.).

	Violation	Stipulated Penalty
1.	For failure to complete the first one-half of the Pneumatic Controller retrofits as required by Paragraph 59 in the Uinta Basin (as one project) and in the D-J Basin (as a separate project).	For each project: \$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter.
2.	For failure to complete all the remaining Pneumatic Controller retrofits as required by Paragraph 60 in the Uinta Basin (as one project) and in the D-J Basin (as a separate project).	For each project: \$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter.
3.	For failure to provide a final completion report for retrofitting Pneumatic Controllers in the Uinta Basin and the D-J Basin as required by Paragraph 62.	For each project: \$100 per Day for the first 30 Days of noncompliance, \$250 per Day from the 31 st to 60 th Day of noncompliance, and \$500 per Day thereafter.
4.	For failure to replace high-bleed Pneumatic Controllers in the D-J Basin as required by Paragraph 61.	\$100 per Day for the first 30 Days of noncompliance, \$250 per Day from the 31 st to 60 th Day of noncompliance, and \$500 per Day thereafter.
5.	For failure to install low or no-bleed Pneumatic Controllers at newly constructed facilities in the Uinta Basin or the D-J Basin as required by Paragraph 63.	For each project: \$100 per Day for the first 30 Days of noncompliance, \$250 per Day from the 31 st to 60 th Day of noncompliance, and \$500 per Day thereafter.
6.	For failure to implement Appendix I and maintain records as required by Paragraphs 64 & 65.	For each project: \$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.

e. Sulfur Removal Technology (Section IV.F.).

	Violation	Stipulated Penalty
1.	For failure to install and operate liquid-bed sulfur removal technology in the Uinta Basin as required by Paragraph 66.	For each unit: \$1,000 per Day for the first 30 Days of noncompliance, \$2,500 per Day from the 31 st to 60 th Day of noncompliance, and \$5,000 per Day thereafter.
2.	For failure to submit notification of each installation as required by Paragraph 67.	For each unit: \$100 per Day for the first 30 Days of noncompliance, \$200 per Day from the 31 st to 60 th Day of noncompliance, and \$500 per Day thereafter.
3.	For failure to maintain records as required by Paragraph 68.	For each unit: \$100 per Day for the first 30 Days of noncompliance, \$250 per Day from the 31 st to 60 th Day of noncompliance, and \$500 per Day thereafter.

f. Administrative Requirements (Section V).

	Violation	Stipulated Penalty
1.	For failure to submit a proposed O&M plan as required by Paragraph 69.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
2.	For failure to timely implement the approved O&M plan as required by Paragraph 71.	\$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter.
3.	For failure to submit a proposed permit amendment for a consolidated allowable VOC limit for the Fort Lupton Facility as required by Paragraph 72.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
4.	For failure to apply to amend the Title V permit as required by Paragraph 73.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
5	For failure to comply with the interim emission limit established in Paragraph 73.	\$500 per Day for the first 30 Days, \$1,000 per Day for the 31 st to 60 th Day, and \$1,500 per Day thereafter

g. Ambient Air Monitoring (Section VII).

	Violation	Stipulated Penalty
1.	For failure to fund the purchase of ambient air monitoring station(s) as required by Paragraph 80.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.

h. Multi-Phase Piping/Tankless Well-Site Pilot Project (Section VIII).

	Violation	Stipulated Penalty
1.	For failure to complete the Feasibility Study, submit a written Feasibility Study report, submit a proposed SOW for the implementation of the Multi-Phase Pilot, or provide an Added Incremental Cost report as required by Paragraphs 83, 84, & 85, per deliverable.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
2.	For failure to submit a semi-annual progress report as required by Paragraph 87.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
3.	For failure to implement and complete the Multi-Phase Pilot as required by Paragraphs 86 & 88.	\$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter.
4.	For failure to submit a final report as required by Paragraph 89.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
5.	For failure to maintain records as required by Paragraph 90.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.

i. Performance Optimization Review (Section IX).

	Violation	Stipulated Penalty
1.	For failure to complete the POR by the date specified in Paragraph 91 for either the Uinta Basin or the D-J Basin, as separate projects.	For each project: \$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter.
2.	For failure to submit a POR report as required by Paragraph 94.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.

j. SEPs (Section XI).

	Violation	Stipulated Penalty
1.	For failure to transfer funds to the Uintah County Road Department by the date specified in Paragraph 100.	For each project, \$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter
2.	For failure to transfer SEP Funds to the RAQC by the date specified by Paragraph 102.	For each project, \$500 per Day for the first 30 Days of noncompliance, \$1,000 per Day from the 31 st to 60 th Day of noncompliance, and \$1,500 per Day thereafter
3.	For failure to submit a report as required by 104.	\$200 per Day for the first 30 Days of noncompliance, \$500 per Day from the 31 st to 60 th Day of noncompliance, and \$1,000 per Day thereafter.
4.	For failure to spend at least the amounts set forth in Paragraphs 100 or 102.	For each SEP, an amount equal to the difference between the amount of total eligible SEP costs expended and the amount set forth in Paragraphs 100 or 102.

116. Late Payment of Civil Penalty: If Kerr-McGee fails to pay the civil penalty required to be paid under Section X (Civil Penalty) of this Consent Decree to the United States

or as applicable the State, when due, Kerr-McGee shall pay a stipulated penalty of \$1,000 per Day for each Day that the payment is late.

117. Stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

118. Kerr-McGee shall pay any stipulated penalty within 30 Days of receipt of written demand of the United States, or as applicable the State, and shall continue to make such payments every 30 Days thereafter until the violation(s) no longer continue, unless Kerr-McGee elects within 20 Days of receipt of written demand from the United States, or as applicable the State, to dispute the accrual of stipulated penalties in accordance with the provisions in Section XV (Dispute Resolution) of this Consent Decree.

119. For violations that concern or relate to facilities in the Uinta Basin, Kerr-McGee shall pay the total amount of stipulated penalties to the United States. For violations that concern or relate to facilities in the D-J Basin, Kerr-McGee shall pay 40 percent to the United States and 60 percent to the State.

120. Kerr-McGee shall pay stipulated penalties in accordance with the federal and state payment instructions set forth in Paragraphs 97 and 98.

121. The United States or the State may, in the unreviewable exercise of their respective discretion, reduce or waive stipulated penalties otherwise due such Plaintiff under this Consent Decree. The determination by one Plaintiff not to seek stipulated penalties, or

subsequently to waive or reduce the amount it seeks, shall not preclude the other Plaintiff from seeking the full amount of stipulated penalties owing.

122. Stipulated penalties shall continue to accrue as provided in Paragraph 117 during any dispute, with interest on accrued stipulated penalties payable and calculated by the Secretary of Treasury, pursuant to 28 U.S.C. § 1961, but need not be paid until the following:

- a. If the dispute is resolved by agreement or by a decision of Plaintiffs pursuant to Section XV (Dispute Resolution) of this Consent Decree that is not appealed to the Court, Kerr-McGee shall pay accrued stipulated penalties and accrued interest agreed or determined to be owing within 30 Days of the effective date of such agreement or the receipt of Plaintiffs' decision.
- b. If the dispute is appealed to the Court, and the Plaintiffs prevail in whole or in part, Kerr-McGee shall pay all accrued stipulated penalties determined by the Court to be owing, together with accrued interest, within 60 Days of receiving the Court's decision or order, except as provided in Subparagraph c., below.
- c. If any Party appeals the Court's decision, Kerr-McGee shall pay all accrued penalties determined by the appellate court to be owing, together with accrued interest, within 15 Days of receiving the final appellate court decision.

123. Kerr-McGee shall not deduct stipulated penalties paid under this Section XIII in calculating its federal or state income tax.

124. Subject to the provisions of Section XVII (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for Kerr-McGee's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of the Act or regulatory requirements of the Act, or the Colorado Act or the regulatory requirements of the Colorado Act, Kerr-McGee shall be allowed a dollar-for-dollar credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation.

XIV. FORCE MAJEURE

125. If any event occurs which causes or may cause a delay or impediment to performance in complying with any provision of this Consent Decree (*e.g.* would require operation in an unsafe manner), and which Kerr-McGee believes qualifies as an event of *Force Majeure*, Kerr-McGee shall notify the Plaintiffs in writing as soon as practicable, but in any event within 45 Days of when Kerr-McGee first knew of the event or should have known of the event by the exercise of reasonable diligence. In this notice Kerr-McGee shall specifically reference this paragraph of this Consent Decree and describe the anticipated length of time the delay may persist, the cause or causes of the delay, the measures taken and/or to be taken by Kerr-McGee to prevent or minimize the delay and the schedule by which those measures will be implemented. Kerr-McGee shall adopt all reasonable measures to avoid or minimize such delays.

126. Failure by Kerr-McGee to substantially comply with the notice requirements of Paragraph 125, as specified above, shall render this Section voidable by the Plaintiffs, as to the

specific event for which Kerr-McGee has failed to comply with such notice requirement. If so voided, this Section shall be of no effect as to the particular event involved.

127. The Plaintiffs shall notify Kerr-McGee in writing regarding their agreement or disagreement with any claim of a Force Majeure event within 45 Days of receipt of each Force Majeure notice provided under Paragraph 125.

128. If the Plaintiffs agree that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Kerr-McGee, including any entity controlled or contracted by it, and that Kerr-McGee could not have prevented the delay by the exercise of reasonable diligence, the Parties shall stipulate to an extension of the required deadline(s) for all requirement(s) affected by the delay by a period equivalent to the delay actually caused by such circumstances, or such other period as may be appropriate in light of the circumstances. Such stipulation may be filed as a modification to this Consent Decree by agreement of the Parties pursuant to the modification procedures established in this Consent Decree. Kerr-McGee shall not be liable for stipulated penalties for the period of any such delay.

129. If the Plaintiffs do not agree that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Kerr-McGee, including any entity controlled or contracted by it, the position of the Plaintiffs on the Force Majeure claim shall become final and binding upon Kerr-McGee, and Kerr-McGee shall pay applicable stipulated penalties, unless Kerr-McGee submits the matter to this Court for resolution by filing a petition for determination with this Court within 20 business Days after receiving the written notification of the Plaintiffs as set forth in Paragraph 127. In the event that the United States and the State disagree, the position of the United States shall become the Plaintiffs' final position with regard

to Kerr-McGee's Force Majeure claim. Once Kerr-McGee has submitted such matter to this Court, the Plaintiffs shall have 20 business Days to file a response to the petition. If Kerr-McGee submits the matter to this Court for resolution and the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Kerr-McGee, including any entity controlled or contracted by Kerr-McGee, and that it could not have prevented the delay by the exercise of reasonable diligence, Kerr-McGee shall be excused as to such event(s) and delay (including stipulated penalties) for all requirements affected by the delay for a period of time equivalent to the delay caused by such circumstances or such other period as may be determined by the Court.

130. Kerr-McGee shall bear the burden of proving that any delay of any requirement(s) of this Consent Decree was (were) caused by or will be caused by circumstances beyond its control, including any entity controlled or contracted by Kerr-McGee, and that it could not have prevented the delay by the exercise of reasonable diligence. Kerr-McGee shall also bear the burden of proving the duration and extent of any delay(s) attributable to such circumstances. An extension of one compliance date based on a particular event may, but does not necessarily, result in an extension of a subsequent compliance date or dates. Unanticipated or increased costs or expenses associated with the performance of obligations under this Consent Decree shall not constitute circumstances beyond the control of Kerr-McGee.

131. As part of the resolution of any matter submitted to this Court under this Section, the Parties by agreement, or this Court by order, may in appropriate circumstances extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of any delay or impediment to performance on which an

agreement by the Plaintiffs or approval by this Court is based. Kerr-McGee shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule, except to the extent that such schedule is further modified, extended or otherwise affected by a subsequent Force Majeure event under this Section XIV.

XV. DISPUTE RESOLUTION

132. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. For any dispute that concerns D-J Basin Facilities, the provisions of this Section apply equally to both the United States and the State, as Plaintiffs.

133. Informal Dispute Resolution: Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Kerr-McGee sends the Plaintiff(s) a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 20 Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the Plaintiff(s) shall be considered binding unless, within 20 Days after the conclusion of the informal negotiation period, Kerr-McGee invokes formal dispute resolution procedures as set forth below. In the event that the United States and the State are unable to reach agreement with regard to Kerr-McGee's claim, the position of the United States shall be the Plaintiffs' final position.

134. Formal Dispute Resolution: Kerr-McGee may only invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on

the Plaintiff(s) a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but may not necessarily be limited to, any factual data, analysis, or opinion supporting Kerr-McGee's position and any supporting documentation relied upon by Kerr-McGee.

135. The Plaintiff(s) shall serve its (their) Statement of Position within 30 Days of receipt of Kerr-McGee's Statement of Position. The Plaintiff(s)' Statement of Position shall include, but may not necessarily be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the Plaintiff(s). The Plaintiff(s)' Statement of Position shall be binding on Kerr-McGee, unless Kerr-McGee files a motion for judicial review of the dispute in accordance with Paragraph 136. In the event that the United States and the State are unable to reach agreement with regard to Kerr-McGee's claim, the position of the United States shall be the Plaintiffs' final position.

136. Kerr-McGee may seek judicial review of the dispute by filing with the Court and serving on the Plaintiff(s), in accordance with Section XIV of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 30 Days of receipt of the Plaintiff(s)' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Kerr-McGee's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

137. The Plaintiff(s) shall respond to Kerr-McGee's motion within the time period allowed by the Local Rules of the Court. Kerr-McGee may file a reply memorandum, to the extent permitted by the Local Rules and allowed by the Court.

138. Except as otherwise provided in this Consent Decree, in any dispute brought under Paragraph 133, Kerr-McGee shall bear the burden of demonstrating that its position complies with this Consent Decree.

139. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Kerr-McGee under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of alleged noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 122. If Kerr-McGee does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIII (Stipulated Penalties).

XVI. INFORMATION COLLECTION AND RETENTION

140. The United States, and its representatives, including attorneys, contractors, and consultants, shall have the right of entry into any facility covered by this Consent Decree, and the State, and its representatives, including attorneys, contractors, and consultants, shall have the right of entry into any facility in the D-J Basin subject to any requirement of this Consent Decree, at all reasonable times, upon presentation of credentials, for the purpose of monitoring compliance with any provision of this Consent Decree, including to:

- a. monitor the progress of activities required under this Consent Decree;
- b. inspect equipment and facilities covered by this Consent Decree; and

- c. inspect and copy documents, records, or other information to be maintained in accordance with the terms of this Consent Decree.

141. Kerr-McGee shall be entitled to: (1) splits of samples, where feasible, and (2) copies of any sampling and analytical results, documentary evidence and data obtained by the United States or the State pursuant to Paragraph 140 of this Consent Decree.

142. Until five years after the termination of this Consent Decree, Kerr-McGee shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relate in any manner to Kerr-McGee's performance of its obligations under this Consent Decree. Such documents, records, or other information may be kept in electronic form. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, upon request by the United States or the State, Kerr-McGee shall provide copies of any non-privileged documents, records, or other information required to be maintained under this Paragraph.

143. At the conclusion of the information-retention period provided in the preceding Paragraph, Kerr-McGee shall notify the United States and the State at least 90 Days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph and, upon request by the United States or the State, Kerr-McGee shall deliver the requested non-privileged documents, records, or other information to EPA or CDPHE.

144. Kerr-McGee may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal and/or state law. If Kerr-McGee asserts such a privilege, it shall provide the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Kerr-McGee. However, no final documents, records or other information that Kerr-McGee is explicitly required to create or generate to satisfy a specific requirement of this Consent Decree shall be withheld on the grounds of privilege.

145. Kerr-McGee may also assert that information required to be provided under this Section is protected as Confidential Business Information (“CBI”) under 40 C.F.R. Part 2 and/or C.R.S. § 25-7-111(4). As to any information that Kerr-McGee seeks to protect as CBI, Kerr-McGee shall follow the procedures set forth in 40 C.F.R. Part 2 and/or C.R.S. § 25-7-111(4).

146. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States or the State pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of Kerr-McGee to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XVII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

147. This Consent Decree resolves all civil claims of the United States and the State for violations alleged in the Complaint and Complaint in Intervention through the date of lodging of this Consent Decree.

148. This Consent Decree further resolves the civil and administrative claims, if any, of the United States and the State for civil penalties and injunctive relief, through the date of lodging of this Consent Decree, under the PSD requirements of Part C of the Act, and the regulations promulgated thereunder at 40 C.F.R. § 52.21 (the “PSD Rules”), and Section 25-7-101 *et seq.* of the Colorado Act, and the regulations promulgated thereunder for:

- a. any increase in emissions resulting from the construction by Kerr-McGee’s corporate predecessor of the Dougan and Frederick facilities;
- b. the disabling of the VRU at the Brighton facility by a Kerr-McGee predecessor and the subsequent failure to operate the VRU;
- c. claims that relate to any allegations of engine modifications to RICE located at D-J Basin Facilities, any horsepower discrepancies used to describe RICE in any applicable permit for D-J Basin Facilities, and any failure or error in horsepower documentation to specify appropriate horsepower and related operational parameters for RICE located at D-J Basin Facilities.

149. This Consent Decree resolves the civil claims of the United States and the State for violations disclosed under Paragraph 95, except for non-compliance that would trigger PSD/NSR.

150. The United States and the State reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraphs 147-149. This Consent Decree shall not be construed to limit the rights of the United States or the State to obtain penalties or injunctive relief under the Act or Colorado Act or their implementing regulations, or under other federal or state laws, regulations, or permit conditions, except as expressly provided in Section VI (Limits on Potential to Emit), and Paragraphs 147 - 149.

151. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Nothing in this Consent Decree shall relieve Kerr-McGee of its obligation to achieve and maintain full compliance with all applicable federal, State, and local laws, regulations, and permits. Kerr-McGee's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as otherwise provided in Paragraphs 147-149. The United States and the State do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Kerr-McGee's compliance with any aspect of this Consent Decree will result in compliance with other provisions of the Act, the Colorado Act, or their implementing regulations or with any other provisions of federal, State, or local laws, regulations, or permits.

152. This Consent Decree does not limit or affect the rights of Kerr-McGee or of the United States or the State against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against Kerr-McGee, except as provided herein and as otherwise provided by law.

153. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not a party to this Consent Decree.

XVIII. EMISSION REDUCTION CREDIT GENERATION

154. Kerr-McGee shall not generate or use any NO_x, CO, VOC or SO₂ emission reductions that result from any projects conducted pursuant to this Consent Decree as credits or offsets in any PSD, major non-attainment and/or minor New Source Review ("NSR") permit or permit proceeding. The foregoing notwithstanding, Kerr-McGee may conduct projects pursuant to this Consent Decree that create more emission reductions of NO_x, CO, VOCs or SO₂ than are required for these pollutants by the underlying applicable requirement(s). In such instances, Kerr-McGee may retain a portion of the achieved emissions reductions for use as credits or offsets. All other emission sources of NO_x, CO, VOCs or SO₂, and any netting associated with other pollutants, are outside the scope of these netting limitations and are subject to PSD/NSR applicability as implemented by the appropriate permitting authority or EPA. Use of emission reductions in netting and as offsets in any PSD, major non-attainment and/or minor NSR permit or permit proceeding pursuant to the limitations herein shall be further limited by the applicable regulations, and by the PSD, major non-attainment, and/or minor NSR permit(s) in question, as applicable.

XIX. COSTS

155. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and the State shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties if due.

XX. NOTICES

156. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and mailed or hand delivered addressed as follows:

As to the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, D.C. 20044-7611
Re: DOJ No. 90-5-2-1-08656

and

Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Ariel Rios Building [2242A]
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

and

Assistant Regional Administrator
Office of Enforcement, Compliance, and Environmental Justice
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

As to the State of Colorado:

Director
Air Pollution Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80246-1530

As to Kerr-McGee:

Vice President
Kerr-McGee Corporation
1099 18th Street
Denver, CO 80202

and

Director, Environmental, Health and Safety, Rocky Mountain Region
Kerr-McGee Corporation
1099 18th Street
Denver, CO 80202

157. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

158. Notices submitted by mail pursuant to this Section XX shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XXI. SALES OR TRANSFERS OF OWNERSHIP/OPERATOR INTERESTS

159. If Kerr-McGee proposes to sell or transfer all or part of its ownership or its responsibility as operator of any of the Uinta Basin Facilities, D-J Basin Facilities, or any other facilities that are subject to any requirement of this Consent Decree, except for individual wells

or groups of wells and associated wellhead facilities, to any entity unrelated to the Defendant (“Third Party”), Kerr-McGee shall advise the Third Party in writing of the existence of this Consent Decree prior to such sale or transfer and shall send a copy of such written notification to the Plaintiffs pursuant to Section XX (Notices) of this Consent Decree at least 60 Days before such proposed sale or transfer.

160. No sale or transfer of ownership to a Third Party shall take place before the Third Party consents in writing, by a stipulation to be filed with the Court, to: (a) accept all of the obligations, terms and conditions of this Consent Decree applicable to Uinta Basin Facilities or D-J Basin Facilities, or any other facilities, exclusive of wellhead facilities, that are subject to any requirement of this Consent Decree; (b) the jurisdiction of the Court to enforce the terms of this Consent Decree as to such party; and (c) become a party to this Consent Decree.

Notwithstanding such a sale or transfer to a Third Party, Kerr-McGee shall remain jointly and severally liable with the Third Party unless the Consent Decree is modified or Kerr-McGee’s joint and several liability is restricted in accordance with Paragraph 161.

161. If the United States, and as applicable the State, agrees, the Parties and the Third Party may execute a modification to this Consent Decree that relieves Kerr-McGee of its liability under this Consent Decree for, and makes the Third Party liable for, all obligations and liabilities applicable to the purchased or transferred facilities or operator responsibility. Notwithstanding the foregoing, Kerr-McGee may not assign, and may not be released from, obligations under this Consent Decree to pay the civil penalty in accordance with Section X (Civil Penalty), undertake the Supplemental Environmental Projects in accordance with Section XI (Supplemental Environmental Projects), pay stipulated penalties with respect to actions occurring prior to the

date of transfer of ownership or operator responsibility in accordance with Section XIII (Stipulated Penalties), or maintain documents or provide reports with respect to those obligations in accordance with Sections XII (Reporting Requirements) and XVI (Information Collection and Retention). Kerr-McGee may propose, and the United States and as applicable the State, may agree to restrict the scope of the joint and several liability of any purchaser or transferee for any obligations of this Consent Decree that are not specific to the transferred or purchased facilities or operator responsibility, to the extent such obligations may be adequately separated in an enforceable manner.

XXII. EFFECTIVE DATE

162. Unless otherwise specifically provided herein, the Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court.

XXIII. RETENTION OF JURISDICTION

163. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree pursuant to Section XV (Dispute Resolution) or entering, partially terminating or terminating orders modifying this Decree, pursuant to Sections XXI (Sales or Transfers of Ownership/Operator Interests) XXIV (Modification) and XXV (Termination), or otherwise effectuating, or enforcing compliance with, the terms of this Consent Decree.

XXIV. MODIFICATION

164. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by all the Parties. With respect to any modification that constitutes a material change to this Decree, such written agreement shall be

filed with the Court and effective only upon the Court's approval. Any modification of a reporting requirement of this Consent Decree shall be deemed a non-material modification. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XV (Dispute Resolution) of this Consent Decree.

XXV. TERMINATION

165. This Consent Decree shall remain in effect until terminated or partially terminated in accordance with the provisions of this Section.

166. Kerr-McGee shall serve upon the United States and the State a Request for Termination after January 1, 2017. The Request for Termination shall certify that Kerr-McGee has paid the civil penalty and all stipulated penalties, if any, that have accrued, and has fulfilled all other obligations of this Consent Decree.

167. Where a control requirement, recordkeeping requirement, reporting requirement or other requirement of this Consent Decree is incorporated into a federally enforceable permit, Kerr-McGee may serve upon the United States and the State a Request for Partial Termination. Upon approval of such request by the Plaintiffs, the filing of a joint stipulation by the Parties and the Court's approval in accordance with Paragraph 168, the Consent Decree provision in question shall be superseded by the corresponding permit provision, which shall govern as the applicable requirement.

168. Following receipt by the United States and the State of Kerr-McGee's Request for Termination or Partial Termination, the Parties shall confer informally concerning the Request for Termination or Partial Termination and any disagreement that the Parties may have as to whether Kerr-McGee has satisfactorily complied with the requirements for termination of this

Consent Decree. If the United States and the State agree that the Decree may be terminated or partially terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating or partially terminating the Decree.

169. If the United States or the State does not agree that the Decree may be terminated, Kerr-McGee may immediately appeal the disposition of its Request for Termination to the Court.

XXVI. PUBLIC PARTICIPATION

170. This Consent Decree shall be lodged with the Court for a period of not less than 30 Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States and the State reserve the right to withdraw or withhold their respective consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. Kerr-McGee consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Consent Decree, unless the United States or the State has notified Kerr-McGee in writing that it no longer supports entry of the Consent Decree.

XXVII. SIGNATORIES/SERVICE

171. Each undersigned representative of Kerr-McGee, the Director, Air Pollution Control Division, CDPHE, and the Assistant Attorney General for the Environment and Natural Resources Division of DOJ certifies that he or she is fully authorized to enter into this Consent Decree and to execute and legally bind the Party he or she represents to the terms and conditions of this document.

172. Kerr-McGee represents that it has authority to legally obligate any of its corporate subsidiaries or affiliates that own or operate any of the Uinta Basin Facilities, the D-J Basin

Facilities, or any other natural gas production or gathering facilities subject to any work or compliance requirements of this Consent Decree, including but not limited to Kerr-McGee Oil and Gas Onshore LP, Westport Field Services LLC, Kerr-McGee (Nevada) LLC, and Kerr-McGee Gathering LLC, to take all actions necessary to comply with the provisions of this Consent Decree.

173. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Kerr-McGee agrees to accept service of process by mail pursuant to the provisions of Section XX (Notices) with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XXVIII. INTEGRATION

174. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement of matters addressed in the Decree, and supersedes all prior agreements and understandings, whether oral or written, concerning such matters. Other than the appendices listed in Section XXX (Appendices), which are attached to and incorporated in this Decree, and deliverables that are subsequently submitted and approved pursuant to this Decree, no other document, representation, inducement, agreement, understanding, or promise constitutes any part of this Decree or the settlement it memorializes, nor shall evidence of any such document, representation, inducement, agreement, understanding or promise be used in construing the terms of this Decree.

XXIX. FINAL JUDGMENT

175. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States, the State, and Kerr-McGee.

XXX. APPENDICES

176. The following appendices are attached to and incorporated into this Consent Decree:

“Appendix A” lists the D-J Basin Facilities.

“Appendix B” lists the Uinta Basin Facilities.

“Appendix C” is the Description of Low-Emission Dehydrators.

“Appendix D” is the Protocol for RICE Compliance Demonstration in the D-J Basin.

“Appendix E” lists the Existing >500 hp RICE at Minor Sources in the Uinta Basin to be Controlled with Oxidation Catalysts.

“Appendix F” is the Protocol for RICE Compliance Demonstration in the Uinta Basin.

“Appendix G” lists the High-Bleed Pneumatic Controllers in the Uinta Basin to be Retrofitted with Low-Bleed Pneumatic Controllers.

“Appendix H” lists the High-Bleed Pneumatic Controllers in the D-J Basin to be Retrofitted with Low-Bleed Pneumatic Controllers.

“Appendix I” is the Kerr-McGee Management Directive Regarding Low-Bleed Pneumatic Controllers in New Construction.

“Appendix J” is the Emission Calculation Methodology for the Fort Lupton facility.

“Appendix K” is the Scope of Work for the Feasibility Study of the Multi-Phase Piping/Tankless Well-Site Pilot Project.

“Appendix L” is the Scope of Work for the Performance Optimization Review Project.

“Appendix M” is the Scope of Work for the Road Dust SEP.

“Appendix N” is the Scope of Work for the Accelerated Vehicle Retirement State SEP.

Dated and entered this ____ Day of _____, 2007

UNITED STATES DISTRICT JUDGE
District of Colorado

FOR PLAINTIFF, UNITED STATES OF AMERICA

s/ Matthew J. McKeown
MATTHEW J. McKEOWN
Acting Assistant Attorney General
Environment & Natural Resources Division
950 Pennsylvania Avenue, N.W.
Room 2143
Washington, D.C. 20530

Date 5/15/07

s/ Jerel L. Ellington
JEREL (“JERRY”) L. ELLINGTON
DIANNE S. SHAWLEY
Senior Counsel
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
1961 Stout Street – 8th Floor
Denver, CO 80294
Telephone (303) 844-1363
Fax (303) 844-1350

Date 5/17/07

s/ Troy A. Eid
TROY A. EID
United States Attorney for the District of Colorado
U.S. Attorney’s Office
1225 17th Street #700
Denver, Colorado 80202
Telephone (303) 454-0100
Fax (303) 454-0400

Date 5/17/07

FOR U.S. ENVIRONMENTAL PROTECTION AGENCY

s/ Granta Y. Nakayama
GRANTA Y. NAKAYAMA
Assistant Administrator
Office of Enforcement and Compliance
Assurance
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Date May 16, 2007

FOR PLAINTIFF-INTERVENOR, THE STATE OF COLORADO

s/ Paul Tourangeau

Date 5/10/07

PAUL TOURANGEAU
Director, Air Pollution Control Division
Colorado Department of Public Health & Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
Telephone: (303)-692-3114
Fax: (303) 782-5493

s/ Stephen M. Brown

Date 5/16/07

STEPHEN M. BROWN
Assistant Attorney General
Natural Resources and Environmental Section
Colorado Department of Law
1525 Sherman Street, 7th Floor
Denver, Colorado 80203
Telephone: (303) 866-4434
Fax: (303) 866-3558

FOR DEFENDANT, KERR-McGEE CORPORATION

s/ James J. Kleckner _____

Date 5-8-07

JAMES J. KLECKNER

Vice President

Kerr-McGee Corporation

1099 18th Street

Denver, Colorado 80202

Telephone: (303) 575-0167

Fax: (303) 607-3462

APPENDIX A

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation

D-J Basin Facilities

Overview and Purpose

Kerr-McGee has defined D-J Basin Facilities as part of a settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation*, (hereafter the “Consent Decree”).

D-J Basin Facilities

Facility	Legal Location	Title V Permit	Construction Permits
Brighton Compressor Station	Sec 29, T1S, R65W, Adams County, Colorado	Title V - 96OPAD164	
Dougan Compressor Station	Sec 14, T1N, R66W, Weld County, Colorado	Title V - 95OPWE033	
Fort Lupton Compressor Station	Sec 14, T2N, R66W, Weld County, Colorado	Title V - 95OPWE013	01WE0763, 01WE0370, 03WE1152, 00WE0582, 00WE0583
Frederick Compressor Station	Sec 15, T1N, R67W, Weld County, Colorado	Title V - 95OPWE035	
Hambert Compressor Station	Sec 36, T4N, R66W, Weld County, Colorado	Title V - 96OPWE165	96WE216-1, 96WE216-2, 96WE216-3
Hudson Compressor Station	SWSW 1/4 Sec 23, T2N, R65W, Weld County, Colorado	Title V - 95OPWE057	
Platteville Compressor Station	SE 1/4 Sec 13, T3N, R66W, Weld County, Colorado	Not Applicable (not a Title V source)	99WE0175, 99WE0176, 01WE0399, 01WE0400, 02WE0126, 99WE0178, 04WE0578

APPENDIX B

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation

Uinta Basin Facilities

Overview and Purpose

Kerr-McGee has defined Uinta Basin Facilities as part of a settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation*(hereafter the “Consent Decree”).

Uinta Basin Facilities

Uinta Basin Facility	Legal Location	Title V Permit
Bridge Compressor Station	NENE ¼ Section 17, T9S, R22E, Uintah County, Utah	Pending Part 71 permit
Cottonwood Compressor Station	NWNW ¼ Section 27, T9S, R21E, Uintah County, Utah	Pending Part 71 permit
Ouray Compressor Station	NENE ¼ Section 1, T9S, R21E, Uintah County, Utah	Pending Part 71 permit

APPENDIX C

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation

LOW-EMISSION DEHYDRATOR SPECIFICATIONS

Overview and Purpose

Kerr-McGee has agreed to employ “Low-Emission Dehydrator” technology at its existing and planned facilities in the Uinta Basin as part of the settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation* (hereafter the “Consent Decree”). As required in the Consent Decree at Section IV.A., this Appendix C includes:

- (a) a description of physical electrical hard-wiring between the vapor recovery unit (“VRU”) compressor(s) and the glycol circulation pumps employed or to be employed, so that if the VRU compressor(s) go down then the glycol circulation pump(s) also shut down, thereby halting the circulation of glycol through the wet gas, as well as the emissions associated with the regeneration of the glycol;
- (b) a description of a second level of protection (redundancy) incorporated into a Programmable Logic Controller that uses instrumentation to shut down the glycol dehydration system in the event all VRU compressor(s) go down; and
- (c) a description of any third level of protection and discussion of how the non-condensable gases from glycol dehydrator operation shall be piped exclusively to the station inlet or fuel system for use as fuel and is not used for blanket gas in storage tanks or otherwise vented.

Background

Natural gas often contains water vapor at the wellhead which must be removed to avoid pipeline corrosion and solid hydrate formation. Glycol dehydration is the most widely used natural gas dehumidification process. In a glycol dehydration system, dry triethylene glycol (“TEG”) or ethylene glycol (“EG”) is contacted with wet natural gas. The glycol absorbs water from the natural gas, but also absorbs hydrocarbons including volatile organic compounds (“VOCs”) and certain hazardous air pollutants (“HAPs”). Pumps circulate the glycol from a low-pressure distillation column for regeneration back to high pressure in order to contact with the high pressure wet gas. As the wet glycol pressure is reduced prior to distillation, much of the absorbed hydrocarbon is released, including some of the VOCs and HAPs. A flash tank is typically utilized to separate these vapors at a pressure where they can be utilized for fuel. Distillation removes the absorbed water along with any remaining hydrocarbon, including VOCs and HAPs, from the glycol to the still column vent as overhead vapor. Conventional dehydrator still columns often emit the non-condensable portion of this overhead vapor directly to the atmosphere, or to a combustion device such as a thermal oxidizer or reboiler burner.

Kerr-McGee currently utilizes low-emission glycol dehydrators at its facilities in the Uinta Basin. These units capture the non-condensable portion of still vent and flash tank vapors and recompress the vapor with reciprocating or scroll compressors that route the

vapor to the station inlet as natural gas product, to fuel lines for power generation turbines or to the station fuel system. They also employ electric glycol circulation pumps, and except for the recompression of non-condensable vapors, resemble conventional glycol dehydrators in their configuration. See Figure 1.

To insure that the non-condensable vapor compression system is fully integrated into dehydrator operation such that the units cannot be disabled so as to operate while venting to the atmosphere, each unit;

- a. incorporates an integral vapor recovery function that prevents the dehydrator from operating independent of the vapor recovery function;
- b. either returns the captured vapors to the inlet of the facility where each glycol dehydrator is located or routes the captured vapors to that facility's fuel gas supply header; and
- c. thereby emits no more than 1.0 ton per year of VOCs.

Description of Interlocks

The low-emission glycol dehydrators have at least three (3) levels of protection to prevent emissions from occurring.

(a) Physical electrical hard-wiring between the vapor recovery unit (VRU) compressor(s) and the glycol circulation pumps ensures that if the VRU compressor(s) goes down, the glycol pump(s) also shut down, thereby halting the circulation of glycol through the wet gas as well as the emissions associated with the regeneration of glycol. More specifically:

1. Loss of station power interrupts the 480 volt power to the glycol pump(s) circulating glycol through the contactor.
2. Loss of 24 volt power to a relay interrupts the 480 volt power to the glycol pump(s) circulating glycol through the contactor. The 24 volt power is wired in parallel through the run status contacts of each VRU compressor in a specific service. If all VRU compressors in each specific service are shutdown, the 24 volt power is interrupted. There is at least one spare VRU compressor in standby mode for each specific service at existing Uinta Basin facilities engaged in gas dehydration. Non-condensable gas from VRU compressor discharge always has an outlet because if the station inlet pressure rises to a level greater than VRU compressor output, the flash tank vapors automatically go through a back pressure regulator to the fuel gas system until gathering pressure is reduced.
3. If the glycol still column/reboiler pressure rises above pressure set points, the 24 volt power to a relay is interrupted. The unpowered relay interrupts the 480 volt power to the glycol pump(s) circulating glycol to the contactor. If one of the glycol still VRU compressors is running but not compressing vapors, the pressure switch will detect the pressure rise in the still and shutdown the glycol circulating pump(s).

4. The operation of at least one of the VRU compressors is required to complete the electrical circuit and allow one of the glycol circulation pumps to operate.
 5. There is a 10 second time delay switch installed in the physical electrical circuit that must time out before the glycol circulating pump(s) shut down for causes 2 and 3 above. This allows for switching of compressors and helps to prevent false shutdowns.
 6. Everything is hard wired and does not depend on any type of controller.
- (b) A second level of protection redundancy has been incorporated by utilizing the station Programmable Logic Controller (PLC) to shut down the dehydration system in the event the VRU compressor(s) go down.
1. A PLC timer will start counting when none of the VRU compressor(s) are in operation. When the timer times out, the PLC will not allow the regenerator system to be in run status.
- (c) A third level of protection is the routing of non-condensables directly to combustion devices in the stations that utilize micro-turbine electrical generators or central heat medium systems.
1. The non-condensable regenerator overhead vapors are routed to the inlet of each station or used as fuel. In instances where the inlet pressure rises above VRU compressor outlet pressures, a regulator opens allowing the VRU-compressed vapors to be discharged into the fuel system, where they are used throughout the station.
 2. In Kerr-McGee's planned electrified compressor stations, liquids that condense at the compression stations, including those condensed from the glycol still overhead vapors, will be contained at pressure, separated from any water and pumped downstream into the high pressure gathering system. This process change will eliminate atmospheric storage of hydrocarbon liquids at such facilities.

Conclusion

Kerr-McGee's adherence to these specifications shall satisfy its commitment in the Consent Decree to utilize low-emission dehydrator technology in its existing and planned Uinta Basin operations.

APPENDIX D

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation

**PROTOCOL FOR INITIAL RICE COMPLIANCE DEMONSTRATION IN THE
D-J BASIN**

Overview and Purpose

Kerr-McGee has agreed to conduct initial testing on the reciprocating internal combustion engines (“RICE”) at certain facilities in the D-J Basin as part of a settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation* (hereafter the “Consent Decree”). As required in the Consent Decree at Section IV.C., Kerr-McGee will conduct initial emission testing on each of the eleven 2SLB RICE at the Frederick, Dougan, Fort Lupton and Hudson Facilities.

Test Summary

For each 2SLB RICE located at the Frederick, Dougan, and Hudson Facilities, emissions testing will consist of three 60-minute test runs at the engine exhaust stack in accordance with EPA Reference Methods 1, 2, 3A, 4, 7E, 10, and 320 (or 323) for the determination of stack gas flow rate, oxygen (O₂), carbon dioxide (CO₂), stack gas moisture content (H₂O), nitrogen oxides (NO_x), carbon monoxide (CO) and formaldehyde (HCHO). For each 2SLB RICE located at the Fort Lupton Facility all above mentioned methods with the exception of 7E shall be conducted. EPA Reference Methods are given in *40 CFR Part 60, Appendix A*. Stack gas flow rate will be determined in units of dry standard cubic feet per minute (dscfm). Emission concentrations of O₂ and CO₂ will be determined in units of dry volume percent (%vd). Stack gas moisture content will be determined in units of wet volume percent (%vw). Emission concentrations of NO_x and CO will be determined in units of parts per million, dry volume (ppmvd). Emission concentrations of formaldehyde will be determined in units of ppmvw and combined with stack gas moisture data to convert to units of ppmvd. All pollutant concentration data will be combined with stack gas emission rate data to determine pollutant mass emission rates in units of pounds per hour (lb/hr) and tons per year (tpy). Fuel consumption data or EPA Method 19 will be used to calculate mass emission rates in units of pounds of NO_x, CO and HCHO per million British thermal units (lb/mmBtu) for comparison to applicable emission limits.

Concurrent with each 60-minute outlet test run, a 60-minute test will be performed upstream of the unit’s oxidation catalyst in accordance with EPA Reference Method 10. Inlet concentrations of CO will be determined in units of parts per million, dry volume (ppmvd). Corresponding inlet and outlet CO concentrations will be used to compute catalyst destruction efficiency for comparison to applicable emission limits.

At each 2SLB RICE, three 60-minute test runs will be performed while the unit is operating at no less than 90% site-rating. Relevant engine parameters will be recorded and submitted with the test results. Kerr McGee will submit a detailed testing protocol for Division approval at least 30 days prior to each engine test. The results of each engine test will be submitted for Division approval no more than 60 days after completion of the test.

Stack Gas Flow Rates (Engine Catalyst Outlets)

Stack gas flow rates will be determined in accordance with EPA Methods 1, 2, 3A and 4. Concurrent with each 60-minute pollutant emission test at each engine outlet, stack gas velocity will be measured in accordance with EPA Method 2 at points conforming to EPA Method 1. Stack gas velocity data will be combined with concurrent stack gas diluent and moisture concentration data to calculate stack gas volumetric flow rates for each 60-minute test period in units of dry standard cubic feet per minute (dscfm). All quality assurance procedures required by the applicable Reference Methods must be strictly followed.

Stack Gas Moisture Content (Engine Catalyst Outlets)

Stack gas moisture content will be determined in accordance with EPA Method 4. Each Method 4 testing period will consist of withdrawing a sample of stack gas at a constant flow rate through a stainless steel sample probe and Teflon sample line. The sample will pass through a series of four chilled glass impingers and through a calibrated dry gas meter. Prior to sampling, the first two impingers will be seeded with 100 milliliters of water. The third impinger will be empty, and the fourth impinger will be seeded with 250 grams of dried silica gel. Following each 60-minute sampling period, the moisture gain in the impingers will be measured gravimetrically to determine the moisture content of the stack gas. Stack gas moisture content will be determined in units of wet volume percent (%vw).

Oxygen, Carbon Dioxide, Nitrogen Oxides and Carbon Monoxide (Engine Catalyst Outlets)

Oxygen and carbon dioxide emissions will be determined in accordance with EPA Method 3A. Nitrogen oxide emissions will be determined in accordance with EPA Method 7E. Carbon monoxide emissions will be determined in accordance with EPA Method 10. Each Method 3A, 7E and 10 testing period will consist of withdrawing a sample of stack gas at a constant flow rate through a stainless steel sample probe and a heated Teflon sample line. The sample will be conditioned as necessary to remove moisture and directed to a paramagnetic oxygen analyzer, a non-dispersive infrared carbon dioxide analyzer, a chemiluminescent nitrogen oxides analyzer, and a gas filter correlation infrared carbon monoxide analyzer. Emission concentrations of O₂ and CO₂ will be determined in units of dry volume percent (%vd). Emission concentrations of NO_x and CO will be determined in units of parts per million, dry volume (ppmvd). Effluent gas concentration data will be electronically logged as (at minimum) one-minute averages, reduced to 60-minute averages and corrected for analyzer drift. All gaseous analyzers will be properly linearized prior to sampling; analyzer calibration bias will be recorded before and after each 60-minute test period in accordance with the applicable EPA Reference Methods. All quality assurance procedures required by the EPA Reference Methods (including, but not limited to, pollutant stratification tests and the NO_x analyzer converter efficiency test) must be strictly followed.

Carbon Monoxide (Engine Catalyst Inlets)

Concurrent with each catalyst outlet testing period, carbon monoxide concentrations at the catalyst inlet will be determined in accordance with EPA Method 10. Each sampling period will consist of withdrawing a sample of stack gas at a constant flow rate through a stainless steel sample probe and a heated Teflon sample line. The sample will be conditioned as necessary to remove moisture and directed to a gas filter correlation infrared carbon monoxide analyzer. Emission concentrations of CO will be determined in units of parts per million, dry volume (ppmvd). Pollutant gas concentration data will be electronically logged as (at minimum) one-minute averages, reduced to 60-minute averages and corrected for analyzer drift. All gaseous analyzers will be properly linearized prior to sampling; analyzer calibration bias will be recorded before and after each 60-minute test period in accordance with EPA Reference Method 10.

Formaldehyde (Engine Catalyst Outlets)

Concurrent with each 60-minute pollutant test period, formaldehyde emissions will be determined in accordance with either EPA Method 320 or 323. Formaldehyde concentrations will be determined in units of parts per million, wet volume (ppmvw). Wet volume HCHO concentrations will be combined with corresponding stack gas moisture content data to calculate HCHO concentrations in units of ppmvd. All quality assurance procedures required by the EPA Reference Method must be strictly followed.

Engine Operating Parameters

Three 60-minute runs will be performed on each 2SLB RICE at maximum ($\geq 90\%$ site rating) operating load. Concurrent with each 60-minute test period, the following engine operating parameters will be recorded:

- Engine load (HP)
- Engine fuel use (scf/hour)
- Catalyst inlet temperature ($^{\circ}\text{F}$)
- Catalyst pressure drop ($^{\circ}\text{H}_2\text{O}$)

Data Reduction

1. Following sampling, average NO_x , CO and HCHO concentrations in units of pounds per standard cubic foot (lb/scf), dry basis, will be computed as follows:

$$C_d = C_{\text{ppmvd}} * CF$$

Where: C_d is the 60-minute average pollutant (i.e., NO_x , CO or HCHO) concentration in units of pounds per standard cubic foot, dry basis,

C_{ppmvd} is the drift-corrected 60-minute average pollutant (i.e., NO_x , CO or HCHO) concentration in units of parts per million, dry volume, and

CF is a conversion factor equal to: 1.194×10^{-7} lb/ppmvd·scf for NO_x ,

7.269 x 10⁻⁸ lb/ppmvd-scf for CO,
 7.793 x 10⁻⁸ lb/ppmvd-scf for HCHO.

2. Pollutant concentrations and stack gas volumetric flow rates will be used to determine average NO_x, CO and HCHO mass emission rates in units of pounds per hour, as follows:

$$E_{\frac{lb}{hr}} = C_d \cdot Q_{dscfm} \cdot 60$$

Where: $E_{lb/hr}$ is the 60-minute average pollutant mass emission rate in units of pounds per hour,
 C_d is the drift-corrected 60-minute average pollutant (i.e., NO_x, CO or HCHO) concentration in units of pounds per standard cubic foot, dry basis, and
 Q_{dscfm} is the corresponding engine outlet volumetric flow rate in units of dry standard cubic foot per minute.

3. Pollutant mass emission rates will be combined with engine fuel use and fuel heat content data to determine average NO_x, CO and HCHO emission rates in units of pounds per million British thermal units (lb/mmBtu).

$$lb/mmBtu = \frac{E_{\frac{lb}{hr}} \cdot 10^6}{F_{fuel} \cdot HC_{fuel}}$$

Where: $E_{lb/hr}$ is the 60-minute average pollutant mass emission rate in units of pounds per hour,
 F_{fuel} is the 60-minute total engine fuel consumption in units of standard cubic feet per hour (scfh), and
 HC_{fuel} is the heat content of the fuel gas (as determined by a recent fuel gas analysis) in units of British thermal units per standard cubic foot.

4. If engine fuel consumption data are unavailable for any test run, calculations will be performed in accordance with EPA Reference Method 19 to compute pollutant mass emission rates in units of lb/mmBtu using Equation 19-1 as shown below:

$$lb/mmBtu = C_d F_d \left(\frac{20.9}{20.9 - O_2 \%vd} \right)$$

Where: C_d is the drift-corrected 60-minute average pollutant (i.e., NO_x, CO or HCHO) concentration in units of pounds per standard cubic foot, dry basis,
 F_d is equal to 8,710 dry standard cubic feet per million British thermal units (dscf/mmBtu), and
 $O_2 \%vd$ is the 60-minute average oxygen concentration in units of dry volume percent.

5. Pollutant mass emission rates in units of pounds per hour will be converted to units of tons per year, as follows:

$$E_{tpy} = E_{\frac{lb}{hr}} \cdot \frac{8,760}{2,000}$$

Where: $E_{lb/hr}$ is the 60-minute average pollutant mass emission rate in units of pounds per hour,

8,760 is the maximum number or possible operating hours per year, and

2,000 is the number of pounds per ton.

6. Corresponding inlet and outlet CO concentrations in units of ppmvd will be used to compute catalyst destruction efficiency using the following equation:

$$\%DRE = 100 \cdot \left(1 - \left(\frac{C_{Outlet}}{C_{Inlet}} \right) \right)$$

Where: C_{Outlet} is the drift-corrected 60-minute average outlet CO concentration (ppmvd),
and

C_{Inlet} is the drift-corrected 60-minute average inlet CO concentration (ppmvd).

APPENDIX E

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation

**EXISTING >500 HP RICE LOCATED AT MINOR SOURCES IN THE UINTA BASIN
TO BE RETROFITTED WITH OXIDATION CATALYSTS**

Overview and Purpose

Kerr-McGee has agreed to retrofit certain reciprocating internal combustion engines (“RICE”) located at minor sources in the Uinta Basin with oxidation catalysts as part of a settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation* (hereafter the “Consent Decree”). As required in the Consent Decree at Section IV.D., Kerr-McGee will retrofit the following RICE with oxidation catalysts:

Compressor Station	Engine ID(s)	Engine	Hp (each)
Morgan State C.S.	ENG1	Caterpillar 3516 TALE	1340
South Central C.S.	ENG1 & 2	Caterpillar 3516 TALE	1340
South East C.S.	ENG1 & 2	Caterpillar 3516 TALE	1340
North C.S.	ENG1 & 2	Caterpillar 3516 TALE	1340
North East C.S.	ENG1 & 2	Caterpillar 3516 TALE	1340
South C.S.	ENG1	Caterpillar 3516 TALE	1340
East Junior C.S.	ENG1	Caterpillar 3516 TALE	1340
East C.S.	ENG1 & 2	Caterpillar 3516 TALE	1340
East Bench	ENG1 & 2	Caterpillar 3516 TALE	1340
Archie Bench C.S.	ENG1 & 2	Caterpillar 3516 TALE	1340
L16 C.S.	ENG1	Caterpillar 3412 TALE	637
Willow Creek C.S.	ENG1 & 2	Caterpillar 3516 TALE	1340
Sage Grouse C.S.	ENG1 & 2	Caterpillar 3516 TALE	1340
Flat Mesa 2-7 (a.k.a. Bonanza West)	ENG1	Caterpillar 3516 TALE	1340
Bonanza East	ENG1 & 2	Caterpillar 3516 TALE	1340

APPENDIX F

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation

CARBON MONOXIDE CONTROL EFFICIENCY
PORTABLE ANALYZER MONITORING PROTOCOL

**Determination of Carbon Monoxide Control Efficiency from Controlled Natural Gas-Fired
Reciprocating Engines Located in the Uinta Basin**

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OVERVIEW AND PURPOSE

Kerr-McGee has agreed to conduct portable analyzer testing for carbon monoxide (“CO”) on certain reciprocating internal combustion engines (“RICE”) located in the Uinta Basin that are controlled with oxidation catalysts as part of a settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation* (hereafter the “Consent Decree”). As required in the Consent Decree at Section IV.D., Kerr-McGee will conduct portable analyzer testing on certain RICE located in the Uinta Basin that will be controlled with oxidation catalysts.

1. APPLICABILITY AND PRINCIPLE

1.1 Applicability. This protocol was prepared to be implemented by Kerr-McGee Oil and Gas Onshore LP, Westport Field Services LLC and/or certain of their corporate affiliates (“Kerr-McGee”) will monitor carbon monoxide (CO) and oxygen (O₂) concentrations from controlled natural gas-fired reciprocating engines using portable analyzers with electrochemical cells.

1.2 Principle. A gas sample is continuously extracted from a stack and conveyed to a portable analyzer for determination of CO and O₂ gas concentrations using electrochemical cells. Analyzer design specifications, performance specifications, and test procedures are provided to ensure reliable data. Additions to or modifications of vendor-supplied analyzers (e.g. heated sample line, flow meters, etc.) may be required to meet the design specifications of this test method.

2. RANGE AND SENSITIVITY

2.1 Analytical Range. The analytical range for each gas component is determined by the electrochemical cell design. A portion of the analytical range is selected to be the nominal range by choosing a span gas concentration near the flue gas concentrations or permitted emission level in accordance with Sections 2.1.1 and 2.1.2.

2.1.1 CO Span Gas. Choose a CO span gas such that the concentration is approximately 1.25 times average expected pre-catalyst stack gas reading.

2.1.2 O₂ Span Gas. The O₂ span gas shall be dry ambient air at 20.9% O₂.

2.1.2 NO Span Gas. The NO span gas shall be approximately 250 ppm.

3. DEFINITIONS

3.1 Measurement System. The total equipment required for the determination of gas concentration. The measurement system consists of the following major subsystems:

3.1.1 Sample Interface. That portion of a system used for one or more of the following: sample acquisition, sample transport, sample conditioning, or protection of the electrochemical cells from particulate matter and condensed moisture.

3.1.2 External Interference Gas Scrubber. A tube filled with scrubbing agent used to remove interfering compounds upstream of some electrochemical cells.

3.1.3 Electrochemical (EC) Cell. The portion of the system that senses the gas to be measured and generates an output proportional to its concentration. Any cell that uses diffusion-limited oxidation and reduction reactions to produce an electrical potential between a sensing electrode and a counter electrode.

3.1.4 Data Recorder. It is recommended that the analyzers be equipped with a strip chart recorder, computer, or digital recorder for recording measurement data. However, the operator may record the test results manually in accordance with the requirements of Section 7.4.

3.2 Nominal Range. The range of concentrations over which each cell is operated (25 to 125 percent of span gas value). Several nominal ranges may be used for any given cell as long as the linearity and stability check results remain within specification.

3.3 Span Gas. The high level concentration gas chosen for each nominal range.

3.4 Zero Calibration Error. For the CO channel, the absolute value of the difference, expressed as a percent of the span gas, between the gas concentration exhibited by the gas analyzer when a zero level calibration gas is introduced to the analyzer and the known concentration of the zero level

calibration gas. For the O₂ channel, the difference, expressed as percent O₂, between the gas concentration exhibited by the gas analyzer when a zero level calibration gas is introduced to the analyzer and the known concentration of the zero level calibration gas.

3.5 Span Calibration Error. For the CO channel, the absolute value of the difference, expressed as a percent of the span gas, between the gas concentration exhibited by the gas analyzer when a span gas is introduced to the analyzer and the known concentration of the span gas. For the O₂ channel, the difference, expressed as percent O₂, between the gas concentration exhibited by the gas analyzer when a span gas is introduced to the analyzer and the known concentration of the span gas.

3.6 Response Time. The amount of time required for the measurement system to display 95 percent of a step change in the CO gas concentration on the data recorder.

3.7 Linearity Check. A method of demonstrating the ability of a gas analyzer to respond consistently over a range of gas concentrations.

3.8 Stability Check. A method of demonstrating an electrochemical cell operated over a given nominal range provides a stable response and is not significantly affected by prolonged exposure to the analyte.

3.9 Stability Time. As determined during the stability check; the elapsed time from the start of the gas injection until a stable reading has been achieved.

3.10 Test. The collection of emissions data consisting of two consecutive 21 minute sampling periods, 21 minutes pre-catalyst and 21 minutes post catalyst, from each source.

4. MEASUREMENT SYSTEM PERFORMANCE SPECIFICATIONS

4.1 Zero Calibration Error. Less than or equal to ± 3 percent of the span gas value for CO channels and less than or equal to ± 0.3 percent O₂ for the O₂ channel.

4.2 Span Calibration Error. Less than or equal to ± 5 percent of the span gas value for CO channels and less than or equal to ± 0.5 percent O₂ for the O₂ channel.

4.3 Linearity. For the zero, mid-level, and span gases, the absolute value of the difference, expressed as a percent of the span gas, between the gas value and the analyzer response shall not be greater than 2.5 percent for the CO cell.

4.4 Stability Check Response. The analyzer responses to CO span gases shall not vary more than 3.0 percent of span gas value over a 30-minute period or more than 2.0 percent of the span gas value over a 15-minute period.

4.5 CO Measurement, Hydrogen (H₂) Compensation. It is recommended that CO measurements be performed using a hydrogen-compensated EC cell since CO-measuring EC cells can experience significant reaction to the presence of H₂ in the gas stream. Sampling systems equipped with a scrubbing agent prior to the CO cell to remove H₂ interferent gases may also be used.

5. APPARATUS AND REAGENTS

5.1 Measurement System. Use any measurement system that meets the performance and design specifications in Sections 4 and 5 of this method. The sampling system shall maintain the gas sample at a temperature above the dew point up to the moisture removal system. The sample conditioning system shall be designed so there are no entrained water droplets in the gas sample when it contacts the electrochemical cells. A schematic of an acceptable measurement system is shown in Figure 1. The essential components of the measurement system are described below:

5.1.1 Sample Probe. Glass, stainless steel, or other nonreactive material, of sufficient length to sample per the requirements of Section 7. If necessary to prevent condensation, the sampling probe shall be heated.

5.1.2 Heated Sample Line. Heated (sufficient to prevent condensation) nonreactive tubing such as teflon, stainless steel, glass, etc. to transport the sample gas to the moisture removal system. (Includes any particulate filters prior to the moisture removal system.)

5.1.3 Sample Transport Lines. Nonreactive tubing such as teflon, stainless steel, glass, etc. to transport the sample from the moisture removal system to the sample pump, sample flow rate control, and electrochemical cells.

5.1.4 Calibration Assembly. A tee fitting to attach to the probe tip or where the probe attaches to the sample line for introducing calibration gases at ambient pressure during the calibration error checks. The vented end of the tee should have a flow indicator to ensure sufficient calibration gas flow. Alternatively use any other method that introduces calibration gases at the probe at atmospheric pressure.

5.1.5 Moisture Removal System. A chilled condenser or similar device (e.g., permeation dryer) to remove condensate continuously from the sample gas while maintaining minimal contact between the condensate and the sample gas.

5.1.6 Particulate Filter. Filters at the probe or the inlet or outlet of the moisture removal system and inlet of the analyzer may be used to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters shall be fabricated of materials that are nonreactive to the gas being sampled.

5.1.7 Sample Pump. A leak-free pump to pull the sample gas through the system at a flow rate sufficient to minimize the response time of the measurement system. The pump may be constructed of any material that is nonreactive to the gas being sampled.

5.1.8 Sample Flow Rate Control. A sample flow rate control valve and rotameter, or equivalent, to maintain a constant sampling rate within 10 percent during sampling and calibration error checks. The components shall be fabricated of materials that are nonreactive to the gas being sampled.

5.1.9 Gas Analyzer. A device containing electrochemical cells to determine the CO and O₂ concentrations in the sample gas stream. The analyzer shall meet the applicable performance specifications of Section 4. A means of controlling the analyzer flow rate and a device for determining proper sample flow rate (e.g., precision rotameter, pressure gauge downstream of all flow controls, etc.) shall be provided at the analyzer.

5.1.10 Data Recorder. A strip chart recorder, computer, or digital recorder, for recording measurement data. The data recorder resolution (i.e., readability) shall be at least 1 ppm for CO and 0.1 percent O₂ for O₂; and one degree (C or F) for temperature.

5.1.11 External Interference Gas Scrubber. Used by some analyzers to remove interfering compounds upstream of a CO electrochemical cell. The scrubbing agent should be visible and should have a means of determining when the agent is exhausted (e.g., color indication).

5.2 Calibration Gases. Both the CO and NO calibration gases for the gas analyzer shall be CO or

NO in nitrogen.

5.2.1 Span Gases. Used for calibration error, linearity, and interference checks of each nominal range of each cell. Select concentrations according to procedures in Section 2.1.1. Clean dry air may be used as the span gas for the O₂ cell as specified in Section 2.1.2.

5.2.2 Mid-Level Gases. Select concentrations that are 40-60 percent of the span gas concentrations.

5.2.3 Zero Gas. Concentration of less than 0.25 percent of the span gas for each component. Ambient air may be used in a well ventilated area for the CO.

6. MEASUREMENT SYSTEM PERFORMANCE CHECK PROCEDURES. Perform the following procedures before the measurement of emissions under Section 7.

6.1 Calibration Gas Concentration Certification. For the mid-level and span cylinder gases, use calibration gases certified according to EPA Protocol 1 procedures. Calibration gases must meet the criteria under 40 CFR 60, Appendix F, Section 5.1.2 (3). Expired Protocol 1 gases may be recertified using the applicable reference methods.

6.2 Linearity Check. Conduct the following procedure once for each nominal range to be used on each electrochemical cell. After a linearity check is completed, it remains valid for seven consecutive calendar days. After the seven calendar day period has elapsed, the linearity check must be reaccomplished. Additionally, reaccomplish the linearity check if the cell is replaced.

6.2.1 Linearity Check Gases. For the CO cell obtain the following gases: zero (0-0.25 percent of nominal range), mid-level (40-60 percent of span gas concentration), and span gas (selected according to Section 2.1).

6.2.2 Linearity Check Procedure. If the analyzer uses an external interference gas scrubber with a color indicator, using the analyzer manufacturer's recommended procedure, verify the scrubbing agent is not depleted. After calibrating the analyzer with zero and span gases, inject the zero, mid-level, and span gases appropriate for each nominal range to be used on each cell. Gases need not be injected through the entire sample handling system. Purge the analyzer briefly with ambient air between gas injections. For each gas injection, verify the flow rate is constant and the analyzer responses have stabilized before recording the responses on Form A.

6.3 Stability Check. Conduct the following procedure once for the maximum nominal range to be used on each electrochemical cell. After a stability check is completed, it remains valid for seven consecutive calendar days. After the seven calendar day period has elapsed, the stability check must be reaccomplished. Additionally, reaccomplish the stability check if the CO cell is replaced.

6.3.1 Stability Check Procedure. Inject the CO span gas for the maximum nominal range to be used during the emission testing into the analyzer and record the analyzer response at least once per minute until the conclusion of the stability check. One-minute average values may be used instead of instantaneous readings. After the analyzer response has stabilized, continue to flow the span gas for at least a 30-minute stability check period. Make no adjustments to the analyzer during the stability check except to maintain constant flow. Record the stability time as the number of minutes elapsed between the start of the gas injection and the start of the 30-minute stability check period. As an alternative, if the concentration reaches a peak value within five minutes, you may choose to record the data for at least a 15-minute stability check period following the peak.

6.3.2 Stability Check Calculations. Determine the highest and lowest CO concentrations recorded during the 30-minute period and record the results on Form B. The absolute value of the difference between the maximum and minimum values recorded during the 30-minute period must be less than 3.0 percent of the span gas concentration. Alternatively, record stability check data in the same manner for the 15-minute period following the peak concentration. The difference between the maximum and minimum values for the 15-minute period must be less than 2.0 percent of the span gas concentration.

6.4 Interference Check. Conduct the following procedure once for the average anticipated NO stack gas concentration as reported by the manufacture (250 ppm for Caterpillar lean burns). After an interference check is completed, this value will be utilized for interference calculations for the next 7 calendar days. After the seven calendar day period has elapsed, the interference check must be reaccomplished.

6.4.1 Interference Check Procedure. Inject the 250 ppm NO span gas for the into the analyzer and record the analyzer response at least once per minute until the conclusion of the interference check. One-minute average values may be used instead of instantaneous readings. After the analyzer response has stabilized, continue to flow the span gas for at least a 15-minute period. Make no adjustments to the analyzer during the stability check except to maintain constant flow. Record the CO cell response to this NO calibration gas.

7. EMISSION TEST PROCEDURES.

Prior to performing the following emission test procedures, calibrate/challenge all electrochemical cells in the analyzer in accordance with the manufacturer's instructions.

7.1. Pre/Post-Catalyst Sampling. Select both a pre-catalyst and post catalyst sampling site that will provide continuous uninterrupted exhaust gas flow.

7.2 Warm Up Period. Assemble the sampling system and allow the analyzer and sample interface to warm up and adjust to ambient temperature at the location where the stack measurements will take place.

7.3 Pretest Calibration Error Check. Conduct a zero and span calibration error check before testing each new facility. Conduct the calibration error check near the sampling location just prior to the start of the first emissions test.

7.3.1 Scrubber Inspection. For analyzers that use an external interference gas scrubber tube, inspect the condition of the scrubbing agent and ensure it will not be exhausted during sampling. If scrubbing agents are recommended by the manufacturer, they should be in place during all sampling, calibration and performance checks.

7.3.2 Zero and Span Procedures. Inject the zero and span gases using the calibration assembly. Ensure the calibration gases flow through all parts of the sample interface. During this check, make no adjustments to the system except those necessary to achieve the correct calibration gas flow rate at the analyzer. Set the analyzer flow rate to the value recommended by the analyzer manufacturer. Allow each reading to stabilize before recording the result on Form C. The time allowed for the span gas to stabilize shall be no less than the stability time noted during the stability check. After achieving a stable response, disconnect the gas and briefly purge with ambient air.

7.3.3 Response Time Determination. Determine the CO response time by observing the time required to respond to 95 percent of a step change in the analyzer response for both the zero and span

gases. Note the longer of the two times as the response time.

7.3.4 Failed Pretest Calibration Error Check. If the zero and span calibration error check results are not within the specifications in Section 4, take corrective action and repeat the calibration error check until acceptable performance is achieved.

7.4 Sample Collection. Position the sampling probe at the pre-catalyst sample point and begin sampling at the same rate used during the calibration error check. Maintain constant rate sampling (± 10 percent of the analyzer flow rate value used in Section 7.3.2) during the entire test. The concentration data must be recorded either (1) at least once each minute, or (2) as a block average for the test using values sampled at least once each minute. Repeat this procedure from the post-catalyst sampling location. Two consecutive 21 minute samples, one pre-catalyst and one post catalyst, shall be considered a test for each source

7.5 Re-Zero. At least once every four hours, recalibrate the analyzer at the zero level according to the manufacturer's instructions and conduct a pretest calibration error check before resuming sampling. If the analyzer is capable of reporting negative concentration data (at least 5 percent of the span gas below zero), then the tester is not required to re-zero the analyzer.

8. DATA COLLECTION. This section summarizes the data collection requirements for this protocol.

8.1 Linearity Check Data. Using Form A, record the analyzer responses in ppm for CO, and percent O₂ for the zero, mid-level, and span gases injected during the linearity check under Section 6.2.2.

8.2 Stability Check Data. Record the analyzer response in pmm for CO at least once per minute during the stability check under Section 6.3.1. One-minute average values may be used instead of instantaneous readings. Record the stability time as the number of minutes elapsed between the start of the gas injection and the start of the 30-minute stability check period. If the concentration reaches a peak value within five minutes of the gas injection, you may choose to record the data for at least a 15-minute stability check period following the peak. Use the information recorded to determine the analyzer stability under Section 6.3.2.

8.3 Pretest Calibration Error Check Data. On Form C, record the analyzer responses to the zero and span gases for CO and O₂ injected prior to testing each new source. Record the calibration zero and span gas concentrations for CO and O₂. For CO, record the absolute difference between the analyzer response and the calibration gas concentration, divide by the span gas concentration, and multiply by 100 to obtain the percent of span. For O₂, record the absolute value of the difference between the analyzer response and the O₂ calibration gas concentration. Record whether the calibration is valid by comparing the percent of span or difference between the calibration gas concentration and analyzer O₂ response, as applicable, with the specifications under Section 4.1 for the zero calibrations and Section 4.2 for the span calibrations. Record the response times for the CO zero and span gases as described under Section 7.3.3. Select the longer of the two times as the response time for that pollutant.

8.4 Test Data. On Form D-1 record the source operating parameters during the test. Record the test start and end times. From the analyzer responses recorded each minute during the test, obtain the average flue gas concentration of each pollutant.

9. CONTROL EFFICIENCY CALCULATIONS

9.1 Control Efficiency Calculations. CO control efficiencies will be calculated using the following calculation:

$$\% \text{ Control} = \frac{(C_{pre} - C_{post})}{C_{pre}} \times 100$$

where: % control = actual control efficiency of the oxidation catalyst
 C_{pre} = stack gas concentration at the pre-catalyst sampling location (ppm)
 C_{post} = stack gas concentration at the post-catalyst sampling location (ppm)

9.2 Interference Check. Utilize the data collected in Section 6.3.4 and the average pre-catalyst CO emission concentrations to calculate interference responses (I_{CO}) for the CO cell. If an interference response exceeds 5 percent, all emission test results since the last successful interference test for that compound are invalid.

9.2.1 CO Interference Calculation.

$$I_{CO} = \left[\left(\frac{R_{CO-NO}}{C_{NOG}} \right) \left(\frac{C_{NOS}}{C_{COS}} \right) \right] \times 100$$

where: I_{CO} = CO interference response (percent)
 R_{CO-NO} = CO response to NO span gas (ppm CO)
 C_{NOG} = concentration of NO span gas (ppm NO)
 C_{NOS} = Anticipated concentration of NO in stack gas (250 ppm NO)
 C_{COS} = concentration of CO in stack gas (ppm CO)

10. REPORTING REQUIREMENTS AND RECORD KEEPING REQUIREMENTS

Test reports shall be submitted to the Environmental Protection Agency (EPA), as required by Section IV C of Consent Decree, within thirty (30) days of completing the test. A separate test report shall be submitted for each facility where an emission source was tested and, at a minimum, the following information shall be included:

- **Form A, Linearity/Interference Check Data Sheet**, Submit the linearity check as required by Section 6.2 for the nominal range tested.
- **Form B, Stability Check Data Sheet**, Submit the stability check as required by Section 6.4 for the nominal range tested.
- **Form C, Calibration Error Check Data Sheet**
- **Form D-1**, Submit the appropriate test results form.

Records pertaining to the information above and supporting documentation shall be kept for five (5) years and made available upon request by EPA. Additionally, if the source is equipped with a fuel meter, records of all maintenance and calibrations of the fuel meter shall be kept for five (5) years from the date of the last maintenance or calibration.

Form A

Linearity/Interference Check Data Sheet

Date: _____

Analyst: _____

Analyzer Manufacturer/Model #: _____

Analyzer Serial #: _____

Pollutant		Calibration Gas Concentration (ppm)	Analyzer Response (ppm CO)	Analyzer Response % O ₂	Absolute Difference (ppm)	Percent of Span	Linearity Valid (Yes or No)
CO	Zero						
	Mid						
	Span						
NO	Span						

Form B
Stability Check Data Sheet

Date: _____ Analyst: _____
 Analyzer Manufacturer/Model #: _____

Analyzer Serial #: _____

Pollutant: CO Span Gas Concentration (ppm): _____

STABILITY CHECK					
Elapsed Time (Minutes)	Analyzer Response	Elapsed Time (Continued)	Analyzer Response	Elapsed Time (Continued)	Analyzer Response
1		17		33	
2		18		34	
3		19		35	
4		20		36	
5		21		37	
6		22		38	
7		23		39	
8		24		40	
9		25		41	
10		26		42	
11		27		43	
12		28		44	
13		29		45	
14		30		46	
15		31		47	
16		32		48	

For 30-minute Stability Check Period:

Maximum Concentration (ppm): _____ Minimum Concentration (ppm): _____

For 15-minute Stability Check Period:

Maximum Concentration (ppm): _____ Minimum Concentration (ppm): _____

Maximum Deviation = $100 * (\text{Max. Conc.} - \text{Min. Conc.}) / \text{Span Gas Conc.} =$ _____ percent

Stability Time (minutes): _____

Form C
Calibration Error Check Data Sheet

Company: _____

Facility: _____

Source Tested: _____

Date: _____

Analyst: _____

Analyzer Serial #: _____

Analyzer Manufacturer/Model #: _____

PRETEST CALIBRATION ERROR CHECK								
		A	B	A-B	A-B /SG*100			
		Pump Flow Rate (Indicate Units)	Analyzer Reading (Indicate Units)	Calibration Gas Concentration (Indicate Units)	Absolute Difference (Indicate Units)	Percent of Span Note 1	Calibration Valid (Yes or No)	Response Time (Minutes)
CO	Zero							
	Span							
O ₂	Zero							
	Span							

SG = Span Gas

**Form D-1
Reciprocating Engine Test Results**

Company: _____ Facility: _____

Source Tested: _____ Date: _____

Source Manufacturer/Model #: _____

Site-rated Horsepower: _____ Source Serial #: _____

Type of Emission Control: _____

Analyst: _____ Analyzer Serial #: _____

Analyzer Manufacturer/Model #: _____

Operating Conditions

Source operating at 90 percent or greater site-rated horsepower during testing? yes no

Engine Tested Horsepower (hp)	Engine RPM	Engine Fuel Consumption (Indicate Units)	Fuel Heat Content (Btu/cf)	Engine Specific Fuel Consumption (Btu/hp-hr) ¹

¹ As reported by the Manufacturer

Test Results

Test Start Time: _____ Test End Time: _____

O ₂	CO				
	Avg. Pre-Catalyst CO ppm	Avg. Post-Catalyst CO ppm	Tested CO Reduction (%)	Required CO Reduction (%)	CO Interference Response (I _{CO} , %):
Avg. Tested O ₂ %				93%	

I certify to the best of my knowledge the test results are accurate and representative of the emissions from this source.

Print Name

Signature

APPENDIX G

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation

**HIGH-BLEED PNEUMATIC CONTROLLERS IN THE UIN TA BASIN TO BE
RETROFITTED WITH LOW-BLEED PNEUMATIC CONTROLLERS**

Overview and Purpose

Kerr-McGee has agreed to retrofit certain high-bleed Pneumatic Controllers in the Uinta Basin as part of the settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation* (hereafter the “Consent Decree”). As required in the Consent Decree at Section IV.E., Kerr-McGee will retrofit the following high-bleed Pneumatic Controllers with low-bleed Pneumatic Controllers:

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	Bonanza Fed. 3-15	1
Cemco	Liquid Level	Ankerpont 2-6 ETAL	2
Cemco	Liquid Level	Archee 01-202	2
Cemco	Liquid Level	Bayless State 2-1	2
Cemco	Liquid Level	Bitter Creek 1122-3D	2
Cemco	Liquid Level	Bitter Creek 1122-5A	2
Cemco	Liquid Level	Bitter Creek 1122-6I	2
Cemco	Liquid Level	Bitter Creek 4-2	2
Cemco	Liquid Level	Bitter Creek 9-2	2
Cemco	Liquid Level	Bonanza 04-06	2
Cemco	Liquid Level	Bonanza 06-02	2
Cemco	Liquid Level	Bonanza 08-02	2
Cemco	Liquid Level	Bonanza 08-03	2
Cemco	Liquid Level	Bonanza 09-05	2
Cemco	Liquid Level	Bonanza 09-06	2
Cemco	Liquid Level	Bonanza 10-02	2
Cemco	Liquid Level	Bonanza 1023-10L	2
Cemco	Liquid Level	Bonanza 1023-11K	2
Cemco	Liquid Level	Bonanza 1023-17B	2
Cemco	Liquid Level	Bonanza 1023-18B	2
Cemco	Liquid Level	Bonanza 1023-18DX	2
Cemco	Liquid Level	Bonanza 1023-18G	2
Cemco	Liquid Level	Bonanza 1023-1A	2
Cemco	Liquid Level	Bonanza 1023-1C	2
Cemco	Liquid Level	Bonanza 1023-1E	2
Cemco	Liquid Level	Bonanza 1023-1G	2
Cemco	Liquid Level	Bonanza 1023-2A	2
Cemco	Liquid Level	Bonanza 1023-2C	2
Cemco	Liquid Level	Bonanza 1023-2E	2
Cemco	Liquid Level	Bonanza 1023-2G	2
Cemco	Liquid Level	Bonanza 1023-2I	2
Cemco	Liquid Level	Bonanza 1023-2MX	2
Cemco	Liquid Level	Bonanza 1023-2O	2
Cemco	Liquid Level	Bonanza 1023-4A	2
Cemco	Liquid Level	Bonanza 1023-4C	2
Cemco	Liquid Level	Bonanza 1023-4E	2
Cemco	Liquid Level	Bonanza 1023-4G	2
Cemco	Liquid Level	Bonanza 1023-4M	2
Cemco	Liquid Level	Bonanza 1023-4O	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	Bonanza 1023-5AX	2
Cemco	Liquid Level	Bonanza 1023-5C	2
Cemco	Liquid Level	Bonanza 1023-5G	2
Cemco	Liquid Level	Bonanza 1023-5M	2
Cemco	Liquid Level	Bonanza 1023-5O	2
Cemco	Liquid Level	Bonanza 1023-6A	2
Cemco	Liquid Level	Bonanza 1023-6C	2
Cemco	Liquid Level	Bonanza 1023-6E	2
Cemco	Liquid Level	Bonanza 1023-6G	2
Cemco	Liquid Level	Bonanza 1023-6M	2
Cemco	Liquid Level	Bonanza 1023-6O	2
Cemco	Liquid Level	Bonanza 1023-7B	2
Cemco	Liquid Level	Bonanza 1023-7D	2
Cemco	Liquid Level	Bonanza 1023-7L	2
Cemco	Liquid Level	Bonanza 1023-7P	2
Cemco	Liquid Level	Bonanza 1023-8A	2
Cemco	Liquid Level	Bonanza 1023-8F	2
Cemco	Liquid Level	Bonanza 1023-8L	2
Cemco	Liquid Level	Bonanza 1023-8N	2
Cemco	Liquid Level	Bonanza 1023-9E	2
Cemco	Liquid Level	Bonanza 10-3	2
Cemco	Liquid Level	Bonanza 10-4	2
Cemco	Liquid Level	Bonanza 11-2	2
Cemco	Liquid Level	Bonanza1023-4I	2
Cemco	Liquid Level	CIGE 003	2
Cemco	Liquid Level	CIGE 004	2
Cemco	Liquid Level	CIGE 005	2
Cemco	Liquid Level	CIGE 006	2
Cemco	Liquid Level	CIGE 007	2
Cemco	Liquid Level	CIGE 008	2
Cemco	Liquid Level	CIGE 010	2
Cemco	Liquid Level	CIGE 013	2
Cemco	Liquid Level	CIGE 018	2
Cemco	Liquid Level	CIGE 019	2
Cemco	Liquid Level	CIGE 020	2
Cemco	Liquid Level	CIGE 022	2
Cemco	Liquid Level	CIGE 023	2
Cemco	Liquid Level	CIGE 024	2
Cemco	Liquid Level	CIGE 025	2
Cemco	Liquid Level	CIGE 027	2
Cemco	Liquid Level	CIGE 028	2
Cemco	Liquid Level	CIGE 030	2
Cemco	Liquid Level	CIGE 031	2
Cemco	Liquid Level	CIGE 034	2
Cemco	Liquid Level	CIGE 036D	2
Cemco	Liquid Level	CIGE 037D	2
Cemco	Liquid Level	CIGE 038	2
Cemco	Liquid Level	CIGE 040	2
Cemco	Liquid Level	CIGE 042	2
Cemco	Liquid Level	CIGE 043	2
Cemco	Liquid Level	CIGE 044	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	CIGE 045	2
Cemco	Liquid Level	CIGE 046	2
Cemco	Liquid Level	CIGE 047	2
Cemco	Liquid Level	CIGE 048	2
Cemco	Liquid Level	CIGE 051D	2
Cemco	Liquid Level	CIGE 052	2
Cemco	Liquid Level	CIGE 054	2
Cemco	Liquid Level	CIGE 055	2
Cemco	Liquid Level	CIGE 056	2
Cemco	Liquid Level	CIGE 057	2
Cemco	Liquid Level	CIGE 060	2
Cemco	Liquid Level	CIGE 061	2
Cemco	Liquid Level	CIGE 062D	2
Cemco	Liquid Level	CIGE 063D	2
Cemco	Liquid Level	CIGE 064D	2
Cemco	Liquid Level	CIGE 067A	2
Cemco	Liquid Level	CIGE 068D	2
Cemco	Liquid Level	CIGE 070	2
Cemco	Liquid Level	CIGE 071	2
Cemco	Liquid Level	CIGE 072	2
Cemco	Liquid Level	CIGE 075	2
Cemco	Liquid Level	CIGE 076D	2
Cemco	Liquid Level	CIGE 077D	2
Cemco	Liquid Level	CIGE 078	2
Cemco	Liquid Level	CIGE 079D	2
Cemco	Liquid Level	CIGE 080D	2
Cemco	Liquid Level	CIGE 086	2
Cemco	Liquid Level	CIGE 087D	2
Cemco	Liquid Level	CIGE 088D	2
Cemco	Liquid Level	CIGE 089D	2
Cemco	Liquid Level	CIGE 090D	2
Cemco	Liquid Level	CIGE 091D	2
Cemco	Liquid Level	CIGE 092	2
Cemco	Liquid Level	CIGE 093D	2
Cemco	Liquid Level	CIGE 094D	2
Cemco	Liquid Level	CIGE 095D	2
Cemco	Liquid Level	CIGE 096D	2
Cemco	Liquid Level	CIGE 098	2
Cemco	Liquid Level	CIGE 099D	2
Cemco	Liquid Level	CIGE 100D	2
Cemco	Liquid Level	CIGE 101D	2
Cemco	Liquid Level	CIGE 102	2
Cemco	Liquid Level	CIGE 103D	2
Cemco	Liquid Level	CIGE 105D	2
Cemco	Liquid Level	CIGE 106D	2
Cemco	Liquid Level	CIGE 107D	2
Cemco	Liquid Level	CIGE 108D	2
Cemco	Liquid Level	CIGE 109D	2
Cemco	Liquid Level	CIGE 110	2
Cemco	Liquid Level	CIGE 111D	2
Cemco	Liquid Level	CIGE 113	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	CIGE 115	2
Cemco	Liquid Level	CIGE 116	2
Cemco	Liquid Level	CIGE 117	2
Cemco	Liquid Level	CIGE 118	2
Cemco	Liquid Level	CIGE 119	2
Cemco	Liquid Level	CIGE 120	2
Cemco	Liquid Level	CIGE 121	2
Cemco	Liquid Level	CIGE 122	2
Cemco	Liquid Level	CIGE 123	2
Cemco	Liquid Level	CIGE 124	2
Cemco	Liquid Level	CIGE 125	2
Cemco	Liquid Level	CIGE 127	2
Cemco	Liquid Level	CIGE 129	2
Cemco	Liquid Level	CIGE 130	2
Cemco	Liquid Level	CIGE 131	2
Cemco	Liquid Level	CIGE 133	2
Cemco	Liquid Level	CIGE 134	2
Cemco	Liquid Level	CIGE 135	2
Cemco	Liquid Level	CIGE 137	2
Cemco	Liquid Level	CIGE 138A	2
Cemco	Liquid Level	CIGE 139	2
Cemco	Liquid Level	CIGE 140	2
Cemco	Liquid Level	CIGE 142	2
Cemco	Liquid Level	CIGE 143	2
Cemco	Liquid Level	CIGE 144	2
Cemco	Liquid Level	CIGE 145	2
Cemco	Liquid Level	CIGE 146	2
Cemco	Liquid Level	CIGE 148	2
Cemco	Liquid Level	CIGE 149	2
Cemco	Liquid Level	CIGE 150	2
Cemco	Liquid Level	CIGE 151	2
Cemco	Liquid Level	CIGE 152	2
Cemco	Liquid Level	CIGE 153	2
Cemco	Liquid Level	CIGE 154	2
Cemco	Liquid Level	CIGE 155	2
Cemco	Liquid Level	CIGE 156	2
Cemco	Liquid Level	CIGE 157	2
Cemco	Liquid Level	CIGE 158	2
Cemco	Liquid Level	CIGE 159	2
Cemco	Liquid Level	CIGE 161	2
Cemco	Liquid Level	CIGE 162	2
Cemco	Liquid Level	CIGE 163	2
Cemco	Liquid Level	CIGE 164	2
Cemco	Liquid Level	CIGE 165	2
Cemco	Liquid Level	CIGE 166	2
Cemco	Liquid Level	CIGE 167	2
Cemco	Liquid Level	CIGE 168	2
Cemco	Liquid Level	CIGE 170	2
Cemco	Liquid Level	CIGE 171	2
Cemco	Liquid Level	CIGE 172	2
Cemco	Liquid Level	CIGE 173	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	CIGE 174	2
Cemco	Liquid Level	CIGE 177	2
Cemco	Liquid Level	CIGE 179	2
Cemco	Liquid Level	CIGE 180	2
Cemco	Liquid Level	CIGE 182	2
Cemco	Liquid Level	CIGE 183	2
Cemco	Liquid Level	CIGE 186	2
Cemco	Liquid Level	CIGE 187	2
Cemco	Liquid Level	CIGE 189	2
Cemco	Liquid Level	CIGE 190	2
Cemco	Liquid Level	CIGE 193	2
Cemco	Liquid Level	CIGE 194	2
Cemco	Liquid Level	CIGE 195	2
Cemco	Liquid Level	CIGE 196	2
Cemco	Liquid Level	CIGE 197	2
Cemco	Liquid Level	CIGE 198	2
Cemco	Liquid Level	CIGE 200	2
Cemco	Liquid Level	CIGE 201	2
Cemco	Liquid Level	CIGE 202	2
Cemco	Liquid Level	CIGE 203	1
Cemco	Liquid Level	CIGE 204	2
Cemco	Liquid Level	CIGE 205	2
Cemco	Liquid Level	CIGE 206	2
Cemco	Liquid Level	CIGE 207	2
Cemco	Liquid Level	CIGE 208	2
Cemco	Liquid Level	CIGE 209	2
Cemco	Liquid Level	CIGE 210	2
Cemco	Liquid Level	CIGE 212	2
Cemco	Liquid Level	CIGE 213	2
Cemco	Liquid Level	CIGE 214	2
Cemco	Liquid Level	CIGE 215X	1
Cemco	Liquid Level	CIGE 216	2
Cemco	Liquid Level	CIGE 217	2
Cemco	Liquid Level	CIGE 218	2
Cemco	Liquid Level	CIGE 219	2
Cemco	Liquid Level	CIGE 220	2
Cemco	Liquid Level	CIGE 221	2
Cemco	Liquid Level	CIGE 222	2
Cemco	Liquid Level	CIGE 223	2
Cemco	Liquid Level	CIGE 224	1
Cemco	Liquid Level	CIGE 225	2
Cemco	Liquid Level	CIGE 226	2
Cemco	Liquid Level	CIGE 227	2
Cemco	Liquid Level	CIGE 228	2
Cemco	Liquid Level	CIGE 229	2
Cemco	Liquid Level	CIGE 230	2
Cemco	Liquid Level	CIGE 231	2
Cemco	Liquid Level	CIGE 233	1
Cemco	Liquid Level	CIGE 234	2
Cemco	Liquid Level	CIGE 235	2
Cemco	Liquid Level	CIGE 236	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	CIGE 237	1
Cemco	Liquid Level	CIGE 239	2
Cemco	Liquid Level	CIGE 240	2
Cemco	Liquid Level	CIGE 241	2
Cemco	Liquid Level	CIGE 244	2
Cemco	Liquid Level	CIGE 245	2
Cemco	Liquid Level	CIGE 247	2
Cemco	Liquid Level	CIGE 248	2
Cemco	Liquid Level	CIGE 249	2
Cemco	Liquid Level	CIGE 250	2
Cemco	Liquid Level	CIGE 251	2
Cemco	Liquid Level	CIGE 252	1
Cemco	Liquid Level	CIGE 253	1
Cemco	Liquid Level	CIGE 254	1
Cemco	Liquid Level	CIGE 255	2
Cemco	Liquid Level	CIGE 257	2
Cemco	Liquid Level	CIGE 258	2
Cemco	Liquid Level	CIGE 259	2
Cemco	Liquid Level	CIGE 260	2
Cemco	Liquid Level	CIGE 261	1
Cemco	Liquid Level	CIGE 262	2
Cemco	Liquid Level	CIGE 263	2
Cemco	Liquid Level	CIGE 265	2
Cemco	Liquid Level	CIGE 266	2
Cemco	Liquid Level	CIGE 268	2
Cemco	Liquid Level	CIGE 271	2
Cemco	Liquid Level	CIGE 274	2
Cemco	Liquid Level	CIGE 276	2
Cemco	Liquid Level	CIGE 277	2
Cemco	Liquid Level	CIGE 278	1
Cemco	Liquid Level	CIGE 279	1
Cemco	Liquid Level	CIGE 280	2
Cemco	Liquid Level	CIGE 281	2
Cemco	Liquid Level	CIGE 283	2
Cemco	Liquid Level	CIGE 284	2
Cemco	Liquid Level	CIGE 285	2
Cemco	Liquid Level	CIGE 286	2
Cemco	Liquid Level	CIGE 287	2
Cemco	Liquid Level	CIGE 288	2
Cemco	Liquid Level	CIGE 290	2
Cemco	Liquid Level	CIGE 291	2
Cemco	Liquid Level	CIGE 292	2
Cemco	Liquid Level	CIGE 293	2
Cemco	Liquid Level	CIGE 294	2
Cemco	Liquid Level	CIGE 295	2
Cemco	Liquid Level	CIGE 296	2
Cemco	Liquid Level	CIGE 297	2
Cemco	Liquid Level	CIGE 299	2
Cemco	Liquid Level	CIGE O97D	2
Cemco	Liquid Level	COG 002	2
Cemco	Liquid Level	COG 006	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	COG 011	2
Cemco	Liquid Level	CTB E 30S CA1	2
Cemco	Liquid Level	CTB E 31N CA1	2
Cemco	Liquid Level	CTB E 31N CA2	2
Cemco	Liquid Level	CTB E 34S CA1	2
Cemco	Liquid Level	CTB E 34S CA2	2
Cemco	Liquid Level	CTB E 35N CA1	2
Cemco	Liquid Level	CTB E 35S CA1	2
Cemco	Liquid Level	CTB E 35S CA2	2
Cemco	Liquid Level	CTB E 36S CA1	2
Cemco	Liquid Level	CTB E 36S CA2	2
Cemco	Liquid Level	CTB E 36S CA3	2
Cemco	Liquid Level	CTB E 6N CA1	2
Cemco	Liquid Level	CTB E 6N CA2	2
Cemco	Liquid Level	CTB W 1S CA1	2
Cemco	Liquid Level	CTB W 1S CA2	2
Cemco	Liquid Level	CTB W 31N CA1	2
Cemco	Liquid Level	CTB W 31N CA2	2
Cemco	Liquid Level	CTB W 31N CA3	2
Cemco	Liquid Level	CTB W 31N CA4	2
Cemco	Liquid Level	CTB W 32SE CA1	2
Cemco	Liquid Level	CTB W 32SE CA2	2
Cemco	Liquid Level	CTB W 32SE CA2	2
Cemco	Liquid Level	CTB W 32SE CA3	2
Cemco	Liquid Level	CTB W 32SE CA3	2
Cemco	Liquid Level	CTB W 32SE CA4	2
Cemco	Liquid Level	CTB W 32SE CA4	2
Cemco	Liquid Level	CTB W 33S CA1	2
Cemco	Liquid Level	CTB W 33S CA2	2
Cemco	Liquid Level	CTB W 33S CA3	2
Cemco	Liquid Level	CTB W 34N CA1	2
Cemco	Liquid Level	CTB W 34N CA2	2
Cemco	Liquid Level	CTB W 34N CA3	2
Cemco	Liquid Level	CTB W 34N CA4	2
Cemco	Liquid Level	CTB W 34N CA5	2
Cemco	Liquid Level	CTB W 34N CA6	2
Cemco	Liquid Level	CTB W 35N CA1	2
Cemco	Liquid Level	CTB W 35N CA2	2
Cemco	Liquid Level	CTB W 36S CA1	2
Cemco	Liquid Level	CTB W 36S CA2	2
Cemco	Liquid Level	CTB W 36S CA3	2
Cemco	Liquid Level	CTB W 4S CA2	2
Cemco	Liquid Level	CTB W 5S	2
Cemco	Liquid Level	CTB W 6S CA1	2
Cemco	Liquid Level	CTB W 6S CA2	2
Cemco	Liquid Level	CTB W4S CA1	2
Cemco	Liquid Level	Diablo 924-31M	2
Cemco	Liquid Level	Duncan Fed. 33-9	2
Cemco	Liquid Level	Fed. 33-177	2
Cemco	Liquid Level	Fed. 33-92	2
Cemco	Liquid Level	Fed. 35-5	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	FEDERAL 1022-15F	2
Cemco	Liquid Level	FEDERAL 1022-15J	2
Cemco	Liquid Level	FEDERAL 1022-28L	2
Cemco	Liquid Level	FEDERAL 1022-28M	2
Cemco	Liquid Level	Federal 1022-28N	2
Cemco	Liquid Level	Federal 1022-28O	2
Cemco	Liquid Level	FEDERAL 1022-29B	2
Cemco	Liquid Level	Federal 1022-29D	2
Cemco	Liquid Level	Federal 1022-29F	2
Cemco	Liquid Level	FEDERAL 1022-29H	2
Cemco	Liquid Level	FEDERAL 1022-29I	2
Cemco	Liquid Level	Federal 1022-31C	2
Cemco	Liquid Level	Federal 1022-31D	2
Cemco	Liquid Level	Federal 1022-31F	2
Cemco	Liquid Level	Federal 1022-31G	2
Cemco	Liquid Level	Federal 1022-31I	2
Cemco	Liquid Level	Federal 1022-31J	2
Cemco	Liquid Level	Federal 1022-33E	2
Cemco	Liquid Level	Federal 1022-33O	2
Cemco	Liquid Level	Federal 24-22	2
Cemco	Liquid Level	Federal 29-10-22	2
Cemco	Liquid Level	Federal 31-10-22	2
Cemco	Liquid Level	FEDERAL 920-25A	2
Cemco	Liquid Level	Flat Mesa 2-7	1
Cemco	Liquid Level	Glen Bench 822-27M	2
Cemco	Liquid Level	Glen Bench 12-36	2
Cemco	Liquid Level	Glen Bench 21-2	2
Cemco	Liquid Level	Glen Bench 22-2	2
Cemco	Liquid Level	Glen Bench 22-3	2
Cemco	Liquid Level	Glen Bench 23-21	2
Cemco	Liquid Level	Glen Bench 34-27	2
Cemco	Liquid Level	Glen Bench 822-21I	2
Cemco	Liquid Level	Glen Bench 822-22D	2
Cemco	Liquid Level	Glen Bench 822-22I	2
Cemco	Liquid Level	Glen Bench 822-22K	2
Cemco	Liquid Level	Glen Bench 822-22M	2
Cemco	Liquid Level	Glen Bench 822-27A	2
Cemco	Liquid Level	Glen Bench 822-27B	2
Cemco	Liquid Level	Glen Bench 822-27D	2
Cemco	Liquid Level	Glen Bench 822-27F	2
Cemco	Liquid Level	Glen Bench 822-27G	2
Cemco	Liquid Level	Glen Bench 822-27H	2
Cemco	Liquid Level	Glen Bench 822-27I	2
Cemco	Liquid Level	Glen Bench 822-27J	2
Cemco	Liquid Level	Glen Bench 822-27K	2
Cemco	Liquid Level	Glen Bench 822-27L	2
Cemco	Liquid Level	Glen Bench 822-27N	2
Cemco	Liquid Level	Glen Bench 822-27P	2
Cemco	Liquid Level	Hall Etal 31-18	2
Cemco	Liquid Level	Kennedy Wash 03-01	2
Cemco	Liquid Level	Kennedy Wash 11-1	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	Kennedy Wash 13-1	2
Cemco	Liquid Level	lizzard 1122-21O	2
Cemco	Liquid Level	Lizzard Creek Fed. 1-10	2
Cemco	Liquid Level	Lookout Point 1-16	1
Cemco	Liquid Level	LOVE 1121-10G	2
Cemco	Liquid Level	LOVE 1121-11K	2
Cemco	Liquid Level	LOVE 1121-14F	2
Cemco	Liquid Level	LOVE 1121-16A	2
Cemco	Liquid Level	Love 1121-16D	2
Cemco	Liquid Level	LOVE 1121-2M	2
Cemco	Liquid Level	LOVE 1121-7H	2
Cemco	Liquid Level	LOVE 1121-7N	2
Cemco	Liquid Level	LOVE 1121-8H	2
Cemco	Liquid Level	LOVE 1121-8N	2
Cemco	Liquid Level	Love Unit 1-11	2
Cemco	Liquid Level	Love Unit 1-12	2
Cemco	Liquid Level	Love Unit 4-1	2
Cemco	Liquid Level	Love Unit A1-18	2
Cemco	Liquid Level	McCook 1-142	2
Cemco	Liquid Level	Morgan St. 01-36	2
Cemco	Liquid Level	Morgan St. 02-36	2
Cemco	Liquid Level	Morgan St. 03-36	2
Cemco	Liquid Level	Morgan St. 04-36	2
Cemco	Liquid Level	Morgan St. 05-36	2
Cemco	Liquid Level	Morgan St. 06-36	2
Cemco	Liquid Level	Morgan St. 07-36	2
Cemco	Liquid Level	Morgan St. 08-36	2
Cemco	Liquid Level	Morgan St. 09-36	2
Cemco	Liquid Level	Morgan St. 10-36	2
Cemco	Liquid Level	Morgan St. 11-36	2
Cemco	Liquid Level	Morgan St. 12-36	2
Cemco	Liquid Level	Morgan St. 13-36	2
Cemco	Liquid Level	Morgan St. 14-36	2
Cemco	Liquid Level	Morgan St. 15-36	2
Cemco	Liquid Level	Morgan St. 16-36	2
Cemco	Liquid Level	Mulligan 8-1	2
Cemco	Liquid Level	Mulligan 822-24G	2
Cemco	Liquid Level	Mulligan Fed 823-19P	2
Cemco	Liquid Level	NBU 004	2
Cemco	Liquid Level	NBU 006	2
Cemco	Liquid Level	NBU 012	2
Cemco	Liquid Level	NBU 015	2
Cemco	Liquid Level	NBU 020	2
Cemco	Liquid Level	NBU 023	2
Cemco	Liquid Level	NBU 024N2	2
Cemco	Liquid Level	NBU 026	2
Cemco	Liquid Level	NBU 031	2
Cemco	Liquid Level	NBU 032Y	2
Cemco	Liquid Level	NBU 035Y	2
Cemco	Liquid Level	NBU 036	2
Cemco	Liquid Level	NBU 037XP	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	NBU 038N2	2
Cemco	Liquid Level	NBU 039N	2
Cemco	Liquid Level	NBU 041J	2
Cemco	Liquid Level	NBU 042	2
Cemco	Liquid Level	NBU 045	2
Cemco	Liquid Level	NBU 046	2
Cemco	Liquid Level	NBU 048N3	2
Cemco	Liquid Level	NBU 049V	2
Cemco	Liquid Level	NBU 050N2	2
Cemco	Liquid Level	NBU 051J	2
Cemco	Liquid Level	NBU 052J	2
Cemco	Liquid Level	NBU 053	2
Cemco	Liquid Level	NBU 054	1
Cemco	Liquid Level	NBU 056N2	2
Cemco	Liquid Level	NBU 057	2
Cemco	Liquid Level	NBU 060	2
Cemco	Liquid Level	NBU 063N3	2
Cemco	Liquid Level	NBU 064N3	2
Cemco	Liquid Level	NBU 065N3	2
Cemco	Liquid Level	NBU 067A	2
Cemco	Liquid Level	NBU 068N2	2
Cemco	Liquid Level	NBU 069N2	2
Cemco	Liquid Level	NBU 072N3	2
Cemco	Liquid Level	NBU 074N3	2
Cemco	Liquid Level	NBU 078	2
Cemco	Liquid Level	NBU 080V	2
Cemco	Liquid Level	NBU 081V	2
Cemco	Liquid Level	NBU 083J	2
Cemco	Liquid Level	NBU 085J	2
Cemco	Liquid Level	NBU 086J	2
Cemco	Liquid Level	NBU 088V	2
Cemco	Liquid Level	NBU 093	2
Cemco	Liquid Level	NBU 097	2
Cemco	Liquid Level	NBU 099	2
Cemco	Liquid Level	NBU 101	2
Cemco	Liquid Level	NBU 102	2
Cemco	Liquid Level	NBU 1020-12E	2
Cemco	Liquid Level	NBU 1020-13E	2
Cemco	Liquid Level	NBU 1020-24F	2
Cemco	Liquid Level	NBU 1021-10H	2
Cemco	Liquid Level	NBU 1021-11C	2
Cemco	Liquid Level	NBU 1021-15I	2
Cemco	Liquid Level	NBU 1021-16G	2
Cemco	Liquid Level	NBU 1021-1M	2
Cemco	Liquid Level	NBU 1021-22F	2
Cemco	Liquid Level	NBU 1021-23O	2
Cemco	Liquid Level	NBU 1021-2O	2
Cemco	Liquid Level	NBU 1022-11F	2
Cemco	Liquid Level	NBU 1022-11X	2
Cemco	Liquid Level	NBU 1022-11J	2
Cemco	Liquid Level	NBU 1022-12P	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	NBU 1022-16A	2
Cemco	Liquid Level	NBU 1022-16B	2
Cemco	Liquid Level	NBU 1022-16C	2
Cemco	Liquid Level	NBU 1022-16D	2
Cemco	Liquid Level	NBU 1022-16E	2
Cemco	Liquid Level	NBU 1022-16M	2
Cemco	Liquid Level	NBU 1022-16O	2
Cemco	Liquid Level	NBU 1022-17I	2
Cemco	Liquid Level	NBU 1022-17K	2
Cemco	Liquid Level	NBU 1022-17M	2
Cemco	Liquid Level	NBU 1022-17O	2
Cemco	Liquid Level	NBU 1022-1A	2
Cemco	Liquid Level	NBU 1022-1B	2
Cemco	Liquid Level	NBU 1022-1F	2
Cemco	Liquid Level	NBU 1022-1G	2
Cemco	Liquid Level	NBU 1022-1H	2
Cemco	Liquid Level	NBU 1022-20C	2
Cemco	Liquid Level	NBU 1022-20E	2
Cemco	Liquid Level	NBU 1022-20I	2
Cemco	Liquid Level	NBU 1022-20K	2
Cemco	Liquid Level	NBU 1022-20M	2
Cemco	Liquid Level	NBU 1022-20O	2
Cemco	Liquid Level	NBU 1022-21C	2
Cemco	Liquid Level	NBU 1022-21I	2
Cemco	Liquid Level	NBU 1022-21N	2
Cemco	Liquid Level	NBU 1022-22F	2
Cemco	Liquid Level	NBU 1022-23F	2
Cemco	Liquid Level	NBU 1022-23K	2
Cemco	Liquid Level	NBU 1022-30A	2
Cemco	Liquid Level	NBU 1022-30D	2
Cemco	Liquid Level	NBU 1022-30E	2
Cemco	Liquid Level	NBU 1022-30H	2
Cemco	Liquid Level	NBU 1022-30K	2
Cemco	Liquid Level	NBU 1022-30L	2
Cemco	Liquid Level	NBU 1022-30O	2
Cemco	Liquid Level	NBU 1022-31B	2
Cemco	Liquid Level	NBU 1022-4B	2
Cemco	Liquid Level	NBU 1022-4K	2
Cemco	Liquid Level	NBU 1022-4M	2
Cemco	Liquid Level	NBU 1022-5C	2
Cemco	Liquid Level	NBU 1022-5G	2
Cemco	Liquid Level	NBU 1022-5K	2
Cemco	Liquid Level	NBU 1022-5N	2
Cemco	Liquid Level	NBU 1022-5P	2
Cemco	Liquid Level	NBU 1022-6A	2
Cemco	Liquid Level	NBU 1022-6I	2
Cemco	Liquid Level	NBU 1022-6M	2
Cemco	Liquid Level	NBU 1022-6O	2
Cemco	Liquid Level	NBU 1022-7C	2
Cemco	Liquid Level	NBU 1022-7D	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	NBU 1022-7E	2
Cemco	Liquid Level	NBU 1022-7F	2
Cemco	Liquid Level	NBU 1022-7G	2
Cemco	Liquid Level	NBU 1022-7P	2
Cemco	Liquid Level	NBU 1022-8A	2
Cemco	Liquid Level	NBU 1022-8E	2
Cemco	Liquid Level	NBU 1022-8K	2
Cemco	Liquid Level	NBU 1022-8L	2
Cemco	Liquid Level	NBU 1022-8M	2
Cemco	Liquid Level	NBU 1022-8N	2
Cemco	Liquid Level	NBU 1022-9C	2
Cemco	Liquid Level	NBU 1022-9E	2
Cemco	Liquid Level	NBU 1022-9M	2
Cemco	Liquid Level	NBU 1022-9O	2
Cemco	Liquid Level	NBU 103	2
Cemco	Liquid Level	NBU 104	2
Cemco	Liquid Level	NBU 105	2
Cemco	Liquid Level	NBU 106	2
Cemco	Liquid Level	NBU 107	2
Cemco	Liquid Level	NBU 108	2
Cemco	Liquid Level	NBU 109	2
Cemco	Liquid Level	NBU 110	2
Cemco	Liquid Level	NBU 111	2
Cemco	Liquid Level	NBU 112	2
Cemco	Liquid Level	NBU 113	2
Cemco	Liquid Level	NBU 115	2
Cemco	Liquid Level	NBU 116	2
Cemco	Liquid Level	NBU 117	2
Cemco	Liquid Level	NBU 118	2
Cemco	Liquid Level	NBU 119	2
Cemco	Liquid Level	NBU 120	2
Cemco	Liquid Level	NBU 121	2
Cemco	Liquid Level	NBU 122	2
Cemco	Liquid Level	NBU 123	2
Cemco	Liquid Level	NBU 124	2
Cemco	Liquid Level	NBU 125	2
Cemco	Liquid Level	NBU 126	2
Cemco	Liquid Level	NBU 127	2
Cemco	Liquid Level	NBU 128	2
Cemco	Liquid Level	NBU 129	2
Cemco	Liquid Level	NBU 130	2
Cemco	Liquid Level	NBU 131	2
Cemco	Liquid Level	NBU 132	2
Cemco	Liquid Level	NBU 133	2
Cemco	Liquid Level	NBU 134	2
Cemco	Liquid Level	NBU 136	2
Cemco	Liquid Level	NBU 137	2
Cemco	Liquid Level	NBU 138A	2
Cemco	Liquid Level	NBU 139	2
Cemco	Liquid Level	NBU 140	2
Cemco	Liquid Level	NBU 141	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	NBU 142	2
Cemco	Liquid Level	NBU 143	2
Cemco	Liquid Level	NBU 144	2
Cemco	Liquid Level	NBU 145	2
Cemco	Liquid Level	NBU 146	2
Cemco	Liquid Level	NBU 147	2
Cemco	Liquid Level	NBU 148	2
Cemco	Liquid Level	NBU 151	2
Cemco	Liquid Level	NBU 152	2
Cemco	Liquid Level	NBU 154	2
Cemco	Liquid Level	NBU 155	2
Cemco	Liquid Level	NBU 156	2
Cemco	Liquid Level	NBU 157	2
Cemco	Liquid Level	NBU 158	2
Cemco	Liquid Level	NBU 161	2
Cemco	Liquid Level	NBU 162	2
Cemco	Liquid Level	NBU 163	2
Cemco	Liquid Level	NBU 164	2
Cemco	Liquid Level	NBU 165	2
Cemco	Liquid Level	NBU 166	2
Cemco	Liquid Level	NBU 168	2
Cemco	Liquid Level	NBU 169	2
Cemco	Liquid Level	NBU 170	2
Cemco	Liquid Level	NBU 171	2
Cemco	Liquid Level	NBU 172	2
Cemco	Liquid Level	NBU 173	2
Cemco	Liquid Level	NBU 174	2
Cemco	Liquid Level	NBU 175	2
Cemco	Liquid Level	NBU 176	2
Cemco	Liquid Level	NBU 177	2
Cemco	Liquid Level	NBU 178	2
Cemco	Liquid Level	NBU 180	2
Cemco	Liquid Level	NBU 181	2
Cemco	Liquid Level	NBU 182	2
Cemco	Liquid Level	NBU 183	2
Cemco	Liquid Level	NBU 184	2
Cemco	Liquid Level	NBU 185	2
Cemco	Liquid Level	NBU 186	2
Cemco	Liquid Level	NBU 187	2
Cemco	Liquid Level	NBU 189	2
Cemco	Liquid Level	NBU 190	2
Cemco	Liquid Level	NBU 191	2
Cemco	Liquid Level	NBU 192	2
Cemco	Liquid Level	NBU 193	2
Cemco	Liquid Level	NBU 194	2
Cemco	Liquid Level	NBU 195	2
Cemco	Liquid Level	NBU 198	2
Cemco	Liquid Level	NBU 199	2
Cemco	Liquid Level	NBU 200	2
Cemco	Liquid Level	NBU 201	2
Cemco	Liquid Level	NBU 202	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	NBU 204	2
Cemco	Liquid Level	NBU 206	2
Cemco	Liquid Level	NBU 207	2
Cemco	Liquid Level	NBU 208	2
Cemco	Liquid Level	NBU 209	2
Cemco	Liquid Level	NBU 210	2
Cemco	Liquid Level	NBU 211	2
Cemco	Liquid Level	NBU 212	2
Cemco	Liquid Level	NBU 214	2
Cemco	Liquid Level	NBU 215	2
Cemco	Liquid Level	NBU 216	2
Cemco	Liquid Level	NBU 221X	2
Cemco	Liquid Level	NBU 222	2
Cemco	Liquid Level	NBU 223	2
Cemco	Liquid Level	NBU 224	2
Cemco	Liquid Level	NBU 228	2
Cemco	Liquid Level	NBU 229	2
Cemco	Liquid Level	NBU 230A	2
Cemco	Liquid Level	NBU 231	2
Cemco	Liquid Level	NBU 236	2
Cemco	Liquid Level	NBU 243	2
Cemco	Liquid Level	NBU 244	2
Cemco	Liquid Level	NBU 245	2
Cemco	Liquid Level	NBU 247	2
Cemco	Liquid Level	NBU 249	2
Cemco	Liquid Level	NBU 252	2
Cemco	Liquid Level	NBU 253	2
Cemco	Liquid Level	NBU 254	2
Cemco	Liquid Level	NBU 255	2
Cemco	Liquid Level	NBU 256	2
Cemco	Liquid Level	NBU 257	2
Cemco	Liquid Level	NBU 258	2
Cemco	Liquid Level	NBU 259	2
Cemco	Liquid Level	NBU 260	2
Cemco	Liquid Level	NBU 262	2
Cemco	Liquid Level	NBU 263	2
Cemco	Liquid Level	NBU 264	2
Cemco	Liquid Level	NBU 265	2
Cemco	Liquid Level	NBU 266	2
Cemco	Liquid Level	NBU 267	2
Cemco	Liquid Level	NBU 268	2
Cemco	Liquid Level	NBU 269	2
Cemco	Liquid Level	NBU 270 S.I.	2
Cemco	Liquid Level	NBU 271	2
Cemco	Liquid Level	NBU 272	1
Cemco	Liquid Level	NBU 273	2
Cemco	Liquid Level	NBU 274	2
Cemco	Liquid Level	NBU 275	2
Cemco	Liquid Level	NBU 277	2
Cemco	Liquid Level	NBU 280	2
Cemco	Liquid Level	NBU 281	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	NBU 282	2
Cemco	Liquid Level	NBU 285	2
Cemco	Liquid Level	NBU 286	2
Cemco	Liquid Level	NBU 287	2
Cemco	Liquid Level	NBU 288	2
Cemco	Liquid Level	NBU 289	2
Cemco	Liquid Level	NBU 290	2
Cemco	Liquid Level	NBU 291	2
Cemco	Liquid Level	NBU 292	2
Cemco	Liquid Level	NBU 293	2
Cemco	Liquid Level	NBU 294X	2
Cemco	Liquid Level	NBU 295	2
Cemco	Liquid Level	NBU 297	2
Cemco	Liquid Level	NBU 298	2
Cemco	Liquid Level	NBU 299	2
Cemco	Liquid Level	NBU 300	2
Cemco	Liquid Level	NBU 301	2
Cemco	Liquid Level	NBU 302	1
Cemco	Liquid Level	NBU 303	2
Cemco	Liquid Level	NBU 304	2
Cemco	Liquid Level	NBU 305	2
Cemco	Liquid Level	NBU 306	2
Cemco	Liquid Level	NBU 307	2
Cemco	Liquid Level	NBU 308	2
Cemco	Liquid Level	NBU 309	2
Cemco	Liquid Level	NBU 310	2
Cemco	Liquid Level	NBU 311	2
Cemco	Liquid Level	NBU 312-2E	2
Cemco	Liquid Level	NBU 313	2
Cemco	Liquid Level	NBU 315	2
Cemco	Liquid Level	NBU 316	2
Cemco	Liquid Level	NBU 318	2
Cemco	Liquid Level	NBU 321	2
Cemco	Liquid Level	NBU 322	2
Cemco	Liquid Level	NBU 326	2
Cemco	Liquid Level	NBU 327	1
Cemco	Liquid Level	NBU 329	1
Cemco	Liquid Level	NBU 330	2
Cemco	Liquid Level	NBU 333 SI	2
Cemco	Liquid Level	NBU 335	2
Cemco	Liquid Level	NBU 338	1
Cemco	Liquid Level	NBU 339	1
Cemco	Liquid Level	NBU 341	1
Cemco	Liquid Level	NBU 342	1
Cemco	Liquid Level	NBU 343	1
Cemco	Liquid Level	NBU 344	1
Cemco	Liquid Level	NBU 345	1
Cemco	Liquid Level	NBU 348	1
Cemco	Liquid Level	NBU 349	1
Cemco	Liquid Level	NBU 350	1
Cemco	Liquid Level	NBU 351	1

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	NBU 352	2
Cemco	Liquid Level	NBU 353	2
Cemco	Liquid Level	NBU 354	1
Cemco	Liquid Level	NBU 356	2
Cemco	Liquid Level	NBU 357	2
Cemco	Liquid Level	NBU 358	2
Cemco	Liquid Level	NBU 359	2
Cemco	Liquid Level	NBU 360	1
Cemco	Liquid Level	NBU 361	2
Cemco	Liquid Level	NBU 362	1
Cemco	Liquid Level	NBU 363X	2
Cemco	Liquid Level	NBU 364	2
Cemco	Liquid Level	NBU 365	1
Cemco	Liquid Level	NBU 367	1
Cemco	Liquid Level	NBU 370	2
Cemco	Liquid Level	NBU 371	2
Cemco	Liquid Level	NBU 375	2
Cemco	Liquid Level	NBU 376	2
Cemco	Liquid Level	NBU 378	2
Cemco	Liquid Level	NBU 381	1
Cemco	Liquid Level	NBU 384	2
Cemco	Liquid Level	NBU 390	1
Cemco	Liquid Level	NBU 391	2
Cemco	Liquid Level	NBU 392	2
Cemco	Liquid Level	NBU 394	2
Cemco	Liquid Level	NBU 395	1
Cemco	Liquid Level	NBU 396	1
Cemco	Liquid Level	NBU 398	2
Cemco	Liquid Level	NBU 404	1
Cemco	Liquid Level	NBU 405	2
Cemco	Liquid Level	NBU 406	2
Cemco	Liquid Level	NBU 407	1
Cemco	Liquid Level	NBU 408	2
Cemco	Liquid Level	NBU 412	1
Cemco	Liquid Level	NBU 413	1
Cemco	Liquid Level	NBU 414	2
Cemco	Liquid Level	NBU 418	2
Cemco	Liquid Level	NBU 419	2
Cemco	Liquid Level	NBU 420	2
Cemco	Liquid Level	NBU 421	2
Cemco	Liquid Level	NBU 422	1
Cemco	Liquid Level	NBU 423	1
Cemco	Liquid Level	NBU 424	1
Cemco	Liquid Level	NBU 425	1
Cemco	Liquid Level	NBU 426	1
Cemco	Liquid Level	NBU 427	1
Cemco	Liquid Level	NBU 428	2
Cemco	Liquid Level	NBU 434	2
Cemco	Liquid Level	NBU 435	2
Cemco	Liquid Level	NBU 436X	2
Cemco	Liquid Level	NBU 438	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	NBU 439	2
Cemco	Liquid Level	NBU 440	2
Cemco	Liquid Level	NBU 441	2
Cemco	Liquid Level	NBU 443	2
Cemco	Liquid Level	NBU 452	2
Cemco	Liquid Level	NBU 453	2
Cemco	Liquid Level	NBU 454	2
Cemco	Liquid Level	NBU 455	2
Cemco	Liquid Level	NBU 456	2
Cemco	Liquid Level	NBU 457	2
Cemco	Liquid Level	NBU 458	2
Cemco	Liquid Level	NBU 459	2
Cemco	Liquid Level	NBU 460	2
Cemco	Liquid Level	NBU 461	2
Cemco	Liquid Level	NBU 463	2
Cemco	Liquid Level	NBU 464	2
Cemco	Liquid Level	NBU 465	2
Cemco	Liquid Level	NBU 468	2
Cemco	Liquid Level	NBU 470	2
Cemco	Liquid Level	NBU 471	2
Cemco	Liquid Level	NBU 472	2
Cemco	Liquid Level	NBU 920-13C	2
Cemco	Liquid Level	NBU 920-22G	2
Cemco	Liquid Level	NBU 920-25D	2
Cemco	Liquid Level	NBU 921-12B	2
Cemco	Liquid Level	NBU 921-12C	2
Cemco	Liquid Level	NBU 921-12F	2
Cemco	Liquid Level	NBU 921-13A	2
Cemco	Liquid Level	NBU 921-13I	2
Cemco	Liquid Level	NBU 921-13M	2
Cemco	Liquid Level	NBU 921-13O	2
Cemco	Liquid Level	NBU 921-14I	2
Cemco	Liquid Level	NBU 921-14J	2
Cemco	Liquid Level	NBU 921-14M	2
Cemco	Liquid Level	NBU 921-14O	2
Cemco	Liquid Level	NBU 921-15N	2
Cemco	Liquid Level	NBU 921-15P	2
Cemco	Liquid Level	NBU 921-16A	2
Cemco	Liquid Level	NBU 921-17N	2
Cemco	Liquid Level	NBU 921-19G	2
Cemco	Liquid Level	NBU 921-19H	2
Cemco	Liquid Level	NBU 921-19I	2
Cemco	Liquid Level	NBU 921-20L	2
Cemco	Liquid Level	NBU 921-20N	2
Cemco	Liquid Level	NBU 921-20P	2
Cemco	Liquid Level	NBU 921-22A	2
Cemco	Liquid Level	NBU 921-22G	2
Cemco	Liquid Level	NBU 921-22L	2
Cemco	Liquid Level	NBU 921-23E	2
Cemco	Liquid Level	NBU 921-25D	2
Cemco	Liquid Level	NBU 921-27G	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	NBU 921-29K	2
Cemco	Liquid Level	NBU 921-29L	2
Cemco	Liquid Level	NBU 921-29M	2
Cemco	Liquid Level	NBU 921-29N	2
Cemco	Liquid Level	NBU 921-31A	2
Cemco	Liquid Level	NBU 921-31C	2
Cemco	Liquid Level	NBU 921-31D	2
Cemco	Liquid Level	NBU 921-33H	2
Cemco	Liquid Level	NBU 921-33I	2
Cemco	Liquid Level	NBU 921-34K	2
Cemco	Liquid Level	NBU 921-9G	2
Cemco	Liquid Level	NBU 921-9O	2
Cemco	Liquid Level	NBU 922-18K	2
Cemco	Liquid Level	NBU 922-18L	2
Cemco	Liquid Level	NBU 922-18N	2
Cemco	Liquid Level	NBU 922-18P	2
Cemco	Liquid Level	NBU 922-29M	2
Cemco	Liquid Level	NBU 922-30A	2
Cemco	Liquid Level	NBU 922-31I	2
Cemco	Liquid Level	NBU 922-33C	2
Cemco	Liquid Level	NBU 922-33D	2
Cemco	Liquid Level	NBU 922-33J	2
Cemco	Liquid Level	NBU 922-35K	2
Cemco	Liquid Level	NBU 922-36B	2
Cemco	Liquid Level	NBU 922-36C	2
Cemco	Liquid Level	NBU 922-36G	2
Cemco	Liquid Level	NBU 922-36H	2
Cemco	Liquid Level	NBU 922-36I	2
Cemco	Liquid Level	NBU 922-36N	2
Cemco	Liquid Level	NBU 922-36O	2
Cemco	Liquid Level	No Name Cyn. 1-9	1
Cemco	Liquid Level	No Name Cyn. 2-9	1
Cemco	Liquid Level	NSO Fed. 1-12	1
Cemco	Liquid Level	Ouray 1-101	2
Cemco	Liquid Level	Ouray 1-141	2
Cemco	Liquid Level	Ouray 33-90	2
Cemco	Liquid Level	Ouray 34-79	2
Cemco	Liquid Level	Ouray 35-174	2
Cemco	Liquid Level	Ouray 35-80	2
Cemco	Liquid Level	Ouray 35-94	2
Cemco	Liquid Level	Ouray 36-97	2
Cemco	Liquid Level	Shepherder 1-10	1
Cemco	Liquid Level	Southman Canyon 9-4J	1
Cemco	Liquid Level	Southman Cyn 923-31B	2
Cemco	Liquid Level	Southman Cyn 923-31H	2
Cemco	Liquid Level	Southman Cyn 923-31J	2
Cemco	Liquid Level	Southman Cyn 923-31P	2
Cemco	Liquid Level	Southman Cyn. 04-5	1
Cemco	Liquid Level	Southman Cyn. 31-1L	2
Cemco	Liquid Level	Southman Cyn. 31-2X	2
Cemco	Liquid Level	Southman Cyn. 31-3	2

High-Bleed Devices – Uinta Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	Southman Cyn. 31-4	2
Cemco	Liquid Level	State 02-32	2
Cemco	Liquid Level	State 03-32	2
Cemco	Liquid Level	State 1021-36A	2
Cemco	Liquid Level	State 1021-36B	2
Cemco	Liquid Level	State 1022-32A	2
Cemco	Liquid Level	State 1022-32H	2
Cemco	Liquid Level	State 1022-32I	2
Cemco	Liquid Level	State 1022-32J	2
Cemco	Liquid Level	State 1022-32M	2
Cemco	Liquid Level	State 1022-32O	2
Cemco	Liquid Level	State 1022-32P	2
Cemco	Liquid Level	STATE 1022-36E	2
Cemco	Liquid Level	State 11-36	2
Cemco	Liquid Level	State 35-52	2
Cemco	Liquid Level	State 920-36O	2
Cemco	Liquid Level	State 920-36P	2
Cemco	Liquid Level	State 921-32L	2
Cemco	Liquid Level	State 921-32P	2
Cemco	Liquid Level	Tribal 02-50	2
Cemco	Liquid Level	Tribal 31-60	2
Cemco	Liquid Level	Tribal 36-148	2
Cemco	Liquid Level	UTD Kidd 20-16	3
Cemco	Liquid Level	Ute Trail 83X	2
Cemco	Liquid Level	Ute Trail 88X	2
Cemco	Liquid Level	Ute Tribal 01-54	2
Cemco	Liquid Level	Ute Tribal 35-19	2
Cemco	Liquid Level	Ute Tribal 35-51	2
Cemco	Liquid Level	Ute Tribal 36-17	2
Cemco	Liquid Level	Ute Tribal 36-65	2
Cemco	Liquid Level	Watts 923-1E	2
Cemco	Liquid Level	Weeks 6-154	2
Cemco	Liquid Level	WKRP 823-34A	2
Cemco	Liquid Level	Wonsit St. 2-32	2
Cemco	Liquid Level	Wonsit St. 5-32	2
Cemco	Liquid Level	Wonsit St. 9-32	2
Cemco	Liquid Level	Cottonwood/West	2
Cemco	Liquid Level	Morgan States	3
Cemco	Liquid Level	East	3
Cemco	Liquid Level	East Bench	2
Cemco	Liquid Level	Archie Bench	1
Cemco	Liquid Level	South	5
Cemco	Liquid Level	South Central	3
Cemco	Liquid Level	North	3
Cemco	Liquid Level	North East	1
Cemco	Liquid Level	L-16	2
Cemco	Liquid Level	Bonanza Central	3
Cemco	Liquid Level	Bonanza East	2
Cemco	Liquid Level	Bonanza West	2
Cemco	Liquid Level	East Jr.	1

APPENDIX H

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation

**HIGH-BLEED PNEUMATIC CONTROLLERS IN THE D-J BASIN TO BE
RETROFITTED WITH LOW-BLEED PNEUMATIC CONTROLLERS**

Overview and Purpose

Kerr-McGee has agreed to retrofit certain high-bleed Pneumatic Controllers in the D-J Basin as part of the settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation* (hereafter the "Consent Decree"). As required in the Consent Decree at Section IV.E., Kerr-McGee will retrofit the following high-bleed Pneumatic Controllers in the D-J Basin with low-bleed Pneumatic Controllers:

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	VIOLA 16-36 - VIOLA 9-36A	1
Cemco	Liquid Level	AXELSON 24-19	1
Cemco	Liquid Level	SARCHET, M 3-35A - SARCHET, M 4-35A	1
Cemco	Liquid Level	BARCLAY 44-14	1
Cemco	Liquid Level	BEDDO 4-25X - BEDDO 5-25	1
Cemco	Liquid Level	BERNHARD 4-23A - STREAR 22-23	1
Cemco	Liquid Level	PRYMACK GU 1	1
Cemco	Liquid Level	BERRY 11-26A - BERRY 26-12L	1
Cemco	Liquid Level	MAGNESS 44-25	1
Cemco	Liquid Level	MAGNESS 43-25	1
Cemco	Liquid Level	CAMP 1-24 - CAMP 2-24 - CAMP 7-24	1
Cemco	Liquid Level	CAMP 13-19A - PLATTEVILLE 23-19A	1
Cemco	Liquid Level	GORDON FARMS 21-15 - SCHIS 5-15A	1
Cemco	Liquid Level	CAROL MILLER 3-31 - CAROL MILLER 5-31 - CAROL MILLER 6-31	1
Cemco	Liquid Level	CHARLENE 2-36 - CHARLENE 2-36A - NISHIMOTO 7-36	1
Cemco	Liquid Level	DAVIS, V. 5-26A - DAVIS, V. 6-26A	1
Cemco	Liquid Level	ABBETT 1-23A	1
Cemco	Liquid Level	ABBETT 7-23 - ABBETT 8-23A	1
Cemco	Liquid Level	ACCORD 16-30 - REYNOLDS 9-30	1
Cemco	Liquid Level	ACORD 11-29 - ACORD 14-29	1
Cemco	Liquid Level	WADDLE 24-5L	1
Cemco	Liquid Level	WADDLE 24-10J7	1
Cemco	Liquid Level	WADDELL 13-24A	1
Cemco	Liquid Level	ALMQUIST MB 34-1 - VAN THUYNE 42-34	1
Cemco	Liquid Level	STROMQUIST ARTHUR 2 - WESTERN 3-21A	1
Cemco	Liquid Level	STATE 16-13J7	1
Cemco	Liquid Level	STATE 16-12L - STATE 16-14L	1
Cemco	Liquid Level	SMITH 11-34 - SMITH 12-34	1
Cemco	Liquid Level	SERAFINI E MAX GU 1	1
Cemco	Liquid Level	B/R B 13-21A - B/R B 14-21	1
Cemco	Liquid Level	B/R B 3-21 - B/R B 4-21	1
Cemco	Liquid Level	B/R C 1-29 - B/R C 8-29	1
Cemco	Liquid Level	B/R D 7-20 - B/R D 8-20	1
Cemco	Liquid Level	SEKICH FARMS II UN 1	1
Cemco	Liquid Level	SEKICH FARMS 16-18	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	SEKICH FARMS 1-20A - SEKICH FARMS 2-20	1
Cemco	Liquid Level	SEKICH FARMS 10-18 - SEKICH FARMS 9-18	1
Cemco	Liquid Level	SEKICH A 16-17 - SEKICH A 9-17	1
Cemco	Liquid Level	SEKICH A 11-17A - SEKICH A 14-17	1
Cemco	Liquid Level	SEKICH A 10-17 - SEKICH A 15-17	1
Cemco	Liquid Level	SEKICH 4-19 - SEKICH 5-19	1
Wellmark	Liquid Level	BALDWIN ROBERT UT 2 - DODERO 6-4A	1
Cemco	Liquid Level	SARCHET 33-9L - SARCHET MILDRED UN 1	1
Cemco	Liquid Level	SALAZAR 6-20 - SALAZAR 6-20AX - SEKICH FARMS 3-20A	1
Cemco	Liquid Level	SALAZAR 5-20 - SEKICH FARMS 4-20	1
Cemco	Liquid Level	REYNOLDS 1-30XXA - REYNOLDS 8-30	1
Cemco	Liquid Level	REDMOND 12-21	1
Cemco	Liquid Level	RADEMACHER 2-30 - RADEMACHER 7-30X	1
Cemco	Liquid Level	RADEMACHER 12-30 - RADEMACHER 13-30	1
Cemco	Liquid Level	RADEMACHER 11-30A - RADEMACHER 14-30	1
Cemco	Liquid Level	PSC 14-13	1
Cemco	Liquid Level	PERCONTE 16-23 - PIZ 15-23A	1
Cemco	Liquid Level	NELSON MILTON H 11 - NELSON MILTON H K1 - NELSON MILTON H L1	1
Cemco	Liquid Level	MUHME 6-30A	1
Cemco	Liquid Level	MILLER 27-12L	1
Cemco	Liquid Level	MCHALE 7-5A	1
Cemco	Liquid Level	MCGREGOR 6-28 - SHERRY 5-28	1
Cemco	Liquid Level	MCEWEN 3-28A - NADER 4-28A	1
Cemco	Liquid Level	MCDANIELS 4-22 - WILLIAM MAYER 5-22A	1
Cemco	Liquid Level	MCCLAY 11-34A - MCCLAY 14-34A	1
Cemco	Liquid Level	MAYER 6-22A - WILLIAM MAYER 3-22A	1
Cemco	Liquid Level	MAYER 22-16L	1
Cemco	Liquid Level	MAYER 22-13L - WEBBER JOSEPH UT 1	1
Cemco	Liquid Level	MAYER 11-15 - MAYER 4-15	1
Cemco	Liquid Level	MAYER 10-23 - MAYER 9-23AX	1
Cemco	Liquid Level	LOWES 6-21A - WEIS 5-21A	1
Cemco	Liquid Level	KUECHLER 11-23 - LEMON 12-23A	1
Cemco	Liquid Level	BUTCH 3-19 - SEKICH 3-19A - SEKICH 6-19	1
Cemco	Liquid Level	KITELEY 5-27 - VALLEY 66 UNIT 2	1
Cemco	Liquid Level	HOUSTON B 5-16 - HOUSTON B 6-16	1
Cemco	Liquid Level	HOUSTON B 3-16A - HOUSTON B 4-16	1
Cemco	Liquid Level	HOPPER 10-15A - HOPPER 43-15A	1
Cemco	Liquid Level	HINDMAN 12-34 - MCCARTY MB 34-3	1
Cemco	Liquid Level	HEINTZELMAN 16-32 - HEINTZELMAN 9-32	1
Cemco	Liquid Level	HEINTZELMAN 1-32 - HEINTZELMAN 8-32A	1
Cemco	Liquid Level	GLEN 13-23A - RANDY 14-23	1
Cemco	Liquid Level	FIRESTONE 12-30	1
Cemco	Liquid Level	COADY 12-28A - NIX 13-28	1
Cemco	Liquid Level	COGBURN 2-29A - COGBURN 7-29	1
Cemco	Liquid Level	COGBURN 3-29 - COGBURN 6-29	1
Cemco	Liquid Level	COGBURN 4-29 - COGBURN 5-29	1
Cemco	Liquid Level	ELVERNA 11-28 - KURTZ AL GU 1 - NIX 14-28	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	DILLON 44-15 - EAST RINN 1	1
Cemco	Liquid Level	DEL CAMINO 11-14 - OLANDER 1-14	1
Cemco	Liquid Level	DACONO 11-36 - STATE 1	1
Cemco	Liquid Level	WISE 31-14	1
Cemco	Liquid Level	ALMQUIST 41-10	1
Cemco	Liquid Level	TWIN CORNERS 4-14	1
Cemco	Liquid Level	STONEHOCKER 31-7	1
Cemco	Liquid Level	SELTZER 23-3	1
Cemco	Liquid Level	SCHNEIDER FARM 33-33	1
Cemco	Liquid Level	BASELINE 21-2	1
Cemco	Liquid Level	MUSE 1 - SEATON 8-18	1
Cemco	Liquid Level	JASPER 23-14	1
Cemco	Liquid Level	CHAMPLIN 86 AMOCO G1 - CHAMPLIN 86 AMOCO K1 - CHAMPLIN 86 AMOCO L1 - CHAMPLIN 86 AMOCO O9 - KOCH KENNETH E A-1	1
Cemco	Liquid Level	CHRISTIANSEN 12-9	1
Cemco	Liquid Level	CLARK FRANCIS UT B 2 - HIGHUM FOUNDERS 1	1
Cemco	Liquid Level	UPRR 22 PA F TRUE 1	1
Cemco	Liquid Level	UPRC 9-6K	1
Cemco	Liquid Level	UPRC 31-14K - UPRC 31-16K	1
Cemco	Liquid Level	UPRC 29-14K - UPRR 42 PAN AM 1	1
Cemco	Liquid Level	UPRC 29-13K	1
Cemco	Liquid Level	UPRC 29-12K	1
Cemco	Liquid Level	UPRC 15-14K - UPRC 15-4K2	1
Cemco	Liquid Level	TOOMBS 14-28A	1
Cemco	Liquid Level	STEWART 3-28A	1
Cemco	Liquid Level	ANTENNA-FED 11-36 - FEDERAL 3-36	1
Cemco	Liquid Level	STATE - OLIN 3	1
Cemco	Liquid Level	SILVERS 9-33A - TRIMBLE 10-33A	1
Cemco	Liquid Level	ATHERTON 5-20A - BERNSTEIN 6-20A	1
Cemco	Liquid Level	AVINS 6-29	1
Wellmark	Liquid Level	BALDWIN 12-28A	1
Cemco	Liquid Level	BARCLAY 2-28 - TELISCHAK 8-28	1
Cemco	Liquid Level	SAMUELSEN 3-24	1
Cemco	Liquid Level	SAKATA RED W 6-8	1
Cemco	Liquid Level	ROZEMA 4-26A - RUSSELL 3-26A	1
Cemco	Liquid Level	RENSHAW 5-28A	1
Cemco	Liquid Level	PURYEAR 5-29X - SABS 4-29	1
Cemco	Liquid Level	BEIERLE 14-26 - CAMPBELL 12-26A	1
Cemco	Liquid Level	BLUFFS WHITE W 5-2 - BLUFFS WHITE W 5-8	1
Cemco	Liquid Level	MILLER UPRR 41-29	1
Cemco	Liquid Level	MILLER FEDERAL 15-6A	1
Cemco	Liquid Level	MILLER 6-33A	1
Cemco	Liquid Level	MADLINE MAYER 11-34 - MADLINE MAYER 12-34 - ZELDIN 14-34	1
Cemco	Liquid Level	BROTEMARKLE 6-24 - MORSE 6-24	1
Cemco	Liquid Level	LANDOR 10-22A - ROBERTS 15-22	1
Cemco	Liquid Level	KUGEL 31-23A	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	KARICH 2-32 - KARICH 2-32A	1
Cemco	Liquid Level	KARICH 1-32 - KARICH 7-32 - KARICH 8-32	1
Cemco	Liquid Level	JERRY D 11-28A - STEWART 3-28A	1
Cemco	Liquid Level	CANNON 10-35	1
Cemco	Liquid Level	HIGGINS 14-23A	1
Cemco	Liquid Level	HERMAN UPRR 31-31 1	1
Cemco	Liquid Level	CANNON 9-18A - CLC GU 2	1
Cemco	Liquid Level	HARTELL 16-22A	1
Cemco	Liquid Level	GLASSER 1-21A - PICCONE 2-21X	1
Cemco	Liquid Level	FEDERAL 16-36 - FEDERAL 9-36	1
Cemco	Liquid Level	FEDERAL 1-36 - FEDERAL 7-36 - FEDERAL 8-36	1
Cemco	Liquid Level	FEDERAL 11-36 - FEDERAL 14-36	1
Cemco	Liquid Level	FAUST 13-21A - POE 12-21A	1
Cemco	Liquid Level	ELTON MILLER 3-7A - MILLER ELTON GU B 2	1
Cemco	Liquid Level	DAVID SARCHET 16-28 - SARCHET 9-28A	1
Cemco	Liquid Level	SARCHET 2	1
Cemco	Liquid Level	SARCHET 1	1
Cemco	Liquid Level	CANNON LAND 6-3A - UPRR 38 PAN AM E 2	1
Cemco	Liquid Level	EICHTHALER 2	1
Cemco	Liquid Level	COOKSEY LYLE V 1	1
Cemco	Liquid Level	DOLPH UPRR 32-1 - DOLPH UPRR 42-1	1
Cemco	Liquid Level	WIEDEMAN 16-20 - WIEDEMAN 9-20	1
Cemco	Liquid Level	WIEDEMAN 14-20	1
Cemco	Liquid Level	WIEDEMAN 10-20 - WIEDEMAN 15-20	1
Cemco	Liquid Level	ACHZIGER 11-33	1
Cemco	Liquid Level	WEBSTER 11-32	1
Cemco	Liquid Level	WASS 3X - WASS 5	1
Cemco	Liquid Level	WASS 1	1
Cemco	Liquid Level	WARDLAW 33-28 - WEBSTER 9-28	1
Cemco	Liquid Level	VICTOR G 14-12 - VICTOR G 14-14	1
Cemco	Liquid Level	ALEXANDER 2-10 - MEAD 7-10	1
Cemco	Liquid Level	ALLEN 41-12	1
Cemco	Liquid Level	ALLES JOHN 1 - LOEFFLER 8-27	1
Cemco	Liquid Level	ALVA SHABLE 1-4	1
Cemco	Liquid Level	ALVA SHABLE 2-4	1
Cemco	Liquid Level	ANDERSON 3-3 - KNOX 4-3	1
Cemco	Liquid Level	TIMMERMAN 13-13 - WERTZ 14-13	1
Cemco	Liquid Level	SWINNEY 1-15 - SWINNEY 2	1
Cemco	Liquid Level	STRONG 6-31	1
Cemco	Liquid Level	ANDERSON-COOMBS 2	1
Cemco	Liquid Level	ANDERSON-COOMBS 4 - ANDERSON-COOMBS 5	1
Cemco	Liquid Level	STENZEL 1-31	1
Cemco	Liquid Level	STATE-ELK 1 - STATE-HUME 1	1
Cemco	Liquid Level	SPOMER 7-32	1
Cemco	Liquid Level	SPOMER 7-32	1
Cemco	Liquid Level	SPOMER 2-32	1
Cemco	Liquid Level	SPOMER 10-32 - SPOMER 9-32	1
Cemco	Liquid Level	SITZMAN 13-33	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	SEYLER 41-14	1
Cemco	Liquid Level	SEYLER 2-14	1
Cemco	Liquid Level	BACON 11-34	1
Cemco	Liquid Level	BACON 3	1
Cemco	Liquid Level	SANDUSKY 1	1
Cemco	Liquid Level	ROTHE 1-24 - ROTHE 8-24	1
Cemco	Liquid Level	ROADIFER 12-12B	1
Cemco	Liquid Level	REED 42-34	1
Cemco	Liquid Level	RAISLEY 44-27	1
Cemco	Liquid Level	RAISLEY 34-27	1
Cemco	Liquid Level	RAISLEY 21-34	1
Cemco	Liquid Level	BENSON 13-15	1
Cemco	Liquid Level	PINNACLE PARK 13-14	1
Cemco	Liquid Level	BERTLIN 1-10 - MENK 8-10	1
Cemco	Liquid Level	BETZ 1	1
Cemco	Liquid Level	BETZ 2	1
Cemco	Liquid Level	BIG FOOT 1-12	1
Cemco	Liquid Level	BIG FOOT 14-12	1
Cemco	Liquid Level	PEANUT 1	1
Cemco	Liquid Level	OSTER 24-15	1
Cemco	Liquid Level	NIES 16-15 - NIES 9-15	1
Cemco	Liquid Level	NIES 10-15 - NIES 15-15	1
Cemco	Liquid Level	BLISS 13-34	1
Cemco	Liquid Level	BLISS 14-3 - GLENDENNING 13-3	1
Cemco	Liquid Level	BLISS 15-33	1
Cemco	Liquid Level	NELSON 12-22 - NELSON 13-22	1
Cemco	Liquid Level	MOORE UPRC G 15-7 - MOORE UPRC G 15-8	1
Cemco	Liquid Level	MOORE UPRC C 19-2 - MOORE UPRC C 19-7	1
Cemco	Liquid Level	MILLER 16-29	1
Cemco	Liquid Level	MILLARD 9-29 - ONEIL 16-29	1
Cemco	Liquid Level	BOREN 2-32	1
Cemco	Liquid Level	BORESEN 1	1
Cemco	Liquid Level	MCDERMED 2-1	1
Cemco	Liquid Level	BOULTER FRANK A 1	1
Cemco	Liquid Level	MCALLISTER 32-12	1
Cemco	Liquid Level	BRANCH 1-3	1
Cemco	Liquid Level	BRANTNER 1 - BRANTNER 3	1
Cemco	Liquid Level	BRANTNER 2	1
Cemco	Liquid Level	LUNDVALL 1-13 - MOORE 10-13 - MOORE 9-13	1
Cemco	Liquid Level	LEY 7-19	1
Cemco	Liquid Level	LEONARD 12-15 - LEONARD 13-15	1
Cemco	Liquid Level	LEONARD 11-15 - LEONARD 14-15	1
Cemco	Liquid Level	LEHAN 1 - WCL 34-5	1
Cemco	Liquid Level	LASALLE 14-29	1
Cemco	Liquid Level	LANDOR 10-22A - ROBERTS 15-22 - VICTOR C 19-9	1
Cemco	Liquid Level	BUCKLEN 12-31	1
Cemco	Liquid Level	BUCKLEN 9-36	1
Cemco	Liquid Level	KRAMER 2-27	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	KOHLER 6-21 - KOHLER 7-21 - KOHLER 8-21	1
Cemco	Liquid Level	BUNTING 4-35 - BUNTING 5-35	1
Cemco	Liquid Level	KNOX 5-3 - KNOX 6-3	1
Cemco	Liquid Level	KNOX 15-3 - KNOX 16-3	1
Cemco	Liquid Level	KNOX 12-3 - KNOX 13-3	1
Cemco	Liquid Level	KNOX 11-3 - KNOX 14-3	1
Cemco	Liquid Level	KNOX 10-3 - KNOX 9-3	1
Cemco	Liquid Level	KINZER 5-23 - KINZER 6-23	1
Cemco	Liquid Level	KINZER 3-23 - KINZER 4-23	1
Cemco	Liquid Level	KEITH 1	1
Cemco	Liquid Level	KEATON 8-26	1
Cemco	Liquid Level	KARRE 9-15 - RICHARDSON BR UT B 1	1
Cemco	Liquid Level	JONES SETH UNIT 1	1
Cemco	Liquid Level	JERKE 1-15 - OSTER 13-15	1
Cemco	Liquid Level	ISHIGURO 6	1
Cemco	Liquid Level	ISHIGURO 3 - ISHIGURO 4	1
Cemco	Liquid Level	ISHIGURO 2	1
Cemco	Liquid Level	ISHIGURO 1	1
Cemco	Liquid Level	HUNTER 1	1
Cemco	Liquid Level	HOSHIKO 7-2	1
Cemco	Liquid Level	HOSHIKO 3-33	1
Cemco	Liquid Level	HOP ANDREW UNIT 1	1
Cemco	Liquid Level	HOECHER 2	1
Cemco	Liquid Level	HOECHER 1 - WILKINSON 1	1
Cemco	Liquid Level	HERBSTER 3-35	1
Cemco	Liquid Level	HEPPBERGER 11-24	1
Cemco	Liquid Level	GUY SHABLE INC 4-4 - GUY SHABLE INC. 1-4	1
Cemco	Liquid Level	GEISERT 7-11	1
Cemco	Liquid Level	GARCIA UPRR 31-5	1
Cemco	Liquid Level	FREEDOM TWO C 19-3 - FREEDOM TWO C 19-4	1
Cemco	Liquid Level	FREEDOM ONE C 19-5 - FREEDOM TWO C 19-6	1
Cemco	Liquid Level	FRANCEN 11-30	1
Cemco	Liquid Level	FOE 43-20	1
Cemco	Liquid Level	FOE 16-20	1
Cemco	Liquid Level	FLATIRON 10-36	1
Cemco	Liquid Level	FLACK 7-19	1
Wellmark	Liquid Level	FIOLKOSKI 2-26 - FIOLKOSKI 24-26	1
Cemco	Liquid Level	CHITTENDEN 2-32	1
Cemco	Liquid Level	CHRISTENSEN 15-18 - CHRISTENSEN 16-18	1
Cemco	Liquid Level	CHRISTENSEN 2-19	1
Cemco	Liquid Level	CITY OF GREELEY 2-30	1
Cemco	Liquid Level	FAIRMEADOWS 12-3	1
Cemco	Liquid Level	CLEMONS 2-3	1
Cemco	Liquid Level	ELLA 1	1
Cemco	Liquid Level	DOS RIOS J 33-10	1
Cemco	Liquid Level	DOS RIOS 41-34	1
Cemco	Liquid Level	DOS RIOS 14-34	1
Cemco	Liquid Level	CROISSANT 1 - CROISSANT 11-20	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	CROISSANT 2	1
Cemco	Liquid Level	DAVIS 7-4	1
Cemco	Liquid Level	WEISS 1-34	1
Cemco	Liquid Level	SWANK 41-11 - SWANK 42-11	1
Cemco	Liquid Level	SPAUR 7-7X - SPAUR O 7-8	1
Cemco	Liquid Level	SPAUR 1-7 - SPAUR 2-7	1
Cemco	Liquid Level	SHULTZ STATE 16-1 - SHULTZ STATE 16-8	1
Cemco	Liquid Level	SELBY 2-32 - SELBY 7-32 - SELBY 8-32	1
Cemco	Liquid Level	SELBY 1-32 - SELBY POOLING UNIT 1	1
Cemco	Liquid Level	SEEWALD 11-31	1
Cemco	Liquid Level	SCOTTDALE RANCH13-35 - SCOTTDALE RANCH14-35	1
Cemco	Liquid Level	SCOTTDALE RANCH 7-2 - SCOTTDALE RANCH 8-2	1
Cemco	Liquid Level	SCHNEIDER 12-35 - SCHNEIDER 4-35	1
Cemco	Liquid Level	BALLINGER 4-18	1
Cemco	Liquid Level	SCHLAGEL 13-4 - SCHLAGEL 14-4 - SCHLAGEL 23-4	1
Cemco	Liquid Level	SCHELL 12-5 - SCHELL 13-5	1
Cemco	Liquid Level	SCHELL 11-5 - SCHELL 14-5	1
Cemco	Liquid Level	SANDBERG 2-6 - SANDBERG 7-6	1
Cemco	Liquid Level	BASSETT 5-18 - PFISTER 3-18 - ROTH 6-18	1
Cemco	Liquid Level	PSC 44-10	1
Cemco	Liquid Level	PSC 41-3 - PSC 9-3	1
Cemco	Liquid Level	PSC 34-34	1
Cemco	Liquid Level	PSC 33-11 - PSC 43-11A	1
Cemco	Liquid Level	PSC 32-9	1
Cemco	Liquid Level	PSC 32-10	1
Cemco	Liquid Level	PSC 23-11A	1
Cemco	Liquid Level	BEIN 1	1
Cemco	Liquid Level	PSC 22-11 - PSC 32-11A	1
Cemco	Liquid Level	PSC 21-11A	1
Cemco	Liquid Level	PSC 2-11 - SWANK N L 1	1
Cemco	Liquid Level	PSC 16-9X - PSC 43-9A	1
Cemco	Liquid Level	PSC 16-34 - PSC 43-34	1
Cemco	Liquid Level	PSC 14-9 - PSC 23-9A	1
Cemco	Liquid Level	PSC 12-9 - PSC 22-9	1
Cemco	Liquid Level	PSC 12-2	1
Cemco	Liquid Level	BERNHARDT 1-1 - HULL 1-1	1
Cemco	Liquid Level	BERNHARDT 3-36 - VETTER 12-36 - VETTER 13-36	1
Cemco	Liquid Level	PODTBURG S 2	1
Cemco	Liquid Level	BERNIE 4-17 - JACKIE 3-17A	1
Cemco	Liquid Level	PESCO 4-11 - PESCO 5-11	1
Cemco	Liquid Level	PESCO 13-2A	1
Cemco	Liquid Level	BERRY 2-8 - BERRY 7-8	1
Cemco	Liquid Level	BERRY 41-8	1
Cemco	Liquid Level	PALMER 12-8 - PALMER 13-8	1
Cemco	Liquid Level	PALMER 11-8 - PALMER 14-8	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	MST 11-3	1
Cemco	Liquid Level	BOOTH 13-26	1
Cemco	Liquid Level	BOOTH 33-26	1
Cemco	Liquid Level	MCLAUGHLIN 34-8	1
Cemco	Liquid Level	LIZ 5-17 - SEKICH A 6-17	1
Cemco	Liquid Level	LEBERMAN 16-1 - ODENBAUGH 15-1A	1
Cemco	Liquid Level	KOESTER 14-33 - KOESTER 23-33 - KOESTER 24-33	1
Cemco	Liquid Level	CAMENISCH 33-33 - CAMENISCH 43-33	1
Cemco	Liquid Level	KAMMERZELL 15-25 - KAMMERZELL 16-25	1
Cemco	Liquid Level	JOHNSON 1-34 - JOHNSON 3-34 - WEISS 13-34	1
Cemco	Liquid Level	JOHNNY B. GOOD 15-6 - TANIDA 10-6	1
Cemco	Liquid Level	JACKSON 43-8A - MCLAUGHLIN 16-8	1
Cemco	Liquid Level	HUFFMAN 9-2A	1
Cemco	Liquid Level	HART - MEMCO 1-22	1
Cemco	Liquid Level	HALVERSON 1	1
Cemco	Liquid Level	GREENHEAD 32-18	1
Cemco	Liquid Level	GREENHEAD 11-18 - GREENHEAD 14-18	1
Cemco	Liquid Level	GRAY STATE 16-6	1
Cemco	Liquid Level	GOLDSMITH 11-31 - JENKINS 14-31	1
Cemco	Liquid Level	FT ST VRAIN 7 - MCDONALD 5-3A	1
Cemco	Liquid Level	FT ST VRAIN 4	1
Cemco	Liquid Level	FT ST VRAIN 29 - FT ST VRAIN 6	1
Cemco	Liquid Level	FT ST VRAIN 23 - PSC 14-3A	1
Cemco	Liquid Level	FT ST VRAIN 21 - FT ST VRAIN 25	1
Cemco	Liquid Level	FT ST VRAIN 2 - PSC 34-9	1
Cemco	Liquid Level	FT ST VRAIN 18	1
Cemco	Liquid Level	FT ST VRAIN 14	1
Cemco	Liquid Level	FT ST VRAIN 12	1
Cemco	Liquid Level	FT ST VRAIN 1 - FT ST VRAIN 26	1
Cemco	Liquid Level	FREAUFF 33-4A - FREAUFF 34-4	1
Cemco	Liquid Level	FREAUFF 1 - FREAUFF 43-4	1
Cemco	Liquid Level	FRANK 6-14 - KNAUB-BETZ 2-14	1
Cemco	Liquid Level	FELDMAN 1-36 - GRAHAM 2-36	1
Cemco	Liquid Level	CLACK 1-2A - OLSON 2-2	1
Cemco	Liquid Level	ELLIOT FARMS 2-18A - ELLIOT FARMS 7-18	1
Cemco	Liquid Level	CONNIE 1-18 - MARGARET 8-18	1
Cemco	Liquid Level	EHRlich 3-18 - EHRlich 6-18	1
Cemco	Liquid Level	DUNKLEE 3 - MICHALL 4-13	1
Cemco	Liquid Level	DORSA 3-1 - WALTER 6-1A	1
Cemco	Liquid Level	DERDIVANIS 3-2 - HEIMARK 6-2	1
Cemco	Liquid Level	WETCO FARM UPRR 43-3	1
Cemco	Liquid Level	WERTZ 24-12	1
Cemco	Liquid Level	WEBBER UPRR 31-3	1
Cemco	Liquid Level	WEBBER 11-4	1
Cemco	Liquid Level	UPRR 21 PAN AM K 1	1
Wellmark	Liquid Level	UNI - UPRC 15-3	1
Cemco	Liquid Level	TUTTLE 5-8A - TUTTLE 6-8	1
Cemco	Liquid Level	TUTTLE 4-8	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	TUTTLE 31-7 J - TUTTLE 32-7	1
Cemco	Liquid Level	TUTTLE 15-7	1
Cemco	Liquid Level	ANDERSON 8-9 - DILL 42-9R 1	1
Cemco	Liquid Level	THOMPSON 44-6A	1
Cemco	Liquid Level	THOMPSON 33-6A - THOMPSON 43-6	1
Cemco	Liquid Level	STROMBERGER 32-12	1
Cemco	Liquid Level	STROMBERGER 31-12	1
Cemco	Liquid Level	STROMBERGER 21-12	1
Cemco	Liquid Level	STREED 10-13 - STREED 15-13A	1
Cemco	Liquid Level	API 31-15 - API 41-15	1
Wellmark	Liquid Level	API 32-15 - API 42-15	1
Cemco	Liquid Level	STANLEY ODENB 12-12	1
Cemco	Liquid Level	SARATOGA 1	1
Cemco	Liquid Level	SALAMANCA FRANK GU 1	1
Cemco	Liquid Level	BECKER 1 - SANDAU 24-34	1
Cemco	Liquid Level	BELL 12-5 - CREASON 11-5	1
Cemco	Liquid Level	PRESLEY 10-6K - WEBBER EDITH 2	1
Cemco	Liquid Level	PRESLEY 10-3K	1
Cemco	Liquid Level	PHELPS 8-18	1
Wellmark	Liquid Level	PEPPLER 2-36 - PEPPLER 3-36	1
Cemco	Liquid Level	PEPPLER 16-35 - PEPPLER 9-35	1
Wellmark	Liquid Level	PEPPLER 1-36	1
Cemco	Liquid Level	BLAKE 13-12 - BLAKE 23-12	1
Cemco	Liquid Level	ODENBAUGH CULL UT 1 - STANLEY ODENB 13-12	1
Wellmark	Liquid Level	NOFFSINGER 44-15	1
Cemco	Liquid Level	NOFFSINGER 13-14 - NOFFSINGER 23-14	1
Wellmark	Liquid Level	MONFORT 5-10 - MONFORT 6-10	1
Cemco	Liquid Level	MILLER ESTATE 8-14K	1
Cemco	Liquid Level	MILE HIGH 13-3	1
Cemco	Liquid Level	MCGLOTHLIN 24-6	1
Cemco	Liquid Level	BOULTER FED 12-18 - BOULTER FED 14-18	1
Cemco	Liquid Level	MCCLELLAN 44-20	1
Cemco	Liquid Level	MCCLELLAN 33-20	1
Cemco	Liquid Level	MCCARTHY 11-12	1
Cemco	Liquid Level	M J FARMS 14-7	1
Cemco	Liquid Level	LORENZ UPRR 41-27 3 - LORENZ UPRR 42-27 1	1
Cemco	Liquid Level	LORENZ CHRIS A 1	1
Cemco	Liquid Level	LORENZ CHRIS 1	1
Cemco	Liquid Level	BROWN 44-24	1
Cemco	Liquid Level	CALLOW JAMES E GU 1	1
Cemco	Liquid Level	KEISER 13-28	1
Cemco	Liquid Level	KAWATA 2-16	1
Cemco	Liquid Level	JOHNSON GU 1	1
Cemco	Liquid Level	JOHNSON 6-30	1
Cemco	Liquid Level	HILDENBRANDT POOL 1	1
Cemco	Liquid Level	HALE 2-13 - TOOMEY 7-13	1
Cemco	Liquid Level	GUTFELDER AMOC 24-19	1
Cemco	Liquid Level	GUTFELDER 3-30 - GUTFELDER 4-30	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	GUNZNER 11-13A - GUNZNER 14-13	1
Wellmark	Liquid Level	CARNEY 31-4 1	1
Cemco	Liquid Level	CHADIMA 4-14 - CHRISTY 3-14	1
Cemco	Liquid Level	FAGERBERG 32-14 1	1
Wellmark	Liquid Level	EWING 41-14	1
Cemco	Liquid Level	EWING 33-15 - EWING 34-15	1
Wellmark	Liquid Level	EWING 33-10 - MEYERS 34-10	1
Wellmark	Liquid Level	EWING 31-14	1
Wellmark	Liquid Level	EWING 21-14 - FAGERBERG 22-14	1
Cemco	Liquid Level	CLEMENT 34-11 - CLEMENT 44-11	1
Cemco	Liquid Level	EWING 11-14 - FAGERBERG 12-14	1
Cemco	Liquid Level	DOS RIOS 43-34 - RUMSEY 16-34	1
Cemco	Liquid Level	DINNER K 13-2 - DINNER UP 1-13	1
Cemco	Liquid Level	DINNER 42-14 1	1
Cemco	Liquid Level	DINNER 13-18A - DINNER 14-18	1
Cemco	Liquid Level	CULLEN ODENB 11-12A - CULLEN ODENB 14-12	1
Cemco	Liquid Level	WARDELL 11-18	1
Cemco	Liquid Level	VICTOR C 29-16 - VICTOR C 29-9	1
Cemco	Liquid Level	VICTOR C 29-12	1
Cemco	Liquid Level	VICTOR C 29-11 - VICTOR C 29-14	1
Cemco	Liquid Level	UPRC 31-16G	1
Cemco	Liquid Level	ANDERSON 12-27 - BOHLENDER 1-27	1
Cemco	Liquid Level	TUTTLE 31-7 J - PALLETTE 10-9	1
Cemco	Liquid Level	ANDERSON 41-27 - BOHLENDER 2-27	1
Cemco	Liquid Level	STROMBERGER 44-12	1
Cemco	Liquid Level	RURAL LAND 32-31 2	1
Cemco	Liquid Level	RUPERT G 25-5	1
Cemco	Liquid Level	RAFALOVICH 14-5 - REAM 15-5A	1
Cemco	Liquid Level	BEEBE DRAW 14-10 - OVIATT 11-10	1
Cemco	Liquid Level	BEEBE DRAW 3-15 - BEEBE DRAW 4-15	1
Cemco	Liquid Level	BEEBE DRAW 41-15 2 - BEEBEDRW CATL32-15 1	1
Cemco	Liquid Level	BEEBE DRAW UPRR 41-5	1
Cemco	Liquid Level	BEEBE DRAW UPRR 41-9	1
Cemco	Liquid Level	PERRY 15-9A - RICHARDS 16-9A	1
Cemco	Liquid Level	OSTER 13-22	1
Cemco	Liquid Level	OGG 5-28 - PEARSON 1	1
Cemco	Liquid Level	OGG 21-28 - OGG 22-28	1
Cemco	Liquid Level	OGG 11-28	1
Cemco	Liquid Level	NICHOLS 15-32	1
Cemco	Liquid Level	MORTON 9-9A - PALLETTE 10-9	1
Cemco	Liquid Level	LUHMAN UPRR 42-13 4	1
Cemco	Liquid Level	LUHMAN UPRR 41-13A - UPRR 22 PAN AM H 1	1
Cemco	Liquid Level	BROSNAHAN 13-30	1
Cemco	Liquid Level	KRAUSE 1-28	1
Cemco	Liquid Level	KNAUB 22-27 - OSTER 21-27	1
Cemco	Liquid Level	KINSMAN 23-18 - KINSMAN 33-18 - KINSMAN 34-18	1
Cemco	Liquid Level	KINSMAN 22-18	1
Cemco	Liquid Level	HENNINGTON C 32-7	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	HENNINGTON C 32-10	1
Cemco	Liquid Level	HEADLEY 9-33	1
Cemco	Liquid Level	GUN CLUB UPRR 31-3 2	1
Cemco	Liquid Level	GUN CLUB 16-34 - GUN CLUB 9-34	1
Cemco	Liquid Level	CARNEY 15-34 - KEMPER 10-34	1
Cemco	Liquid Level	CASSEDAY 42-12 1	1
Cemco	Liquid Level	FRICO 10-10 - FRICO 15-10	1
Cemco	Liquid Level	CRAVEN 33-22 - MOSIER 1	1
Cemco	Liquid Level	DANE 9-10 - FRICO 16-10	1
Cemco	Liquid Level	DAN 11-22 - WHITNEY 1-22	1
Cemco	Liquid Level	WEEKS 10-17 - WEEKS 9-17	1
Cemco	Liquid Level	WASTE SERVICES 4-34 - WASTE SERVICES 5-34	1
Cemco	Liquid Level	WASTE SERVICES 16-26 - WASTE SERVICES 9-26	1
Cemco	Liquid Level	WASTE SERVICES 10-26 - WASTE SERVICES 15-26	1
Cemco	Liquid Level	ALBERSTEIN 16-23 - ASHLEY 15-23A	1
Cemco	Liquid Level	UPRR 22 PAN AM U 2	1
Cemco	Liquid Level	ALVIN DECHANT 12-8 - ALVIN DECHANT 13-8	1
Cemco	Liquid Level	UPRC 29-4J - UPRC 29-5J	1
Cemco	Liquid Level	TIM GITTLEIN 4-9 - TIM GITTLEIN 5-9	1
Cemco	Liquid Level	SHELTON 42-2 - SHELTON 7-2	1
Cemco	Liquid Level	ATKINSON 6-31 - SANTIAGO 5-31	1
Cemco	Liquid Level	SHELTON 17-2 - SHELTON 31-2	1
Cemco	Liquid Level	AUGUST 15-29 - AUGUST 16-29	1
Cemco	Liquid Level	SARCHET 2-24 - TRAURIG 1-24	1
Cemco	Liquid Level	RITCHEY 1-27 1	1
Cemco	Liquid Level	BENIRSCHKE 10-23 - GRASSHOPPER 9-23	1
Cemco	Liquid Level	PETERSON 12-29 - RAININ 13-29	1
Cemco	Liquid Level	PANTALEO 10-29A	1
Cemco	Liquid Level	MORALES 7-19 - OSBORNE 8-19A	1
Cemco	Liquid Level	MOORE UPRC H 28-12 - MOORE UPRC H 28-13	1
Cemco	Liquid Level	BOST 12-11 - LIBBY 11-11	1
Cemco	Liquid Level	MASCHMEYER 15-30 - MULBERG 16-30	1
Cemco	Liquid Level	LDS B 5-17 - LDS B 6-17	1
Cemco	Liquid Level	LDS A 4-8 - LDS A 5-8	1
Cemco	Liquid Level	LDS A 3-8 - LDS A 6-8	1
Cemco	Liquid Level	LDS A 16-8 - LDS A 9-8	1
Cemco	Liquid Level	LDS A 11-8 - LDS A 14-8	1
Cemco	Liquid Level	LDS A 10-8 - LDS A 15-8	1
Cemco	Liquid Level	BRUTSCHY 4-24 - HOFFMAN 3-24	1
Cemco	Liquid Level	CALIENTE 16-11 - GULICK 15-11	1
Cemco	Liquid Level	KATE 13-11 - NICHOLAS 14-11	1
Cemco	Liquid Level	JEPSEN 23-2	1
Cemco	Liquid Level	JEPSEN 22-2	1
Cemco	Liquid Level	JEPSEN 2	1
Cemco	Liquid Level	JEPSEN 11-2 - JEPSEN 21-2	1
Cemco	Liquid Level	IAN 13-20 - WARDELL JJ B 1	1
Cemco	Liquid Level	HOUSE 3-20 - HOUSE 6-20	1

High-Bleed Devices – D-J Basin			
Style	Service	Location / Facility Name	Number of Devices
Cemco	Liquid Level	CANNON 3-28 1	1
Cemco	Liquid Level	HARTMAN 4-1 - KOSKELA 5-1 - LAURICE 6-1	1
Cemco	Liquid Level	GUTTERSEN-STATE 4-14 - GUTTERSEN-STATE 5-14	1
Cemco	Liquid Level	GUTTERSENSTATE 15-28	1
Cemco	Liquid Level	GUTTERSENSTATE 10-28	1
Cemco	Liquid Level	GUTTERSEN B 4-21 - GUTTERSEN B 5-21	1
Cemco	Liquid Level	GUTTERSEN B 3-21 - GUTTERSEN B 6-21	1
Cemco	Liquid Level	GUTTERSEN A 16-3 - GUTTERSEN A 9-3	1
Cemco	Liquid Level	GUTTERSEN A 10-3 - GUTTERSEN A 15-3	1
Cemco	Liquid Level	GUTTERSEN 3-4 - GUTTERSEN 5-4 - MELVIN Y 4-4	1
Cemco	Liquid Level	GUTTERSEN 3-33 - GUTTERSEN 6-33	1
Cemco	Liquid Level	GUTTERSEN 3-15 - GUTTERSEN 6-15 - MILLS UPRC D 15-4	1
Cemco	Liquid Level	GUTTERSEN 15-1 - GUTTERSEN 16-1	1
Cemco	Liquid Level	GUTTERSEN 1-4 - GUTTERSEN 2-4 - GUTTERSEN 7-4	1
Cemco	Liquid Level	GUTTERSEN 12-33 - GUTTERSEN 13-33	1
Cemco	Liquid Level	GUTTERSEN 11-33 - GUTTERSEN 14-33	1
Cemco	Liquid Level	GUTTERSEN 11-1 - GUTTERSEN 12-1	1
Cemco	Liquid Level	GREGORY 10-30X - PARAS 9-30 - WESTERN 16-30	1
Cemco	Liquid Level	GITTLEIN, L 3-3 - GITTLEIN, L 6-3	1
Cemco	Liquid Level	GITTLEIN, D 4-3 - GITTLEIN, D 5-3	1
Cemco	Liquid Level	CASTLEMAN 2-31 - TOO DEVINE 1-31	1
Cemco	Liquid Level	FRICO 1-22 - FRICO 8-22	1
Cemco	Liquid Level	FRANK UPRR 43-21 4	1
Cemco	Liquid Level	FRANK UPRR 41-21	1
Cemco	Liquid Level	FRANK UPRR 31-21 1	1
Cemco	Liquid Level	FOSTER 4-35 - FOSTER 5-35	1
Cemco	Liquid Level	COHN 3-25 - CROWE 6-25 - UPRR 53 PAN AM T 2	1
Cemco	Liquid Level	EGGLER 11-29 - EGGLER 14-29	1
Cemco	Liquid Level	EACHUS 4-23 - EACHUS 5-23	1
Cemco	Liquid Level	EACHUS 3-23 - FRUMAN 6-23	1
Cemco	Liquid Level	DUNCAN D 11-7	1
Cemco	Liquid Level	DUNCAN D 11-11 - DUNCAN D 11-6	1
Cemco	Liquid Level	DEMEULES 9-22 - DODGE 10-22	1
Cemco	Liquid Level	DECHANT STATE 7-36 - DECHANT STATE 8-36	1
Cemco	Liquid Level	DECHANT STATE 1-36 - DECHANT STATE 2-36	1
Cemco	Liquid Level	DECHANT FARMS 10-36 - DECHANT FARMS 9-36	1
Cemco	Liquid Level	DECHANT 4-25 - DECHANT 5-25	1
Cemco	Liquid Level	CULLEN 10-11 - PORTER 9-11	1
Cemco	Liquid Level	DALBEY D 25-5	1
Cemco	Liquid Level	DALBEY D 14-3 - DALBEY D 14-6	1
Cemco	Liquid Level	DALBEY D 14-2	1

APPENDIX I

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation,

**KERR-MCGEE MANAGEMENT DIRECTIVE REGARDING LOW-BLEED
PNEUMATIC CONTROLLERS IN NEW CONSTRUCTION**



JAMES J. KLECKNER
VICE PRESIDENT

Kerr-McGee Oil & Gas Onshore LP
1999 BROADWAY, SUITE 3700
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February 15, 2007

Pat Wienke
Supply Chain Supervisor
1999 Broadway, Suite 3700
Denver, CO 80202

Re: *Management Directive Regarding the Purchase of Pneumatic Controllers at All Newly Constructed Facilities in the DJ and Uinta Basins*

Dear Pat:

From this date forward, it will be the policy of Kerr-McGee Oil & Gas Onshore LP, a wholly-owned subsidiary of Anadarko Petroleum Corporation, to use low-bleed pneumatic controllers to reduce emissions of natural gas at all newly constructed facilities in the DJ and Uinta Basins, to the extent practical where instrument air is not available.

If anyone believes that it will not be practical to use low-bleed pneumatic controllers in any new construction, approval must be obtained from the Environmental, Health and Safety group before proceeding in a matter contrary to this Management Directive.

Very truly yours,

Jim Kleckner
Vice President

cc: Alan Williams, APC EH&S Rockies
Don Anderson, APC EH&S Midstream
Richard Waters, APC Legal
David Howell, APC DJ
Scott Hagemann, APC Uinta
Rick Jones, APC, Mgr. Supply Chain
Dave Keanini, APC Midstream Engineering
Rex Specht, APC Midstream Operations
Phillip Schlagel, APC EH&S Rockies

APPENDIX J

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation,

**EMISSION CALCULATION METHODOLOGY FOR THE FORT LUPTON
FACILITY**

Overview and Purpose

Kerr-McGee has agreed to comply with a consolidated annual VOC emission limit for equipment leaks from components at the Fort Lupton Facility as part of the settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation* (hereafter the "Consent Decree"). As required in the Consent Decree at Section IV.D., Kerr-McGee will calculate VOC emissions using the following calculation:

No. of Components x EF (lbs/component-hr) x 8760 hrs/yr x weight % VOC in gas stream x (1-control effectiveness). Total Fugitive VOC emissions will be the sum of emissions for each type of component.

Emission Factors

Appropriate Emission Factors for individual types of components in lbs/component-hr (from Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017, Table 2-4). Gas service factors listed below:

Connectors = 0.00044

Flanges = 0.000858

Open-ended Line = 0.0044

*Other = 0.01936

Pump = 0.00528

Valve = 0.0099

* This "other" equipment type should be applied for any equipment type other than connectors, flanges, open-ended lines, pumps or valves.

Control Effectiveness

The source is allowed to use the following control efficiencies (for only the equipment type and service referenced) so long as the source is complying with the LDAR requirements of 40 CFR Part 60, Subpart KKK (EPA-453/R-95-017, Table 5-3):

Equipment Type and Service	Control Effectiveness (%)
Valves – gas	70
Valves – light liquid	61

Pumps – light liquid	45
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No. of Components

The number of components shall be based on the most recent component count conducted at the facility.

VOC Content

VOC content of a gas stream shall be determined by the most recent gas analysis.

APPENDIX K

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation,

**SCOPE OF WORK FOR THE FEASIBILITY STUDY OF THE MULTI-PHASE
PIPING/TANKLESS WELL-SITE PILOT PROJECT**



**Scope of Work for the Feasibility Study
of the Multi-Phase Piping/Tankless Wellsite
Pilot Project**

Prepared For:

Kerr-McGee Corporation

Prepared By:

FORERUNNER CORPORATION

**3900 S. Wadsworth Blvd., #600
Lakewood, Colorado 80235**

April 26, 2007

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I. Introduction

This Scope of Work ("SOW") describes a study of the technical and operational feasibility ("Study") of a proposed Multi-Phase Piping/Tankless Wellsite Pilot Project Feasibility Study ("Multi-Phase Pilot") to be implemented by Kerr-McGee Oil & Gas Onshore LP, Westport Field Services LLC and/or certain of their corporate affiliates ("Kerr-McGee") at a location selected by Kerr-McGee within the Uinta Basin of Utah near other current and planned drill sites of Kerr-McGee. This SOW has been prepared by Forerunner Corporation ("Forerunner") at the request of Kerr-McGee in order to comply with the anticipated terms of a consent decree being negotiated with the United States and the State of Colorado that will resolve certain alleged violations of the Clean Air Act at facilities of Kerr-McGee in the Uinta Basin and in the Denver-Julesberg Basin of Colorado.

The Study shall assess natural gas gathering system methodologies for enabling tankless wellsite gathering and centralized control of flash emissions of VOCs from gathered condensate, and shall recommend designs of optimum efficiency while remaining technically feasible to build and operate responsibly. The range of methods studied will extend from present practices of Kerr-McGee and other operators involving tankless wellsite gathering to other alternatives for single and multiple pipe systems which may provide operating and environmental benefits to the gathering system operator including the elimination of wellhead storage of hydrocarbon liquids and produced water, as well as the elimination or great reduction of emissions of VOCs from condensate storage tanks at a centralized location, consistent with the purpose of the Multi-Phase Pilot to be set forth in the Consent Decree.

II. Controlling Regulations

Exploration is conducted and natural gas gathering and production facilities are built and operated in the Uinta Basin under the auspices of several Federal agencies. Important aspects of the regulations and practices affect the design and operation of gathering systems. These include the Bureau of Land Management (BLM), as administered by the Vernal Field Office, and the Pipeline and Hazardous Materials Safety Administration (PHMSA). The applicable regulations of such agencies may dictate specific design and operational practices which must be employed for protection of the public and the environment, as well as providing for operator safety. The Study will evaluate approaches to tankless wellsite gathering that can comply with such regulations, and may eliminate or fail to recommend approaches which might violate such regulations.

III. System Complexity and Design Conditions

The presently employed well head gathering practice is dependable and of low complexity, consisting largely of dedicated liquid separation and atmospheric storage of liquids at well sites, with natural gas piped at convenient pressure(s) to a central point for further treating. Alternatives exist or can be defined which may improve operability and reduce losses/emissions. Typically, these alternatives require added piping, equipment,

instrumentation and/or controls, thereby increasing system complexity, although options may exist which reduce system complexity for similar performance improvements. The study will evaluate such changes in system complexity for their operational feasibility throughout the anticipated life of the producing wells to be served by the Multi-Phase Pilot.

A. Information and Data Collection

Several physical, operational, and technical constraints will shape the design of the system. Critical data for this evaluation is summarized below, and includes but is not limited to all physical well and well field data, local topography, well/wellfield surface and mineral ownership, local population density, local soils and water resources sensitivity, etc. In addition, the impact of incorporating guidance from federal regulatory agencies must be evaluated, as noted above.

1. Mineral Ownership - Measurement and Royalty Payment Basis

Ownership of mineral interests may vary by well throughout a production field. Production must be accurately measured to ensure proper royalty payments.

2. Surface Access and Rights of Way (ROWs)

Agreements must be reached with landowners to permit access for exploration and operation.

3. Specific Well Data (existing and projected)

Specific information from each well will have a significant impact on the design requirements of the complete system. Information related to the initial production rates, operating pressures, hydrocarbon composition and the projected life of the well must be evaluated, to the extent available. Use of data from other producing wells in close proximity to the proposed location of the Multi-Phase Pilot shall also be considered.

4. Wellfield Area Data

Physical information concerning the project area will need to be evaluated. Significant changes in elevation and temperature can drastically affect the requirements of a multi-phase system. Historic regional data will be evaluated and incorporated into the project design.

5. Liquids: Freezing and/or Hydrates Formation

Initial information indicates that use of surface pipelines is the current practice in this area. Utilizing this practice exposes pipe and surface equipment to ambient conditions, and specifically freezing conditions in winter months. True multi-phase piping consisting of liquid and gaseous hydrocarbons and water in a single pipeline operating on the ground surface under these conditions can lead to chemical complexes within the piping that may form complete blockages which are difficult, at

best, to free. This important operational challenge will be fully evaluated during the Study.

6. *Geotechnical Information: Soils Characterization, Aboveground (AG) and Underground (UG) Obstacles*

Knowledge of the soils present is used to design proper foundations, to support equipment loads, system components and roads, as well as to properly contain and manage production and storm water. Obstacles on and below surface can complicate system design and operation, and will therefore be evaluated as part of the Study.

7. *Past Practice and/or Literature Search*

Variations of the concepts which may be developed in the Study may have already been tried. To the extent information on the prior application of such concepts is available, it can be used to improve conceptual systems and/or provide real world insight as to what may or may not work well in practice, as opposed to theory. Permit requirements and other regulatory documentation will also be reviewed to develop awareness of elements which may be limiting for new practices.

B. *Environmental Impacts*

Environmental impacts from condensate storage at oil and gas well head operations will be considered in the Study. Design of the system and construction process may be modified to minimize these effects in accordance with regional best management practices or conditions of approval from regulatory agencies. Among the potential environmental impacts to be evaluated are the following:

- * Surface disturbance*
- * Air Quality*
- * Dust*
- * Local occupied structures and/or human activities density*
- * Unusually Sensitive Areas (water quality)*
- * Threatened and Endangered Species*
- * Noise*
- * Cultural, paleontological and archeological resources*

C. *Limiting Conditions*

Once data collection is complete, an assessment will be made to identify any situations which may preclude some options for the System. It is important to insure that a specific condition or combination does not exist which could affect the operational feasibility of one or more Systems configurations/approaches to be evaluated.

IV. System Design Steps

System design requires knowledge, to the extent possible, of each well's production characteristics, well field features and the environment in which the system will reside. This information must be collected and analyzed to enable the complete assessment for system selection and design. A range of systems are then developed and assessed to determine the solution that best meets the intended purpose of the Multi-Phase Pilot while also meeting various operating and regulatory limits that may exist. The resulting system must be as simple and reliable to operate and maintain as possible, for the anticipated operating life of the wells to be served, while minimizing environmental impacts.

A. Well Evaluation

Performance data from well(s), including liquids generation and projected well decline, will be evaluated. Information related to incremental production changes such as well addition or intentional flow interruptions must be defined and incorporated.

B. Piping Network

Representative combinations of well production flows will be considered to select piping and equipment sizes to handle the range of production that the system could foreseeably experience. Topographical and geotechnical data for the wellfield and transit areas shall be incorporated. Reasonable worst case and other upset conditions will also be considered to insure the System can accommodate such variations.

C. Receiving Unit

The central collection system(s) must be sized correctly to handle the flows which arrive from the contributing sources. The separation and handling of individual phases must be adequate to achieve sufficient gas quality for downstream processing, while limiting emissions or other product losses to the environment. Where practical, recovery of volatile components is preferred over disposal via combustion methods such as flaring.

D. Modeling Development

The system design is dependent on computer modeling that will simulate the gathering system to be designed. The model(s) employed in the Study will be used to assess the adequacy of various design alternatives early in the design selection phase, and to provide a mechanism to derive the correct pipe, equipment, instrumentation and controls components.

(1) Line Pressure Selection

Line pressures are selected to accommodate the range of operating conditions that the system must accommodate to insure safe and dependable operations.

(2) Product recovery, pigging

All well products must be contained and handled. Gathering system pipe must be regularly cleaned and have accumulated materials removed. Gathering line pigging is the practical method for larger bore pipe, and System design will include provisions for such regular line clearing to prevent and free blockages through pigging.

V. Report and Recommended System

A System will be recommended for demonstration of the steps and rationale used in application of the methods described in the Study. This System shall be comprised of up to 16 Kerr-McGee wells being developed in the Natural Buttes area of northeastern Utah, a rural area in Uintah County, subject to an Incremental Additional Cost Cap specified in Section 8 of the Consent Decree. The recommended System shall be the Subject of a written Report documenting the Study and its conclusions. Economic Feasibility of the recommended System and any possible application of the noted cost cap shall be addressed directly by Kerr-McGee in other written submissions to EPA pursuant to the terms of the noted Consent Decree.

APPENDIX L

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation,

SCOPE OF WORK FOR PERFORMANCE OPTIMIZATION REVIEW

**SCOPE OF WORK FOR PERFORMANCE
OPTIMIZATION REVIEW**

FOR:

KERR-McGEE CORPORATION

April 26, 2007

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1.0 INTRODUCTION

Kerr-McGee (KMG) will be conducting a POR in order to comply with the anticipated terms of a consent decree being negotiated with the United States and the State of Colorado that will resolve certain alleged violations of the Clean Air Act. The project as proposed will follow the requirements as set forth in the consent decree.

KMG is requesting a third party consultant conduct a Performance Optimization Review (POR) at five facilities in the Uinta Basin in Utah and five facilities in the Denver-Julesberg Basin in Colorado. The POR is a newly proposed process that will follow several EPA Natural Gas STAR Program practices and technologies with the goal of increasing product recovery and reducing or minimizing air emissions. The following scope of work will detail the proposed components of the POR.

2.0 SCOPE OF WORK

The scope will be broken down by proposed facilities included in POR, POR components, and review details as more specifically described below.

2.1 Facilities

The POR is to be conducted at five facilities in the D-J Basin and five facilities in the Uinta Basin. The five facilities in the D-J Basin shall consist of four (4) well-site facilities and (1) compressor station. The five facilities in the Uinta Basin shall consist of four (4) well-site facilities and (1) compressor station.

D-J Basin Facilities:

- Platteville Compressor Station;
- HSR-Stewart 2 & 7-18 (Tank Battery 72810) AIRS ID 1232041001;
- HSR-Tuttle 3, 4, 5, & 6-8 (Tank Batteries 75810 & 75813) AIRS ID 1232032001 & 1232031001;
- Buerger 10-5/Crawford 9-5 (Tank Battery 71210) AIRS ID 1233211001; and
- One new drill to be determined at the time of proposed visit.

Uinta Basin Facilities:

- Morgan State Compressor Station;
- NBU 23;
- NBU 32Y;
- NBU 18M; and
- One new drill to be determined at time of proposed visit.

2.2 POR Components

The items to be addressed in the POR will include the following list.

Pressure Relief Devices - repair or replace components as appropriate to reduce product losses;

Pneumatic Controllers - evaluate for use of low-bleed devices or instrument air;

Production Separators - identify optimal pressures and temperatures;

Dehydrators - evaluate for use of condensers, flares, flash tanks, and electric pumps to reduce natural gas product losses;

Internal Combustion Engines - evaluate maintenance practices and planned shutdown procedures to reduce product losses from blow down and to eliminate use of starter gas as appropriate;

Flare and Vent Systems - evaluate flare and vent system components and associated operating procedures to reduce venting and loss of product where possible;

Producing Wells - install plunger lifts where appropriate and perform "green completion" practices on new wells, as appropriate;

Operating Pressures - review and optimize where possible; and

Component Inspections and Repair - perform component inspections using OVA, TVA, or other leak detection equipment and repair or replace leaking components, as appropriate, to enhance product recovery. For this process a leak is defined by an instrument reading of 10,000 ppm or greater for all components with the exception of pressure relief devices in gas/vapor service which shall have a leak definition of 500 ppm or greater.

2.3 Review Details

Each site will be visited by the same group of individuals to verify consistency throughout the process. Once at a site a site walk through will occur to identify sections of the review that will be applicable to that site. The date, location, and personnel involved will be documented for each site visit. Each component of the POR will be detailed in the following sections.

- 2.3.1 Pressure Relief Devices will be inspected using OVA, TVA, or other leak detection equipment to determine if any relief devices are leaking. Any leaks found will be repaired or replaced to minimize product losses. Any replacements or repairs that would require a facility shutdown will be put on a shutdown list that will be signed and documented.

A review will be conducted of any company procedures for testing pressure relief devices and documentation of any such reviews. Personnel responsible for any pressure relief device testing will be interviewed. Suggestions for any potential procedural improvements will be provided.

2.3.2 Pneumatic controllers will be evaluated for gas losses. Opportunities for retrofit or replacement of high-bleed controllers will be outlined. Vendors of low-bleed retrofit devices will be relied upon to determine if a device is capable of having a retrofit component added. Upgrading high-bleed controllers could be through use of low or no-bleed controllers, use of instrument air, or other options.

2.3.3 Production separators will be evaluated for optimal operating pressures. Pressures must be sufficient to allow production into the available gathering pipelines and production facilities.

Pressures at compressor stations will be evaluated for optimal operation pressures based on equipment utilized at the station. Process engineers familiar with the particular station under review will be interviewed. The intent is to minimize product losses, if possible, under the physical and operational design of the station.

2.3.4 Dehydrator process reviews will detail any opportunities to reduce or minimize product losses associated with the process. The dehydration process for each facility will be reviewed on the ground rather than from P&IDs. Process variables related to product recovery will be reviewed during the on-site review...to include but not be limited to...glycol circulation rate, flash tank pressure (if applicable), condenser temperature (if applicable), glycol circulation pump and associated control equipment.

2.3.5 Internal combustion engines maintenance practices and shutdown procedures will be reviewed. Opportunities for reducing venting and product loss will be reviewed and discussed with appropriate personnel. Written processes or procedures that are available will be reviewed. Recommendations will be based on what constraints are found at the specific site.

2.3.6 Flare and vent systems will be evaluated and reviewed for options to reduce loss of product. Leak monitoring may include OVA, TVA or equivalent. Review options of flare systems versus vent systems and other reasonable alternatives.

2.3.7 Producing wells will be reviewed for options to reduce any gas losses. Options for review may include plunger lifts and green completion options. Processes for recompletes or reworks will be discussed with appropriate personnel. Opportunities for reduction in gas venting will be documented.

- 2.3.8 Operating pressures will be evaluated to determine if there are any opportunities to improve product recovery within the current design of the systems in place. This will not include re-engineering any of the current systems. This evaluation may include components as described in section 2.3.3.
- 2.3.9 Component inspections and repairs will take place at the listed facilities. A reputable leak detection and repair company will be contracted to perform all leak inspections. Any leak discovered will be tagged and appropriate company personnel will be notified of the leaking component for addressing the issue consistent with the Consent Decree requirements as applicable.

3.0 DELIVERABLES

A detailed final report of the reviewed items as listed in the proposed scope of work will be submitted to KMG. The report will include documentation on all review details listed in the scope of work consistent with the Consent Decree requirements. The report will list estimated emission reductions or gas recovered as appropriate and calculation procedures for those estimations. One report will be submitted for each basin.

APPENDIX M

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation

**SCOPE OF WORK FOR UINTAH COUNTY ROAD SUPPLEMENTAL
ENVIRONMENTAL PROJECT**

Overview and Purpose

Kerr-McGee has agreed to implement a Supplemental Environmental Project to improve a county road in Uintah County (“Road Dust SEP”) as part the settlement of alleged Clean Air Act violations with the United States and the State of Colorado. The terms of that settlement will be memorialized in a consent decree to be entered by the United States District Court for the District of Colorado to be styled *United States of America and the State of Colorado v. Kerr-McGee Corporation* (hereafter the “Consent Decree”). Kerr-McGee has specifically agreed to provide funds to the Uintah County Road Department to implement the Road Dust SEP.

Introduction

Unpaved roads can be a source of road dust and particulate emissions in Uintah County. The Road Dust SEP will be used to fund part of the paving of a county road in Uintah County.

Timeframe

Kerr-McGee shall implement the Road Dust SEP within 12 months after entry of the Consent Decree.

Project Plan

Kerr-McGee shall implement the Road Dust SEP by providing \$100,000 to the Uintah County Road Department. The Uintah County Road Department will use the money to plan, develop and implement a project plan and accomplish the following tasks:

- Identify a portion of a county road in Uintah County to be improved through implementation of the Road Dust SEP;
- Implement the paving project or emission reduction plan; and
- Summarize achievements and submit report to Kerr-McGee.

Specific project criteria will be developed by the Uintah County Road Department to maximize the emission reductions of particulate matter and road dust with the funding to be provided. Emission reductions will be estimated using AP 42 emission factors or other emission estimation methodology, as appropriate.

SEP Completion Report

Kerr-McGee shall request the following information from the Uintah County Road Department within thirty (30) days after the completion of the Road Dust SEP, including 1) a detailed description of the project as implemented; 2) itemized costs, and 3) a description of the environmental and public health benefits resulting from implementation of the project (with quantification of the benefits and pollutant reductions, if feasible). Kerr-McGee shall prepare and submit a SEP Completion Report to EPA within thirty (30) days of receiving the noted information from the Uintah County Road Department.

APPENDIX N

to the

Consent Decree

in the matter of

United States of America and the State of Colorado v. Kerr-McGee Corporation,

**SCOPE OF WORK FOR THE ACCELERATED VEHICLE RETIREMENT
STATE SEP**

Accelerated Vehicle Retirement (AVR) Program Supplemental Environmental Project (SEP)

Introduction

Older and higher-emitting vehicles disproportionately contribute to the Denver area's air quality problems. This proposed AVR program will be operated by the Regional Air Quality Council (RAQC). The program will be designed to identify and retire older and/or higher-emitting vehicles from Denver area roadways. The RAQC will utilize a number of identification strategies, including but not limited to, remote sensing, Emission Technical Center inspections and Air Care Colorado lane inspections to find candidate vehicles. The goal is to salvage 75 – 200 vehicles.

Candidate vehicles will be retired through participating salvage yards. Emissions control equipment and vehicle engine blocks, along with other specified equipment will be destroyed. An inspection process will be performed to ensure retired equipment is eliminated from operation.

Timeframe

This project will operate through December 31, 2009, unless the Parties and the RAQC agree to a different end date.

Project Plan

The RAQC will develop and implement a project plan addressing the following:

- Vehicle eligibility (including ineligible collectible vehicles);
- Identification protocols;
- Notification protocol;
- Emissions testing protocol;
- Participating salvage yard requirements;
- Salvage process;
- Equipment destruction inspections; and
- Program evaluation

Project criteria will be developed to maximize the emissions reductions of hydrocarbons, carbon monoxide, particulate matter and oxides of nitrogen. Project benefits will be quantified by performing pre-retirement IM240, idle test and/or evaporative emissions testing protocols.

Budget

Program expenditures will be categorized into program administration and retirement offers. Program administrative funds will be expended on personnel and notification materials and costs. Potential costs could also include contracting portions of the process out. Program administration expenses shall not exceed \$15,000.

Retirement offers will be determined by RAQC analysis. Offers are estimated to range between \$1,000 – \$3,000 per vehicle.

Project Evaluation

The RAQC shall supply a report to CDPHE within thirty (30) days after the completion of the project containing the following information: 1) a detailed description of the project as implemented; 2) a description of any operating problems encountered and the solutions thereto; 3) itemized costs, documented by copies of purchase orders and receipts or canceled checks; 4) certification that the SEP has been fully implemented pursuant to the provisions of this Consent Decree; and 5) a description of the environmental and public health benefits resulting from implementation of the project (with quantification of the benefits and pollutant reductions, if feasible).