

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO

UNITED STATES OF AMERICA,  
THE SOUTHERN UTE INDIAN TRIBE,  
THE STATE OF ALABAMA,  
THE STATE OF COLORADO,  
THE LOUISIANA DEPARTMENT  
OF ENVIRONMENTAL QUALITY,  
THE STATE OF WEST VIRGINIA, AND  
THE STATE OF WYOMING,

Plaintiffs,

v.

THE WILLIAMS COMPANIES, INC.,  
BARGATH LLC,  
DISCOVERY PRODUCER SERVICES, LLC,  
MID-CONTINENT FRACTIONATION  
AND STORAGE, LLC,  
UTICA EAST OHIO MIDSTREAM LLC,  
WILLIAMS FIELD SERVICES COMPANY, LLC,  
WILLIAMS MOBILE BAY PRODUCER  
SERVICES, LLC,  
WILLIAMS OHIO VALLEY MIDSTREAM LLC, AND  
HARVEST FOUR CORNERS, LLC,

Defendants.

Civil No. \_\_\_\_\_

**CONSENT DECREE**

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Plaintiffs United States of America, on behalf of the United States Environmental Protection Agency (“EPA”), and the Southern Ute Indian Tribe, the State of Alabama, the State of Colorado, the Louisiana Department of Environmental Quality, the State of West Virginia, and the State of Wyoming (collectively, the “Plaintiffs”) have filed a complaint in this action concurrently with this Consent Decree under the Clean Air Act (“CAA” or “Act”), 42 U.S.C. § 7401 *et seq.* against Defendants, The Williams Companies, Inc., Bargath LLC, Discovery Producer Services, LLC Mid-Continent Fractionation and Storage, LLC, Utica East Ohio Midstream LLC, Williams Field Services Company, LLC, Williams Mobile Bay Producer Services, LLC, Williams Ohio Valley Midstream LLC, and Harvest Four Corners, LLC (each individually a “Defendant” and collectively, the “Defendants”), for alleged environmental violations at one or more of their natural gas processing plants.

WHEREAS, Defendants have natural gas processing plants located in Coden, Alabama; Parachute, Colorado; Rifle, Colorado; on the Southern Ute Indian Reservation, near Ignacio, Colorado; Scio, Ohio; Kensington, Ohio; McPherson, Kansas; Larose, Louisiana; Paradis, Louisiana; Markham, Texas; Cameron, West Virginia; Moundsville, West Virginia; near Wamsutter, Wyoming; and near Opal, Wyoming (the “Covered Facilities,” as more specifically defined herein);

WHEREAS, the Southern Ute Indian Tribe has joined in this matter alleging violations of applicable Southern Ute Indian Tribe/State of Colorado Environmental Commission laws, rules, regulations (“Tribal law”), and tribal permits incorporating and implementing CAA requirements;

WHEREAS, the State of Alabama, on behalf of the Alabama Department of Environmental Management, has joined in this matter alleging violations of applicable laws, rules, regulations, and permits incorporating and implementing CAA requirements;

WHEREAS, the State of Colorado, on behalf of the Colorado Department of Public Health and Environment, has joined in this matter alleging violations of applicable state laws, rules, regulations, and permits incorporating and implementing CAA requirements;

WHEREAS, the Louisiana Department of Environmental Quality acting with the concurrence of the Louisiana Attorney General has joined in this matter alleging violations of applicable laws, rules, regulations, and permits incorporating and implementing CAA requirements;

WHEREAS, the State of West Virginia, on behalf of the West Virginia Department of Environmental Protection, has joined in this matter alleging violations of applicable laws, rules, regulations, and permits incorporating and implementing CAA requirements;

WHEREAS, the State of Wyoming has joined in this matter alleging violations of applicable state laws, rules, regulations, and permits incorporating and implementing CAA requirements;

WHEREAS, the Complaint alleges that Defendants have violated and/or continue to violate 40 C.F.R. Part 60, Subparts A, KKK, OOOO, OOOOa, VV, VVa, NNN, Db, and Kb as well as 40 C.F.R. Part 61, Subpart V and Part 63, Subparts A and HH at one or more of the Covered Facilities;

WHEREAS, Defendants deny they have violated or continue to violate any of the statutory and regulatory requirements set forth in the preceding “whereas” clauses and deny any liability to the United States or the Co-Plaintiffs (as defined herein) arising out of the transactions or occurrences alleged in the Complaint;

WHEREAS, 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 will avoid litigation among the Parties and that this Consent Decree is fair, reasonable, and 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, 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, pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, and Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and over the Parties. This Court has jurisdiction over the State and Tribal law claims asserted by the Co-Plaintiffs pursuant to 28 U.S.C. §§ 1362 and 1367(a). Venue lies in this District pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391 (b) and (c) and 1395(a), because some of the violations alleged in the Complaint are alleged to have occurred in, and Defendants conduct business in, this judicial district. For purposes of this Consent Decree, or any action to enforce this Consent Decree, Defendants consent to:

- a. The Court’s jurisdiction over this Decree and any such action to enforce this Consent Decree;
- b. The Court’s jurisdiction over Defendants; and
- c. Venue in this judicial district.

2. Solely for purposes of this Consent Decree, Defendants agree that the Complaint states claims upon which relief may be granted.



## II. APPLICABILITY OF CONSENT DECREE

3. The obligations of this Consent Decree apply to and are binding upon the United States, the Co-Plaintiffs, and upon Defendants and any successors, assigns, or other entities or persons otherwise bound by law.

4. **Sale, Transfer, or Change of Control Relating to a Covered Facility.**

- a. No sale or transfer of ownership or operation or change of control of a Covered Facility, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Defendants of their obligation to ensure that the terms of the Consent Decree are implemented, except as expressly provided in this Consent Decree.
- b. Any attempt to transfer ownership or operation or to change control of a Covered Facility without complying with this Paragraph 4 constitutes a violation of this Consent Decree.
- c. For a prospective sale or transfer, Defendants shall provide a copy of this Consent Decree to the proposed transferee at least 30 Days prior to the closing of the sale, transfer, or transaction and shall simultaneously provide written notice of the prospective sale or transfer to the appropriate or applicable EPA Region(s), the applicable state or tribal Co-Plaintiff(s), and the United States Department of Justice, in accordance with Section XVI (Notices).
- d. Defendant shall condition any sale or transfer, in whole or in part, of ownership or operation of any of the Covered Facilities upon the execution by such purchaser or transferee of a modification to this Consent Decree to make the terms and conditions of this Consent Decree related to the ownership or operation of the transferred Covered Facilities applicable to the purchaser or transferee. No sooner than thirty (30) Days after giving notice of a successor in interest pursuant to Paragraph 4.c, Defendant shall file a motion to modify this Consent Decree with the Court to make the terms and conditions of the Consent Decree related to the ownership or operation of the transferred Covered Facilities applicable to the successor in interest. Defendant shall be released from the requirements of this Consent Decree with respect to the transferred Covered Facilities unless the Court finds the successor in interest does not have the financial or technical ability to comply with the applicable requirements of this Consent Decree.
- e. This Paragraph 4 shall not be construed:
  - (1) To impede the sale or transfer of any asset or interest between Defendant and any successor in interest so long as the requirements of this Consent Decree are met;
  - (2) To affect or apply to mergers or other corporate transactions in which a Defendant is acquired and the surviving entity, by operation of law, assumes all of such Defendant's assets and liabilities; or

- (3) To apply to any sale or transfer in which a Defendant or parent entity thereof conveys a partial ownership interest in, but retains operational control or responsibility over, a Covered Facility, provided that the Defendant entity remains the permittee for air quality permits issued to the Covered Facility and the Defendant remains subject to the terms and conditions of the Consent Decree.

5. **Distribution of Consent Decree.** Defendants shall:

- a. Provide a copy of this Consent Decree to all officers of Defendants and managers who will be responsible for implementation of the terms of this Consent Decree;
- b. Ensure that any employees, agents, and contractors whose duties might reasonably include compliance with any provision of this Consent Decree are made aware of the terms of and have access to a copy of this Consent Decree; and
- c. Place an electronic version of the Consent Decree on its internal environmental website.

6. Defendants shall be responsible for ensuring that all employees and contractors involved in performing any work pursuant to this Consent Decree perform such work in compliance with the requirements of this Consent Decree.

7. In any action to enforce this Consent Decree, Defendants shall not raise as a defense the failure by any of their officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree. This Section does not preclude a Defendant from holding any officer, director, employee, agent, or contractor who is alleged to have failed to comply with this Consent Decree liable for their actions. Nor does this Section preclude a Defendant in an action to enforce this Consent Decree pursuant to Section XI (Force Majeure), from raising the failure of any contractor to take any actions necessary to comply with the provisions of this Consent Decree as a mitigating factor with respect to any non-injunctive relief sought for an alleged violation of the provisions of this Consent Decree.

8. **Defendants Responsible for Compliance.** Appendix A identifies the Defendants responsible for each Covered Facility.

### III. DEFINITIONS

9. 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 Consent Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

- a. “Affected Facilities” shall include any apparatus at a Covered Facility that meets one of the types constituting an “affected facility” in 40 C.F.R. § 60.5365a(b) through (h), regardless of the apparatus’ actual date of construction, modification, or reconstruction.

- b. “Alternative Work Practice” or “AWP” shall mean the alternative work practice for monitoring equipment leaks as in 40 C.F.R. §§ 60.18 (g) through (i).
- c. “CAA” or “the Act” shall mean the Clean Air Act, 42 U.S.C. §§ 7401-7671q, and its implementing regulations.
- d. “Complaint” shall mean the complaint filed by the Plaintiffs in this action.
- e. “Consent Decree” or “Decree” shall mean this Decree and all appendices attached hereto (listed in Section XXVI).
- f. “Control Valve” shall mean a device capable of modulating fluid flow in response to a signal from an external control device to keep a regulated process variable as close as possible to the desired set point.
- g. “Co-Plaintiffs” shall mean the States of Alabama, Colorado, West Virginia, and Wyoming, the Louisiana Department of Environmental Quality, and the Southern Ute Indian Tribe. When used in the singular (i.e., “Co-Plaintiff”), the term shall refer to one or more of the Co-Plaintiffs.
- h. “Covered Equipment” shall mean the following equipment in all Covered Process Units:
  - (1) All valves, pumps, and connectors in VOC or wet gas service that are regulated under any “equipment leak” provision of 40 C.F.R. Part 60, or any applicable state or Tribal equipment leak regulation; and
  - (2) All valves, pumps, and connectors in VHAP service that are regulated under any equipment leak provision of 40 C.F.R. Part 63, Subpart HH (and by reference 40 C.F.R. Part 61, Subpart V), or any applicable state or Tribal equipment leak regulation.
- i. “Covered Facilities” shall mean the natural gas processing plants at the following locations:
  - (1) Mobile Bay Facility, located at 6000 Rock Road, Coden, Alabama;
  - (2) Parachute Creek Facility, located at 4289 County Road 215, Parachute, Colorado;
  - (3) Willow Creek Facility, located at 20219 County Road 5, Rifle, Colorado;
  - (4) Ignacio Facility, located at 3746 County Road 307, on the Southern Ute Indian Reservation, near Ignacio, Colorado;
  - (5) Harrison Hub Facility, located at 37905 Crimm Rd, Scio, Ohio;

- (6) Kensington Facility, located at 11543 State Route 644, Kensington, Ohio;
- (7) Conway Facility, located at 1407 5th Avenue, McPherson, Kansas,
- (8) Larose Facility, located at 1474 Highway 24, Larose, Louisiana;
- (9) Paradis Facility, located at 15849 Old Spanish Trail, Paradis, Louisiana;
- (10) Markham Facility, located at 4367 County Road 403, Markham, Texas;
- (11) Fort Beeler Facility, located at 12681 Waynesburg Pike Road, Cameron, West Virginia;
- (12) Moundsville Facility, located at 200 Caiman Drive, Moundsville, West Virginia;
- (13) Oak Grove Facility, located at 5258 Ford Ridge Road, Moundsville, West Virginia;
- (14) Echo Springs Facility, located eight miles south of Wamsutter, Wyoming; and
- (15) Opal Facility, located one mile west of Opal on Wy Highway 30, Wyoming.

j. “Covered Process Unit” shall mean any Process Unit at a Covered Facility that:

- (1) Is subject to the equipment leak provisions of 40 C.F.R. Part 60, Subpart OOOOa (and by reference 40 C.F.R. Part 60, Subpart VVa) at the Date of Lodging; or
- (2) Becomes subject to the equipment leak provisions of 40 C.F.R. Part 60, Subpart OOOOa (and by reference 40 C.F.R. Part 60, Subpart VVa) pursuant to Paragraph 15.

Process Units installed at a Covered Facility after the Date of Lodging shall not be considered a Covered Process Unit.

k. “Date of Lodging” shall mean the date that the United States files a “Notice of Lodging” of this Consent Decree with the Clerk of this Court for the purpose of providing notice and comment to the public.

l. “Day” for purposes of requirements uniquely imposed by the LDAR Program under this Consent Decree, and not by any applicable LDAR regulations, shall mean a calendar day unless expressly stated to be a “Working Day” (as defined below). In computing any period of time under this Consent Decree for submittal

of reports, Approval of Deliverables (Section VIII), where the last day would fall on a Saturday, Sunday, or federal or state holiday, the period shall run until the close of business of the next Working Day. For all other purposes, “Day” shall have the meaning provided in the applicable regulations.

m. “Defendants,” when used independently and not as part of the term “Williams Defendants,” shall mean:

- (1) Williams Companies, Inc.;
- (2) Bargath LLC;
- (3) Discovery Producer Services, LLC;
- (4) Mid-Continent Fractionation and Storage, LLC;
- (5) Utica East Ohio Midstream LLC;
- (6) Williams Field Services Company, LLC;
- (7) Williams Mobile Bay Producer Services, LLC;
- (8) Williams Ohio Valley Midstream LLC; and
- (9) Harvest Four Corners, LLC.

Consistent with Paragraph 8, where the term ‘Defendants’ is used in the context of compliance at a particular Covered Facility or Covered Facilities, the specific designations of responsibility in Appendix A are controlling.

- n. “Distillation Unit” shall mean a device or vessel in which distillation operations occur, including all associated internals (such as trays or packing) and accessories (such as reboiler, condenser, vacuum pump, steam jet, etc.), plus any associated recovery system.
- o. “DOR” shall mean delay of repair.
- p. “Effective Date” shall have the definition provided in Section XVII.
- q. “EPA” shall mean the United States Environmental Protection Agency and any of its successor departments or agencies.
- r. “Existing Connectors” shall mean all connectors that are installed in a Covered Process Unit at a Covered Facility prior to the Effective Date.
- s. “Existing Valves” shall mean all valves (excluding pressure relief valves) that are installed in a Covered Process Unit at a Covered Facility prior to the Effective Date.

- t. “Fin Fan Unit” shall mean an air-cooled heat exchanger equipped with threaded end-plugs.
- u. “Information Retention Period” shall mean the period of time between the Effective Date and the date two years after the termination of this Consent Decree.
- v. “LDAR” or “Leak Detection and Repair” shall mean the leak detection and repair activities required by any applicable “equipment leak” regulations set forth in 40 C.F.R. Part 60, Subparts KKK, OOOO, and OOOOa (and by reference Subparts VV and VVa), 40 C.F.R. Part 63, Subpart HH, and 40 C.F.R. Part 61, Subpart V, as well as any applicable State, Tribal, or local equipment leak requirements that require the use of Method 21 or optical gas imaging (“OGI”), as applicable, to the Alternative Work Practice as specified in 40 C.F.R. § 60.18(g)-(i), to monitor for equipment leaks and also require the repair of leaks discovered through such monitoring.
- w. “LDAR Auditor” shall mean a third-party auditor meeting the requirements of Paragraph 31.b.
- x. “LDAR Database” shall mean an electronic database that is used to record data generated for compliance with LDAR Regulation and that is capable of exporting data in a reasonably usable format.
- y. “LDAR Personnel” shall mean all Defendants’ contractors and employees who perform any of the following activities at a Covered Facility: LDAR monitoring; LDAR data input; maintenance of LDAR monitoring devices; leak repairs on equipment subject to LDAR; and/or any other field duties generated by LDAR regulations or the LDAR Program.
- z. “LDAR Program” shall mean the Leak Detection and Repair Program specified in Section V, Subsection B of this Consent Decree, which includes:
- (1) Requirements to achieve and ensure compliance with the LDAR requirements for natural gas processing plants at 40 C.F.R. Part 60, Subparts A, KKK, OOOO, and OOOOa (and by reference Subparts VV and VVa), 40 C.F.R. Part 63, Subpart HH (and by reference 40 C.F.R. Part 61, Subpart V), as well as any applicable State, Tribal, or local equipment leak requirements; and
  - (2) Required measures to mitigate the environmental harm caused by alleged noncompliance at the Covered Process Units and Covered Types of Equipment (including drill and tap requirements in Paragraph 24.d, the valve replacement and improvement program in Paragraph 26, and the connector replacement and improvement program in Paragraph 27).
- aa. “LDAR Regulations” shall collectively mean the federal, State, Tribal, and local

laws, regulations, and requirements referenced in Paragraph 9.z(1), as well as any permits incorporating such requirements.

bb. “Leak” shall mean:

- (1) A Screening Value at or above the leak definition in the applicable LDAR Regulations or Table 2;
- (2) Any emissions detected through audible, visual, or olfactory sensing;
- (3) Any emission detected by the observation of formation of soap bubbles; or
- (4) Any emissions imaged by an OGI instrument.

cc. “Low-Emissions Packing” or “Low-E Packing” shall mean a valve packing product that meets the specifications set forth in Subparagraphs (1) or (2) below. “Low-E Injectable Packing” is a type of Low-E Packing product (also meeting Subparagraphs (1) or (2) below) that can be injected into a valve during a “drill-and-tap” repair of the valve as described in Paragraph 25.d.(5) of the Consent Decree.

- (1) A valve packing product, independent of any specific valve, for which the manufacturer has issued a written warranty that the packing will not emit fugitives at greater than 100 parts per million (ppm), and that, if it does emit at greater than 100 ppm at any time in the first five years after installation, the manufacturer will replace the product; provided, however, that no packing product shall qualify as “Low-E” by reason of written warranty unless the packing first was tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions; or
- (2) A valve packing product, independent of any specific valve, that has been tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions, and that, during the test, at no time leaked at greater than 500 ppm, and on average, leaked at less than 100 ppm.

dd. “Low-Emissions Valve” or “Low-E Valve” shall mean either of the following:

- (1) A valve (including its specific packing assembly or stem sealing component) for which the manufacturer has issued a written warranty that it will not emit fugitives at greater than 100 ppm, and that, if it does so emit at greater than 100 ppm at any time in the first five years after installation, the manufacturer will replace the valve; provided, however, that no valve shall qualify as “Low-E” by reason of written warranty unless the valve (including its specific packing assembly) either:



- (a) first was tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions; or
  - (b) is an “extension” of another valve that qualified as “Low-E” under Paragraph 9.dd(1) above; or
- (2) A valve (including its specific packing assembly) that:
- (a) has been tested by the manufacturer or a qualified testing firm pursuant to generally-accepted good engineering practices for testing fugitive emissions and that, during the test, at no time leaked at greater than 500 ppm, and on average, leaked at less than 100 ppm; or
  - (b) is an “extension” of another valve that qualified as “Low-E” under Paragraph 9.dd(1) above.

For purposes of Paragraphs 9.dd(1)(b) and 9.dd(2)(b), being an “extension of another valve” means that the characteristics of the valve that affect sealing performance (e.g., type of valve, stem motion, tolerances, surface finishes, loading arrangement, and stem and body seal material, design, and construction) are the same or essentially equivalent as between the tested and the untested valve.

- ee. “MACT Subparts” shall mean any of the requirements or various subparts of 40 C.F.R. Part 61 (National Emission Standards for Hazardous Air Pollutants) and Part 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories).
- ff. “Maintenance Shutdown” shall mean a type of Process Unit Shutdown that is either done for the purpose of scheduled maintenance or that lasts 14 Days or longer.
- gg. “Method 21” shall mean the test method found at 40 C.F.R. Part 60, Appendix A, Method 21, provided that to the extent that the Covered Equipment is subject to regulations that modify Method 21, those modifications shall be applicable.
- hh. “Monthly” shall mean a calendar month (e.g., January 1 through January 31) except as otherwise provided in applicable LDAR regulations.
- ii. “NSPS Subparts” shall mean any of the requirements or various subparts of 40 C.F.R. Part 60 (Standards of Performance for New Stationary Sources).
- jj. “Optical Gas Imaging” or “OGI” shall mean monitoring using an instrument that images a gas cloud, not visible to the naked eye, and can absorb/emit radiant energy at the waveband of the infrared camera. The waveband must contain at least the range of 3.3 to 3.4 micrometers.



- kk. “Paragraph” shall mean a portion of this Decree identified by an Arabic numeral.
- ll. “Parties” shall mean the United States, the Co-Plaintiffs, and Defendants.
- mm. “Plaintiffs” shall mean the United States, the States, and the Tribe.
- nn. “Process Unit” means components or equipment assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products. A Process Unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.
- oo. “Process Unit Shutdown” shall mean a work practice or operational procedure that stops production from a Process Unit or part of a Process Unit during which it is technically feasible to clear process material from a Process Unit or part of a Process Unit consistent with safety constraints and during which repairs can be accomplished. The following are not considered Process Unit Shutdowns:
  - (1) An unscheduled work practice or operational procedure that stops production from a Process Unit or part of a Process Unit for less than 24 hours;
  - (2) An unscheduled work practice or operational procedure that would stop production from a Process Unit or part of a Process Unit for a shorter period of time than would be required to clear the Process Unit or part of the Process Unit of materials and start up the unit, and would result in greater emissions than Delay of Repair of Leaking components until the next scheduled Process Unit Shutdown; or
  - (3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.
- pp. “Quarter” or “Quarterly” shall mean a calendar quarter (January through March, April through June, July through September, October through December) except as otherwise provided in applicable LDAR regulations.
- qq. “Repair Verification Monitoring” shall mean monitoring in order to determine whether the Screening Value is below the applicable Leak definition in the LDAR Regulations or LDAR Program or that the Leak has been eliminated.
- rr. “Screening Value” shall mean the highest concentration that is recorded at a piece of Covered Equipment as it is monitored for the relevant monitoring event in accordance with Method 21.
- ss. “Section” shall mean a portion of this Decree identified by a roman numeral.
- tt. “Plaintiff States” shall mean the States of Alabama (on behalf of the Alabama Department of Environmental Management), Colorado, West Virginia, and

Wyoming, and the Louisiana Department of Environmental Quality.

- uu. “Tribe” or “Tribal” shall mean or refer to the Southern Ute Indian Tribe.
- vv. “United States” shall mean the United States of America, acting on behalf of EPA.
- ww. “VHAP” shall mean volatile hazardous air pollutant and shall have the definition provided for “volatile hazardous air pollutant” in 40 C.F.R. § 61.241.
- xx. “Volatile Organic Compounds” or “VOC” shall mean volatile organic compound and shall have the definition provided for “volatile organic compound” in 40 C.F.R. §§ 60.2 and 60.481.
- yy. “Week” or “Weekly” shall mean the standard calendar period, except as otherwise provided in applicable LDAR regulations.
- zz. “Williams Defendants” shall mean:
  - (1) Williams Companies, Inc.;
  - (2) Bargath LLC;
  - (3) Discovery Producer Services, LLC;
  - (4) Mid-Continent Fractionation and Storage, LLC;
  - (5) Utica East Ohio Midstream LLC;
  - (6) Williams Field Services Company, LLC;
  - (7) Williams Mobile Bay Producer Services, LLC; and
  - (8) Williams Ohio Valley Midstream LLC.
- aaa. “Working Day” shall mean a day other than a Saturday, Sunday, or federal holiday.
- bbb. “Year” shall mean a period consisting of 365 days, as opposed to a calendar year, except as otherwise provided in applicable LDAR regulations.

#### IV. CIVIL PENALTY

10. Within 30 Days after the Effective Date, Williams Defendants, on behalf of Defendants, shall pay the total sum of \$3,750,000.00 as a civil penalty, together with interest accruing from the Date of Lodging, at the rate specified in 28 U.S.C. § 1961 as of the Date of Lodging. The civil penalty shall be paid as follows:

- a. United States: \$2,227,500.00

- b. Southern Ute Indian Tribe: \$307,500.00
- c. Alabama: \$284,625.00
- d. Colorado: \$298,875.00
- e. Louisiana Department of Environmental Quality: \$142,500.00
- f. West Virginia: \$346,500.00
- g. Wyoming: \$142,500.00

11. Defendants shall pay the civil penalty (and, pursuant to Paragraph 65, any stipulated penalties) due to the United States by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice account, in accordance with instructions provided to Defendants by the Financial Litigation Unit (“FLU”) of the United States Attorney’s Office for the District of Colorado after the Effective Date. The payment instructions provided by the FLU will include a Consolidated Debt Collection System (“CDCS”) number, which Defendants shall use to identify all payments required to be made in accordance with this Consent Decree. The FLU will provide the payment instructions to:

On behalf of Williams Defendants:

Mark A. Gebbia, PE  
Vice President, Environmental and Permitting  
Williams Companies, Inc.  
One Williams Center, MD wrc3  
Tulsa, OK 74172  
(918) 573-6319  
[LDARGlobalConsentDecree@williams.com](mailto:LDARGlobalConsentDecree@williams.com)

On behalf of Harvest Four Corners, LLC:

Travis Jones CSP, CSHO  
Sr. Manager EH&S  
Harvest Four Corners, LLC  
(713) 289-2630  
[trjones@harvestmidstream.com](mailto:trjones@harvestmidstream.com)

Copy to:

Harvest Midstream Company  
Attn: General Counsel  
[Legal@harvestmidstream.com](mailto:Legal@harvestmidstream.com)

Defendants may change the individual to receive payment instructions on their behalf by providing written notice of such change to the United States and EPA in accordance with Section XVI (Notices).

12. At the time of payment, Defendants shall send notice that payment has been made: (i) to EPA via email at [cinwd\\_acctsreceivable@epa.gov](mailto:cinwd_acctsreceivable@epa.gov) or via regular mail at EPA Cincinnati Finance Office, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268; (ii) to the United States via email or regular mail in accordance with Section XVI; and (iii) to EPA in accordance with Section XVI. Such notice shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in *United States et al. v. The Williams Companies, Inc. et al.* and shall reference the civil action number, CDCS Number and DOJ case number 90-5-2-1-06938/5.

13. Defendants shall not deduct any penalties paid under this Decree pursuant to this Section or Section X (Stipulated Penalties) in calculating its federal or State of Colorado or State of Louisiana income tax.

14. **Civil Penalties Paid to the Co-Plaintiffs.**

- a. Southern Ute Indian Tribe: No later than thirty (30) Days after the Effective Date, Defendants shall pay a civil penalty of \$307,500.00 to the Southern Ute Indian Tribe. Defendants shall pay the civil penalty due by electronic funds transfer (EFT) to the Southern Ute Indian Tribe, Air Quality Program. At the time of payment, Defendants shall send a copy of the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty in *United States et al. v. Williams Companies, Inc. et al.* and shall reference the civil action number, by email to [airquality@southernute-nsn.gov](mailto:airquality@southernute-nsn.gov); and by mail to:

Environmental Programs Division  
P.O. Box 737 MS# 84  
Ignacio, CO 81137

Wiring/ACH Instructions:

Account name: Southern Ute Tribe Concentration Account

ABA Number:

- 102001017 if paying by ACH

- 021000021 if paying by wire

Account Number: 485297376

Bank: JPMorgan Chase

Total Penalty Amount: \$307,500.00

Questions: If you have any questions concerning the payment instructions or the Settlement Agreement or Penalty, please contact Southern Ute Indian Tribe Air Quality Program at [airquality@southernute-nsn.gov](mailto:airquality@southernute-nsn.gov).

- b. Alabama: No later than thirty (30) Days after the Effective Date, Defendants shall pay a civil penalty of \$284,625.00 to the Alabama Department of Environmental

Management by certified or cashier's check made payable to the Alabama Department of Environmental Management and shall be remitted to:

Office of General Counsel  
Alabama Department of Environmental Management  
Post Office Box 301463  
Montgomery, Alabama 36130-1463

Or, in the alternative, payment of the civil penalties assessed herein shall be made in the form of a wire transfer payable to the Alabama Department of Environmental Management pursuant to the wire transfer instructions to be provided to the Defendants by the Alabama Department of Environmental Management.

- c. Colorado: No later than thirty (30) Days after the Effective Date, Defendants shall pay a civil penalty of \$298,875.00 to Colorado. Defendants shall make payment of the civil penalty 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 Enforcement Unit Supervisor, Air Pollution Control Division, 4300 Cherry Creek Drive South, APCD-SS-B1, Denver, Colorado 80246-1530. At the time of payment, Defendants shall send notice that payment has been made to Colorado in accordance with Section XVI (Notices). Such notice shall state that the payment is for the civil penalty in *United States et al v. Williams Companies et al* and shall reference the civil action number.
- d. Louisiana Department of Environmental Quality: No later than thirty (30) Days after the Effective Date, Defendants shall pay a civil penalty of \$142,500.00 to the Louisiana Department of Environmental Quality. At the time of payment, Defendants shall send notice that payment has been made to LDEQ in accordance with Section XVI (Notices). The Defendants must pay the civil penalty due to the Louisiana Department of Environmental Quality by bank check referencing this Consent Decree and the civil action number and made payable to the Louisiana Department of Environmental Quality and sent to:

Accountant Administrator, Financial Services Division, Louisiana  
Department of Environmental Quality  
P.O. Box 4303  
Baton Rouge, Louisiana 70821-4303

OR

By EFT in accordance with written instructions provided to Defendants upon request.

- e. West Virginia: No later than thirty (30) Days after the Effective Date, Defendants shall pay a civil penalty of \$346,500.00 to West Virginia as follows:

Air Pollution Education and Environment Fund  
West Virginia Division of Air Quality  
Attn: Director  
601 57th street SE  
Charleston, WV 25304

- f. Wyoming: No later than thirty (30) Days after the Effective Date, Defendants shall pay a civil penalty of \$142,500.00 to the Wyoming Department of Environmental Quality. The Defendants must pay the civil penalty due to the Wyoming Department of Environmental Quality by bank check referencing this Consent Decree and the civil action number and made payable to the Wyoming Department of Environmental Quality and sent to:

Air Quality Enforcement Program Coordinator, Wyoming Department of Environmental Quality  
200 W. 17th Street  
Cheyenne, WY 82002

OR

By EFT in accordance with written instructions provided to Defendants upon request.

## V. COMPLIANCE REQUIREMENTS

### A. NSPS APPLICABILITY AND COMPLIANCE

#### 15. NSPS Subpart OOOOa Applicability.

- a. On the Effective Date, Williams Defendants shall accept applicability of and comply with 40 C.F.R. Part 60, Subpart OOOOa at all Affected Facilities at the Conway, Harrison Hub, Kensington, Markham, Mobile Bay, Moundsville, and Oak Grove Facilities and any Affected Facilities at any other Covered Facilities currently subject to Subpart OOOO or OOOOa.
- b. By no later than one year after the Effective Date, Defendants shall accept applicability of and comply with 40 C.F.R. Part 60, Subpart OOOOa at all Affected Facilities at the Fort Beeler, Echo Springs, Ignacio, Larose, Opal, Parachute Creek, Paradis, and Willow Creek Facilities.
- c. Compliance with Paragraphs 15.a through 15.b of this Consent Decree at the Covered Facilities shall include Paragraphs 15.c(1) through 15.c(5). This Paragraph 15.c clarifies Plaintiffs' expected compliance methodologies and shall not be construed to limit applicable requirements arising under Subpart OOOOa and Paragraphs 15.a through 15.b above.

- (1) Existing wet seal centrifugal compressors equipped with seal gas

recovery trap(s) and piping that routes gas from the trap(s) back to the suction-side of the compressor must meet the compliance alternative set forth in 40 C.F.R. § 60.5380a(a)(2);

- (2) Existing reciprocating compressors must meet the rod packing replacement requirements of 40 C.F.R. § 60.5385a(a);
- (3) Existing compressors used to compress hydrocarbon refrigerants with closed-loop refrigeration systems are not Affected Facilities for purposes of this Consent Decree, provided that the equipment at such compressors that is located in a Covered Process Unit is part of an Affected Facility;
- (4) Each existing sweetening unit that has a design capacity less than 2 long tons per day of hydrogen sulfide in the acid gas (expressed as sulfur) must comply with the recordkeeping and reporting requirements specified in 40 C.F.R. § 60.5423a(c), but are not required to comply with 40 C.F.R. §§ 60.5405a through 60.5407a and §§ 60.5410a(g) and 60.5415a(g); and
- (5) Each existing storage vessel with a VOC potential-to-emit of less than 6 tons per year, as determined according to 40 C.F.R. § 60.5365a(e)(2)(ii) and taking into account legally and practicably enforceable limit(s) in an operating permit or other requirement established under a Federal, state, local, or tribal authority, is not an Affected Facility.

**d. Initial Connector Monitoring at Existing Subpart KKK Process Units.**

- (1) This Paragraph applies to connectors in VOC or wet gas service in Covered Process Units that are not subject to 40 C.F.R. Part 60, Subparts OOOO or OOOOa at the time of lodging of this Consent Decree. Such connectors are present in one or more Process Units at the Echo Springs, Fort Beeler, Ignacio, Opal, Parachute Creek, Willow Creek, Larose, and Paradis Facilities.
- (2) For Fort Beeler, Echo Springs, Ignacio, Opal, Parachute Creek, Willow Creek, Larose, and Paradis Facilities: By no later than one year after the Effective Date, Defendants shall:
  - (a) Identify and include such connectors in the Covered Facility's LDAR Databases and the LDAR Documents required by Paragraph 19;
  - (b) Conduct and complete initial monitoring of such connectors in accordance with the provisions of 40 C.F.R. § 60.482-11a; and
  - (c) Repair all detected Leaks in accordance with the requirements



of 40 C.F.R. § 60.482-11a(d).

16. **NSPS Subpart NNN.**

- a. Beginning no later than 90 Days after the Effective Date, depropanizer and debutanizer accumulator vent streams, as defined under § 60.661, at the Conway, Harrison Hub, Moundsville, Opal, and Paradis Facilities will operate in accordance with paragraphs 16.b, 16.c, and 16.d.
- b. Vent streams will be sent to a flare operating in accordance with 40 C.F.R. §§ 60.18 and 60.663(b)(1).
- c. Indication of vent stream flow to the flare will be monitored through valve position or other flow indication device(s) consistent with 40 C.F.R. § 60.663(b)(2).
- d. Records will be maintained consistent with 40 C.F.R. §§ 60.665(d) and (f).

17. **NSPS Subpart Db.**

- a. Each affected steam generating unit at the Harrison Hub and Paradis Facilities with a design firing rate greater than 29 Megawatts (100 million British thermal units (“MMBtu/h”)) (“Large Hot Oil Heaters”), shall comply with 40 C.F.R. § 60.40b-49b (NSPS Subpart Db) as set forth below.
- b. By no later than 180 Days after the Effective Date, Williams Defendants shall submit an initial notification for each Large Hot Oil Heater subject to Paragraph 17.a, above, in accordance with 40 C.F.R. § 60.49b.
- c. Beginning no later than 180 Days after the Effective Date, Williams Defendants shall continuously comply with the nitrogen oxides (“NOx”) limit of 0.10 lb/MMBtu for all Large Hot Oil Heaters as required by 40 C.F.R. § 60.44b(a).
- d. Recordkeeping. Williams Defendants must maintain emissions monitoring of all required parameters per 40 C.F.R. § 60.49b(c) for each Large Hot Oil Heater subject to Paragraph 17.a, above, to demonstrate compliance with Paragraph 17.c, above.

**B. LDAR PROGRAM**

18. **LDAR Program Applicability.**

- a. The requirements of this LDAR Program shall apply to all Covered Equipment and all Covered Process Units at the Covered Facilities as follows:
  - (1) For the Conway, Harrison Hub, Kensington, Markham, Mobile Bay, Moundsville, and Oak Grove Facilities, the requirements of this LDAR



Program shall apply upon the Effective Date and in accordance with the deadlines stated within Paragraphs 19 through 35; and

- (2) For the Fort Beeler, Echo Springs, Ignacio, Larose, Opal, Parachute Creek, Paradis, and Willow Creek Facilities, the requirements of Paragraphs 20 through 27, 33, and 35 shall apply no later than one year after the Effective Date, and the requirements of Paragraphs 19, 28 through 32, and 34 shall apply in accordance with the deadlines stated therein.
- b. The requirements of this LDAR Program are in addition to, and not in lieu of, the requirements of any other LDAR Regulation that may apply to a piece of Covered Equipment. If there is a conflict between an LDAR Regulation and this LDAR Program, Defendants shall follow the more stringent of the requirements.

19. **LDAR Document.**

- a. By no later than 120 Days after the Effective Date, Defendants shall develop, for each Covered Facility, a facility-wide document (“LDAR Document”) that describes:
- (1) The applicability of LDAR Regulations to Process Units, including applicable leak definitions, monitoring frequencies, repairs, recordkeeping, and reporting;
  - (2) A tracking program (e.g., Management of Change as provided in Paragraph 28) that ensures that new pieces of equipment added to the Covered Facility for any reason are integrated into the LDAR program and that pieces of equipment that are taken out of service are removed from the LDAR program;
  - (3) The roles and responsibilities of all employees and contractor personnel assigned to LDAR functions at the Covered Facility;
  - (4) An analysis demonstrating that the number of personnel dedicated to LDAR functions is sufficient to satisfy the requirements of the LDAR Program; and
  - (5) An explanation of how the Covered Facility plans to implement this LDAR Program under this Consent Decree.
- b. Once developed, Defendants shall review each LDAR Document annually and update it by no later than March 31 of each Year.
- c. If requested by the United States or the Co-Plaintiffs, Defendants shall provide a copy of the LDAR Document within fourteen (14) Days of receipt of any written request provided in accordance with Section XVI (Notices).

20. **Monitoring Frequency.**

- a. Beginning no later than 180 Days after the Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)), for all Covered Equipment, Defendants shall comply with the periodic monitoring frequencies in Table 1, unless: (a) more frequent monitoring is required by LDAR Regulations; or (b) the relevant Covered Process Unit has been permanently shut down:

<b>TABLE 1</b>	
<b><u>Equipment Type</u></b>	<b><u>Monitoring Frequency</u></b>
Valves	Quarterly
Pumps	Monthly
Connectors	Annually

- b. Compliance with the monitoring frequencies in Table 1 is not required when an applicable LDAR Regulation excludes or exempts, fully or partially, monitoring at a periodic frequency (e.g., an exemption for equipment that is designated as unsafe-to-monitor or difficult-to-monitor or an exemption for pumps that have no externally actuated shaft), provided that Defendants satisfy all applicable conditions and requirements for the exclusion or exemption set forth in the LDAR Regulation.
- c. For valves located in Covered Process Units that, as of the Effective Date, are subject to the requirements of 40 C.F.R. Part 60, Subpart OOOOa and that are monitored according to the monitoring frequency requirements of 40 C.F.R. § 60.482-7a(c), Defendants may continue under the monitoring frequency requirements of 40 C.F.R. § 60.482-7a(c) without first reverting back to monthly monitoring under 40 C.F.R. § 60.482-7a(a)(1).
- d. **Alternative Monitoring Frequencies for Valves after Two Years.** At any time after two consecutive years of monitoring valves at the frequency specified in Table 1 with the percent of valves Leaking in a Covered Process Unit equal to or less than 2.0, Defendants may elect to monitor all valves in a Covered Process Unit at the frequencies specified below. Defendants must notify EPA of each Covered Process Unit where Defendants make this election no later than three months prior to implementing this alternative monitoring frequency. Covered Facilities implementing the AWP in accordance with Paragraph 22 may not invoke this Paragraph 20.d.
- (1) Defendants shall monitor valves one time per year except as provided in Paragraphs 20.d(2) and 20.d(3).
  - (2) For any valve that has Leaked in the two years prior to Defendants making the election under Paragraph 20.d, Defendants shall monitor such valve monthly from the date of the last Leak until there are no Leaks for six consecutive months, at which time Defendants may commence monitoring at the frequency in Paragraph 20.d(1).

- (3) If, after making the election under Paragraph 20.d, any valve Leaks during the monitoring pursuant to this Paragraph 20.d, during an LDAR audit under Paragraph 31, or during a federal, state, or local audit or inspection, Defendants shall monitor such valve monthly from the date of the Leak until there are no Leaks for six consecutive months, at which time Defendants may commence monitoring at the frequency in Paragraph 20.d(1).
- (4) If, after making the election under Paragraph 20.d, the percent of valves Leaking in a Covered Process Unit is greater than 2.0, Defendants shall monitor according to 40 C.F.R. § 60.482-7a. After five consecutive quarterly monitoring periods with the percent of valves Leaking equal to or less than 2.0, Defendants may again elect to use the alternative monitoring frequency in Paragraph 20.d.

21. **Method 21 Data Logging.**

- a. Beginning no later than 180 Days after the Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)), for all Covered Equipment, Defendants shall comply with Method 21 in performing LDAR monitoring, using an instrument attached to a data logger (or an equivalent instrument) which directly records electronically the Screening Value detected at each piece of Covered Equipment, the date and time that each Screening Value is taken, and the identification numbers of the monitoring instrument and the technician. Defendants shall transfer this monitoring data to the Covered Facility's LDAR Database on at least a weekly basis for recordkeeping purposes.
- b. If, during monitoring in the field, a piece of Covered Equipment is discovered that is not listed in the data logger, Defendants are permitted to monitor the piece of Covered Equipment and record, by any means available, the Screening Value, the date and time of the Screening Value, and the identification numbers of the monitoring instrument and technician. In such an instance, the failure to initially record the information electronically in the data logger does not constitute a violation of this Paragraph's requirement to record the required information electronically, provided that Defendants thereafter add the piece of Covered Equipment and the information regarding the monitoring event to the LDAR Database within ten Days.

22. **Alternative Work Practice.** Covered Facilities that are complying with the AWP as provided in 40 C.F.R. § 60.18(g)-(i) at the Date of Lodging may continue to comply with the AWP for purposes of complying with Paragraphs 20 (Monitoring Frequency) and 21 (Method 21 Data Logging). During the term of the Consent Decree, Covered Facilities may switch to the AWP and comply with the AWP for purposes of complying with Paragraphs 20 (Monitoring Frequency) and 21 (Method 21 Data Logging), provided Defendants notify EPA and the appropriate Co-Plaintiff of each Covered Facility where Defendants make this election no later than three months prior to implementing the AWP.

23. **Action Levels.**

- a. Beginning no later than 180 Days after the Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)), for all Leaks from Covered Equipment detected at or above the leak definitions listed in Table 2 for each of the specific Covered Types of Equipment, Defendants shall perform repairs in accordance with Paragraphs 24-25.

<b>TABLE 2</b>	
<b><u>Covered Type of Equipment</u></b>	<b><u>Lower Leak Definition (ppm)</u></b>
Valves	500
Connectors	500
Pumps	2,000

- b. For purposes of the leak definitions in Table 2, Defendants may elect to adjust the monitoring instrument readings for background pursuant to any provisions of applicable LDAR Regulations that address background adjustment, provided that Defendants comply with the requirements for doing so or not doing so.
- c. **Leaks Identified by OGI.** For all Leaks detected using an OGI instrument in accordance with the AWP at a Covered Facility, Defendants shall perform repairs in accordance with Paragraphs 24-25.
- d. **Leaks Identified by AVO Means.** Beginning no later than 180 Days after the Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)), for all Covered Equipment, and all valves, connectors, and pumps in heavy liquid service, at any time, including outside of periodic monitoring, if evidence of a potential Leak is detected through audio, visual, or olfactory sensing, Defendants shall comply with all applicable regulations and, if repair is required, with Paragraphs 24-25.

24. **Repairs.**

- a. By no later than five (5) Days after detecting a Leak, Defendants shall perform a first attempt at repair. By no later than fifteen (15) Days after detection, Defendants shall repair the Leaking piece of Covered Equipment or place the piece of Covered Equipment on the DOR list provided that Defendants have complied with all applicable LDAR Regulations and with the requirements of Paragraphs 24.b-25, 26 (valve replacement and improvement), and Paragraphs 27 and 27.d (connector replacement).
- b. **Repair Verification Monitoring.** Beginning no later than 180 days after the

Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)), Defendants shall perform Repair Verification Monitoring no later than one (1) Working Day after each attempt at repair of a Leaking piece of equipment in order to determine whether the Leak has been eliminated or is below the applicable Leak definition in Paragraph 23, provided that this Paragraph 24.b shall not be construed to extend the time to complete any required remonitoring or repair pursuant to LDAR Regulations. Repair Verification Monitoring shall confirm that a repair attempt has been successful if:

- (1) For a Leak detected using Method 21, the Screening Value is below the applicable leak definition in the LDAR Program; or
- (2) For a Leak detected using an OGI instrument under the AWP or Subsection C, no emissions are imaged by OGI, or, if using Method 21, the Screening Value is below the applicable leak definition in the LDAR Program.
- (3) For repairs made to equipment taken out of service, Defendants shall perform Repair Verification Monitoring no later than (1) Working Day of equipment being placed back into service.

**c. Proactive Repair Attempt for Valves.**

- (1) Beginning no later than 180 Days after the Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)), Defendants shall make an initial attempt to repair and eliminate the emissions from any valve (except control valves and those excluded from these requirements pursuant to Paragraph 24.c(2)) that has a Screening Value greater than or equal to 250 ppm and less than 500 ppm no later than five (5) days after detecting the emissions at such valve. Repair Verification Monitoring in accordance with Paragraph 24.b shall be performed to determine if the initial repair has been successful. If, upon Repair Verification Monitoring in accordance with Paragraph 24.b, the Screening Value is less than 500 ppm, no further repairs under the Repairs Section of this Consent Decree shall be required for that monitoring event for that valve. If, upon Repair Verification Monitoring in accordance with Paragraph 24.b, the Screening Value is greater than or equal to 500 ppm, Defendants shall undertake the requirements for repair and the valve replacement and improvement program required by this Consent Decree (and all deadlines for such requirements shall be based on the date of the failed Repair Verification Monitoring).
- (2) Defendants are exempt from the requirements of Paragraph 24.c(1) where:
  - (a) Defendants identify and document extensive corrosion, bent

packing bolts, stripped bolt threads, or other signs indicating a substantial likelihood of failure of the valve if a repair is attempted; and

- (b) A Process Unit Shutdown is required to replace or repack the valve.
- (3) Proactive Repair Attempt Reporting. For each valve with a Screening Value greater than or equal to 250 ppm and less than 500 ppm, Defendants shall record the following information, which shall also be included in a separate section of each LDAR Program Compliance Status Report due under Paragraph 35 of this Decree:
- (a) An identification of each piece of Covered Equipment that triggered a requirement under this Paragraph 24.c;
  - (b) The Screening Value detected at each piece of Covered Equipment, the date and time that the Screening Value was taken, and the identification numbers of the monitoring instrument and the technician;
  - (c) The date of all repair attempts;
  - (d) The repair methods used during each repair attempt;
  - (e) The date, time and Screening Values for all re-monitoring events; and
  - (f) If applicable, documentation of compliance with Paragraphs 24.a, 24.d, and 25.
- d. **Drill-and-Tap for Valves.** Beginning no later than 180 Days after the Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)), Defendants shall attempt at least one drill-and-tap repair of any Leaking valve before placing such valve on the DOR list in accordance with Paragraphs 24.d(1) through 24.d(4) below.
- (1) Valves Subject to Drill-and-Tap Requirements. This Paragraph 24.d applies to valves (other than control valves and pressure relief valves) for which other repair attempts have failed to reduce emissions below the applicable leak definition and that Defendants are unable to remove from service.
  - (2) Required Sealant Re-Injection. If the first sealant injection performed as part of the drill-and-tap repair is unsuccessful at repairing the Leak, Defendants shall perform a second injection of an appropriate sealing material.



- (3) Drill-and-Tap Exceptions. Drill-and-tap is not required:
    - (a) When Paragraph 26.f(3)(a) applies; or
    - (b) When there is a safety, major mechanical, major product quality, or environmental issue with repairing the valve using the drill-and-tap method, in which case, Defendants shall document the reason(s) why any drill-and-tap attempt was not performed prior to placing any valve on the DOR list.
  - (4) Timing for Drill-and-Tap Repairs & Provisional DOR Listing.
    - (a) If a drill-and-tap attempt can reasonably be completed within the 15-Day repair period, Defendants shall complete the drill-and-tap attempt in that time period.
    - (b) If a drill-and-tap attempt cannot reasonably occur within the 15-Day repair period (*e.g.*, if Defendants' drill-and-tap contractor is not local and must mobilize to the Covered Facility), Defendants provisionally may place the valve on the DOR list pending attempting the drill-and-tap repair as expeditiously as practical. Absent one of the exceptions found in Paragraph 24.d(3) above or as otherwise agreed to in writing by the EPA, in consultation with the applicable Co-Plaintiff, in no event may Defendants take more than 30 Days from the initial monitoring to attempt a drill-and-tap repair. If Repair Verification Monitoring in accordance with Paragraph 24.b demonstrates that drill-and-tap was successful, the valve shall be removed from the provisional DOR list and considered repaired.
  - (5) Drill-and-Tap Alternative. As an alternative to the drill-and-tap repair method for leaking valves set forth in Paragraphs 24.d(1) and 24.d(2), or in circumstances where Low-E Packing is required under Paragraph 26.f, Defendants may attempt a drill-and-tap repair using Low-E Injectable Packing. If a drill-and-tap repair using Low-E Injectable Packing fails to reduce emissions below the applicable leak definition after one injection of Low-E Injectable Packing, Defendants shall place the valve on the DOR list.
- e. **Record-Keeping of Repairs.** Except as provided in Paragraph 26.f(3)(a), Defendants shall record the following information for any Leak repaired pursuant to this Consent Decree in the LDAR Database:
- (1) The date of all repair attempts;
  - (2) The repair methods used during each repair attempt;
  - (3) For all re-monitoring events, the date, time, and:

- (a) Screening Values;
  - (b) If monitored according to Section 8.3.3 of Method 21, whether a leak was observed; or
  - (c) If monitored using OGI, whether a leak was observed;
- and
- (4) If applicable, documentation of compliance with Paragraphs 24.d and 25 for Covered Equipment placed on the DOR list.

Additionally, if OGI is used, the video recording of the successful repair must be preserved pursuant to Paragraph 42.

- f. Nothing in this Paragraph 24 (Repairs) is intended to prevent Defendants from taking a Leaking piece of Covered Equipment out of service; provided, however, that prior to placing the Leaking piece of Covered Equipment back in service, Defendants must repair the Leak or must comply with the requirements of Paragraph 25 to place the piece of Covered Equipment on the DOR list.

25. **Delay of Repair.** Beginning no later than the Effective Date for the requirements in Paragraphs 25.b and 25.c(1), and beginning no later than 180 Days after the Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)) for the other requirements set forth below in this Paragraph, for all Covered Equipment placed on the DOR list, Defendants shall comply with the following requirements:

- a. Require sign-off from the relevant Process Unit supervisor or person of similar authority that the piece of Covered Equipment is technically infeasible to repair without a Process Unit Shutdown, and maintain records of such supervisor sign-off in accordance with Paragraph 34;
- b. Undertake periodic monitoring of the Covered Equipment placed on the DOR list at the frequency specified in Table 1 of Paragraph 20 required for other pieces of Covered Equipment of that type in the process unit (unless more frequent monitoring is required under applicable LDAR Regulations); and
- c. Either:
  - (1) Repair the piece of Covered Equipment within the time frame required by the applicable LDAR Regulation; or
  - (2) If applicable under Paragraphs 26-27.d, replace, repack, or improve the piece of Covered Equipment by the timeframes set forth in Paragraphs 26-27.d.

26. **Valve Replacement and Improvement Program.**



- a. Beginning no later than 180 Days after the Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)), Defendants shall implement the Valve Replacement and Improvement Program set forth in Paragraphs 26.b-26.k to improve the emissions performance of the valves that are Covered Equipment in each Covered Process Unit.
- b. All references to “valves” in Paragraphs 26.a-26.k exclude pressure relief valves.
- c. **List of Existing Valves in Covered Process Units.** In the first Compliance Status Report required under Paragraph 35, Defendants shall include a list, organized by Covered Process Unit, of the tag numbers of all Existing Valves.
- d. **Proactive Initial Valve Tightening Work Practices for Each Newly-Installed or Repacked Valve.** Defendants shall undertake the work practices specified in this Paragraph with respect to each new valve that is subject to LDAR Regulations that is installed (whether the new valve replaces an Existing Valve or is newly added to a Covered Process Unit) and each Existing Valve that is repacked. Upon installation (or re-installation in the case of repacking) and prior to the valve’s exposure (or re-exposure, in the case of repacking) to process fluids, Defendants shall tighten the valve’s packing gland nuts or their equivalent (e.g., pushers) to:
  - (1) The manufacturer’s recommended gland nut or packing torque; or
  - (2) Any appropriate tightness that will minimize the potential for fugitive emission of any magnitude.
- e. **Installing New Valves.** Except as provided in Paragraphs 26.e(1), 26.e(2), or Paragraph 26.h, Defendants shall ensure that each new valve (other than a valve that serves as the closure device on an open-ended line) that it installs in each Covered Process Unit, and that, when installed, will be regulated under applicable LDAR Regulations, either is a Low-E Valve or is fitted with Low-E Packing. This requirement applies to entirely new valves that are added to a Covered Process Unit and to Existing Valves that are replaced in a Covered Process Unit for any reason other than a required replacement or repacking pursuant to Paragraph 26.f.
  - (1) Paragraph 26.e shall not apply in emergencies or exigent circumstances requiring immediate installation or replacement of a valve where a Low-E Valve or Low-E Packing is not available on a timely basis. Any such instance shall be reported in the next LDAR Program Compliance Status Report.
  - (2) Paragraph 26.e shall not apply to valves that are installed temporarily for a short-term purpose and then removed (e.g., valves connecting a portion of the Covered Process Unit to a testing device).
- f. **Required Replacement or Repacking of Leaking Existing Valves with Low-E**

**Valves or Low-E Packing.**

- (1) Except as provided in Paragraph 26.h, for each Existing Valve that has a Leak twice in any 4-year period, Defendants shall either replace the Existing Valve with a Low-E Valve or repack the Existing Valve with Low-E Packing. In determining the applicability of this Paragraph 26.f, Defendants need not consider Repair Verification Monitoring conducted in accordance with Paragraph 24.b or the monitoring conducted while a valve is on DOR.
- (2) Timing. Defendants shall replace or repack an Existing Valve pursuant to Paragraph 26.f(1) by no later than 30 Days after the monitoring event that triggered the replacing or repacking requirement, unless Defendants comply with either of the following:
  - (a) Permissible Delay Despite Diligent Efforts. Where replacement or repacking does not require a Process Unit Shutdown, delayed replacement or repacking beyond the thirty (30) Day deadline is permissible only when Defendants meet the following criteria:

- (i) Prior to the thirty (30) Day deadline, Defendants must take actions necessary to obtain the required valve or valve packing, including all necessary associated materials, as expeditiously as practical, and retain documentation of the actions taken and the date of each such action;
  - (ii) If, despite Defendants' efforts to comply with Paragraph 26.f(2)(a)(i), the required valve or valve packing, including all necessary associated materials, is not available in time to complete the installation within thirty (30) Days, Defendants must take all reasonable actions to minimize emissions from the valve pending completion of the required replacing or repacking. Examples of such actions to minimize emissions from the valve include, but are not limited to: 1) repair; 2) more frequent monitoring, with additional repairs as needed; or 3) where practical, interim replacing or repacking of a valve with a valve that is not a Low-E Valve or with packing that is not Low-E Packing; and
  - (iii) Defendants must promptly perform the required replacing or repacking after Defendants' receipt of the Low-E Valve or Low-E Valve Packing, including all necessary associated materials.
- (b) Delay due to Required Process Unit Shutdown. If replacing or repacking requires a Process Unit Shutdown, Defendants shall replace or repack the Existing Valve during the first Maintenance Shutdown that follows the monitoring event that triggered the requirement to replace or repack the valve, unless Defendants:
  - (i) Document that insufficient time existed between the monitoring event and the Maintenance Shutdown to enable Defendants to purchase and install the required Low-E Valve or Low-E Valve packing technology; and
  - (ii) Replace or repack the valve at the next Maintenance Shutdown that occurs after Defendants' receipt of the Low-E Valve or Low-E Valve packing, including all necessary associated materials.
- (3) Applicable Requirements Pending Replacement or Repacking.

- (a) Applicability of Drill-and-Tap Requirements: Defendants shall not be required to comply with the drill and tap requirements of Paragraph 24.d pending replacing or repacking pursuant to Paragraphs 26.f(1)-26.f(2)(b) if Defendants complete the replacing or repacking by the date that is no later than thirty (30) Days after detecting the Leak. If Defendants do not complete the replacing or repacking within thirty (30) Days, or if at the time of the Leak detection Defendants reasonably can anticipate that they might not be able to complete the replacing or repacking within thirty (30) Days, Defendants shall comply with all applicable requirements of Paragraphs 24-25.
- (b) Actions Required Pursuant to Applicable Regulations. For each Existing Valve that has a Leak, Defendants shall comply with all applicable LDAR Regulations and the LDAR Program, including repair and DOR, pending replacing or repacking pursuant to Paragraphs 26.f(1)through 26.f(2)(b)

**g. Provisions Related to Low-E Valves and Low-E Packing.**

- (1) Low-E Status Not Affected by Subsequent Leaks. If, during monitoring or after installation, a Low-E Valve or a valve using Low-E Packing has a Leak, the Leak is not a violation of this Consent Decree, does not invalidate the “Low-E” status or use of that type of valve or packing technology, and does not require replacing other, non-Leaking valves or packing technology of the same type.
- (2) Repairing Low-E Valves. If, during monitoring after installation, a Low-E Valve or a valve using Low-E Packing has a Leak, Paragraphs 24-25 shall apply.
- (3) Replacing or Repacking Low-E Valves. Defendants shall replace or repack a Low-E Valve or a valve using Low-E Packing in accordance with the procedures and requirements for replacing or repacking Leaking Existing Valves under Paragraph 26.f when:
  - (a) The Low-E Valve or valve with Low-E Packing has a Leak twice in any 4-year period (excluding Repair Verification Monitoring conducted in accordance with Paragraph 24.b or monitoring conducted while the valve is on DOR); or
  - (b) Defendants replace or repack a Low-E Valve or Valve with Low-E Packing for any reason.

**h. Commercial Unavailability of a Low-E Valve or Low-E Packing.** Defendants shall not be required to utilize a Low-E Valve or Low-E Packing to replace or repack a valve if a Low-E Valve or Low-E Packing is commercially unavailable. The factors relevant to the question of commercial unavailability and the

procedures that Defendants must follow to assert that a Low-E Valve or Low-E Packing is commercially unavailable are set forth in Appendix B.

- i. **Records of Low-E Valves and Low-E Packing.** Prior to installing any Low-E Valves or Low-E Packing, or if not possible before installation, then as soon as possible after installation, Defendants shall secure from each manufacturer documentation that demonstrates that the proposed valve or packing technology meets the definition of “Low-E Valve” and/or “Low-E Packing.” Defendants shall make the documentation available upon written request by EPA or the applicable Co-Plaintiff.
- j. Nothing in Paragraphs 26.e-26.h requires Defendants to use any valve or valve packing technology that is not appropriate for its intended use in a Covered Process Unit.
- k. In each LDAR Program Compliance Status Report due under Paragraph 35 of this Decree, Defendants shall include a separate section in the Report that:
  - (1) Describes the actions it took to comply with this Paragraph 26 (Valve Replacement and Improvement Program), including:
    - (a) An identification of each piece of equipment that triggered a requirement under Paragraph 26;
    - (b) The post-installation, -repacking, or -improvement monitoring results (Method 21 readings or OGI results) for each piece of equipment that triggered a requirement under Paragraph 26;
    - (c) The date(s) of the action or activity taken to comply with this Paragraph 26;
    - (d) The repair method or type of action taken (i.e., replacement, repacking, or improvement); and
    - (e) If applicable, a description of the circumstances surrounding each instance in which Defendants proceeded under Paragraph 26.e(1);
  - (2) Identification of any required actions that were not taken along with an explanation for why the action was not taken; and
  - (3) The schedule for any known future replacements, repackings, improvements, eliminations, or any planned action to comply with this Paragraph 26.

27. **Connector Replacement and Improvement Descriptions.**

- a. Beginning no later than 180 Days after the Effective Date (unless a different

timeframe is specified in Paragraph 18.a(2)), Defendants shall implement the Connector Replacement and Improvement Program set forth in Paragraphs 27.b-27.e.

- b. For purposes of Paragraph 27.d, Defendants shall replace or improve Existing Connectors in accordance with Table 3:

<b>TABLE 3</b>	
<b><u>Connector Type</u></b>	<b><u>Replacement or Improvement Description</u></b>
Flanged	Replacement or improvement of the gasket
Threaded	Replacement or improvement of the thread sealing material or replacement of the connector with a like-kind connector or other
Compression	Replacement or improvement of compression fitting or replacement of the connector with a like-kind connector or other
CamLock	Replacement or improvement of the gasket or replacement or improvement of the CamLock
Quick Connect	Replacement or improvement of the gasket, if applicable, or replacement of the connector (with either a like-kind connector or other), if there is no gasket
Any Type	Elimination ( <i>e.g.</i> , through welding, pipe, etc.)

For purposes of this Paragraph and Table 3, “gasket” means a sealing element that includes, but is not limited to, an O-ring, gasket, or D-ring.

- c. **Like-Kind Replacement Requirements.** Where Defendants employ a like-kind replacement as the method for replacing or improving an Existing Connector (*e.g.*, a Quick Connect replaces another Quick Connect), Defendants shall comply with the requirements of Paragraphs 27.c(1) and 27.c(2):

- (1) If there are types, models or styles of a like-kind connector that are less likely to Leak than the Existing Connector, and one or more of those types, models or styles are technically feasible to use (considering the service, operating conditions, and type of piping or tubing that the connector is in), and would not create a safety, major mechanical, major product quality, regulatory or other issue, Defendants shall select a like-kind connector from among such types, models or styles.

- (2) If Paragraph 27.c(1) does not apply, Defendants may install a like-kind connector that is the same type, model or style as the Existing Connector.

d. **Replacing or Improving Connectors.**

- (1) Trigger for Replacement or Improvement Requirements. For each connector that, in any two of three consecutive monitoring periods, has a Leak, Defendants shall replace or improve the connector in accordance with the applicable replacement or improvement described in Paragraph 27.a. In determining the applicability of this Paragraph 27.d(1) Defendants need not consider Repair Verification Monitoring conducted in accordance with Paragraph 24.b or monitoring conducted while the connector is on DOR. Defendants shall use best efforts to install a replacement or improvement that, using good engineering judgment, will be the least likely to Leak for the service, operating conditions, and type of piping or tubing to which the connector is connected.

- (2) Timing.

- (a) If the replacement or improvement does not require a Process Unit Shutdown, Defendants shall undertake the replacement or improvement within 30 Days after the monitoring event that triggers the replacement or improvement requirement.
- (b) If the replacement or improvement requires a Process Unit Shutdown, Defendants shall undertake the replacement or improvement during the first Maintenance Shutdown that follows the monitoring event that triggers the requirement to replace or improve the connector, unless Defendants document that insufficient time existed between the monitoring event and the Maintenance Shutdown to enable Defendants to secure and install the replacement or improvement. In that case, Defendants shall undertake the replacement or improvement at the next Maintenance Shutdown that follows thereafter.

- (3) Nothing in Paragraphs 27.a-27.d requires Defendants to utilize any connector that is not appropriate for its intended use in a Covered Process Unit.

e. In each LDAR Program Compliance Status Report due under Paragraph 35 of this Decree, Defendants shall include a separate section that includes:

- (1) A description of the actions Defendants took to comply with Paragraph 27.a-27.d (Connector Replacement and Improvement Program), including:



- (a) An identification of each piece of equipment that triggered a requirement under Paragraph 27.d;
  - (b) The monitoring results (Method 21 readings or OGI results) for each piece of equipment that triggered a requirement under Paragraph 27.d after installation;
  - (c) A description of the existing and replacement connector types; and
  - (d) The date(s) of the action or activity taken to comply with this Paragraph 27;
- (2) Identification of any required actions that were not taken along with an explanation for why the action was not taken; and
  - (3) The schedule for any planned future action to comply with Paragraph 27.d.

28. **Management of Change.** Beginning no later than 180 Days after the Effective Date of this Consent Decree, Defendants shall, for each Covered Facility, implement a “Management of Change Protocol” that shall ensure that:

- a. Each valve, pump, and connector added to the Covered Process Units at the Covered Facility for any reason is evaluated to determine if it is subject to LDAR Regulations;
- b. Each valve, pump, and connector that was subject to the LDAR Program is eliminated from the LDAR Program if it is physically removed from a Covered Process Unit; and
- c. Any monitoring data, including monitoring relating to each piece of Covered Equipment that is removed from any Process Unit, is maintained in accordance with the applicable LDAR Regulations and this Consent Decree.

29. **Training.**

- a. **Training Protocol.** By no later than 120 Days after the Effective Date, Defendants shall develop, for each Covered Facility, a training protocol (or, as applicable, require its contractor(s) to develop a training protocol for the contractor’s employees).
- b. **Initial Training.** By no later than 180 Days after the Effective Date (unless a different timeframe is specified in Paragraph 18.a(2)), Defendants shall ensure that all LDAR Personnel have completed training on all aspects of LDAR, including this LDAR Program, that are relevant to the person’s duties.
- c. **Refresher Training.** Once per calendar year starting in the calendar year after



completion of initial training, Defendants shall ensure that refresher training is performed with respect to each employee and contractor; provided, however, that refresher training is not required if an individual's employment at the Covered Facility ceases prior to the end of the calendar year or no longer involves duties relevant to LDAR.

- d. **New Employee/Contractor Training Requirement.** After the development of the training protocol in Paragraph 29.a and continuing until termination of this Consent Decree, Defendants shall ensure (or as applicable, require its contractor to ensure for the contractor's employees) that new LDAR Personnel are sufficiently trained no more than 90 Days prior to any field involvement (other than supervised involvement for purposes of training) with LDAR and/or the LDAR Program.
- e. **Training-Related Recordkeeping.** Defendants shall maintain a record of the dates of initial and refresher training for all LDAR Personnel. Upon written request by the United States or the Co-Plaintiffs, Defendants shall provide the training records for LDAR Personnel.

30. **QA/QC.**

- a. **Daily Certification by Monitoring Technicians.** Commencing by no later than 30 Days after the Effective Date, on each Day that monitoring occurs, at the end of such monitoring, Defendants shall ensure that each monitoring technician certifies that the data collected accurately represents the monitoring performed for that Day by requiring the monitoring technician to sign a form that includes the following certification:

On [insert date], I reviewed the monitoring data that I collected today and to the best of my knowledge and belief, the data accurately represents the monitoring that I performed today.

- b. **QA/QC Requirements.** Commencing by no later than the first full calendar Quarter after the Effective Date, at times that are not announced to the LDAR monitoring technicians, an LDAR-trained employee or contractor of Defendants, who does not serve on a routine basis as an LDAR monitoring technician at the Covered Facility, shall undertake the following no less than once per calendar Quarter at such Covered Facility:

- (1) Verify that equipment was monitored at the appropriate frequency;
- (2) Verify that proper documentation and sign-offs have been recorded for all equipment placed on the DOR list;
- (3) Verify that repairs have been performed in the required periods;
- (4) Review monitoring data and equipment counts (e.g., number of pieces

- of equipment monitored per Day) for feasibility and unusual trends;
- (5) Verify that proper calibration records and monitoring instrument maintenance information are maintained;
  - (6) Verify that LDAR records are maintained as required; and
  - (7) Observe in the field each LDAR monitoring technician who is conducting Leak detection monitoring to ensure that monitoring during the quarterly QA/QC is being conducted as required.
- c. Defendants shall promptly correct any deficiencies detected or observed.
- d. **QA/QC Record-Keeping.** Defendants shall maintain a log that includes:
- (1) The date and time that the reviews, verifications, and observations required by this Paragraph 30 are undertaken;
  - (2) A description of all deficiencies detected or observed during the QA/QC review required pursuant to Paragraph 30; and
  - (3) A description of the nature and timing of any corrective actions taken.

31. **LDAR Audit**

- a. **Audit Schedule.** Defendants shall ensure that LDAR audits are conducted in accordance with the following schedule:
- (1) The first LDAR audits shall include all Covered Process Units at each of the Covered Facilities. Defendants shall ensure that the LDAR Auditor conducts his/her first Day of on-site inspection for the first LDAR audits accordingly:
    - (a) For the facilities identified in Paragraph 18.a(1), no later than 365 Days after the Effective Date of this Consent Decree; and
    - (b) For the facilities identified in Paragraph 18.a(2), no later than two years after the Effective Date of this Consent Decree.
  - (2) The second LDAR audits shall include all Covered Process Units at the Ignacio, Mobile Bay, Moundsville, and Parachute Creek Facilities. Defendants shall ensure that the LDAR Auditor conducts his/her first Day of on-Site inspection for the second LDAR audits no sooner than two (2) years after and within the same calendar Quarter that the first LDAR Audit Reports were submitted.
  - (3) The final LDAR audits shall include all Covered Process Units at each of the Covered Facilities. Defendants shall ensure that the LDAR

Auditor conducts his/her first Day of on-Site inspection for the final LDAR audits as follows:

- (a) For Covered Facilities for which a second LDAR Audit was performed, no sooner than two (2) years after and within the same calendar Quarter that the second LDAR Audit Reports were submitted; and
  - (b) For Covered Facilities for which no second LDAR Audit was performed, no sooner than four (4) years after and within the same calendar Quarter that the first LDAR Audit Reports were submitted.
- b. **LDAR Auditor Selection Requirements.** For the LDAR audits required under this Consent Decree, each Defendant shall retain a LDAR Auditor that is experienced in conducting LDAR audits and that is different than the regular LDAR contractor for any Covered Facility owned or operated by that Defendant. Each Defendant shall not hire the LDAR Auditor from any of that Defendant's Covered Facilities as a regular LDAR contractor for its Covered Facilities during the life of this Consent Decree.
- c. **Audit Scope & Content.** For each Covered Process Unit, each LDAR audit shall include:
- (1) A review of compliance with all applicable LDAR Regulations, including:
    - (a) A determination of the LDAR requirements applicable to each Covered Process Unit at the Facility; and
    - (b) A review of LDAR requirements related to valves and pumps in heavy liquid service;
  - (2) A review and/or verification of the same items that are required to be reviewed and/or verified in Paragraphs 30.b(1) through 30.b(7);
  - (3) A review of whether any pieces of equipment that are required to be in the LDAR Program are not included;
  - (4) "Comparative Monitoring" as described in Paragraph 31.d; and
  - (5) A review of the Covered Facility's compliance with this Subsection V.B (LDAR Program).
- d. **Comparative Monitoring.** Comparative monitoring during LDAR audits shall be undertaken as follows:
- (1) Type of Monitoring. Comparative monitoring shall employ Method 21

at each Covered Facility, unless the Covered Facility has elected to comply with LDAR Regulations and this Consent Decree using the AWP. For Covered Facilities employing the AWP, comparative monitoring shall include OGI monitoring for each audit and Method 21 for at least two of the audits required by Paragraph 31.a.

- (2) Calculating a Comparative Monitoring Audit Leak Percentage. Covered Equipment shall be monitored in order to calculate a Leak percentage for each Covered Process Unit. For descriptive purposes under this Paragraph, the monitoring that takes place during an LDAR Audit shall be called “comparative monitoring” and the Leak percentages derived from the comparative monitoring shall be called the “Comparative Monitoring Audit Leak Percentages.” Defendants shall undertake comparative monitoring of the Covered Equipment in each Covered Process Unit during each LDAR audit and shall calculate separate Comparative Monitoring Audit Leak Percentages for Method 21 and OGI and for each type of Covered Equipment; provided that, for the first audit required by Paragraph 31.a(1)(b), Comparative Monitoring of Covered Process Units that were not subject to Subpart OOOO or OOOOa on the Effective Date shall not include connectors. In undertaking Comparative Monitoring, Defendants shall not be required to monitor every component in each Covered Process Unit.
- (3) Calculating the Historic, Average Leak Percentage from Prior Periodic Monitoring Events. The Historic, Average Leak Percentage for each Covered Process Unit from prior periodic monitoring events, broken down by types of Covered Equipment, shall be calculated. Four complete monitoring periods immediately preceding the comparative monitoring shall be used for valves for this purpose. Twelve complete monitoring periods immediately preceding the comparative monitoring shall be used for pumps. The preceding monitoring periods may comprise a mix of the monitoring periods and frequencies specified in Paragraph 20. For Covered Facilities employing the AWP, Historic, Average Leak Percentage shall be calculated separately for Method 21 and OGI monitoring.
- (4) Calculating the Comparative Monitoring Leak Ratio. For each Covered Process Unit, the ratio of the Comparative Monitoring Audit Leak Percentage from Paragraph 31.d(1) to the Historic, Average Leak Percentage from Paragraph 31.d(3) shall be calculated. This ratio shall be called the “Comparative Monitoring Leak Ratio.” If the denominator in this calculation is “zero,” it shall be assumed (for purposes of this calculation but not for any other purpose under this Consent Decree or under any applicable laws and regulations) that one Leaking piece of Covered Equipment was found in the Process Unit through routine monitoring during the 365-Day period before the comparative monitoring. For Covered Facilities employing the AWP,

separate Comparative Monitoring Leak Ratios shall be calculated for Method 21 and OGI monitoring.

- e. **When More Frequent Periodic Monitoring is Required.** If a Comparative Monitoring Audit Leak Percentage calculated pursuant to Paragraph 31.d(1) triggers a more frequent monitoring schedule under any applicable LDAR Regulation than the frequencies listed in Paragraph 20 as applicable for the Covered Equipment in that Covered Process Unit, Defendants shall monitor the Covered Equipment at the greater frequency unless and until less frequent monitoring is again allowed under the LDAR Regulation. At no time may Defendants monitor at intervals less frequently than those listed in Paragraph 20, except as allowed under Paragraph 20.d.
- f. **Audit Report.** Within 120 Days of the LDAR Auditor's first Day of on-site inspection for any LDAR audit of a Covered Facility, the LDAR Auditor shall prepare and simultaneously submit to Defendants, EPA, and the applicable Co-Plaintiff a written report ("Audit Report") that describes:
  - (1) A summary of findings with respect to the topics specified in Paragraphs 31.c(1) through 31.c(3) and 31.c(5);
  - (2) The raw data with respect to the comparative monitoring described in Paragraph 31.d(1);
  - (3) The Comparative Monitoring Audit Leak Percentage for each Process Unit calculated pursuant to Paragraph 31.d(1); and
  - (4) The Comparative Monitoring Leak Ratio for each Process Unit calculated pursuant to Paragraph 31.d(4).

### 32. **Corrective Action.**

- a. **Scope of Corrective Action.** Defendants shall complete each corrective action at a Covered Facility necessary to address both:
  - (1) Any noncompliance or deficiencies identified during, or as a result of, the LDAR audit at the Covered Facility; and
  - (2) If the Comparative Monitoring Leak Ratio calculated pursuant to Paragraph 31.d(4) is 3.0 or higher *and* the Comparative Monitoring Audit Leak Percentage calculated pursuant to Paragraph 31.d(1) is greater than or equal to 0.5 percent, the causes of any equipment leaks that are resulting in such Comparative Monitoring Audit Leak Percentage and such Comparative Monitoring Leak Ratio at the Covered Facility.
- b. **Timing/Schedule for Corrective Action.** If Defendants have not completed each corrective action required under Paragraph 32.a within ninety (90) Days of

the submission of the Audit Report (or all such corrective actions are not expected to be completed within ninety (90) Days), Defendants shall develop a Corrective Action Plan (“CAP”) for the Covered Facility in accordance with Paragraph 32.c.

**c. Corrective Action Plan (“CAP”).**

- (1) Required Contents of a CAP. A CAP shall:
  - (a) Explain the reasons why each such corrective action(s) was not completed within ninety (90) days of the submission of the Audit Report; and
  - (b) Propose a schedule for prompt completion of all such corrective action(s) as expeditiously as practical.
- (2) Submission of the CAP. By no later than 120 days after submission of the LDAR Audit Report, Defendants shall submit the CAP to EPA and the applicable Co-Plaintiff.
- (3) Review and Approval of the CAP. The review and approval of the CAP by EPA, in consultation with the applicable Co-Plaintiff, shall follow the procedures set forth in Section VIII (Approval of Deliverables) of this Consent Decree. Disputes arising with respect to any aspect of a CAP shall be resolved in accordance with Section XII (Dispute Resolution).
- (4) CAP Implementation. Defendants shall implement the corrective action(s) in the approved CAP in accordance with the approved schedule (and, if applicable, any approved CAP modification).
- (5) CAP Modification. Defendants shall request modification of the approved CAP (including modification to the type of corrective action(s) performed or to the schedule of completion) by a written submission that includes an explanation of the reasons for the modification and that otherwise complies with Paragraph 32.c(1). The proposed CAP modification shall be submitted in accordance with Paragraph 32.c(2) and reviewed and approved in accordance with Paragraph 32.c(3).

**33. Certification of Compliance.**

- a. Within 180 Days after the submission of each Audit Report, Defendants shall certify to EPA and the applicable Co-Plaintiff that, to the signer’s best knowledge and belief formed after reasonable inquiry:
  - (1) Except as otherwise identified, the Covered Facility is in compliance with all applicable LDAR Regulations and this LDAR Program;



- (2) Defendants have completed all corrective actions at the Covered Facility, if applicable, or are in the process of completing all corrective actions pursuant to a CAP; and
  - (3) All equipment at the Covered Facility that is subject to LDAR Regulations has been identified and included in the LDAR Program.
- b. To the extent that Defendants cannot make the certification in all respects, they shall specifically identify any deviations from Paragraphs 33.a(1) through 33.a(3).
  - c. If all corrective action(s) required under Paragraph 32.a are not complete at the time of original certification under Paragraph 33.a, Defendants shall submit a supplemental certification by no later than 30 Days after the date of completion of all such corrective action(s).

34. **Recordkeeping.** Defendants shall keep all records required by this LDAR Program, including each LDAR Audit Report, to document compliance with the requirements of this LDAR Program as provided in Paragraph 91. Upon written request by EPA or a Co-Plaintiff, Defendants shall make all such documents available to the requesting Plaintiff and shall provide, in electronic format if so requested, all LDAR monitoring data generated during the life of this Consent Decree.

35. **LDAR Program Compliance Status Reports.** On the dates and for the time periods set forth in Section IX (Reporting Requirements), Defendants shall include a separate, clearly-identified section in each Annual Report that shall be titled “LDAR Program Compliance Status Report” and that shall contain the information identified in Paragraph 55.a for each Covered Facility.

### **C. OPTICAL GAS IMAGING (“OGI”) PROGRAM.**

36. **OGI Protocol.** Defendants shall develop a protocol for optical gas imaging emission monitoring of all Covered Equipment and Fin Fan Unit plugs (hereinafter, “the OGI Protocol”). The OGI Protocol shall address and include the following:

- a. Use of an optical gas imaging instrument (“OGI Instrument”) that complies with the requirements of 40 C.F.R. § 60.18(i)(1), provided that the OGI Protocol need not use a specific OGI Instrument;
- b. Consideration of parameters such as viewing distance, thermal background, wind speed, interferences (e.g., steam), and operator training, unless sufficiently addressed by the instrument manufacturer’s operating parameters;
- c. Daily instrument checks of each OGI Instrument that comply with the requirements of 40 C.F.R. § 60.18(i)(2) and ensure that the OGI Instrument can effectively detect Leaks under the conditions outlined in Paragraph 36.b above;
- d. Maintenance of the OGI Instrument in accordance with the manufacturer’s

recommendations;

- e. Operation of the OGI Instrument in accordance with the manufacturer's operating parameters;
- f. Definition of an OGI leak consistent with Paragraph 9.bb; and
- g. Performance of OGI monitoring by a technician appropriately trained to detect Leaks using OGI.

37. **Submission and Approval of the OGI Protocol.**

- a. By no later than 90 Days after the Effective Date, Defendants shall submit the OGI Protocol to EPA and the Co-Plaintiffs for review and approval.
- b. The review and approval of the OGI Protocol by EPA, in consultation with the Co-Plaintiffs, shall follow the procedures set forth in Section VIII (Approval of Deliverables).

38. **Annual OGI Monitoring Program.**

- a. By no later than 90 Days after EPA's approval of the OGI Protocol, Defendants shall conduct annual OGI monitoring of all Covered Equipment in accordance with the EPA-approved OGI Protocol.
- b. By no later than 90 Days after EPA's approval of the OGI Protocol, Defendants shall comply with Paragraphs 40-41 below.
- c. Covered Facilities utilizing AWP are not subject to Annual OGI Monitoring Program requirements set forth in Paragraph 37a.

39. **Fin Fan Unit OGI Monitoring Program.**

- a. By no later than 30 Days after EPA's approval of the OGI Protocol, Defendants shall identify all Fin Fan Units at each Covered Facility that are in VOC or wet gas service, as defined in 40 C.F.R. § 60.481a.
- b. By no later than 90 Days after EPA's approval of the OGI Protocol, Defendants shall monitor Fin Fan Units in accordance with the EPA-approved OGI Protocol as follows:
  - (1) Defendants shall, on a quarterly frequency, monitor, while the Fin Fan Unit is operating, all plugs on the Fin Fan Unit with an OGI Instrument.
  - (2) No sooner than two years after Effective Date, Defendants may elect to monitor all Fin Fan Unit plugs at the Facility in accordance with Paragraph 39.a semi-annually if the Leak rate is determined to be



below 0.5% for the two-year period on a facility-wide basis.

- c. By no later than 30 Days after EPA’s approval of the OGI Protocol, Defendants shall comply, with respect to Covered Facilities that operate Fin Fan Units that are in VOC or wet gas service, with Paragraphs 40-41 below.

40. **Repairs of OGI-Detected Leaks.** This Paragraph applies to all Leaks that were detected during an OGI monitoring event regardless of whether such Leaks were found with the OGI Instrument or whether the Leaks were detected using olfactory, visual, and auditory inspections during an OGI survey.

- a. **Leaking Covered Equipment.** Defendants shall repair (or, if applicable, replace) and re-monitor Leaking Covered Equipment in accordance with Paragraphs 24, 26, and 27.
- b. **Leaking Fin Fan Unit Plugs.** With respect to Leaking Fin Fan Unit Plugs, Defendants shall:
  - (1) Perform a first attempt at repair no later than five Days after detecting a Leak;
  - (2) Repair the Leaking Fin Fan Unit plug in accordance with the following:
    - (a) No later than 15 Days after detecting the Leak unless such repair requires a Maintenance Shutdown; or
    - (b) If repair requires a Maintenance Shutdown, complete the repair no later than the end of the next Maintenance Shutdown; and
  - (3) Perform Repair Verification Monitoring in accordance with Paragraph 24.b.
- c. **Leaks from Equipment Other than Covered Equipment or Fin Fan Unit Plugs.** If, during OGI monitoring under Paragraphs 38 or 39, Defendants detect Leaking equipment that is not Covered Equipment or a Fin Fan Unit Plug, Defendants shall repair and re-monitor the equipment in accordance with Subpart OOOOa, Subpart HH, or any other applicable LDAR regulation.

41. **OGI Project Status Reports.** On the dates and for the time periods set forth in Section IX (Reporting Requirements), Defendants shall include a separate, clearly-identified section in each Annual Report required by Section IX of this Consent Decree that shall be titled “OGI Project Status Report” and that shall contain the information identified in Paragraph 55.b for each Covered Facility.

42. **OGI Recordkeeping.** Defendants shall maintain the following records for five (5) years from the date of inspection:

- a. Identification of any Fin Fan Units in wet gas or VOC service at the Covered

- Facility;
- b. All OGI surveys;
- c. The information described in 40 C.F.R. § 60.18(i)(4)(ii)-(v);
- d. Identification and location of identified Leaks and associated video recordings;
- e. Timing and efficacy of all first attempt and final repairs; and
- f. Repair Verification Monitoring on all Leaking equipment and Fin Fan Unit plugs.

## VI. MITIGATION PROJECTS

43. **Ignacio Flare Monitoring Project.** Harvest Four Corners, LLC shall comply with the requirements set forth in Appendix C – Ignacio Flare Monitoring Project.
44. **Compressor Station Project.** Williams Defendants shall comply with the requirements set forth in Appendix D -- Compressor Station Project.
45. **Mitigation Project Certifications.**
- a. For purposes of this Paragraph 45, “Mitigation Projects” shall mean the requirements of Paragraphs 2-7 of Appendix C (Ignacio Flare Monitoring Project) and Appendix D (Compressor Station Project).
  - b. With regard to the Mitigation Projects, Defendants certify the truth and accuracy of each of the following:
    - (1) That, as of the date of executing this Decree, Defendants are not required to perform or develop the Mitigation Projects by any federal, state, or local law or regulation and are not required to perform or develop the Mitigation Projects by agreement, grant, or as injunctive relief awarded in any other action in any forum;
    - (2) That the Mitigation Projects are not a project that Defendants were planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this Decree;
    - (3) That Defendants have not received and will not receive credit for the Mitigation Projects in any other enforcement action(s); and
    - (4) That Defendants shall neither generate nor use any pollutant reductions from the Mitigation Projects as netting reductions, pollutant offsets, or to apply for, obtain, trade, or sell any pollutant reduction credits.

## VII. PERMITS

46. **Permits Needed to Meet Compliance Obligations.** If any compliance obligation under Section V of this Consent Decree (Injunctive Relief) requires Defendants to obtain a federal, state, Tribal, or local permit or approval, Defendants shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. All applications must be submitted within 2 years of the Effective Date of this Consent Decree. Any permit required under state or Tribal law must comply with all applicable state or Tribal statutory and regulatory requirements for obtaining such permit.

47. **Permits to Ensure Survival of Consent Decree Limits and Standards after Termination of Consent Decree.**

- a. Within 2 years of the Effective Date of this Consent Decree, Defendants shall submit complete applications, amendments, and/or supplements for all Covered Facilities to incorporate as “applicable requirements” the limits and standards consistent with the compliance parameters specified in the referenced Paragraph 47.b into non-Title V federally enforceable permits or approvals that will survive termination of this Consent Decree to applicable permitting or approval authorities.
- b. The limits and standards imposed by the following Paragraphs of this Consent Decree and its Appendices shall be incorporated into non-Title V federally enforceable permits or approvals prior to Termination:
  - (1) Subpart OOOOa as it applies to natural gas processing plants (Paragraph 15 of this Consent Decree);
  - (2) Subpart Db as it applies to affected Large Hot Oil Heaters (Paragraph 17 of this Consent Decree);
  - (3) The Annual OGI Monitoring Program as it applies to Covered Facilities (Paragraphs 36 through 38 and 40 through 42); and
  - (4) Paragraph 6 of Appendix C (Ignacio Flare Monitoring Project), as applicable and in accordance with Paragraphs 6.d of Appendix C.

48. **Modifications to Title V Operating Permits.** Within 12 months from the date of issuance of the permit(s) required pursuant to Paragraph 47, Defendants shall, for any Covered Facility with a Title V Operating Permit, submit complete applications to applicable permitting authorities to modify, amend or revise such Title V permit to incorporate the applicable limits and standards identified in the preceding Paragraph into the Title V Permit. The Parties agree that the incorporation of these emission limits and standards into Title V Permits shall be done in accordance with applicable state, local, or Tribal Title V rules. The Parties agree that the incorporation may be by “amendment” under 40 C.F.R. § 70.7(d) and analogous state or Tribal Title V rules, where allowed by state or Tribal law.

## VIII. APPROVAL OF DELIVERABLES

49. This Section VIII shall apply to the following types of submissions by Defendants (hereinafter, “Proposed Submissions”):

- a. A Corrective Action Plan required to be submitted to EPA and the applicable Co-Plaintiffs no later than 120 Days after submission of the LDAR Audit Report as set forth in Paragraph 32;
- b. OGI Protocol required to be submitted to EPA and the Co-Plaintiffs no later than 90 Days after the Effective Date of this Consent Decree as set forth in Paragraph 37; and
- c. A Compressor Station Fugitive Emissions Monitoring Plan required to be submitted to EPA and the applicable Co-Plaintiffs no later than 6 months after the Effective Date of this Consent Decree as set forth in Paragraph 2 of Appendix D.

50. After review of any Proposed Submission, after consultation with the applicable Co-Plaintiff, as applicable, EPA shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission.

51. If the submission is approved pursuant to Paragraph 50, Defendants shall take all actions required by the Proposed Submission, in accordance with the schedules and requirements of the Proposed Submission, as approved. If the submission is conditionally approved or approved only in part pursuant to Paragraph 50(b) or (c), Defendants shall, upon written direction from EPA after consultation with the applicable Co-Plaintiff, take all actions required by the Proposed Submission that EPA after consultation with the applicable Co-Plaintiff determines are technically severable from any disapproved portions, subject to Defendants’ right to dispute only the specified conditions or the disapproved portions, under Section XII (Dispute Resolution).

52. If the submission is disapproved in whole or in part pursuant to Paragraph 50(c) or (d), Defendants shall, within 45 Days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the Proposed Submission, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, Defendants shall proceed in accordance with the preceding Paragraph.

53. If a resubmitted Proposed Submission, or portion thereof, is disapproved in whole or in part, EPA after consultation with the applicable Co-Plaintiff may again require Defendants to correct any deficiencies, in accordance with the preceding Paragraphs, or may itself/themselves correct any deficiencies subject to Defendants’ right to invoke Dispute Resolution and the right of EPA and the applicable Co-Plaintiff to seek stipulated penalties as provided in the preceding Paragraphs.

54. Any stipulated penalties applicable to the original submission, as provided in Section X, shall accrue during the 45-Day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Defendants’ obligations under

this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

## IX. REPORTING REQUIREMENTS

55. **Annual Report.** After the Effective Date and for each annual period until this Consent Decree's termination pursuant to Section XX (Termination), Defendants shall submit a written status report to EPA and the applicable Co-Plaintiff. The first such report shall cover the first 365 Days from the Effective Date and shall be due within thirty (30) Days after the end of the 365-Day period. Each subsequent status report shall cover a one (1) year period and shall be due within thirty (30) Days after the end of the annual period covered. Each Annual Report shall include:

- a. **LDAR Program Compliance Status Report.** In a clearly labelled section of the Annual Report, Defendants shall provide the following information for each Covered Facility:
  - (1) The number of LDAR Personnel at the Covered Facility (excluding Personnel whose functions involve the non-monitoring aspects of repairing Leaks) and the approximate percentage of time each such person dedicated to performing his/her LDAR functions;
  - (2) An identification and description of any non-compliance with the requirements of Section V (Compliance Requirements) of this Consent Decree;
  - (3) An identification of any problems encountered in complying with the requirements of Section V (Compliance Requirements) of this Consent Decree;
  - (4) The information required by Paragraph 24.c(3) (Proactive Repair for Valves);
  - (5) The list of Existing Valves as required by Paragraph 26.c (Valve Replacement and Improvement Program);
  - (6) The information required by Paragraph 26.k (Valve Replacement and Improvement Program);
  - (7) The information required by Paragraph 27.e (Connector Replacement and Improvement Descriptions);
  - (8) A description of the trainings done in accordance with Paragraph 29;
  - (9) Any deviations identified in the QA/QC performed under Paragraph 30, as well as any corrective actions taken under that Paragraph;
  - (10) A summary of all corrective actions undertaken pursuant to Paragraph

32.a during the reporting period, along with an identification of the specific alleged deficiency (or deficiencies) from the Audit Report that the corrective action addresses;

- (11) A summary and status update on all actions under any CAP that was submitted during the reporting period, unless the CAP was submitted less than 30 Days before the LDAR Program Compliance Status Report; and
- (12) Claims of commercial unavailability in accordance with Paragraph 26.h and Appendix B.

b. **OGI Project Status Report.** In a clearly labelled section of the Annual Report, Defendants shall provide the following information for each Covered Facility:

- (1) An identification and description of any non-compliance with the requirements of Subsection C;
- (2) The date and location (including the unique equipment identification number, if applicable) of each Leak detected during monitoring performed under Subsection C;
- (3) The date and location (including the unique equipment identification number, if applicable) of each Leak that Defendants verified were not Leaks using Method 21 instrument readings;
- (4) The date of all repair attempts performed pursuant to Paragraph 40;
- (5) The repair method or type used during each repair attempt performed pursuant to Paragraph 40;
- (6) The date, time, and results of any post-repair re-monitoring with the OGI Instrument or Method 21 performed pursuant to Paragraph 40; and
- (7) If applicable, documentation of compliance with:
  - (a) Paragraphs 24.c and 25 for Covered Equipment placed on the DOR list;
  - (b) Paragraph 40.b(2)(b) for delayed repair of Fin Fan Unit plugs; or
  - (c) Paragraph 40.c for delayed repair of equipment other than Covered Equipment or Fin Fan Unit plugs.

c. **Ignacio Flare Project Report.** In a clearly labelled section of the Annual Report, Harvest Four Corners, LLC shall provide the following information for the Ignacio Facility:

- (1) A summary of the following, per Quarter (hours must be rounded to the nearest tenth):
    - (a) The total number of hours during which emissions were routed to the Flare with no flame present as required by 40 C.F.R. § 60.18(c)(2) and § 63.11(b);
    - (b) Any instances of visible emissions observed using Method 22 that last longer than 5 minutes within two consecutive hours; and
    - (c) The total number of hours of Instrument Downtime (as that term is defined in Appendix C) of each monitoring instrument/equipment as required pursuant to Appendix C;
  - (2) If Modified Flare Control and Monitoring is required under Paragraph 6 of Appendix C, Harvest Four Corners, LLC shall report exceedances of the Net Heating Value of the Combustion Zone Standard as follows:
    - (a) The total number of hours of exceedances of the emissions standards in Paragraph 6.b(1) of Appendix C while the Flare was In Operation (as that term is defined in Appendix C); and
    - (b) An identification of each block period that exceeded the standard, by time and date; the cause of the exceedance (including startup, shutdown, maintenance, or Malfunction (as that term is defined in Appendix C)), and if the cause is asserted to be a Malfunction, an explanation of any corrective actions taken.
- d. **Compressor Station Fugitive Emissions Project Report.** In a clearly labelled section of the Annual Report, Williams Defendants shall provide the information described in Paragraph 2.h of Appendix D.
  - e. The status of milestones, including a compliance table that lists each milestone set forth in this Consent Decree, each milestone's required completion date, and the date Defendants complete each milestone;
  - f. Problems encountered or anticipated, together with implemented or proposed solutions;
  - g. A description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation; and
  - h. The status of permits and permit applications, including copies of any submitted permit applications, state-proposed permits, and issued permits.



56. **Non-Compliance Reports.** If any Defendant violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Defendant(s) shall notify the United States and the applicable Co-Plaintiff of such non-compliance and its likely duration, in writing, within ten working Days of the Day Defendant(s) first became aware of the non-compliance, with an explanation of the likely cause for the non-compliance and of the remedial steps taken, or to be taken, to prevent or minimize such non-compliance. If the cause of a non-compliance event cannot be fully explained at the time the report is due, Defendant(s) shall so state in the report. Defendant(s) shall investigate the cause of the non-compliance and shall then submit an amendment to the report, including a full explanation of the cause of the non-compliance, within 30 Days of the Day Defendant(s) became aware of the cause of the non-compliance. Nothing in this Paragraph or the following Paragraph relieves Defendant(s) of the obligation to provide the notice required by Section XI (Force Majeure).

57. Whenever any non-compliance with this Consent Decree or any other event affecting Defendants' performance under this Decree or the performance of a Covered Facility, may pose an immediate threat to the public health or welfare or the environment, Defendants shall notify EPA and the applicable Co-Plaintiff orally or by electronic mail as soon as possible, but no later than 24 hours after Defendants first knew of the non-compliance or event. This procedure is in addition to the requirements set forth in the preceding Paragraph.

58. All reports shall be submitted to the persons designated in Section XVI (Notices).

59. Each report submitted by Defendants under this Section shall be signed by an official of the submitting party and 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. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

60. This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

61. The reporting requirements of this Consent Decree do not relieve Defendants of any reporting obligations required by the Act or implementing regulations, or by any other federal, state, local, or tribal law, regulation, permit, or other requirement.

62. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

## X. STIPULATED PENALTIES

63. A Defendant shall be liable for stipulated penalties to the United States and the applicable Co-Plaintiff for failures to comply with this Consent Decree as specified below at any Covered Facility where the Defendant is responsible for compliance, unless excused under Section XI (Force Majeure). For any failures to comply with this Consent Decree at the Ignacio Facility, Harvest Four Corners, LLC solely shall be liable for the stipulated penalties set forth in this Section X to the United States and the applicable Co-Plaintiff. Harvest Four Corners, LLC shall not be liable for the stipulated penalties set forth in this Section X that may accrue for violations at any Covered Facility other than the Ignacio Facility. A failure to comply includes failing to perform any obligation required by the terms of this Decree, including, but not limited to, 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.

64. **Demand for Stipulated Penalties.** Subject to Paragraphs 73 and 89, Defendants shall pay stipulated penalties to the United States and the applicable Co-Plaintiff within 30 Days of a written demand by either Plaintiff. The United States and the applicable Co-Plaintiff shall consult with each other prior to making a demand. The Plaintiff making a demand for payment of a stipulated penalty shall simultaneously send a copy of the demand to the other Plaintiffs in accordance with Section XVI (Notices). Unless otherwise stated, Defendants shall pay 50% percent of the total stipulated penalty amount due to the United States and 50% percent to the Co-Plaintiff. A demand for the payment of stipulated penalties shall identify the particular violation(s) to which the stipulated penalty relates, the stipulated penalty amount that Plaintiffs demand for each violation (as can be best estimated), and the calculation method underlying the demand.

65. **Payment of Stipulated Penalties.**

- a. United States: Defendants shall pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraphs 11 and 12, except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.
- b. Southern Ute Indian Tribe: Defendants shall pay stipulated penalties owing to the Tribe in the manner set forth in Section IV (Civil Penalty).
- c. Alabama: Defendants shall pay stipulated penalties owing to Alabama in the manner set forth in Section IV (Civil Penalty).
- d. Colorado: Defendants shall pay stipulated penalties owing to Colorado in the manner set forth in Section IV (Civil Penalty).
- e. Louisiana Department of Environmental Quality: Defendants shall pay stipulated penalties owing to the Louisiana Department of Environmental Quality in the manner set forth in Section IV (Civil Penalty), Paragraph 14.d.

- f. West Virginia: Defendants shall pay stipulated penalties owing to West Virginia in the manner set forth in Section IV (Civil Penalty).
- g. Wyoming: Defendants shall pay stipulated penalties owing to Wyoming by in the manner set forth in Section IV (Civil Penalty).

66. **Failure to Pay, or Late Payment of, Civil Penalty.** If Defendants fail to pay the civil penalty required to be paid under Section IV (Civil Penalty) when due, Defendants shall pay a stipulated penalty of \$2,500 per Day for each Day that the payment is late. Late payment of the civil penalty and any accrued stipulated penalties shall be made in accordance with Paragraph 11 above. All transmittal correspondence shall state that any such payment is for late payment of the civil penalty due under this Consent Decree, or for stipulated penalties for late payment, as applicable, and shall include the identifying information set forth in Section IV (Civil Penalty). Defendant Harvest Four Corners, LLC shall not be liable for the provisions of this Paragraph 66.

67. **Failure to Meet Section V Compliance Requirements.** Defendants shall be liable for the following stipulated penalties for violations of the following Section V Compliance Requirements:

- a. **Requirements for Applicability of 40 C.F.R. Part 60, Subpart OOOOa.** For failure to implement any applicable provision of NSPS Subpart OOOOa for Affected Facilities, in violation of Paragraph 15:

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation per Day</u>
1st through 15th Day	\$500
16th through 30th Day	\$1,000
31 Days or more	\$2,000

- b. **Requirements under 40 C.F.R. Part 60, Subpart NNN.**

- (1) For failure to install, maintain, or operate any unit or system in accordance with an applicable Subpart NNN monitoring or equipment requirement set forth in Paragraph 16:

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation per Day</u>
1st through 15th Day	\$500
16th through 30th Day	\$1,000
31 Days or more	\$2,000

- (2) For failure to comply with an applicable Subpart NNN emissions standard for any unit or system pursuant to Paragraph 16:

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation per Day</u>
1st through 15th Day	\$500
16th through 30th Day	\$1,000
31 Days or more	\$2,000

- (3) For failure to comply with an applicable Subpart NNN reporting or

recordkeeping requirement set forth in Paragraph 16 for any unit or system:

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation per Day</u>
1st through 15th Day	\$500
16th through 30th Day	\$1,000
31 Days or more	\$2,000

**c. Requirements under 40 C.F.R. Part 60, Subpart Db.**

- (1) For failure to submit an initial notification for any Large Hot Oil Heater subject to Paragraph 17.a, as required in Paragraph 17.b

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation per Day</u>
1st through 15th Day	\$500
16th through 30th Day	\$1,000
31 Days or more	\$2,000

- (2) For failure to continuously comply with the NOx standard for any Large Hot Oil Heater as required in Paragraph 17.c:

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation per Day</u>
1st through 15th Day	\$500
16th through 30th Day	\$1,000
31 Days or more	\$2,000

- (3) For failure to maintain records of emissions monitoring for any Large Hot Oil Heater, as required in Paragraph 17.d:

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation per Day</u>
1st through 15th Day	\$500
16th through 30th Day	\$1,000
31 Days or more	\$2,000

**d. Ignacio Flare Monitoring Project.**

- (1) For failure to comply with the flare general provisions as required by Appendix C, Paragraph 2:

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation</u>
<u>per Day</u> 1 <sup>st</sup> through 30 <sup>th</sup> Day	\$750
31 <sup>st</sup> through 60 <sup>th</sup> Day	\$1,250
61 Days or more	\$2,000

- (2) For violations of Appendix C, Paragraph 3: Failure to install the equipment and monitoring systems required by Appendix C, Paragraph 3 within the required time period and/or in accordance with respective, applicable technical specifications in Appendix C, Paragraph 3:

<u>Period of Delay or Noncompliance per Monitoring System/Instrument per Day</u>	<u>Penalty per Violation</u>
1st through 30th Day	\$750
31st through 60th Day	\$1,250
61 Days or more	\$2,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

- (3) For failure to operate each monitoring system while the Flare is In Operation as required by Appendix C, Paragraph 3 during the Test Period. For any monitoring system that serves a dual purpose, this stipulated penalty applies per instrument only:

<u>Period of Delay or Noncompliance Per Monitoring System/Control Instrument Number of Hours per Calendar Quarter</u>	<u>Penalty per Violation</u>
0.25-50.0	\$250
50.25-100.0	\$500
Over 100.0	\$1,000

- (4) For each failure to conduct the performance evaluation or perform a root cause analysis as required by Appendix C, Paragraph 4:

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation per Day</u>
1 <sup>st</sup> through 30 <sup>th</sup> Day	\$750
31 <sup>st</sup> through 60 <sup>th</sup> Day	\$1,250
61 Days or more	\$2,000

- (5) For violations of Appendix C, Paragraph 6: Failure to install the equipment and monitoring systems required by Appendix C, Paragraph 6 within the required time period and/or in accordance with respective, applicable technical specifications in Appendix C, Paragraph 6:

<u>Period of Delay or Noncompliance per Monitoring System/Instrument per Day</u>	<u>Penalty per Violation</u>
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1st through 30th Day	\$750
31st through 60th Day	\$1,250
61 Days or more	\$2,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

- (6) For failure to operate each monitoring system while the Flare is In Operation as required by Appendix C, Paragraph 6. For any monitoring system that serves a dual purpose, this stipulated penalty applies per instrument only:

<u>Period of Delay or Noncompliance</u> <u>Per Monitoring System/Control Instrument</u> <u>Number of Hours per Calendar Quarter</u>	<u>Penalty per Violation</u>
0.25-50.0	\$250
50.25-100.0	\$500
Over 100.0	\$1,000

- (7) For each failure to substantially comply with any recordkeeping or reporting requirement in Appendix C, Paragraphs 5 and 7:

<u>Period of Delay or Noncompliance</u>	<u>Penalty per Violation per Day</u>
1 <sup>st</sup> through 15 <sup>th</sup> Day	\$100
16 <sup>th</sup> through 30 <sup>th</sup> Day	\$250
31 Days or more	\$500

- e. **LDAR & OGI Program Requirements.** Defendants shall be liable for stipulated penalties to the United States and the applicable Co-Plaintiff for violations of this Consent Decree as specified in Table 5 below unless excused under Section XI (Force Majeure) and subject to Section XII (Dispute Resolution).

<b>TABLE 5 – LDAR &amp; OGI Program Stipulated Penalties</b>									
Consent Decree Violation	Stipulated Penalty								
i. <u>Violation of Paragraph 19 (LDAR Document)</u> . Failure to timely develop and complete a written LDAR Document or failure to timely update the document on an annual basis as required.	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Period of noncompliance</u></th> <th style="text-align: right;"><u>Penalty per Day late</u></th> </tr> </thead> <tbody> <tr> <td>1 - 15 Days</td> <td style="text-align: right;">\$300</td> </tr> <tr> <td>16 - 30 Days</td> <td style="text-align: right;">\$400</td> </tr> <tr> <td>31 Days or more</td> <td style="text-align: right;">\$500</td> </tr> </tbody> </table>	<u>Period of noncompliance</u>	<u>Penalty per Day late</u>	1 - 15 Days	\$300	16 - 30 Days	\$400	31 Days or more	\$500
<u>Period of noncompliance</u>	<u>Penalty per Day late</u>								
1 - 15 Days	\$300								
16 - 30 Days	\$400								
31 Days or more	\$500								
ii. <u>Violation of Paragraph 20 (Monitoring Frequency)</u> . Each failure to perform monitoring at the frequencies set forth in Paragraph 20.	\$100 per component per missed monitoring event, not to exceed \$25,000 per 30-Day period per Covered Process Unit.								
iii. <u>Violation of Paragraph 21 or 22 (Method 21 or AWP)</u> . Each failure to comply with Method 21 or, if applicable, an AWP, in performing LDAR monitoring,	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Monitoring Frequency for the component</u></th> <th style="text-align: right;"><u>Penalty per monitoring event per Process Unit</u></th> </tr> </thead> <tbody> <tr> <td>Annual</td> <td style="text-align: right;">\$20,000</td> </tr> <tr> <td>Quarterly</td> <td style="text-align: right;">\$10,000</td> </tr> <tr> <td>Monthly</td> <td style="text-align: right;">\$5,000</td> </tr> </tbody> </table>	<u>Monitoring Frequency for the component</u>	<u>Penalty per monitoring event per Process Unit</u>	Annual	\$20,000	Quarterly	\$10,000	Monthly	\$5,000
<u>Monitoring Frequency for the component</u>	<u>Penalty per monitoring event per Process Unit</u>								
Annual	\$20,000								
Quarterly	\$10,000								
Monthly	\$5,000								
iv. <u>Violation of Paragraph 21 (use of datalogger)</u> . For each failure to use a monitoring device that is attached to a datalogger and for each failure, during each monitoring event, to directly electronically record the Screening Value, date, time, identification number of the monitoring instrument, and the identification of technician, in accordance with Paragraphs 21.	\$100 per failure per piece of equipment monitored.								
v. <u>Violation of Paragraph 21.a (monitoring data transfer)</u> . Each failure to transfer monitoring data to an electronic database on at least a weekly basis.	\$150 per Day for each Day that the transfer is late.								



<b>TABLE 5 – LDAR &amp; OGI Program Stipulated Penalties</b>			
Consent Decree Violation	Stipulated Penalty		
vi. <u>Violation of Paragraph 24.a (First Attempt at Repair)</u> . Each failure to timely perform a first attempt at repair as required by Paragraph 24.a. For purposes of these stipulated penalties, the term “repair” includes the required Repair Verification Monitoring in Paragraph 24.b after the repair attempt; the stipulated penalties in Paragraph 67.e do not apply.	\$150 per Day for each late Day, not to exceed \$1,500 per Leak.		
vii. <u>Violation of Paragraph 24.a (Final Attempt at Repair)</u> . Each failure to timely perform a final attempt at repair as required by Paragraph 24.a unless not required to do so under Paragraph 25 (Delay of Repair). For purposes of these stipulated penalties, the term “repair” includes the required Repair Verification Monitoring in Paragraph 24.b after the repair attempt; the stipulated penalties in Paragraph 67.e do not apply.	<u>Equipment type</u>	<u>Penalty per component per Day late</u>	<u>Not to exceed</u>
	Valves/ Connectors	\$300	\$45,000
	Pumps	\$1,200	\$150,000
viii. <u>Violation of Paragraph 24.b</u> . Each failure to timely perform Repair Verification Monitoring as required by Paragraph 24.b in circumstances where the first attempt to adjust, or otherwise alter, the piece of equipment to eliminate the Leak was made within five Days and the final attempt to adjust, or otherwise alter, the piece of equipment to eliminate the Leak was made within 15 Days.	<u>Equipment type</u>	<u>Penalty per component per Day late</u>	<u>Not to exceed</u>
	Valves/ Connectors	\$150	\$18,750
	Pumps	\$600	\$75,000
ix. <u>Violation of Paragraph 24.c</u> Each failure to perform a proactive attempt at repair under Paragraph 24.c(1) where the Screening Value is greater than 250 ppm and less than 500 ppm.	\$150 per Day for each late Day, not to exceed \$1,500 per Leak.		
x. <u>Violation of Paragraph 24.c(3)</u> . Failure to maintain the records of proactive attempts at repair required under Paragraph 24.c(3).	\$100 per failure per piece of equipment monitored.		

<b>TABLE 5 – LDAR &amp; OGI Program Stipulated Penalties</b>		
Consent Decree Violation	Stipulated Penalty	
xi. <u>Violation of Paragraph 24.d.</u> Each failure to undertake the drill-and-tap method as required by Paragraph 24.d.	<u>Period of noncompliance</u>	<u>Penalty per Day late</u>
	1 - 15 Days	\$200
	16 - 30 Days	\$350
	31 Days or more	\$500 per Day for each Day over 30, not to exceed \$45,000
xii. <u>Violation of Paragraph 24.e.</u> Each failure to record the information required by Paragraph 24.e.	\$100 per component per item of missed information.	
xiii. <u>Violation of Paragraph 25.</u> Each improper placement of a piece of Covered Equipment on the DOR list (e.g., placing a piece of Covered Equipment on the DOR list even though it is feasible to repair it without a Process Unit Shutdown) required by Paragraph 25.	<u>Equipment type</u>	<u>Penalty per component per Day late</u> <u>Not to exceed</u>
	Valves/ Connectors	\$300      \$75,000
	Pumps	\$1,200      \$300,000
xiv. <u>Violation of Paragraph 25.a.</u> Each failure to comply with the requirement in Paragraph 25.a. that a relevant unit supervisor or person of similar authority sign off on placing a piece of Covered Equipment on the DOR list.	\$250 per piece of Covered Equipment.	
xv. <u>Violation of Paragraph 25.c(1).</u> Each failure to comply with the requirements of Paragraph 25.c(1).	Refer to the applicable stipulated penalties in Paragraphs 67.d.vi and vii.	
xvi. <u>Violation of Paragraph 25.c(2).</u> Each failure to comply with the requirements of Paragraph 25.c(2).	Refer to the applicable stipulated penalties in Paragraph 67.d.xx.	
xvii. <u>Violation of Paragraph 26.d.</u> Each failure to comply with the work practice standards in Paragraph 26.d.	\$50 per violation per valve per Day, not to exceed \$30,000 for all valves in a Covered Process Unit per Quarter.	

<b>TABLE 5 – LDAR &amp; OGI Program Stipulated Penalties</b>	
Consent Decree Violation	Stipulated Penalty
xviii. <u>Violation of Paragraph 26.e.</u> Each failure to install a Low-E Valve or a valve fitted with Low-E Packing when required to do so pursuant to Paragraph 26.e.	\$20,000 per failure, except as provided in Paragraph 67.e.xix.
xix. <u>Violation of Paragraph 26(f)(2).</u> Each failure, in violation of Paragraph 26.f(2), to timely comply with the requirements relating to installing a Low-E Valve or Low-E Packing if a process unit shutdown is not required.	\$500 per Day per failure, not to exceed \$20,000 per failure, except as provided in Paragraph 68, below.
xx. <u>Violation of Paragraph 26.f(2)(b).</u> Each failure, in violation of Paragraph 26.f(2)(b), to install a Low-E Valve or Low-E Packing when required to do so during a process unit shutdown.	\$20,000 per failure., except as provided in Paragraph 68, below.
xxi. <u>Violation of Paragraph 27.d.</u> Each failure to comply with the requirements regarding the replacement, improvement, or repair requirements for connectors under Paragraph 27.d.	\$100 per Day per failure, not to exceed \$5,000 per failure.
xxii. <u>Violation of Paragraph 28 (Covered Equipment Addition).</u> Each failure to add a piece of Covered Equipment to the LDAR Program when required to do so pursuant to the evaluation required by Paragraph 28.	\$300 per piece of Covered Equipment (plus an amount, if any, due under Paragraph 67.d.iii for any missed monitoring event related to a component that should have been added to the LDAR Program but was not).
xxiii. <u>Violation of Paragraph 28 (Covered Equipment Deletion).</u> Each failure to remove a piece of Covered Equipment from the LDAR program when required to do so pursuant to Paragraph 28.	\$150 per failure per piece of Covered Equipment.
xxiv. <u>Violation of Paragraph 29.a (Training Protocol).</u> Each failure to timely develop a training protocol as required by Paragraph 29.a.	\$50 per Day late.

<b>TABLE 5 – LDAR &amp; OGI Program Stipulated Penalties</b>									
Consent Decree Violation	Stipulated Penalty								
xxv. <u>Violation of Paragraphs 29.b-29.d (Personnel Training)</u> . Each failure to perform initial, refresher, or new personnel training as required by Paragraphs <u>29.b-29.d</u> .	\$1,000 per person per month late.								
xxvi. <u>Violation of Paragraph 30</u> . Each failure to perform any of the requirements relating to QA/QC in Paragraph 30.	\$1,000 per missed requirement per quarter.								
xxvii. <u>Violation of Paragraph 31.a</u> . Each failure to conduct an LDAR Audit for a Covered Facility in accordance with the schedule set forth in Paragraph 31.a.	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;"><u>Period of noncompliance</u></th> <th style="text-align: left; border-bottom: 1px solid black;"><u>Penalty per Day late</u></th> </tr> </thead> <tbody> <tr> <td>1 - 15 Days</td> <td>\$300</td> </tr> <tr> <td>16 - 30 Days</td> <td>\$400</td> </tr> <tr> <td>31 Days or more</td> <td>\$500, not to exceed \$100,000 per LDAR Audit</td> </tr> </tbody> </table>	<u>Period of noncompliance</u>	<u>Penalty per Day late</u>	1 - 15 Days	\$300	16 - 30 Days	\$400	31 Days or more	\$500, not to exceed \$100,000 per LDAR Audit
<u>Period of noncompliance</u>	<u>Penalty per Day late</u>								
1 - 15 Days	\$300								
16 - 30 Days	\$400								
31 Days or more	\$500, not to exceed \$100,000 per LDAR Audit								
xxviii. <u>Violation of Paragraph 31.b</u> . Each failure to use a third party as an auditor as required under Paragraph 31.b; each use of auditor that is not experienced in LDAR Audits; and each use of Defendant's regular LDAR contractor or LDAR Personnel for a Covered Facility to conduct a LDAR Audit for such Covered Facility, in violation of the requirements of Paragraph 31.b.	\$25,000 per LDAR Audit.								
xxix. <u>Violation of Paragraph 31.c</u> . Except for the requirement to undertake Comparative Monitoring, each failure to comply with the LDAR Audit requirements in Paragraph 31.c.	\$100,000 per LDAR Audit.								
xxx. <u>Violation of Paragraph 31.d</u> . Each failure to comply with the Comparative Monitoring requirements of Paragraph 31.d.	\$50,000 per LDAR Audit.								

<b>TABLE 5 – LDAR &amp; OGI Program Stipulated Penalties</b>		
<b>Consent Decree Violation</b>	<b>Stipulated Penalty</b>	
xxx. <u>Violation of Paragraph 31.f.</u> Each failure to timely submit an LDAR Audit Report.	<u>Period of noncompliance</u> 1 - 15 Days 16 - 30 Days 31 Days or more	<u>Penalty per Day late</u> \$300 \$400 \$500, not to exceed \$100,000 per LDAR Audit
xxxii. <u>Violation of Paragraph 32.b (Corrective Action Plan Submittal).</u> Each failure to timely submit a Corrective Action Plan that conforms to the requirements of Paragraph 32.a.	<u>Period of noncompliance</u> 1 - 15 Days 16 - 30 Days 31 Days or more	<u>Penalty per Day late</u> \$100 \$250 \$500, not to exceed \$100,000 per LDAR Audit
xxxiii. <u>Violation of Paragraph 32.a (Corrective Action Plan Implementation).</u> Each failure to implement a corrective action within 90 Days after the LDAR Audit Completion Date or pursuant to the schedule that Defendant must propose pursuant to Paragraph 32.a. if the corrective action cannot be completed in 90 Days.	<u>Period of noncompliance</u> 1 - 15 Days 16 - 30 Days 31 Days or more	<u>Penalty per Day late</u> \$500 \$750 \$1,000 per Day, not to exceed \$200,000 per LDAR Audit
xxxiv. <u>Violation of Paragraph 33.</u> Each failure to timely submit a Certification of Compliance that substantially conforms to the requirements of Paragraph 33.	<u>Period of noncompliance</u> 1 - 15 Days 16 - 30 Days 31 Days or more	<u>Penalty per Day late</u> \$100 \$250 \$500, not to exceed \$75,000
xxxv. <u>Violation of Paragraphs 34 and 35—LDAR Program Recordkeeping and Reporting.</u> Each failure to substantially comply with any recordkeeping, submission, or reporting requirement in Subsection V.B. not specifically identified above in this Table.	<u>Period of noncompliance</u> 1 - 15 Days 16 - 30 Days 31 Days or more	<u>Penalty per Day late</u> \$100 \$250 \$500

<b>TABLE 5 – LDAR &amp; OGI Program Stipulated Penalties</b>			
<b>Consent Decree Violation</b>		<b>Stipulated Penalty</b>	
xxxvi. <u>Violation of Paragraph 36</u> . Each failure to develop an OGI Protocol complying with the requirements of Paragraph 36.	<u>Period of noncompliance</u>	<u>Penalty per Day late</u>	
	1 - 15 Days	\$300	
	16 - 30 Days	\$400	
	31 Days or more	\$500, not to exceed \$50,000	
xxxvii. <u>Violation of Paragraph 37 (Submission of OGI Protocol)</u> . Each failure to timely submit the OGI Protocol required by Paragraph 37.	<u>Period of noncompliance</u>	<u>Penalty per Day late</u>	
	1 - 15 Days	\$300	
	16 - 30 Days	\$400	
	31 Days or more	\$500, not to exceed \$50,000	
xxxviii. <u>Violation of Paragraph 38 (Annual OGI Monitoring)</u> . Each failure to conduct OGI monitoring of Covered Equipment in accordance with the OGI Protocol, required by Paragraph 36.	Missed or untimely event	\$10,000	
	Failure to comply with OGI protocol (e.g., Camera operating parameters)	\$5,000	
xxxvix. <u>Violation of Paragraph 39</u> . Each failure to conduct OGI monitoring at Fin Fan Plugs in gas vapor/light liquid service, as required by Paragraph 39.	Missed or untimely/late event per Fin Fan	\$10,000	
	Failure to comply with OGI Protocol (e.g., Camera operating parameters per Fin Fan)	\$5,000	
xxxx. <u>Violation of Paragraph 40</u> . Each failure to perform timely repair of covered equipment Leaks identified through OGI or failure to conduct timely repair of Fin Fan Plugs Leaks identified through OGI, as required in Paragraph 40.	<u>Equipment type</u>	<u>Penalty per component per Day late</u>	<u>Not to exceed</u>
	Valves or Connectors	\$300	\$45,000
	Pumps	\$1,200	\$150,000
	Fin Fan Plug	\$500	\$50,000

<b>TABLE 5 – LDAR &amp; OGI Program Stipulated Penalties</b>		
Consent Decree Violation	Stipulated Penalty	
xxxxi. <u>Violation of Paragraphs 41 and 42— OGI Program Recordkeeping and Reporting.</u> Each failure to substantially comply with any recordkeeping, submission, or reporting requirement in Subsection V.C. not specifically identified above in this Table.	<u>Period of noncompliance</u>	<u>Penalty per Day late</u>
	1 - 15 Days	\$100
	16 - 30 Days	\$250
	31 Days or more	\$500

- f. **Compressor Station Mitigation Project.** Williams Defendants shall be liable for stipulated penalties to the United States and the applicable Co-Plaintiff for violations of this Consent Decree as specified in Table 6 below unless excused under Section XI (Force Majeure) and subject to Section XII (Dispute Resolution).

<b>TABLE 6 – Compressor Station Mitigation Project Stipulated Penalties</b>		
Consent Decree Violation	Stipulated Penalty	
xxxxii. Violation of Appendix D, Paragraph 2.a. Each failure to timely submit the Compressor Station Fugitive Emissions Monitoring Plan complying with the requirements of Paragraph 2.a of Appendix D.	<u>Period of noncompliance</u>	<u>Penalty per Day late</u>
	1 - 15 Days	\$300
	16 - 30 Days	\$400
	31 Days or more	\$500, not to exceed \$50,000
xxxxiii. Violation of Appendix D, Paragraphs 2.b and 2.c. Each failure to timely conduct monitoring of an Affected Compressor Station in accordance with the Compressor Station Fugitive Emissions Monitoring Plan, as required by Paragraphs 2.b and 2.c of Appendix D.	Missed event per Affected Compressor Station	\$10,000



<b>TABLE 6 – Compressor Station Mitigation Project Stipulated Penalties</b>		
<b>Consent Decree Violation</b>	<b>Stipulated Penalty</b>	
xxxxiv. Violation of Appendix D, Paragraph 2.d. Each failure to conduct monitoring at an Affected Compressor Station in accordance with the procedures and methodologies of the Compressor Station Fugitive Emissions Monitoring Plan, as required by Paragraph 2.d of Appendix D (excluding any failure to conduct monitoring in accordance with the frequency set forth in the Compressor Station Fugitive Emissions Monitoring Plan, for which the stipulated penalties of Paragraph 67.f.xxxiii apply).	Each deviation per Affected Compressor Station	\$5,000
xxxxv. Violation of Appendix D, Paragraph 2.f. Each failure to perform timely repair of Leaks, as required by Paragraph 2.f of Appendix D.	<u>Equipment type</u>	<u>Penalty per component per Day late</u>
	Valves/ Connectors	\$300 \$45,000
xxxxvi. Violation of Appendix D, Paragraphs 2.e, 2.g, or 2.h (Recordkeeping and Reporting). Each failure to substantially comply with any recordkeeping, submission, or reporting requirement in Paragraphs 2.e, 2.g, or 2.h of Appendix D.	<u>Period of noncompliance</u>	<u>Penalty per Day late</u>
	1 - 15 Days 16 - 30 Days 31 Days or more	\$100 \$250 \$500

68. **Stipulated Penalties in Lieu of those in Paragraphs 67.e.xviii, xix and xx.**

- a. For purposes of this Paragraph, the term “Non-Compliant Valve” means a valve that is either: (i) not a Low-E Valve; or (ii) not fitted with Low-E Packing. The term “Compliant Valve” means a valve that is either: (i) a Low-E Valve; or (ii) fitted with Low-E Packing.
- b. The stipulated penalties in Paragraph 68.c are to be used instead of those in

Paragraphs 67.e.xviii, xix, and xx when a Non-Compliant Valve is installed instead of a Compliant Valve and all of the following requirements are met:

- (1) Defendants, and not a government agency, discover the failure involved;
- (2) Defendants promptly report the failure to EPA;
- (3) In the report, Defendants set forth a schedule for promptly replacing the Non-Compliant Valve with a Compliant Valve; provided, however, that Defendants shall not be required to undertake an unscheduled shutdown of the affected Covered Process Unit in proposing the schedule unless Defendants so choose;
- (4) Defendants monitor the Non-Compliant Valve once a month from the time of its discovery until the valve is replaced with a Compliant Valve and no Screening Values above 500 ppm are recorded;
- (5) Defendants replace the Non-Compliant Valve or Valve Packing with a Compliant Valve or Valve Packing in accordance with the schedule set forth in Paragraph 68.b(3); and
- (6) Defendants demonstrate that in good faith it intended to install a Compliant Valve but inadvertently installed a Non-Compliant Valve.

c. The following stipulated penalties shall apply under the circumstances in Paragraph 68.b:

- (1) In lieu of the penalty in Paragraph 67.e.xviii, \$2,000 per failure.
- (2) In lieu of the penalty in Paragraph 67.e.xix, \$50 per Day per failure, not to exceed \$2,000.
- (3) In lieu of the penalty in Paragraph 67.e.xx, \$2,000 per failure.

69. **Permit Requirements.** For the failure to timely apply for any permit or approval in accordance with the requirements of Section VII (Incorporation of Consent Decree Requirements into Federally Enforceable Permits) of this Consent Decree: \$1,000 per Day per violation.

70. Any other violation of this Consent Decree not otherwise specified in the stipulated penalties above: \$1,000 per violation per Day.

71. 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. The penalties for violations that are separate and distinct or that are not continuous shall be considered separately

for purposes of calculating the “period of noncompliance” (i.e., duration) of the violations pursuant to Table 5.

72. Any Plaintiff may in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due to it under this Consent Decree.

73. Stipulated penalties shall continue to accrue as provided in Paragraph 71, during any Dispute Resolution, but need not be paid until the following:

- a. If the dispute is resolved by agreement of the Parties or by a decision of EPA or the applicable Co-Plaintiff that is not appealed to the Court, Defendant shall pay accrued penalties determined to be owing, together with interest, to the United States and/or the applicable Co-Plaintiff within 30 Days of the effective date of the agreement or the receipt of the decision or order of EPA, the applicable State(s), and/or the Tribe.
- b. If the dispute is appealed to the Court and the United States and/or the Co-Plaintiffs prevail(s) in whole or in part, Defendants shall pay all accrued penalties determined by the Court to be owing, together with interest, within 60 Days of receiving the Court’s decision or order, except as provided in Paragraph 73.c, below, provided that the Court’s decision or order requires payment of a stipulated penalty.
- c. If any Party appeals the District Court’s decision, Defendants shall pay all accrued penalties determined to be owing, together with interest, within 30 Days of receiving any final appellate court decision finding that stipulated penalties are owing.

74. If Defendants fail to pay stipulated penalties according to the terms of this Consent Decree, Defendants shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due pursuant to Paragraph 64. Nothing in this Paragraph shall be construed to limit the United States or a Co-Plaintiff from seeking any remedy otherwise provided by law for Defendants’ failure to pay any stipulated penalties.

75. The payment of penalties and interest, if any, shall not alter in any way Defendants’ obligation to complete the performance of the requirements of this Consent Decree.

76. **Non-Exclusivity of Remedy.** Stipulated penalties are not the United States’ exclusive remedy for violations of this Consent Decree. Subject to the provisions of Section XIV (Effect of Settlement/Reservation of Rights), the United States expressly reserves the right to seek any other relief it deems appropriate for Defendants’ violation of this Decree or applicable law, including but not limited to an action against Defendants for statutory penalties, additional injunctive relief, mitigation or offset measures, and/or contempt. However, the amount of any statutory penalty assessed for a violation of this Consent Decree shall be reduced by an amount equal to the amount of any stipulated penalty assessed and paid pursuant to this Consent Decree.

## XI. FORCE MAJEURE

77. “Force majeure,” for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Defendants, of any entity controlled by Defendants, or of Defendants’ contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Defendants’ best efforts to fulfill the obligation. The requirement that Defendants exercise “best efforts to fulfill the obligation” includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (a) as it is occurring and (b) following the potential force majeure, such that the delay and any adverse effects of the delay are minimized. “Force majeure” does not include Defendants’ financial inability to perform any obligation under this Consent Decree.

78. **Notice of Force Majeure.** If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, Defendants shall provide notice of such event to the Plaintiffs as follows:

- a. **Initial Notice.** Defendants shall provide notice orally or by electronic mail to the parties designated in Section XVI, within 3 Days of when Defendants first knew that the event might cause a delay.
- b. **Final Notice & Explanation.** Within fifteen (15) Days of the initial notice, Defendants shall provide to EPA and the applicable Co-Plaintiff, to the extent available, a written explanation and description of:
  - (1) The reasons for the delay;
  - (2) The anticipated duration of the delay;
  - (3) All actions taken or to be taken to prevent or minimize the delay;
  - (4) A schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay;
  - (5) Defendants’ rationale for attributing such delay to a force majeure event if it intends to assert such a claim;
  - (6) A statement as to whether, in the opinion of Defendants, such event may cause or contribute to an endangerment to public health, welfare or the environment; and
  - (7) Defendants shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure.
- c. Any material failure to comply with the above requirements shall preclude Defendants from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure.

- d. Williams Defendants shall be deemed to know of any circumstance of which Williams Defendants, any entity controlled by Williams Defendants, or Williams Defendants' contractors knew or should have known. Harvest Four Corners, LLC shall be deemed to know of any circumstance of which Harvest Four Corners, LLC, any entity controlled by Harvest Four Corners, LLC, or Harvest Four Corners, LLC's contractors knew or should have known.

79. If EPA, after a reasonable opportunity for review and comment by the applicable Co-Plaintiff, agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA, after a reasonable opportunity for review and comment by the applicable Co-Plaintiff, for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify Defendants in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

80. If EPA, after consultation with the applicable Co-Plaintiff, does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Defendants in writing of its decision.

81. If Defendants elect to invoke the dispute resolution procedures set forth in Section XII (Dispute Resolution), they shall do so no later than thirty (30) Days after receipt of EPA's notice. In any such proceeding, Defendants shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Defendants complied with the requirements of Paragraphs 77 and 78. If Defendants carry this burden, the delay at issue shall be deemed not to be a violation by Defendants of the affected obligation of this Consent Decree identified to EPA and the Court.

## XII. DISPUTE RESOLUTION

82. 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.

83. **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 Defendants send the United States and the applicable Co-Plaintiff a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed ninety (90) 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 United States shall be considered binding unless, within ninety (90) Days after the conclusion of the informal negotiation period, Defendants invoke formal dispute resolution procedures as set forth below.

84. **Formal Dispute Resolution.** Defendants shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States and the applicable Co-Plaintiff a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting Defendants' position and any supporting documentation relied upon by Defendants.

85. The United States, after consultation with the applicable Co-Plaintiff, shall serve its Statement of Position within 45 Days of receipt of Defendants' Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on Defendants, unless Defendants file a motion for judicial review of the dispute in accordance with the following Paragraph.

86. **Judicial Dispute Resolution.** Defendants may seek judicial review of the dispute by filing with the Court and serving on the United States a motion requesting judicial resolution of the dispute. The motion must be filed within thirty (30) Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Defendants' 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.

87. The United States shall respond to Defendants' motion within the time period allowed by the Local Rules of this Court. Defendants may file a reply memorandum, to the extent permitted by the Local Rules.

88. **Standard of Review.**

- a. **Disputes Concerning Matters Accorded Record Review.** Except as otherwise provided in this Consent Decree, in any dispute brought under Paragraph 84 pertaining to the adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring approval by EPA under this Consent Decree; the adequacy of the performance of work undertaken pursuant to this Consent Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, Defendants shall have the burden of demonstrating, based on the administrative record, that the position of the United States is not in accordance with law based on the applicable standard of review set forth in the Administrative Procedure Act, 5 U.S.C. § 500 *et seq.*
- b. **Other Disputes.** Except as otherwise provided in this Consent Decree, in any other dispute brought under Paragraph 84, Defendants shall bear the burden of demonstrating that their position complies with this Consent Decree and that they are entitled to relief under applicable principles of law.



89. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Defendants 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 noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 73. If Defendants do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section X (Stipulated Penalties).

### **XIII. INFORMATION COLLECTION AND RETENTION**

90. The United States and the Co-Plaintiffs, and their representatives, including attorneys, contractors, and consultants, shall have the right of entry into any Covered Facility, at all reasonable times, upon presentation of credentials, to:

- a. Monitor the progress of activities required under this Consent Decree;
- b. Verify any data or information submitted to the United States or the Co-Plaintiffs in accordance with the terms of this Consent Decree;
- c. Obtain documentary evidence, including photographs and similar data, related to compliance with this Consent Decree; and
- d. Assess Defendants' compliance with this Consent Decree.

91. During the Information Retention Period, Defendants 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 directly relate to Defendants' performance of its obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during the Information Retention Period, upon written request by the United States or Co-Plaintiffs, Defendants shall provide copies of any documents, records, or other information required to be maintained under this Paragraph 91.

92. Defendants may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Defendants assert such a privilege and any such document or information covered by the privilege is requested, it shall provide the following: (a) the title of the document, record, or information; (b) the date of the document, record, or information; (c) the name and title of each author of the document, record, or information; (d) the name and title of each addressee and recipient; (e) a description of the subject of the document, record, or information; and (f) the privilege asserted by Defendants. However, no documents, records, or other information created or generated pursuant to the requirements of this Consent Decree (including all emissions data, Screening Values, and OGI monitoring recordings generated during the life of the Consent Decree) shall be withheld on grounds of privilege.



93. Except for emissions data, including Screening Values and OGI monitoring recordings, Defendants may also assert that information required to be provided under this Section is protected as Confidential Business Information (“CBI”) or is confidential under state law as follows:

- a. As to any information that Defendants seeks to protect as CBI under 40 C.F.R. Part 2, Defendants shall follow the procedures set forth in 40 C.F.R. Part 2.
- b. To assert that records, data, or other information required to be submitted to the Louisiana Department of Environmental Quality is entitled to be protected as confidential, Defendants shall follow the law and procedures as set forth in the applicable provisions of La.R.S. 30:2030; La.R.S. 30:2074.D; and LAC 33:I.Chapter 5.
- c. To assert that records, data, or other information required to be submitted to the Wyoming Department of Environmental Quality is entitled to be protected as confidential business information, Defendant shall fill out and submit CBI-TS External Claim Form to the Air Quality Division to determine if the record is to be held confidential.

94. 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 Co-Plaintiffs pursuant to applicable federal or state or Tribal laws, regulations, or permits, nor does it limit or affect any duty or obligation of Defendants to maintain documents, records, or other information imposed by applicable federal, state, or Tribal laws, regulations, or permits.

#### **XIV. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS**

95. This Consent Decree resolves the civil claims of the United States and the Co-Plaintiffs arising under the below-referenced NSPS Subparts and MACT Subparts, including the violations alleged in the Complaint filed in this action and the violations alleged in the Notices and Findings of Violation contained in Appendix E, as well as any alleged violations of any Title V permit incorporating any such requirement, from the date those claims accrued through the Date of Lodging at the Covered Facilities as follows:

- a. Mobile Bay Facility: 40 C.F.R. Part 60, Subparts VV, VVa, KKK, OOOO, and OOOOa;
- b. Parachute Creek Facility: 40 C.F.R. Part 60, Subparts VV, VVa, KKK, OOOO, and OOOOa, and 40 C.F.R. Part 63, Subpart HH;
- c. Willow Creek Facility: 40 C.F.R. Part 60, Subparts VV, VVa, KKK, OOOO, and OOOOa;
- d. Ignacio Facility: 40 C.F.R. Part 60, Subparts A, VV, VVa, KKK, OOOO, and OOOOa; 40 C.F.R. Part 61, Subpart V; and 40 C.F.R. Part 63, Subparts A and HH;

- e. Harrison Hub Facility: 40 C.F.R. Part 60, Subparts Db, Kb, VVa, NNN, OOOO, and OOOOa;
- f. Kensington Facility: 40 C.F.R. Part 60, Subparts VVa, OOOO, and OOOOa;
- g. Conway Facility: 40 C.F.R. Part 60, Subparts VV, VVa, KKK, NNN, OOOO, and OOOOa;
- h. Larose Facility: 40 C.F.R. Part 60, Subparts VV, VVa, KKK, OOOO, and OOOOa;
- i. Paradis Facility: 40 C.F.R. Part 60, Subparts Db, VV, VVa, KKK, NNN, OOOO, and OOOOa;
- j. Markham Facility: 40 C.F.R. Part 60, Subparts VV, VVa, KKK, OOOO, and OOOOa;
- k. Fort Beeler Facility: 40 C.F.R. Part 60, Subparts VV, VVa, KKK, OOOO, and OOOOa;
- l. Moundsville Facility: 40 C.F.R. Part 60, Subparts VVa, NNN, OOOO, and OOOOa;
- m. Oak Grove Facility: 40 C.F.R. Part 60, Subparts VVa, OOOO, and OOOOa;
- n. Echo Springs Facility: 40 C.F.R. Part 60, Subparts VV, VVa, KKK, OOOO, and OOOOa, and 40 C.F.R. Part 63, Subpart HH; and
- o. Opal Facility: 40 C.F.R. Part 60, Subparts VV, VVa, KKK, NNN, OOOO, and OOOOa, and 40 C.F.R. Part 63, Subpart HH.

96. The resolutions of liability by the Plaintiffs to the Williams Defendants as set forth in Paragraph 95, will be rendered void if the Williams Defendants materially fail to comply with the obligations and requirements of Sections V through VII of this Consent Decree. To the extent that a material failure involves a particular Covered Facility, the resolution of liability will be rendered void only with respect to the specific claims involving that particular Covered Facility. The resolutions of liability in Paragraph 95 will not be rendered void if the Williams Defendants timely remedy such material failure and pay any stipulated penalties due as a result of such material failure.

97. The resolutions of liability by the Plaintiffs to Harvest Four Corners, LLC as set forth in Paragraph 95, will be rendered void if Harvest Four Corners, LLC materially fails to comply with the obligations and requirements of Sections V through VII of this Consent Decree; provided, however, that the resolution of liability in Paragraph 95 will not be rendered void if Harvest Four Corners, LLC timely remedies such material failure and pays any stipulated penalties due as a result of such material failure.

98. Plaintiffs reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraphs 76, 95, 96, and 97. This Consent Decree shall not be construed to limit the rights of the United States or the Co-Plaintiffs to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal, State, or Tribal laws, regulations, or permit conditions, except as expressly specified in Paragraphs 95 through 97. Plaintiffs further reserve all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, Defendants' facilities, whether related to the violations addressed in this Consent Decree or otherwise.

99. In any subsequent administrative or judicial proceeding initiated by the United States or a Co-Plaintiff for injunctive relief, civil penalties, other appropriate relief relating to a Covered Facility, Defendants shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or the Co-Plaintiff in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraphs 95 through 97.

100. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, Tribal, or local laws or regulations. Defendants are responsible for achieving and maintaining complete compliance with all applicable federal, State, Tribal and local laws, regulations, and permits; and Defendants' compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. Plaintiffs do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Defendants' compliance with any aspect of this Consent Decree will result in compliance with provisions of the Act, 42 U.S.C. §§ 7411 and 7412, or with any other provisions of federal, State, Tribal, or local laws, regulations, or permits.

101. This Consent Decree does not limit or affect the rights of Defendants or of the Plaintiffs 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 Defendants, except as otherwise provided by law.

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

## **XV. COSTS**

103. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and/or a Co-Plaintiff 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 due but not paid by Defendants.

## XVI. NOTICES

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

<b><u>Plaintiff</u></b>	<b><u>Electronic/Email</u></b>	<b><u>Mail/Hard Copy</u></b>
United States	<a href="mailto:eescdcopy.enrd@usdoj.gov">eescdcopy.enrd@usdoj.gov</a> Re: DJ # 90-5-2-1-06938/5	EES Case Management Unit Environment & Natural Resources Division U.S. Department of Justice P.O. Box 7611 Washington, D.C. 20044-7611 Re: DJ # 90-5-2-1-06938/5
EPA Headquarters	<a href="mailto:sullivan.tim@epa.gov">sullivan.tim@epa.gov</a>	Director, Air Enforcement Division Office of Civil Enforcement U.S. EPA Mail Code 2242-A 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460-0001
EPA Region III	<a href="mailto:augustine.bruce@epa.gov">augustine.bruce@epa.gov</a>  and  <a href="mailto:R3_Hearing_Clerk@epa.gov">R3_Hearing_Clerk@epa.gov</a> (for penalty and stipulated penalty payments)	Bruce J. Augustine Environmental Scientist Enforcement & Compliance Assurance Division Air Section USEPA Region III
EPA Region 4	<a href="mailto:Rieck.Stephen@epa.gov">Rieck.Stephen@epa.gov</a>	Steve Rieck Environmental Scientist Air Enforcement Branch Enforcement and Compliance Division U.S. Environmental Protection Agency, Region 4 61 Forsyth Street, S.W. Atlanta, Georgia 30303
EPA Region V	<a href="mailto:Weiler.Eaton@epa.gov">Weiler.Eaton@epa.gov</a> ; <a href="mailto:Loukeris.Constantinos@epa.gov">Loukeris.Constantinos@epa.gov</a> ; and <a href="mailto:R5AirEnforcement@epa.gov">R5AirEnforcement@epa.gov</a>	
EPA Region 6	<a href="mailto:R6CAACDDeliverables@epa.gov">R6CAACDDeliverables@epa.gov</a>	Chief, Air Enforcement Branch (ECDA) Enforcement and Compliance Assurance Division US Environmental Protection

		Agency Region 6 1201 Elm Street, Suite 500 Dallas, TX 75270
EPA Region 7	<a href="mailto:terriquez.joe@epa.gov">terriquez.joe@epa.gov</a> ; and <a href="mailto:meyer.jonathan@epa.gov">meyer.jonathan@epa.gov</a>	US EPA Region 7 ECAD-AB 11201 Renner Blvd Lenexa, KS 66219
EPA Region 8	<a href="mailto:R8AirReportEnforcement@epa.gov">R8AirReportEnforcement@epa.gov</a>	Chief, Air and Toxics Technical Enforcement Branch Mail Code: 8ENF-AT U.S. Environmental Protection Agency, Region 8 1595 Wynkoop Street Denver, Colorado 80202-1129
Southern Ute Indian Tribe	<a href="mailto:airquality@southernute-nsn.gov">airquality@southernute-nsn.gov</a>	Environmental Programs Division Air Quality Program P.O. Box 737 MS# 84 Ignacio, CO 81137
Alabama	<a href="mailto:airmail@adem.alabama.gov">airmail@adem.alabama.gov</a> ; and <a href="mailto:ogcmail@adem.alabama.gov">ogcmail@adem.alabama.gov</a>	Chief, Air Division Alabama Department of Environmental Management Post Office Box 301463 Montgomery, AL 36130-1463  AND  Office of General Counsel Alabama Department of Environmental Management Post Office Box 301463 Montgomery, AL 36130-1463
Colorado	<a href="mailto:shannon.mcmillan@state.co.us">shannon.mcmillan@state.co.us</a> ; <a href="mailto:jennifer.morse@state.co.us">jennifer.morse@state.co.us</a> ; and <a href="mailto:tom.roan@coag.gov">tom.roan@coag.gov</a> <a href="mailto:david.beckstrom@coag.gov">david.beckstrom@coag.gov</a>	Compliance & Enforcement Program Manager Colorado Department of Public Health and Environment Air Pollution Control Division APCD – SSP – B1 4300 Cherry Creek Drive South Denver, CO 80246-1530  First Assistant Attorney General Natural Resources Section

		Colorado Department of Law 1300 Broadway, 7 <sup>th</sup> Floor Denver, CO 80203
Louisiana Department of Environmental Quality	<a href="mailto:angela.marse@la.gov">angela.marse@la.gov</a> and <a href="mailto:andrea.jones@la.gov">andrea.jones@la.gov</a>	Angela Marse, Enforcement Administrator Office of Environmental Compliance Louisiana Department of Environmental Quality P.O. Box 4312 Baton Rouge, Louisiana 70821-4312  AND  Andrea' Z. Jones, Regional Counsel Office of the Secretary, Legal Division Louisiana Department of Environmental Quality P.O. Box 4302 Baton Rouge, Louisiana 70821-4302
West Virginia	<a href="mailto:DEPAirQualityReports@wv.gov">DEPAirQualityReports@wv.gov</a> Re: Williams Companies Civil No. XXXX	Director, Division of Air Quality West Virginia Department of Environmental Protection 601 57th Street, Southeast Charleston, WV 25304
Wyoming	Reports and permit applications should be submitted through IMPACT. Questions on how to submit documents may be sent to:  <a href="mailto:deq-air-impact@wyo.gov">deq-air-impact@wyo.gov</a>	If a hard copy is required:  Air Quality Enforcement Program Coordinator, Wyoming Department of Environmental Quality 200 W. 17th Street Cheyenne, WY 82002
Williams Defendants	<a href="mailto:LDARGlobalConsentDecree@williams.com">LDARGlobalConsentDecree@williams.com</a>	Vice President – Environmental, Regulatory & Permitting One Williams Center Tulsa, OK 74172  Legal – Senior Counsel Environmental

		Park Place Corporate Center II 2000 Commerce Drive Pittsburgh, PA 15275
Harvest Four Corners, LLC	<a href="mailto:trjones@harvestmidstream.com">trjones@harvestmidstream.com</a>  Copy to: <a href="mailto:Legal@harvestmidstream.com">Legal@harvestmidstream.com</a>	Travis Jones CSP, CSHO Sr. Manager EH&S Harvest Four Corners, LLC <a href="mailto:trjones@harvestmidstream.com">trjones@harvestmidstream.com</a> <a href="mailto:trjones@harvestmidstream.com">m</a> (713) 289-2630  Copy to:  Harvest Midstream Company Attn: General Counsel <a href="mailto:Legal@harvestmidstream.com">Legal@harvestmidstream.com</a>

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

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

#### **XVII. EFFECTIVE DATE**

107. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket.

#### **XVIII. RETENTION OF JURISDICTION**

108. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections XII and XIX, or effectuating or enforcing compliance with the terms of this Decree.

#### **XIX. MODIFICATION**

109. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by all the Parties according to the following procedures:

- a. Non-material modifications to this Consent Decree shall be effective when signed in writing by the United States, the Defendant(s) responsible for compliance at the Covered Facility or Covered Facilities affected by the modification pursuant to



Appendix A, and the applicable Co-Plaintiff. The United States may file non-material modifications with the Court on a periodic basis.

- b. Material modifications to this Consent Decree shall be in writing, signed by United States, the Defendant(s) responsible for compliance at the Covered Facility or Covered Facilities affected by the modification pursuant to Appendix A, and the applicable Co-Plaintiff, and shall be effective upon approval by the Court.

110. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XII (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 88, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

## XX. TERMINATION

111. **Conditions Precedent for Termination**. Prior to termination of this Consent Decree, Defendants must have completed all of the following requirements of this Consent Decree, as applicable:

- a. Payment of all civil penalties, stipulated penalties, and other monetary obligations;
- b. Satisfactory compliance with all provisions of Section V (Compliance Requirements);
- c. Operation of each Covered Facility for a period of two (2) years in satisfactory compliance with the emissions limitations, standards, and work practices established under this Consent Decree;
- d. Completion of the Mitigation Project(s) required by Section VI;
- e. Completed application(s) for and receipt of all non-Title V permits or approvals incorporating the requirements established for Covered Facilities under this Consent Decree, as required by Section VII;
- f. Completed application(s) for modification, revision, or amendment to all Title V operating permits incorporating the requirements for Covered Facilities under this Consent Decree, as required by Section VII;
- g. Paid all applicable permitting fees due (including but not limited to Title V or other required permits) for Covered Facilities; and
- h. Receipt of notice of completion of the Title V permit application(s) referenced in Paragraph 111.f from the responsible permitting agency (or agencies).

112. When Defendants believe they have satisfied the conditions precedent for termination as set forth above in Paragraph 111, Defendants may serve upon the United States and the applicable Co-Plaintiffs a Request for Termination. The Request for Termination may seek termination for one or more Covered Facility, and may be made by one or more Defendant. The Request for Termination must demonstrate that Defendants have satisfied those requirements for each Covered Facility for which termination is sought and must be accompanied by:

- a. A back-up copy of the LDAR Database for each Covered Facility;
- b. A certification that each Covered Facility for which termination is sought was operated for a period of two (2) years in satisfactory compliance with the emissions limitations, standards, and work practices established under this Consent Decree pursuant to Paragraph 111.c; and
- c. Any other necessary supporting documentation.

113. Following receipt by the United States and the applicable Co-Plaintiffs of Defendants' Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether Defendants have satisfactorily complied with the requirements for termination of this Consent Decree. If the United States, after consultation with the Co-Plaintiffs, agrees that the Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.

114. If the United States, after consultation with the applicable Co-Plaintiffs, does not agree that the Decree may be terminated, Defendants may invoke Dispute Resolution under Section XII. However, Defendants shall not seek Dispute Resolution for any dispute regarding termination until at least 90 Days after service of their Request for Termination.

## **XXI. PUBLIC PARTICIPATION**

115. 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 reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. Defendants consent to entry of this Consent Decree without further notice and agree not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree, unless the United States has notified Defendants in writing that it no longer supports entry of the Decree.

116. The Parties agree and acknowledge that final approval by LDEQ and entry of this Consent Decree is subject to the requirements of La.R.S. 30:2050.7, which provides for public notice of the Consent Decree in newspapers of general circulation and the official journal of the parish in which Defendants' facility is located, and opportunity for public comment of not less than 45 days, consideration of any comments, and concurrence by the State Attorney General. Evidence of final approval of this Consent Decree by LDEQ shall be LDEQ's execution of a motion to enter the Consent Decree, and LDEQ reserves the right to withdraw or withhold consent based on information provided during the public comment period. In the event public

comments raise issues over the content or terms of the Consent Decree, LDEQ may withdraw from this Consent Decree and will not join in the filing of a motion to enter the Consent Decree.

## **XXII. SIGNATORIES/SERVICE**

117. Each undersigned representative of Defendants, the Co-Plaintiffs, and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice identified on the DOJ signature page below, certifies that that person is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he, she, or they represents to this document.

118. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Defendants agree to accept service of process by mail 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. Defendants need not file an answer to the complaint in this action unless or until the Court expressly declines to enter this Consent Decree.

## **XXIII. INTEGRATION**

119. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently submitted and approved pursuant to this Decree, the Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Consent Decree.

## **XXIV. 26 U.S.C. SECTION 162(f)(2)(A)(ii) IDENTIFICATION**

120. For purposes of the identification requirement in Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), and 26 C.F.R. § 1.162-21(b)(2), performance of the following provisions is restitution, remediation, or required to come into compliance with law:

- a. Paragraphs 5-6;
- b. Section V (Compliance Requirements), Paragraphs 15-42;
- c. Section VI (Mitigation Projects), Paragraphs 43-45;
- d. Section VII (Incorporation of Consent Decree Requirements into Federally Enforceable Permits), Paragraphs 46-48;
- e. Section VIII (Approval of Deliverables), Paragraphs 49-54
- f. Section IX (Reporting Requirements), Paragraphs 55-59;

- g. Section XIII (Information Collection and Retention), Paragraphs 90-91;
- h. Appendix B (Factors to be Considered and Procedures to Be Followed to Claim Commercial Unavailability), Paragraphs I.A through II.C;
- i. Appendix C (Ignacio Flare Monitoring Project), Paragraphs 1-7; and
- j. Appendix D (Compressor Station Mitigation Project), Paragraphs 1-2.

**XXV. FINAL JUDGMENT**

121. 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 Co-Plaintiffs, and Defendants. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

**XXVI. APPENDICES**

122. The following Appendices are attached to and part of this Consent Decree:

Appendix A	Responsible Defendant(s) for Covered Facilities
Appendix B	Factors to be Considered and Procedures to be Followed to Claim Commercial Unavailability
Appendix C	Ignacio Flare Monitoring Project
Appendix D	Compressor Station Mitigation Project
Appendix E	Notices and Findings of Violation

Dated and entered this \_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
UNITED STATES DISTRICT JUDGE

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE UNITED STATES OF AMERICA:

Date: April 18, 2023

/s/ Todd Kim  
TODD KIM  
Assistant Attorney General  
Environment and Natural Resources Division  
U.S. Department of Justice

Date: April 20, 2023

/s/ Thomas P. Kolkin  
THOMAS P. KOLKIN  
Trial Attorney  
Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Washington, DC 20044-7611  
Phone: (202) 305-0427  
Fax: (202) 616-3531  
Email: [Thomas.Kolkin@usdoj.gov](mailto:Thomas.Kolkin@usdoj.gov)  
*Attorney for Plaintiff United States of America*

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY:

Date: April 18, 2023

/s/ Lawrence E. Starfield  
LAWRENCE E. STARFIELD  
Acting Assistant Administrator  
Office of Enforcement and Compliance Assurance  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

ROSEMARIE A. KELLEY  
Director, Office of Civil Enforcement  
Office of Enforcement and Compliance Assurance  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

MARY E. GREENE  
Director, Air Enforcement Division  
Office of Civil Enforcement  
Office of Enforcement and Compliance Assurance  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

TIMOTHY J. SULLIVAN  
Attorney-Adviser, Air Enforcement Division  
Office of Civil Enforcement  
Office of Enforcement and Compliance Assurance  
U.S. Environmental Protection Agency  
1595 Wynkoop Street  
Denver, Colorado 80202

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE U.S. ENVIRONMENTAL PROTECTION  
AGENCY, REGION III:

Date: April 19, 2023

/s/ Adam Ortiz  
ADAM ORTIZ  
Regional Administrator  
U.S. Environmental Protection Agency, Region III

Date: April 19, 2023

/s/ Cecil Rodrigues  
CECIL RODRIGUES  
Regional Counsel  
U.S. Environmental Protection Agency, Region III

Date: April 19, 2023

/s/ Daniel E. Boehmcke  
DANIEL BOEHMCKE  
Assistant Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency, Region III



**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE U.S. ENVIRONMENTAL PROTECTION  
AGENCY, REGION 4:

Date: April 11, 2023

/s/ Daniel Blackman  
DANIEL BLACKMAN  
Regional Administrator  
U.S. Environmental Protection Agency, Region 4

LEIF PALMER  
Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency, Region 4

SUZANNE RUBINI  
Deputy Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency, Region 4

MARLENE J. TUCKER  
Associate Regional Counsel  
Office Of Regional Counsel  
U.S. Environmental Protection Agency, Region 4

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE U.S. ENVIRONMENTAL PROTECTION  
AGENCY, REGION 5:

FOR THE U.S. ENVIRONMENTAL PROTECTION  
AGENCY, REGION 5:

Date: April 19, 2023

/s/ Debra Shore  
DEBRA SHORE  
Regional Administrator  
& Great Lakes National Program Manager  
U.S. Environmental Protection Agency, Region 5  
77 W. Jackson Blvd.  
Chicago, Illinois 60604

Date: April 19, 2023

/s/ Robert A. Kaplan  
ROBERT A. KAPLAN  
Regional Counsel  
U.S. Environmental Protection Agency, Region 5  
77 W. Jackson Blvd.  
Chicago, Illinois 60604

EATON WEILER  
Associate Regional Counsel  
U.S. Environmental Protection Agency, Region 5  
77 W. Jackson Blvd.  
Chicago, Illinois 60604

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE U.S. ENVIRONMENTAL PROTECTION  
AGENCY, REGION 6:

Date: April 3, 2023

/s/ Cheryl T. Seager  
CHERYL T. SEAGER  
Director  
Enforcement and Compliance Assurance Division  
U.S. Environmental Protection Agency, Region 6

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE U.S. ENVIRONMENTAL PROTECTION  
AGENCY, REGION 7:

Date: April 13, 2023

/s/ Megan McCollister  
MEGHAN A. McCOLLISTER  
Regional Administrator  
U.S. Environmental Protection Agency, Region 7

Date: April 14, 2023

/s/ David Cozad  
DAVID COZAD  
Director  
Enforcement and Compliance Assurance Division  
U.S. Environmental Protection Agency, Region 7

Date: April 11, 2023

/s/ Leslie Humphrey  
LESLIE HUMPHREY  
Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency, Region 7

Date: April 13, 2023

/s/ Jonathan Meyer  
JONATHAN MEYER  
Assistant Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency, Region 7

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE U.S. ENVIRONMENTAL PROTECTION  
AGENCY, REGION 8:

Date: April 10, 2023

/s/ KC Becker  
KC BECKER  
Regional Administrator  
U.S. Environmental Protection Agency, Region 8

Date: April 10, 2023

/s/ Kenneth C. Schefski  
KENNETH C. SCHEFSKI  
Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency, Region 8

Date: April 10, 2023

/s/ Suzanne J. Bohan  
SUZANNE J. BOHAN  
Division Director  
Enforcement and Compliance Assurance Division  
U.S. Environmental Protection Agency, Region 8

Date: April 10, 2023

/s/ Abigail F. Dean  
ABIGAIL F. DEAN  
Senior Assistant Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency, Region 8

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR SOUTHERN UTE INDIAN TRIBE:

Date: 4/7/2023

/s/ Melvin J. Baker  
MELVIN J. BAKER  
Chairman  
Southern Ute Indian Tribal Council

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

Subject to the public notice and comment requirements of La.R.S. 30:2050.7

FOR THE LOUISIANA DEPARTMENT OF  
ENVIRONMENTAL QUALITY:

Date: April 12, 2023

/s/ Celena Cage  
CELENA CAGE  
Assistant Secretary  
Office of Environmental Compliance  
Louisiana Department of Environmental Quality

Date: April 12, 2023

/s/ Jill Clark  
JILL CLARK (Louisiana Bar No. 33050)  
[Jill.Clark@la.gov](mailto:Jill.Clark@la.gov)  
ANDREA' Z. JONES (Louisiana Bar No. 25426)  
Trial Counsel  
[Andrea.Jones@la.gov](mailto:Andrea.Jones@la.gov)  
Louisiana Department of Environmental Quality  
Office of the Secretary  
Legal Division  
P.O. Box 4302  
Baton Rouge, LA 70821-4302



**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE STATE OF ALABAMA:

STEVE MARSHALL, ATTORNEY GENERAL

Date: April 14, 2023

By: /s/ Steven Shawn Sibley  
STEVEN SHAWN SIBLEY  
Assistant Attorney General and General Counsel  
Alabama Department of Environmental Management  
Post Office Box 301463  
Montgomery, Alabama 36130-1463

Date: April 14, 2023

/s/ Lance R. Lefleur  
LANCE R. LEFLEUR  
Director  
Alabama Department of  
Environmental Management  
Post Office Box 301463  
Montgomery, Alabama 36130-1463

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE STATE OF COLORADO:

Date: April 11, 2023

/s/ Michael Ogletree  
MICHAEL OGLETREE  
Director  
Air Pollution Control Division  
Colorado Department of Public Health and Environment

PHILIP WEISER  
Attorney General  
State of Colorado

Date: April 11, 2023

/s/ David A. Beckstrom  
DAVID A. BECKSTROM  
Assistant Attorney General  
Natural Resources and Environment Section  
Colorado Department of Law

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE STATE OF WEST VIRGINIA:

Date: April 7, 2023

/s/ Laura M. Crowder  
LAURA M. CROWDER  
Director, Division of Air Quality  
West Virginia Department of Environmental Protection  
601 57th Street, Southeast  
Charleston, WV 25304

Date: April 11, 2023

/s/ Brooke Hirst  
BROOKE HIRST  
Attorney, Office of Legal Services  
West Virginia Department of Environmental Protection  
601 57th Street, Southeast  
Charleston, WV 25304

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR THE STATE OF WYOMING:

Date: April 20, 2023

/s/ Alan Edwards  
Alan Edwards  
Deputy Director  
Wyoming Department of Environmental Quality

Date: April 19, 2023

/s/ D. David DeWald  
Approval as to form  
D. David DeWald, Deputy Attorney General  
Wyoming Attorney General's Office

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR WILLIAMS COMPANIES, INC.;  
BARGATH LLC;  
DISCOVERY PRODUCER SERVICES, LLC;  
MID-CONTINENT FRACTIONATION AND STORAGE,  
LLC;  
UTICA EAST OHIO MIDSTREAM LLC;  
WILLIAMS FIELD SERVICES COMPANY, LLC;  
WILLIAMS MOBILE BAY PRODUCTION SERVICES,  
LLC; and  
WILIAMS OHIO VALLEY MIDSTEAM LLC:

Date: 3/19/2023




MARK A. GEBBIA, PE  
Vice President, Environmental and Permitting  
Williams Companies, Inc.  
One Williams Center, MD WRC3  
Tulsa, OK 74172

**Signature Page for the Consent Decree in  
*United States et al. v The Williams Companies, Inc. et al.***

FOR HARVEST FOUR CORNERS LLC:

Date: 3/24/2023

  
CJM SEAN P. KOLASSA  
President  
Harvest Four Corners, LLC  
1111 Travis Street  
Houston, TX 77002

**APPENDIX A****Responsible Defendant(s) for Covered Facilities**

<b><u>Covered Facility</u></b>	<b><u>Defendant(s) Responsible for Compliance with the Consent Decree</u></b>
Conway Facility	Mid-Continent Fractionation and Storage, LLC and the Williams Companies, Inc.
Echo Springs Facility	Williams Field Services Company, LLC and the Williams Companies, Inc.
Fort Beeler Facility	Williams Ohio Valley Midstream LLC and the Williams Companies, Inc.
Harrison Hub Facility	Utica East Ohio Midstream LLC, and the Williams Companies, Inc.
Ignacio Facility	Harvest Four Corners, LLC
Kensington Facility	Utica East Ohio Midstream LLC, and the Williams Companies, Inc.
Larose Facility	Discovery Producer Services, LLC and the Williams Companies, Inc.
Markham Facility	Williams Field Services Company, LLC and the Williams Companies, Inc.
Mobile Bay Facility	Williams Mobile Bay Producer Services, LLC and the Williams Companies, Inc.
Moundsville Facility	Williams Ohio Valley Midstream, LLC and the Williams Companies, Inc.
Oak Grove Facility	Williams Ohio Valley Midstream, LLC and the Williams Companies, Inc.
Opal Facility	Williams Field Services Company, LLC and the Williams Companies, Inc.
Parachute Creek Facility	Bargath LLC and the Williams Companies, Inc.
Paradis Facility	Discovery Producer Services, LLC and the Williams Companies, Inc.
Willow Creek Facility	Williams Field Services Company, LLC and the Williams Companies, Inc.

## APPENDIX B

### Factors to be Considered and Procedures to be Followed to Claim Commercial Unavailability

This Appendix outlines the factors to be taken into consideration and the procedures to be followed for Defendants to assert that a Low-E Valve or a valve that utilizes Low-E Packing is “commercially unavailable” pursuant to Paragraph 26.h of the Consent Decree.

#### **I. FACTORS FOR DETERMINING COMMERCIAL UNAVAILABILITY**

A. Nothing in this Consent Decree or this Appendix requires Defendants to utilize any valve or packing that is not suitable for its intended use in a Covered Process Unit.

B. The following factors are relevant in determining whether a Low-E Valve or a valve that utilizes Low-E Packing is commercially unavailable to replace or repack an Existing Covered Valve:

- (1) Valve type (*e.g.*, ball, gate, butterfly, needle) (neither the Consent Decree nor this Appendix requires consideration of a different type of valve than the type that is being replaced);
- (2) Nominal valve size (*e.g.*, 2 inches, 4 inches);
- (3) Compatibility of materials of construction with process chemistry and product quality requirements;
- (4) Valve operating conditions (*e.g.*, temperature, pressure);
- (5) Service life;
- (6) Packing friction (*e.g.*, impact on operability of valve);
- (7) Whether the valve is part of a packaged system or not;
- (8) Retrofit requirements (*e.g.*, re-piping or space limitations);
- (9) Other relevant considerations.

C. The following factors may also be relevant, depending upon the Covered Process Unit where the valve is located:

- (1) In cases where the valve is a component of equipment that Defendants are licensing or leasing from a third party, valve or valve packing specifications identified by the lessor or licensor of the equipment of which the valve is a component;
- (2) Valve or valve packing vendor or manufacturer recommendations for the



relevant process unit components.

## II. PROCEDURES FOR ASSERTING COMMERCIAL UNAVAILABILITY

Defendants shall comply with the following procedures if they seek to assert commercial unavailability under Paragraph 26.h of the Consent Decree:

A. Defendants must contact a reasonable number of vendors of valves or valve packing that Defendants, in good faith, believe may have valves or valve packing suitable for the intended use taking into account the relevant factors listed in Section I of this Appendix, above.

- (1) For purposes of this Consent Decree, a reasonable number of vendors presumptively shall mean no less than three.
- (2) If fewer than three vendors are contacted, the determination of whether such fewer number is reasonable shall be based on Factors set forth in Section I.C., above, or on a demonstration that fewer than three vendors offer valves or valve packing considering Factors set forth in Section I.B., above.

B. Defendants shall obtain a written representation from each vendor, or equivalent documentation, that a particular valve or valve packing is not available as “Low-Emissions” from that vendor for the intended conditions or use.

- (1) “Equivalent documentation” may include e-mail or other correspondence or data showing that a valve or valve packing suitable for the intended use does not meet the definition of “Low-E Valve” or “Low-E Packing” in the Consent Decree or that the valve or packing is not suitable for the intended use.
- (2) If a vendor does not respond or refuses to provide a written representation or equivalent documentation, “equivalent documentation” may consist of records of Defendants’ attempts to obtain a response from such vendor.

C. Each LDAR Program Compliance Status Report required by Paragraph 35 of the Consent Decree shall identify each instance when a Low-E Valve or a valve that utilizes Low-E Packing was not commercially available. Defendants shall provide a complete explanation of the basis for its claim of commercial unavailability, including, as an attachment to the LDAR Program Compliance Status Report, all relevant documentation. This report shall be valid for a period of 365 Days from the date of the report for the specific valve involved and all other similar valves, taking into account the factors listed in Part I.

**APPENDIX C**

**IGNACIO FLARE MONITORING PROJECT**

1. **Definitions.** Unless otherwise defined herein, the terms used in this Appendix to the Consent Decree will have the meaning given to those terms in Section III (Definitions) of the Consent Decree, the Act, and the regulations promulgated thereunder. The following terms, as used in this Appendix and for purposes of this Appendix only, will be defined as follows:
  - a. “Combustion Efficiency” or “CE” means a flare's efficiency in converting the organic carbon compounds found in combustion zone gas to carbon dioxide.
  - b. “Facility” means Defendant Harvest Four Corners, LLC’s natural gas processing plant, known as the Ignacio Facility, located at 3746 County Road 307, on the Southern Ute Indian Reservation, near Ignacio, Colorado;
  - c. “Flare” means the combustion device at the West Dehydration unit regenerator at the Facility, referred to as Emission Unit 23 in the Facility’s Title V Permit.
  - d. “Flare Vent Gas” means all gas found just prior to the flare tip. This gas includes all flare waste gas (*i.e.*, gas from facility operations that is directed to a flare for the purpose of disposing of the gas), that portion of flare sweep gas that is not recovered, flare purge gas and flare supplemental gas, but does not include pilot gas, total steam or assist air.
  - e. “In Operation” with respect to the Flare means any and all times that any Waste Gas is being vented to the Flare.
  - f. “Instrument Downtime” will be defined as follows:
    - (1) Malfunction of an instrument needed to meet the requirement(s);
    - (2) Repairs following Malfunction of an instrument needed to meet the requirement(s);
    - (3) Scheduled maintenance of an instrument needed to meet the requirements(s) in accordance with the manufacturer's recommended schedule; and/or
    - (4) Quality Assurance/Quality Control activities on an instrument needed to meet the requirement(s).
  - g. “Lower Heating Value” or “LHV” means the theoretical total quantity of heat liberated by the complete combustion of a unit volume or weight of a fuel initially at 25 degrees Centigrade and 760 mmHg, assuming that the produced water is vaporized and all combustion products remain at, or are returned to, 25 degrees

Centigrade; however, the standard for determining the volume corresponding to one mole is 20 degrees Centigrade.

h. “Malfunction” means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. In any dispute under this Appendix to the Consent Decree involving this definition, Harvest Four Corners, LLC will have the burden of proving:

- (1) The excess emissions or instrument/monitoring system downtime were caused by a sudden, unavoidable breakdown of technology, beyond the control of the owner or operator;
- (2) The excess emissions or instrument/monitoring system downtime: (a) did not stem from any activity or event that could have been foreseen and avoided, or planned for, and (b) could not have been avoided by better operation and maintenance practices;
- (3) To the maximum extent practicable the air pollution control equipment, processes or instrument/monitoring system downtime were maintained and operated in a manner consistent with good practice for minimizing emissions;
- (4) Repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been used, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable;
- (5) The amount and duration of the excess emissions (including any bypass) or instrument/monitoring system downtime were minimized to the maximum extent practicable during periods of such emissions;
- (6) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
- (7) All emission monitoring systems were kept in operation if possible;
- (8) The owner or operator's actions during the period of excess emissions or instrument/monitoring system downtime were documented by properly signed, contemporaneous operating logs, or other relevant evidence;
- (9) The excess emissions or instrument/monitoring system downtime were not part of a recurring pattern indicative of inadequate design,

operation, or maintenance; and

- (10) The owner or operator properly and promptly notified the appropriate regulatory authority if required.
- i. “Net Heating Value” or “NHV” means Lower Heating Value.
  - j. “Net Heating Value Analyzer” means an instrument capable of measuring the Net Heating Value of Flare Vent Gas in BTU/scf. The sample extraction point of a Net Heating Value Analyzer may be located upstream of the introduction of flare supplemental and/or flare sweep and/or flare purge gas if the composition and flow rate of any such flare supplemental and/or flare sweep and/or flare purge gas is a known constant and if this constant is then used in the calculation of the Net Heating Value of the Flare Vent Gas.
  - k. “Net Heating Value of Combustion Zone Gas” or “NHVcz” means the Lower Heating Value, in BTU/scf, of the combustion zone gas in a flare. NHVcz must be calculated in accordance with 40 C.F.R. § 63.670(m).
  - l. “Net Heating Value of Flare Vent Gas” or “NHVvg” means the Lower Heating Value, in BTU/scf, of the vent gas in a flare. NHVvg must be determined using the procedures specified in 40 C.F.R. § 63.670(j) and (l).
  - m. “SCFM” or “scfm” means standard cubic feet per minute.
  - n. “Total Steam” means the total of all steam that is intentionally introduced into the Flare to assist in combustion. Total Steam includes, but is not limited to, lower steam, center steam, and upper steam.
  - o. “Ultrasonic Meter” means a flow meter that measures the velocity of a fluid using acoustical sound waves. With transit time meters, acoustic signals are sent back and forth between transducers and receivers through the stream to be measured. The transit time it takes the acoustic signal to go from transducer to receiver is measured. The difference in the measured time is directly proportional to the velocity of the fluid in the pipe. This information, along with the known cross-section, determines the volumetric flowrate in the pipeline. The gas stream molecular weight is then determined using the speed of sound in the fluid as measured by the meter. For the purposes of the test period in Paragraph 3 below, Harvest shall use a GE GF868 Ultrasonic Flow Meter or equivalent ultrasonic flow meter.
  - p. “Waste Gas” means the mixture of all gases from Facility operations that are directed to the Flare for the purpose of disposing of the gas. Waste Gas does not include gas introduced to the Flare exclusively to make it operate safely and as intended; therefore, Waste Gas does not include pilot gas, Total Steam, or the minimum amount of flare sweep gas and flare purge gas that is necessary to perform the functions of flare sweep gas and flare purge gas. Waste Gas also does not include the minimum amount of gas introduced to the Flare to comply

with regulatory and/or enforceable permit requirements regarding the combustible characteristics of Combustion Zone Gas.

2. **Flare General Provisions.** On the Effective Date, Harvest Four Corners, LLC must be in compliance with the requirements of Paragraphs 2.a through 2.d.
  - a. **Visible Emissions.** The Flare shall be designed for and operated with no visible emissions in accordance with 40 C.F.R. § 60.18(c)(1) and § 63.11(b)(4).
  - b. **Flame Presence, Pilot, and Operation**
    - (1) The Flare shall be operated with a flame present at all times in accordance with 40 C.F.R. § 60.18(c)(2) and § 63.11(b)(5).
    - (2) The Flare shall be operated and maintained in conformance with its design pursuant to 40 C.F.R. § 60.18(d) and § 63.11(b)(1).
    - (3) The Flare shall be operated at all times when emissions may be vented to it pursuant to 40 C.F.R. § 60.18(d) and § 63.11(b)(3).
    - (4) At all times, including during periods of startup, shutdown, and/or Malfunction, Harvest Four Corners, LLC must implement good air pollution control practices to minimize emissions from the Flare.
  - c. **Exit Velocity.** The Flare shall be designed for and operated with an exit velocity in accordance with 40 C.F.R. § 60.18(c)(4) and § 63.11(b)(7).
  - d. **Vent Gas Heat Content.** The Flare shall be used only with the NHV<sub>vg</sub> being combusted meeting the requirements in 40 C.F.R. § 60.18(c)(3)(ii) and § 63.11(b)(6)(ii).
3. **Test Period.** Beginning on July 1, 2023, Harvest Four Corners, LLC shall for a period of 365 Days while the Flare is In Operation (hereinafter, “the Test Period”) continuously determine the concentration of individual components in the Flare Vent Gas for the Flare using the method specified in 40 C.F.R. § 63.670(j)(1) or continuously monitor the NHV of the Flare Vent Gas for the Flare in compliance with the method specified in 40 C.F.R. § 63.670(j)(3).
4. **Performance Evaluation.**
  - a. During the Test Period described in Paragraph 3, Harvest Four Corners, LLC shall on a quarterly basis:
    - (1) Calculate the Arithmetic Mean of the differences between the continuously monitored NHV (40 C.F.R. §63.670(j) monitoring equipment) and the Ultrasonic Meter derived NHV as defined in 40 C.F.R. § 60 Appendix B, PS-2, Section 12.2.

- (2) Calculate the Standard Deviation as defined in 40 C.F.R. § 60 Appendix B, PS-2, Section 12.3.
  - (3) Calculate the Confidence Coefficient as defined in 40 C.F.R. § 60 Appendix B, PS-2, Section 12.4.
  - (4) Calculate the Relative Accuracy as defined in 40 C.F.R. § 60 Appendix B, PS-2, Section 12.5, where RM is the average quarterly value measured by the 40 C.F.R. § 63.670(j) monitoring equipment.
- b. Harvest Four Corners, LLC shall conduct a root cause analysis for any fifteen-minute period where the deviation between NHVs exceed 15%. Each root cause analysis shall include, at a minimum, a discussion of:
- (1) Possible cause(s) of deviation;
  - (2) Actions taken to prevent reoccurrence of deviation;
  - (3) Any instances of potential non-compliance with environmental requirements; and
  - (4) Corrective actions completed to ensure compliant flare monitoring and operation.

5. **Flare Monitoring Project Report.**

- a. Within 270 Days of the start of the Test Period, Harvest Four Corners, LLC shall submit a preliminary report in accordance with Section XVI (Notices) of the Consent Decree covering the first two quarters of the Test Period and including the following information:
- (1) The raw data and related calculations for the monitoring required pursuant to Paragraph 4.a; and
  - (2) The root cause analysis information required in Paragraph 4.b.
- b. Within 90 days of the completion of the Test Period, Harvest Four Corners, LLC shall submit a final report in accordance with Section XVI (Notices) of the Consent Decree covering the full Test Period that includes the following information:
- (1) The raw data and related calculations for the monitoring required pursuant to Paragraph 4.a; and
  - (2) The information required in Paragraph 4.b.
  - (3) The final report shall also incorporate and respond to any comments regarding the preliminary report provided by the United States or the

Tribe to Harvest Four Corners, LLC within thirty days of the completion of the Test Period.

6. **Modified Flare Control and Monitoring.**

- a. **Applicability.** Within 120 Days of completion of the Test Period, Harvest Four Corners, LLC shall comply with the requirements of Paragraphs 6.b - 6.d if the Relative Accuracy for the Test Period (as calculated pursuant to Paragraph 4.a(4)) determines a deviation of greater than 10.0%.
- b. **Flare Combustion Efficiency**
  - (1) *Net Heating Value of Combustion Zone Gas (NHVcz)*
    - (a) At any time that the Flare is In Operation, Harvest Four Corners, LLC must meet the requirements in 40 C.F.R. §§ 63.670(e) and (m).
    - (b) Compliance with Paragraph 6.b(1) will be determined based on the instrumentation and monitoring systems required by Paragraph 6.c below.
  - (2) *Assist Steam Control:* Harvest Four Corners, LLC must install and commence operation of equipment, including, as necessary, main and trim control valves and piping that enables Harvest Four Corners, LLC to control Assist Steam flow to the Flare in a manner sufficient to ensure compliance with this Paragraph 6.
  - (3) *Standard During Instrument Downtime:* During a period of Instrument Downtime that renders Harvest Four Corners, LLC incapable of operating the Flare in accordance with the applicable NHVcz standard in Paragraph 6.b(1), Harvest Four Corners, LLC must operate the Flare in accordance with good air pollution control practices so as to minimize emissions from and ensure good Combustion Efficiency at the Flare.
  - (4) *Calculations and Recordkeeping:* Harvest Four Corners, LLC must calculate and record each of the following parameters for the Flare:
    - (a) Volumetric flow rates for all gas streams that contribute to the Flare Vent Gas volumetric flow rate in scfm in 15-minute block averages and in accordance with any calculation requirement of 40 C.F.R. § 63.670(k);
    - (b) Assist steam volumetric flow rate in scfm in 15-minute block averages and in accordance with any calculation requirements of 40 C.F.R. § 63.670(k);



- (c) NHV<sub>vg</sub> in BTU/scf in 15-minute block averages in accordance with 40 C.F.R. § 63.670(l); and
- (d) NHV<sub>cz</sub> in BTU/scf in 15-minute block averages in accordance with 40 C.F.R. § 63.670(m).

c. **Perpetual Monitoring.** Harvest Four Corners, LLC must install and commence operation of the instrumentation, controls, and monitoring systems set forth in Paragraphs 6.c(1) - 6.c(4) at the Flare.

- (1) *Vent Gas and Assist Steam Flow Monitoring Systems:* Harvest Four Corners, LLC must install, operate, calibrate, and maintain a monitoring system at the Flare that is capable of continuously measuring, calculating, and recording the volumetric flow rate of the Flare Vent Gas and assist steam that meets the requirements of 40 C.F.R. § 63.670(i). Flow must be calculated in scfm and pounds per hour.
- (2) *Flare Vent Gas Compositional Monitoring or Direct Monitoring of Net Heating Value of Vent Gas:* Harvest Four Corners, LLC must determine the concentration of individual components in the Flare Vent Gas or must directly monitor the Net Heating Value of the Flare Vent Gas (NHV<sub>vg</sub>) for the Flare in compliance with one of the methods specified in 40 C.F.R. § 63.670(j).
- (3) *Specifications, Calibration, Quality Control and Maintenance:* The instrumentation and monitoring systems identified in Paragraphs 6.c(1) and 6.c(2) must meet the applicable requirements of 40 C.F.R. § 63.671.
- (4) *Operation:* Harvest Four Corners, LLC must operate each of the instruments and monitoring systems required by Paragraphs 6.c(1) and 6.c(2) and collect data on a continuous basis at all times when the Flare is In Operation, except for during a period of Instrument Downtime.
- (5) *Recording and Averaging Times:*
  - (a) The instrumentation and monitoring systems identified in Paragraphs 6.c(1) and 6.c(2) must be able to produce and record data measurements and calculations for each parameter at the following time intervals:

<b>Instrumentation and Monitoring System</b>	<b>Recording and Averaging Times</b>
Vent Gas, Assist Steam Flow, Monitoring Systems, and Pilot Gas Flow (if installed)	Measure continuously and record 15-minute block averages



Vent Gas Compositional Monitoring (if using a gas chromatograph for example)	Measure no less than once every 15 minutes and record that value
Vent Gas Net Heating Value Analyzer (if using a calorimeter for example)	Measure continuously and record 15-minute block averages

- (b) Continuous Parameter Monitoring System (“CPMS”) Downtime Calculation
- (c) To determine valid data capture for the 15-minute blocks within a Quarter, Harvest Four Corners, LLC is required to have one (1) reading per 15-minute block that the Flare is In Operation.
- (d) If there is at least one (1) valid reading within the 15-minute block, no downtime is attributed to that 15-minute block.
- (e) If the Flare is not In Operation, no downtime is attributed to that 15-minute block.
- (f) If a calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour.
- (g) Downtime includes those periods where the CPMS are not providing compliance parameter data while the Flare is In Operation for the entire 15-minute block. It also includes periods of Quality Assurance (QA) and Preventive Maintenance (PM) procedures and CPMS calibration if during the entire 15-minute block while the Flare is In Operation.
- (h) Downtime includes periods when CPMS is out-of-control for the entire 15-minute block while the Flare is In Operation.
- (i) Allowed downtime is no more than 110 hours (i.e., 440 15-minute blocks) per Quarter.

d. **Permit Modification.** Harvest Four Corners, LLC shall submit complete applications, amendments, and/or supplements to applicable permitting authorities to incorporate the requirements of this Paragraph 6, if applicable, into non-Title V federally enforceable permits or approvals pursuant to Paragraph 47 of the Consent Decree and into the Ignacio Facility’s Title V Operating Permit pursuant to Paragraph 48.

7. **Recordkeeping.** Harvest Four Corners, LLC shall retain the records specified in Paragraphs 7.a - 7.e of this section. The records must be up-to-date and readily accessible, as applicable.

- a. Retain records of any monitoring or calculations conducted pursuant to 40 C.F.R. § 60.18(f) and § 63.11(b) to demonstrate compliance with Paragraphs 2.a-2.d.
  - b. Retain records of the output of the monitoring device(s) in Paragraphs 3 and 6.c, as applicable.
  - c. Retain records of the calculations required in Paragraphs 4.a(1) - 4.a(4).
  - d. Retain records of the root cause analyses conducted as required in Paragraph 4.b and corrective actions conducted as required in Paragraph 4.b(4).
  - e. Retain copies of the Flare Monitoring Project Report as required in Paragraph 5.
  - f. Retain records of the calculations required in Paragraph 6.b(4).
  - g. Retain records of the calculations required in Paragraph 6.c(5).
8. **Stipulated Penalties.** Stipulated penalties for violations of this Appendix C are included in Paragraph 67.d of the Consent Decree.

**APPENDIX D****COMPRESSOR STATION PROJECT****1. Definitions**

- a. Unless otherwise defined herein, the terms used in this Appendix to the Consent Decree will have the meaning given to those terms in Section III of the Consent Decree, the Act, and the regulations promulgated thereunder, including, but not limited to, 40 C.F.R. Part 60, Subpart OOOOa. The following terms, as used in this Appendix and for purposes of this Appendix only, will be defined as follows:
- b. “Affected Compressor Station(s)” means the gathering compressor stations located at the following facilities:

<b>Facility Name</b>	<b>Lat</b>	<b>Long</b>	<b>State</b>
North Desoto	32.2353	-93.6595	LA
Asian	35.4492	-98.8897	OK
Bessie	35.3937	-98.9958	OK
Camp Houston	36.8442	-99.0777	OK
Cedar	35.4368	-99.0561	OK
Helena Hunton	36.5825	-98.2636	OK
Hopeton	36.6683	-98.7552	OK
Kayser	35.4222	-98.9619	OK
Lenora	36.0438	-99.0994	OK
Mary Ann	35.2627	-99.0637	OK
Mayfield	35.3743	-99.8250	OK
North Alva	36.8564	-98.7432	OK
North Alva No 2	36.8770	-98.5913	OK
North Sayre	35.4378	-99.7165	OK
Northwest Helena	36.6819	-98.3450	OK
Salt Fork	36.8836	-98.6863	OK
Sawatsky	35.4225	-98.9562	OK
South Fork Creek	35.2974	-98.8341	OK
Brown I & II	39.8032	-80.0001	PA
Pritts	40.0663	-79.6335	PA
Teel	41.7109	-75.8723	PA
Wilcox	41.5854	-75.8933	PA
Allison Britt	35.5908	-100.0931	TX
Arc Park	32.7686	-97.2612	TX
Catarina	28.3566	-99.6636	TX
Cleburne	32.4165	-97.4299	TX

Copperhead	32.4021	-97.2899	TX
Cotton Belt	32.9458	-97.0369	TX
Dilley Compressor Station	28.6299	-99.4124	TX
Edgecliff	32.6566	-97.3242	TX
Escondido	28.3922	-99.2432	TX
Faith Bonita	28.2659	-99.9058	TX
Fox Creek	28.5970	-98.6476	TX
Frio	28.6180	-98.9770	TX
Harbison Fischer	32.5937	-97.3552	TX
Hudson Delga	32.7760	-97.3244	TX
Javelina	28.3944	-99.0005	TX
JEA	28.5371	-99.1506	TX
Leona	28.2810	-99.3557	TX
Lewisville	32.9935	-97.0263	TX
Light	28.4863	-99.4772	TX
Midlothian	32.5229	-97.1067	TX
Nopal Pearsall	28.5457	-99.8385	TX
Parrot	32.7833	-97.2316	TX
Peacock	28.5146	-98.5662	TX
Peeler	28.6046	-98.4828	TX
Pelon Creek	28.1940	-99.3382	TX
Pena Creek	28.6001	-99.8567	TX
Rio Vista	32.2723	-97.4512	TX
Strait	28.5471	-99.5722	TX
Sycamore	32.6149	-97.3328	TX
Tilden	28.4077	-98.5292	TX
Traylor	28.8427	-99.5126	TX
Winslow	28.2658	-99.2150	TX
Wheelock	30.9919	-96.4488	TX
Battle Run	40.0735	-80.5725	WV
Buffalo	36.1024	-91.0547	WV
Burch Ridge	39.7509	-80.7983	WV
Conner	39.8743	-80.7550	WV
Corley	39.7518	-80.7978	WV
Nice-Potts	39.6693	-80.8267	WV
Pinecone	39.8527	-80.7730	WV
Stillwagoner	39.5984	-80.7892	WV
Wetzel (WGGS)	39.4883	-80.6335	WV
Whipkey	39.8743	-80.5687	WV
Bardall	39.9418	-80.6868	WV
Caveney	39.8937	-80.6557	WV

Hunter-Pethtel	39.7811	-80.7268	WV
Siburt	39.9077	-80.6792	WV
Snyder	39.9420	-80.6271	WV
Big Piney	42.4023	-110.2891	WY
Cow Hollow	41.9309	-110.1735	WY
Dry Lake	41.6292	-107.9778	WY
Eight Mile Lake	41.5672	-107.8551	WY
Frewen Lake	41.6709	-108.0350	WY
Lincoln Road	42.0130	-110.0728	WY
Monument Lake	41.7607	-107.9061	WY
Moxa North	41.7689	-110.1393	WY
Moxa South	41.5999	-110.0954	WY
Red Hill	42.4804	-110.2777	WY

2. **Compressor Station Project Requirements.** Williams Defendants shall comply with the following requirements according to the timeframes listed herein until termination of this Consent Decree.
- a. **Compressor Station Fugitive Emissions Monitoring Plan.** Williams Defendants must develop and follow a comprehensive fugitive emissions monitoring plan containing all the applicable elements of 40 C.F.R. §§ 60.5397a(c)(1)-(7) and (d). Williams Defendants shall submit the fugitive emissions monitoring plan within 6 months of the Effective Date to EPA and the applicable Co-Plaintiffs for approval pursuant to Paragraph 49.c of the Consent Decree.
- b. **Initial Monitoring Survey.** Pursuant to the schedule in 2.b(1) and 2.b(2), Williams Defendants must conduct an initial monitoring survey for the collection of fugitive emissions components in accordance with 40 C.F.R. § 60.5397a(e) and the Fugitive Emissions Monitoring Plan required under Paragraph 2.a of this appendix.
- (1) Within 1 year of the Effective Date, Williams Defendants shall conduct the initial monitoring survey at any 40 Affected Compressor Stations.
- (2) Within 2 years of the Effective Date, Williams Defendants shall conduct the initial monitoring survey at the remaining Affected Compressor Stations where an initial monitoring survey has not already been conducted pursuant to this Appendix.
- c. **Subsequent Monitoring Survey.** Williams Defendants must conduct a subsequent monitoring survey for each Affected Compressor Station no sooner than 6 months following the previous monitoring survey, and shall continue

conducting monitoring surveys at least once per calendar year until the Consent Decree is terminated.

d. **Technique for Determining Fugitive Emissions.** Williams Defendants must perform all monitoring surveys of all fugitive emissions components for each Affected Compressor Station using optical gas imaging (OGI) in accordance with the Fugitive Emissions Monitoring Plan.

- (1) Williams Defendants may request approval from the applicable EPA regional office for an alternative monitoring method by providing information that is sufficient for demonstrating that the alternative monitoring method is equivalent to OGI. Such a request shall include the following information:
  - (a) A description of the technology or process;
  - (b) The monitoring instrument and measurement technology or process;
  - (c) A description of performance based procedures (i.e., method) and data quality indicators for precision and bias; the method detection limit of the technology or process;
  - (d) The action criteria and level at which a fugitive emission exists;
  - (e) Any initial and ongoing quality assurance/quality control measures;
  - (f) Timeframes for conducting ongoing quality assurance/quality control measures;
  - (g) Field data verifying viability and detection capabilities of the technology or process;
  - (h) Frequency of measurements;
  - (i) Minimum data availability;
  - (j) Any restrictions for using the technology or process;
  - (k) Operation and maintenance procedures and other provisions necessary to ensure reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under an OGI-based program;
  - (l) Initial and continuous compliance procedures, including recordkeeping and reporting; and
  - (m) List of facilities where alternative monitoring method may be used.

- (2) Williams Defendants must continue to conduct monitoring surveys using OGI until the applicable EPA regional office provides written approval for the use of an alternative monitoring method.
- e. **Identification of Leaks.** Emissions detected from fugitive emissions components through a monitoring survey will be considered a Leak subject to repair requirements. For repairs that cannot be made during the monitoring survey(s), Williams Defendants shall obtain either a digital photograph of the leaking component or physically tag the component(s) for subsequent repair.
- f. **Repair of Leaks.** For all Leaks detected using OGI or an approved alternative monitoring method, Williams Defendants shall follow the Fugitive Emissions Monitoring Plan, including the requirements of 40 C.F.R. § 60.5397a(h) and components shall be resurveyed in accordance with 40 C.F.R. § 60.5397a(h)(4).
  - (1) Williams Defendants shall maintain sufficient stock of commonly used replacement parts (e.g., valve assemblies) to ensure timely repairs of equipment pursuant to the requirements of this Appendix D.
  - (2) When a repair requires part(s) to be purchased, the part(s) shall be purchased as expeditiously as practicable and the repair must be completed no later than 30 days after receipt of purchased part(s) or in accordance with 40 C.F.R. § 60.5397a(h)(3), whichever period is longer.
- g. **Recordkeeping.** Williams Defendants shall maintain records in accordance with the requirements of 40 C.F.R. § 60.5420a(c)(15).
- h. **Compressor Station Fugitive Emissions Project Report.** Williams Defendants shall include the following as part of the annual report in accordance with Paragraph 55 of the Consent Decree (Annual Report).
  - (1) For each Affected Compressor Station at which a monitoring survey was conducted during the reporting period pursuant to Paragraph 2 of this Appendix, Williams Defendants shall provide:
    - (a) The name of the station;
    - (b) The date of each survey;
    - (c) The monitoring instrument used;
    - (d) The number and type of components for which Leaks were detected;
    - (e) The number and type of components that were not repaired in accordance with Paragraph 2.f of this Appendix;

- (f) The number and type of components that were placed on Delay of Repair during the reporting period and the reason for the delay;
  - (g) Date of planned shutdown(s) that occurred during the reporting period if there are any components that have been placed on delay of repair.
  - (h) Identify any deviations during the reporting period from the Fugitive Emissions Monitoring Plan submitted in accordance with Paragraph 2.a of this Appendix.
- i. **Changes in Applicability.** If construction, modification, or reconstruction results in an Affected Compressor Station becoming subject to Federal, Tribal, and/or State LDAR requirements that are more stringent than the requirements of this Appendix, the Affected Compressor Station will no longer be subject to the requirements of this Appendix and it must comply with the more stringent, applicable LDAR requirements. Williams Defendants shall provide a notice in accordance with Section XVI (Notices) within 30 days of an Affected Compressor Station becoming subject to more stringent Federal, Tribal, and/or State LDAR requirements.
- j. **Cessation of Operation.** If an Affected Compressor Station ceases operation (i.e., is depressurized), the Affected Compressor Station will no longer be subject to the monitoring requirements (Section 2.c) and repair requirements (Section 2.f) of this Appendix unless placed back into service. Williams Defendants shall provide a notice in accordance with Section XVI (Notices) within 30 days of operational cessation at an Affected Compressor Station.
- k. **Transfer of Ownership or Operational Control of an Affected Compressor Station.** If ownership or operational control of an Affected Compressor Station is transferred, in whole, to an entity unrelated to a Williams Defendant (“the Transferred Station,” as defined below), the Transferred Station will no longer be subject to the monitoring requirements (Paragraph 2.c) and repair requirements (Paragraph 2.f) of this Appendix D provided that the procedures in Paragraphs 2.k(1) through 2.k(3) below are followed.
  - (1) Definitions. For purposes of this Paragraph 2.k only, the following definitions shall apply:
    - (a) “Transferred Station” shall mean the Affected Compressor Station for which ownership or operational control was transferred in whole to an entity unrelated to a Williams Defendant.
    - (b) “Remaining Stations” shall mean all Affected Compressor



Stations except for:

- 1) The Transferred Station;
- 2) Any Affected Compressor Station(s) previously transferred pursuant to this Paragraph 2.k;
- 3) Any Affected Compressor Station(s) previously taken out of service pursuant to Paragraph 2.j; and
- 4) Any Affected Compressor Station(s) subject to a change in regulatory applicability pursuant to Paragraph 2.i

(c) “Selected Station” shall mean the station for which Williams shall perform semi-annual monitoring pursuant to Paragraph 2.k(2).

- (2) For each Transferred Station, Williams shall perform semi-annual monitoring under Paragraph 2.c at another of the Remaining Stations (i.e., “the Selected Station,” as defined above). The Selected Station shall:

(a) Where feasible, be located within 25 miles of the Transferred Station or a Covered Facility (as defined by the Consent Decree); and

(b) Meet one or more of the following criteria:

- 1) The Selected Station is among the top 10% of the Remaining Stations with regard to the number of Leaks detected pursuant to Paragraph 2.e of this Appendix D during one of the most recent two monitoring surveys;
- 2) The Selected Station is among the oldest 10% of the Remaining Stations, as determined by the date of initial construction; or
- 3) The Selected Station is among the top 10% of the Remaining Stations in terms of the total engine horsepower.

- (3) Within thirty (30) days of the transfer of the Transferred Station(s), Williams Defendants shall provide a notice in accordance with Section XVI (Notices) of the Consent Decree that includes the following information:

(a) The name of the Transferred Station(s);

(b) The name of Selected Station(s); and

(c) A demonstration that the criteria of Paragraph 2.k(2) have been met for the Selected Station(s).

1. **Termination of Compressor Station Project.** Williams Defendants shall seek termination of the requirements of this Appendix D as part of the final Request for Termination of this Consent Decree.

## Appendix E

- E.1 Moundsville Notice of Noncompliance (1/14/2016)
- E.2 Oak Grove Notice of Noncompliance (8/17/2017)
- E.3 Harrison Hub Finding of Violation (2/9/2018)
- E.4 Ignacio Notice of Violation (3/16/2018)
- E.5 Parachute Creek Notice of Violation (3/16/2018)

E.1 Moundsville Notice of Noncompliance (1/14/2016)

**THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029**

**In Re:** :  
 :  
**Williams Ohio Valley Midstream LLC,** :  
**100 Teletech Drive, Suite 2,** :  
**Moundsville, West Virginia 26041,** : **Clean Air Act, Section 113(a)(3)**  
 :

**NOTICE OF NONCOMPLIANCE**

**I. Preliminary Statement**

This Notice of Noncompliance is issued to Williams Ohio Valley Midstream LLC (Williams) to address violations of the Clean Air Act (Act or CAA), 42 U.S.C. § 7401 *et seq*, the United States Environmental Protection Agency (EPA) Region III asserts occurred at Williams’s facility located at 100 Teletech Drive, Moundsville, West Virginia 26041 (Moundsville facility). The State of West Virginia is within the jurisdiction of EPA Region III.

**II. General Provisions**

1. One of the purposes of the CAA is “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” Section 101 of the CAA, 42 U.S.C. 7401. In 1970, EPA was tasked with developing New Source Performance Standards (NSPS) for industry classifications to require new or modified stationary sources, whose emissions were reasonably anticipated to endanger public health or welfare, to install the best system of emission reduction that the Administrator determined had been adequately demonstrated. The NSPS program regulates emissions of air pollutants from individual pieces of equipment and process units within a plant; it does not regulate entire plant sites. Section 111(b) provides authority for EPA to promulgate NSPS which apply only to new and modified sources. Pursuant to Section 111(b) of the CAA, as amended November 15, 1990, 42 U.S.C §7411(b), EPA promulgated NSPS regulations found at 40 C.F.R Part 60.

2. On August 23, 2011, the Administrator of EPA proposed a rule pursuant to Section 111 of the CAA, 42 U.S.C. § 7411, establishing standards of performance for crude oil and natural gas production, transmission and distribution. This rule, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution, was promulgated on August 16,

2012 and became effective on October 15, 2012. These standards are codified at 40 C.F.R. Part 60, Subpart OOOO (§§ 60.5360 - 60.5499) (hereafter, Subpart OOOO).

### III. Findings of Fact and Conclusions of Law

3. Williams is a domestic limited liability corporation incorporated in the State of Texas. Williams is doing business in the State of West Virginia. Williams is the current owner and operator of the Moundsville facility. The Moundsville facility was owned previously by Caiman Eastern Midstream LLC (Caiman). The permit to construct the initial fractionation unit, hot oil heater, and flare at the Moundsville facility was issued to Caiman by the West Virginia Department of Environmental Protection (WVDEP) on December 28, 2011 (Permit R13-2892). Williams purchased the Moundsville facility from Caiman on April 27, 2012 during its initial construction. The Moundsville facility, as initially constructed, commenced operation on November 22, 2012. The Moundsville facility, as initially constructed, was subject to Subpart OOOO.

4. Thereafter, Williams applied to WVDEP for a permit to modify the Moundsville facility (to add a second fractionation unit and a new flare). This permit was issued on May 28, 2013 (Permit R13-2892C) and, among other things, explicitly required Williams to comply with Subpart OOOO at the Moundsville facility (Condition 7.0). Operation of the second fractionation unit and new flare commenced on February 27, 2014. The Moundsville facility is, and has been since its initial construction, a processing site engaged in the fractionation of mixed natural gas liquids to natural gas products.

5. Williams is a "person" as that term is defined in Section 302(e) of the CAA, 42 U.S.C. § 7602(e), and as that term is used in Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3).

6. Williams's Moundsville facility includes an "onshore" "natural gas processing plant" within the meaning of those terms in Subpart OOOO.

7. Williams's Moundsville facility's onshore natural gas processing plant currently contains the following seven groups of components assembled for the fractionation of natural gas liquids into natural gas products: inlet, storage and loading, fractionation unit 1, fractionation unit 2, rail loading, condensate, and flare. Based on reports submitted by Williams to EPA Region III under Subpart OOOO, the inlet group has (and has had) valves, a pump, and connectors in VOC or wet gas service; the storage and loading group has (and has had) valves, pressure relief devices, pumps, and connectors in VOC or wet gas service; the fractionation unit 1 group has (and has had) valves, pressure relief devices, pumps, and connectors in VOC or wet gas service; the fractionation unit 2 group has (and has had) valves, pressure relief devices, pumps, and connectors in VOC or wet gas service; the rail loading group has (and has had) valves, pressure relief devices, and connectors in VOC or wet gas service; the condensate group has (and has had) valves, pressure relief devices, pumps, and connectors in VOC or wet gas service; and the flare



group has (and has had) valves in VOC or wet gas service. Each of the seven groups of components at Williams's onshore natural gas processing plant are a "process unit" and a "gas processing plant process unit" containing "equipment" within the meaning of those terms in Subpart OOOO at 40 C.F.R. § 60.5430.

8. Each group of equipment within each of the seven process units at Williams's Moundsville facility's onshore natural gas processing plant is an affected facility subject to Subpart OOOO, pursuant to 40 C.F.R. § 60.5365(f). As a consequence, 40 C.F.R. § 60.5400 applies to each group of equipment within each of the seven process units at Williams's Moundsville onshore natural gas processing plant.

9. Under 40 C.F.R. § 60.5400(a), each group of equipment within each of the seven process units at Williams's Moundsville onshore natural gas processing plant is required to comply with, among other things, 40 C.F.R. §§ 60.482-4a, 60.482-7a, and 60.482-11a, except as provided in 40 C.F.R. § 60.5401.

10. At Williams's Moundsville onshore natural gas processing plant, Williams has chosen to comply with the exception in 40 C.F.R. § 60.5401(b), instead of 40 C.F.R. § 60.482-4a, for pressure relief devices in gas/vapor service. None of the other exceptions in 40 C.F.R. § 60.5401 currently apply, or have applied at any time to date, to any of the groups of equipment within each of the seven process units at Williams's Moundsville onshore natural gas processing plant.

11. 40 C.F.R. § 60.5401(b) contains standards for pressure relief devices in gas/vapor service and requires, among other things, monitoring by detection instrument to detect leaks quarterly and within 5 days after each pressure release, and repair of any leaks detected by such monitoring.

12. 40 C.F.R. § 60.482-7a contains standards for valves in gas/vapor service and in light liquid service and requires, among other things, monthly monitoring by detection instrument to detect leaks, and repair of any leaks detected by such monitoring. If a leak is not detected for 2 successive months at a particular valve, that valve may be monitored the first month of every quarter until a leak is detected.

13. 40 C.F.R. § 60.482-11a contains standards for connectors in gas/vapor service and in light liquid service and requires, among other things, identification of such connectors, initial monitoring by detection instrument to detect leaks [and repair of any leaks detected by such monitoring (and remonitoring within 90 days of repair)], and subsequent monitoring by detection instrument to detect leaks [and repair of any leaks detected by such monitoring (and remonitoring within 90 days of repair)] at a frequency determined by the percent of leaking connectors in the prior monitoring.

14. 40 C.F.R. § 60.5401(b)(3)(i) requires that when a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, unless certain circumstances exist which allow delay of repair under 40 C.F.R. § 60.482-9a.

15. 40 C.F.R. § 60.482-7a(d)(2) requires that a first attempt at repair be made no later than 5 calendar days after each leak is detected.

16. 40 C.F.R. § 60.482-7a(d)(1) requires that when a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, unless certain circumstances exist which allow delay of repair under 40 C.F.R. § 60.482-9a.

17. 40 C.F.R. § 60.482-7a(c)(2) requires that if a leak is detected at a valve on quarterly monitoring, that valve shall be monitored monthly until a leak is not detected for two consecutive months.

18. On July 17, 2014, EPA Region III contacted Williams by email and requested that certain information be provided to EPA Region III personnel at an upcoming CAA compliance inspection to be conducted at Williams's Moundville onshore natural gas processing plant the following week.

19. At the CAA compliance inspection conducted on July 23, 2014, Williams provided to EPA Region III personnel, among other things, a compact disc with equipment monitoring, leak detection and repair records under Subpart OOOO for Williams's Moundville onshore natural gas processing plant. This compact disc included records for equipment subject to 40 C.F.R. §§ 60.482-7a and 60.5401(b).

20. Following the July 23, 2014 CAA compliance inspection, by letter and enclosure dated July 28, 2014, Williams provided EPA Region III with another compact disc with more complete equipment monitoring, leak detection and repair records under Subpart OOOO, covering the period from April 5, 2013 to July 22, 2014 (CD#2). CD#2 included records for equipment subject to 40 C.F.R. §§ 60.482-7a, and 60.5401(b).

21. Based on EPA Region III's review of the records contained on CD#2, Williams failed to make a first attempt at repair of a leaking valve in gas/vapor or light liquid service within 5 calendar days of the date the leak was detected on 21 occasions. These failures are listed in the attached Table 1.

22. In failing to make a first attempt at repair of a leaking valve in gas/vapor or light liquid service within 5 calendar days of the date the leak was detected on 21 occasions, Williams violated 40 C.F.R. § 60.482-7a(d)(2) and 40 C.F.R. § 60.5400(a) on 21 occasions.

23. Based on EPA Region III's review of the records contained on CD#2, Williams failed to repair a detected leak at a leaking valve in gas/vapor or light liquid service within 15 calendar



days on 28 occasions when no circumstances existed allowing delay of repair under 40 C.F.R. § 60.482-9a. These failures are listed in the attached Table 2.

24. In failing to repair a detected leak at a leaking valve in gas/vapor or light liquid service within 15 calendar days on 28 occasions when no circumstances existed allowing delay of repair under 40 C.F.R. § 60.482-9a, Williams violated 40 C.F.R. § 60.482-7a(d)(1) and 40 C.F.R. § 60.5400(a) on 28 occasions.

25. Based on EPA Region III's review of the records contained on CD#2, Williams failed to repair a detected leak at a leaking pressure relief device in gas/vapor service within 15 calendar days on 2 occasions when no circumstances existed allowing delay of repair under 40 C.F.R. § 60.482-9a. These failures are listed in the attached Table 2.

26. In failing to repair a detected leak at a leaking pressure relief device in gas/vapor service within 15 calendar days on 2 occasions when no circumstances existed allowing delay of repair under 40 C.F.R. § 60.482-9a, Williams violated 40 C.F.R. § 60.5401(b)(3)(i) on 2 occasions.

27. Based on EPA Region III's review of the records contained on CD#2, Williams failed, on 2 occasions, to monitor monthly for two consecutive months following the detection of a leak at a valve in gas/vapor or light liquid service. These failures are listed in the attached Table 3.

28. In failing on 2 occasions to monitor monthly for two consecutive months following the detection of a leak at a valve in gas/vapor or light liquid service, Williams violated 40 C.F.R. § 60.482-7a(c)(2) and 40 C.F.R. § 60.5400(a) on 2 occasions.

29. To date, Williams has submitted six reports under Subpart OOOO for its Moundville onshore natural gas processing plant. These reports are dated July 19, 2013, January 22, 2014, July 18, 2014, August 28, 2014, January 26, 2015, and July 20, 2015. Based on EPA Region III's review of these six reports, and the information gathered before, during and after the July 23, 2014 CAA compliance inspection (including the records contained on CD#2), since the October 15, 2012 effective date of Subpart OOOO, Williams has failed, for connectors in gas/vapor service and in light liquid service, to identify such connectors, to conduct initial monitoring by detection instrument to detect leaks [and repair any leaks detected by such monitoring (and remonitor within 90 days of repair)], and to conduct subsequent monitoring by detection instrument to detect leaks [and repair any leaks detected by such monitoring (and remonitor within 90 days of repair)] at a frequency determined by the percent of leaking connectors in the prior monitoring, and has failed to otherwise comply with the requirements of 40 C.F.R. § 60.482-11a and 40 C.F.R. § 60.5400(a), and all other applicable requirements of Subpart OOOO regarding connectors in gas/vapor service and in light liquid service.

30. As a consequence, Williams has violated all applicable requirements of Subpart OOOO, regarding connectors in gas/vapor service and in light liquid service at its Moundville onshore natural gas processing plant from the October 15, 2012 effective date to the present.

#### IV. Enforcement, Conference and Disclosure

31. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), provides that the Administrator may bring a civil or administrative action whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated or is in violation of any requirement or prohibition of, *inter alia*, Titles I and V of the CAA including any rule or permit issued thereunder.

48. Section 113(a)(3), (b) and (d) of the CAA, 42 U.S.C. § 7413(a)(3), (b) and (d), authorizes the Administrator to issue an administrative penalty order, issue an order requiring compliance with the CAA, and to initiate a civil enforcement action for a permanent or temporary injunction, and/or for a penalty. Section 113(a)(3), (b) and (d) of the CAA authorizes penalties of up to \$25,000 per day for each violation occurring on or before January 30, 1997; up to \$27,500 per day for each such violation occurring on or after January 31, 1997 and up to and including March 15, 2004; up to \$32,500 per day for each such violation occurring on or after March 16, 2004 through January 12, 2009; and up to \$37,500 per day for each such violation occurring on or after January 13, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701, 40 C.F.R. § 19.4, and 74 Fed. Reg. 626 (Jan. 7, 2009) against any person whenever such person has violated, or is in violation of, *inter alia*, the requirements or prohibitions described in the preceding paragraph.

49. Section 113(c) of the CAA, 42 U.S.C. § 7413(c), further provides for criminal penalties or imprisonment, or both, for certain violations of the CAA.

50. Section 113(e)(1) of the CAA, 42 U.S.C. § 7413(e)(1), states that the Administrator or the court, in an action for assessment of civil or criminal penalties shall, as appropriate in determining the amount of penalty to be assessed, take into consideration (in addition to such other factors as justice may require) the size of the business, the economic impact of the penalty on the business, the violator's full compliance history and good faith efforts to comply, the duration of the violation as established by any credible evidence, payment by the violator of penalties previously assessed for the same violation, the economic benefit of non-compliance, and the seriousness of the violation.

51. Section 113(e)(2) of the CAA, 42 U.S.C. § 7413(e)(2) allows the Administrator or the court to assess a penalty for each day of violation. For purposes of determining the number of days of violation, where the United States or EPA makes a *prima facie* showing that the conduct or events giving rise to the violation are likely to have continued or recurred past the date of notice, the days of violation shall be presumed to include the date of the notice and each and every day thereafter, until respondent establishes that continuous compliance has been achieved; except to the extent that respondent can prove by the preponderance of the evidence that there were intervening days during which no violation occurred or that the violation was not continuing in nature.

52. Williams may, upon request, confer with EPA. The conference will enable Williams to present evidence bearing on the finding of violation, on the nature of violation, and on any efforts it may have taken or proposes to take to achieve compliance. Respondent has a right to be represented by counsel. A request for a conference must be made within 10 days of receipt of this notice. A request for a conference, and/or any other inquiries concerning the notice should be made in writing to:

Bruce Augustine  
Senior Environmental Scientist  
Air Protection Division  
U. S. Environmental Protection Agency - Region III  
Mail Code 3AP20  
1650 Arch Street  
Philadelphia, PA 19103-2029  
(215) 814-2131

If you are represented by counsel, your counsel may contact:

Donna L. Mastro, Esq.  
Air Branch Chief  
U. S. Environmental Protection Agency - Region III  
Mail Code 3RC10  
1650 Arch Street  
Philadelphia, PA 19103-2029  
(215) 814-2777.

53. This notice shall be effective immediately upon receipt. If you have any questions concerning the issuance of this notice, you may contact Bruce Augustine of my staff at 215-814-2131. If you are represented by counsel, your counsel may contact Donna L. Mastro, Air Branch Chief, at (215) 814-2777.

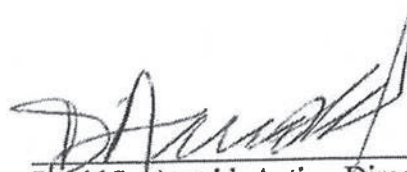
54. Certain companies may be required to disclose to the Securities and Exchange Commission (SEC) the existence of certain pending or known to be contemplated environmental legal proceedings (administrative or judicial) arising under federal, state or local environmental laws. Please see the attached "Notice of Securities and Exchange Commission Registrants' Duty to Disclose Environmental Legal Proceedings" for more information about this requirement and to aid you in determining whether your company may be subject to the same.



55. EPA is enclosing an Information Sheet entitled "U.S. EPA Small Business Resources," (EPA 300-F-99-004, September 1999), which identifies a variety of compliance assistance and other tools available to assist small businesses in complying with federal and state environmental laws.

Date

2/14/2016



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David L. Arnold, Acting Director  
Air Protection Division  
United States Environmental Protection Agency  
Region III

**Enclosure 1**

**Williams OVM Moundsville LDAR**

Table 1		Failure to conduct first attempt at repair within 5 days			# Days >5 <=15 Days from Detection of Leak
Component ID	Unit	Component Type	Date Leak Detected	Date of Next Monitoring	
72398	Storage/Loading	Valve	4/30/2014 14:46	5/14/2014 12:56	9
71319	Frac 1	Valve	10/15/2013 13:26	11/22/2013 13:26	10
71536	Storage/Loading	Valve	10/15/2013 13:33	11/27/2013 11:03	10
71616	Frac 1	Valve	9/9/2013 11:41	10/15/2013 16:05	10
71616	Frac 1	Valve	12/18/2013 14:15	1/8/2014 11:55	10
71616	Frac 1	Valve	2/24/2014 16:14	3/17/2014 14:28	10
71616	Frac 1	Valve	5/14/2014 12:38	6/6/2014 11:06	10
71617	Frac 1	Valve	1/8/2014 11:57	2/24/2014 16:16	10
71617	Frac 1	Valve	3/17/2014 14:38	4/16/2014 10:35	10
72107	Storage/Loading	Valve	3/17/2014 14:52	4/22/2014 15:14	10
72107	Storage/Loading	Valve	6/6/2014 11:57	7/8/2014 11:21	10
72243	Storage/Loading	Valve	4/23/2014 12:56	5/13/2014 15:30	10
72398	Storage/Loading	Valve	10/18/2013 14:01	11/22/2013 12:05	10
72398	Storage/Loading	Valve	11/22/2013 12:05	12/18/2013 15:20	10
72398	Storage/Loading	Valve	12/18/2013 15:20	1/13/2014 14:21	10
72398	Storage/Loading	Valve	1/13/2014 14:21	2/24/2014 13:22	10
72398	Storage/Loading	Valve	6/6/2014 12:29	7/7/2014 10:33	10
72431	Storage/Loading	Valve	3/17/2014 15:06	4/23/2014 18:23	10
72431	Storage/Loading	Valve	6/6/2014 12:34	7/7/2014 15:20	10
73066	Storage/Loading	Valve	5/14/2014 13:09	6/6/2014 14:54	10
73215	Storage/Loading	Valve	11/22/2013 12:22	12/18/2013 15:44	10





Office of Enforcement and Compliance Assurance (2201A)  
EPA-300-B-15-001 May 2015

## U.S. EPA Small Business Resources Information Sheet

The United States Environmental Protection Agency provides an array of resources to help small businesses understand and comply with federal and state environmental laws. In addition to helping small businesses understand their environmental obligations and improve compliance, these resources will also help such businesses find cost-effective ways to comply through pollution prevention techniques and innovative technologies.

### Small Business Programs

[www.epa.gov/smallbusiness](http://www.epa.gov/smallbusiness)  
EPA's Office of Small Business Programs (OSBP) advocates and fosters opportunities for direct and indirect partnerships, contracts, and sub-agreements for small businesses and socio-economically disadvantaged businesses.

### EPA's Asbestos Small Business Ombudsman

[www.epa.gov/sbo](http://www.epa.gov/sbo) or 1-800-368-5888  
The EPA Asbestos and Small Business Ombudsman (ASBO) serves as a conduit for small businesses to access EPA and facilitates communications between the small business community and the Agency.

### EPA's Compliance Assistance Homepage

[www2.epa.gov/compliance](http://www2.epa.gov/compliance)  
This page is a gateway industry and statute-specific environmental resources, from extensive web-based information to hotlines and compliance assistance specialists.

### EPA's Compliance Assistance Centers

[www.assistancecenters.net](http://www.assistancecenters.net)  
EPA's Compliance Assistance Centers provide information targeted to industries with many small businesses. They were developed in partnership with industry, universities and other federal and state agencies.

### Agriculture

[www.epa.gov/agriculture/](http://www.epa.gov/agriculture/)

### Automotive Recycling

[www.ecarcenter.org](http://www.ecarcenter.org)

### Automotive Service and Repair

[ccar-greenlink.org/](http://ccar-greenlink.org/) or 1-888-GRN-LINK

### Chemical Manufacturing

[www.chemalliance.org](http://www.chemalliance.org)

### Construction

[www.cicacenter.org](http://www.cicacenter.org) or 1-734-995-4911

### Education

[www.campuserc.org](http://www.campuserc.org)

### Food Processing

[www.fpeac.org](http://www.fpeac.org)

### Healthcare

[www.hercenter.org](http://www.hercenter.org)

### Local Government

[www.lgean.org](http://www.lgean.org)

### Metal Finishing

[www.nmfrc.org](http://www.nmfrc.org)

### Paints and Coatings

[www.paintcenter.org](http://www.paintcenter.org)

### Printing

[www.pneac.org](http://www.pneac.org)

### Ports

[www.portcompliance.org](http://www.portcompliance.org)

### Transportation

[www.tercenter.org](http://www.tercenter.org)

### U.S. Border Compliance and Import/Export Issues

[www.bordercenter.org](http://www.bordercenter.org)

### EPA Hotlines, Helplines and Clearinghouses

[www2.epa.gov/home/epa-hotlines](http://www2.epa.gov/home/epa-hotlines)

EPA sponsors many free hotlines and clearinghouses that provide convenient assistance regarding environmental requirements. Some examples are:

### Clean Air Technology Center (CATC) Info-line

[www.epa.gov/ttn/catc](http://www.epa.gov/ttn/catc) or 1-919-541-0800

### Superfund, TRI, EPCRA, RMP and Oil Information Center

[www.epa.gov/superfund/contacts/infocenter/index.htm](http://www.epa.gov/superfund/contacts/infocenter/index.htm) or 1-800-424-9346

### EPA Imported Vehicles and Engines Public Helpline

[www.epa.gov/otaq/imports](http://www.epa.gov/otaq/imports) or 734-214-4100

### National Pesticide Information Center

[www.npic.orst.edu/](http://www.npic.orst.edu/) or 1-800-858-7378

### National Response Center

Hotline to report oil and hazardous substance spills - [www.nrc.uscg.mil](http://www.nrc.uscg.mil) or 1-800-424-8802

### Pollution Prevention Information Clearinghouse (PPIC) -

[www.epa.gov/opptintr/ppic](http://www.epa.gov/opptintr/ppic) or 1-202-566-0799

### Safe Drinking Water Hotline -

[www.epa.gov/drink/hotline/index.cfm](http://www.epa.gov/drink/hotline/index.cfm) or 1-800-426-4791



## Small Business Resources

### Stratospheric Ozone Protection Hotline

[www.epa.gov/ozone/comments.htm](http://www.epa.gov/ozone/comments.htm) or 1-800-296-1996

### Toxic Substances Control Act (TSCA) Hotline

[tsc hotline@epa.gov](mailto:tsc hotline@epa.gov) or 1-202-554-1404

### Small Entity Compliance Guides

<http://www.epa.gov/sbrefa/compliance-guides.html>

EPA publishes a Small Entity Compliance Guide (SECG) for every rule for which the Agency has prepared a final regulatory flexibility analysis, in accordance with Section 604 of the Regulatory Flexibility Act (RFA).

### Regional Small Business Liaisons

<http://www.epa.gov/sbo/rsbl.htm>

The U.S. Environmental Protection Agency (EPA) Regional Small Business Liaison (RSBL) is the primary regional contact and often the expert on small business assistance, advocacy, and outreach. The RSBL is the regional voice for the EPA Asbestos and Small Business Ombudsman (ASBO).

### State Resource Locators

[www.envcap.org/statetools](http://www.envcap.org/statetools)

The Locators provide state-specific contacts, regulations and resources covering the major environmental laws.

### State Small Business Environmental Assistance Programs (SBEAPs)

[www.epa.gov/sbo/507program.htm](http://www.epa.gov/sbo/507program.htm)

State SBEAPs help small businesses and assistance providers understand environmental requirements and sustainable business practices through workshops, trainings and site visits.

### EPA's Tribal Portal

[www.epa.gov/tribalportal/](http://www.epa.gov/tribalportal/)

The Portal provides access to information on environmental issues, laws, and resources related to federally recognized tribes.

### EPA Compliance Incentives

EPA provides incentives for environmental compliance. By participating in compliance assistance programs or voluntarily disclosing and promptly correcting violations before an enforcement action has been initiated, businesses may be eligible for penalty waivers or reductions. EPA has two such policies that may apply to small businesses:

### EPA's Small Business Compliance Policy

[www2.epa.gov/enforcement/small-businesses-and-enforcement](http://www2.epa.gov/enforcement/small-businesses-and-enforcement)

This Policy offers small businesses special incentives to come into compliance voluntarily.

### EPA's Audit Policy

[www2.epa.gov/compliance/epas-audit-policy](http://www2.epa.gov/compliance/epas-audit-policy)

The Policy provides incentives to all businesses that voluntarily discover, promptly disclose and expeditiously correct their noncompliance.

### Commenting on Federal Enforcement Actions and Compliance Activities

The Small Business Regulatory Enforcement Fairness Act (SBREFA) established a SBREFA Ombudsman and 10 Regional Fairness Boards to receive comments from small businesses about federal agency enforcement actions. If you believe that you fall within the Small Business Administration's definition of a small business (based on your North American Industry Classification System designation, number of employees or annual receipts, as defined at 13 C.F.R. 121.201; in most cases, this means a business with 500 or fewer employees), and wish to comment on federal enforcement and compliance activities, call the SBREFA Ombudsman's toll-free number at 1-888-REG-FAIR (1-888-734-3247).

Every small business that is the subject of an enforcement or compliance action is entitled to comment on the Agency's actions without fear of retaliation. EPA employees are prohibited from using enforcement or any other means of retaliation against any member of the regulated community in response to comments made under SBREFA.

### Your Duty to Comply

If you receive compliance assistance or submit a comment to the SBREFA Ombudsman or Regional Fairness Boards, you still have the duty to comply with the law, including providing timely responses to EPA information requests, administrative or civil complaints, other enforcement actions or communications. The assistance information and comment processes do not give you any new rights or defenses in any enforcement action. These processes also do not affect EPA's obligation to protect public health or the environment under any of the environmental statutes it enforces, including the right to take emergency remedial or emergency response actions when appropriate. Those decisions will be based on the facts in each situation. The SBREFA Ombudsman and Fairness Boards do not participate in resolving EPA's enforcement actions. Also, remember that to preserve your rights, you need to comply with all rules governing the enforcement process.

*EPA is disseminating this information to you without making a determination that your business or organization is a small business as defined by Section 222 of the Small Business Regulatory Enforcement Fairness Act or related provisions.*



## NOTICE OF SECURITIES AND EXCHANGE COMMISSION REGISTRANTS' DUTY TO DISCLOSE ENVIRONMENTAL LEGAL PROCEEDINGS

Securities and Exchange Commission regulations require companies registered with the SEC (e.g., publicly traded companies) to disclose, on at least a quarterly basis, the existence of certain administrative or judicial proceedings taken against them arising under Federal, State or local provisions that have the primary purpose of protecting the environment. Instruction 5 to Item 103 of the SEC's Regulation S-K (17 CFR 229.103) requires disclosure of these environmental legal proceedings. For those SEC registrants that use the SEC's "small business issuer" reporting system, Instructions 1-4 to Item 103 of the SEC's Regulation S-B (17 C FR 22.8.103) requires disclosure of these environmental legal proceedings.

If you are an SEC registrant, you have a duty to disclose the existence of pending or known to be contemplated environmental legal proceedings that meet any of the following criteria (17 CFR 229.103(5)(A)-(C)):

- A. Such proceeding is material to the business or financial condition of the registrant;
- B. Such proceeding involves primarily a claim for damages, or involves potential monetary sanctions, capital expenditures, deferred charges or charges to income and the amount involved, exclusive of interest and costs, exceeds 10 percent of the current assets of the registrant and its subsidiaries on a consolidated basis; or
- C. A governmental authority is a party to such proceeding and such proceeding involves potential monetary sanctions, unless the registrant reasonably believes that such proceeding will result in no monetary sanctions, or in monetary sanctions, exclusive of interest and costs, of less than \$100,000; provided, however, that such proceedings which are similar in nature may be grouped and described generically.

Specific information regarding the environmental legal proceedings that must be disclosed is set forth in Item 103 of Regulation S-K or, for registrants using the "small business issuer" reporting system, Item 103(a)-(b) of Regulation S-B. If disclosure is required, it must briefly describe the proceeding, "including the name of the court or agency in which the proceedings are pending, the date instituted, the principal parties thereto, a description of the factual basis alleged to underlie the proceedings and the relief sought."

You have been identified as a party to an environmental legal proceeding to which the United States government is, or was, a party. If you are an SEC registrant, this environmental legal proceeding may trigger, or may already have triggered, the disclosure obligation under the SEC regulations described above.

This notice is being provided to inform you of SEC registrants' duty to disclose any relevant environmental legal proceedings to the SEC. This notice does not create, modify or interpret any existing legal obligations, it is not intended to be an exhaustive description of the legally applicable requirements and it is not a substitute for regulations published in the Code of Federal Regulations. This notice has been issued to you for information purposes only. No determination of the applicability of this reporting requirement to your company has been made by any governmental entity. You should seek competent counsel in determining the applicability of these and other SEC requirements to the environmental legal proceeding at issue, as well as any other proceedings known to be contemplated by governmental authorities.

If you have any questions about the SEC's environmental disclosure requirements, please contact the SEC Office of the Special Senior Counsel for Disclosure Operations at (202) 551-3115.

**Attachment 1**

[Code of Federal Regulations]  
[Title 17, Volume 2, Parts 200 to 239]  
[Revised as of April 1, 1999]  
From the U.S. Government Printing Office via GPO Access  
[CITE: 17CFR229.103]

[Page 349]

**TITLE 17--COMMODITY AND SECURITIES EXCHANGES**

**CHAPTER II--SECURITIES AND EXCHANGE COMMISSION**

**PART 229--STANDARD INSTRUCTIONS FOR FILING FORMS UNDER SECURITIES ACT OF 1933,  
SECURITIES EXCHANGE ACT OF 1934 AND ENERGY POLICY AND CONSERVATION ACT OF 1975--  
REGULATION S-K--Table of Contents**

**Subpart 229.100--Business**

**Sec. 229.103 (Item 103) Legal proceedings.**

Describe briefly any material pending legal proceedings, other than ordinary routine litigation incidental to the business, to which the registrant or any of its subsidiaries is a party or of which any of their property is the subject. Include the name of the court or agency in which the proceedings are pending, the date instituted, the principal parties thereto, a description of the factual basis alleged to underlie the proceeding and the relief sought. Include similar information as to any such proceedings known to be contemplated by governmental authorities.

**Instructions to Item 103:**

1. If the business ordinarily results in actions for negligence or other claims, no such action or claim need be described unless it departs from the normal kind of such actions.
2. No information need be given with respect to any proceeding that involves primarily a claim for damages if the amount involved, exclusive of interest and costs, does not exceed 10 percent of the current assets of the registrant and its subsidiaries on a consolidated basis. However, if any proceeding presents in large degree the same legal and factual issues as other proceedings pending or known to be contemplated, the amount involved in such other proceedings shall be included in computing such percentage.
3. Notwithstanding Instructions 1 and 2, any material bankruptcy, receivership, or similar proceeding with respect to the registrant or any of its significant subsidiaries shall be described.
4. Any material proceedings to which any director, officer or affiliate of the registrant, any owner of record or beneficially of more than five percent of any class of voting securities of the registrant, or any associate of any such director, officer, affiliate of the registrant, or security holder is a party adverse to the registrant or any of its subsidiaries or has a material interest adverse to the registrant or any of its subsidiaries also shall be described.
5. Notwithstanding the foregoing, an administrative or judicial proceeding (including, for purposes of A and B of this Instruction, proceedings which present in large degree the same issues) arising under any Federal, State or local provisions that have been enacted or adopted regulating the discharge of materials into the environment or primary for the purpose of protecting the environment shall not be deemed "ordinary routine litigation incidental to the business" and shall be described if:
  - A. Such proceeding is material to the business or financial condition of the registrant;
  - B. Such proceeding involves primarily a claim for damages, or involves potential monetary sanctions, capital expenditures, deferred charges or charges to income and the amount involved, exclusive of interest and costs, exceeds 10 percent of the current assets of the registrant and its subsidiaries on a consolidated basis; or
  - C. A governmental authority is a party to such proceeding and such proceeding involves potential monetary sanctions, unless the registrant reasonably believes that such proceeding will result in no monetary sanctions, or in monetary sanctions, exclusive of interest and costs, of less than \$100,000; provided, however, that such proceedings which are similar in nature may be grouped and described generically.

## Williams OVM Moundsville LDAR

Table 1		Failure to conduct first attempt at repair within 5 days			# Days >5 <=15 Days from Detection of Leak
Component ID	Unit	Component Type	Date Leak Detected	Date of Next Monitoring	
72398	Storage/Loading	Valve	4/30/2014 14:46	5/14/2014 12:56	9
71319	Frac 1	Valve	10/15/2013 13:26	11/22/2013 13:26	10
71536	Storage/Loading	Valve	10/15/2013 13:33	11/27/2013 11:03	10
71616	Frac 1	Valve	9/9/2013 11:41	10/15/2013 16:05	10
71616	Frac 1	Valve	12/18/2013 14:15	1/8/2014 11:55	10
71616	Frac 1	Valve	2/24/2014 16:14	3/17/2014 14:28	10
71616	Frac 1	Valve	5/14/2014 12:38	6/6/2014 11:06	10
71617	Frac 1	Valve	1/8/2014 11:57	2/24/2014 16:16	10
71617	Frac 1	Valve	3/17/2014 14:38	4/16/2014 10:35	10
72107	Storage/Loading	Valve	3/17/2014 14:52	4/22/2014 15:14	10
72107	Storage/Loading	Valve	6/6/2014 11:57	7/8/2014 11:21	10
72243	Storage/Loading	Valve	4/23/2014 12:56	5/13/2014 15:30	10
72398	Storage/Loading	Valve	10/18/2013 14:01	11/22/2013 12:05	10
72398	Storage/Loading	Valve	11/22/2013 12:05	12/18/2013 15:20	10
72398	Storage/Loading	Valve	12/18/2013 15:20	1/13/2014 14:21	10
72398	Storage/Loading	Valve	1/13/2014 14:21	2/24/2014 13:22	10
72398	Storage/Loading	Valve	6/6/2014 12:29	7/7/2014 10:33	10
72431	Storage/Loading	Valve	3/17/2014 15:06	4/23/2014 18:23	10
72431	Storage/Loading	Valve	6/6/2014 12:34	7/7/2014 15:20	10
73066	Storage/Loading	Valve	5/14/2014 13:09	6/6/2014 14:54	10
73215	Storage/Loading	Valve	11/22/2013 12:22	12/18/2013 15:44	10



**Williams OVM Moundsville LDAR**

Table 2 Failure to repair detected leak within 15 days						
Component ID	Unit	Component Type	Date Leak Detected	Date of Next Monitoring Within 5 Days	Date of Next Monitoring After 5 Days	# Days >15 Days from Detection of Leak
71538	Frac 1	Relief	4/10/2013 11:13	4/11/2013 12:52	5/10/2013 9:39	15
71550	Frac 1	Relief	4/10/2013 11:13	4/11/2013 12:52	5/10/2013 10:47	15
71617	Frac 1	Valve	6/4/2013 14:55	6/5/2013 13:23	7/25/2013 13:49	36
72206	Storage/Loading	Valve	4/23/2014 12:18	4/23/2014 15:09	5/14/2014 12:47	6
72220	Storage/Loading	Valve	1/13/2014 12:31	1/14/2014 14:46	2/24/2014 13:09	27
72243	Storage/Loading	Valve	6/7/2013 11:00	6/7/2013 12:28	7/26/2013 14:33	34
72319	Storage/Loading	Valve	4/23/2014 16:11	4/24/2014 15:15	5/14/2014 12:49	6
72418	Storage/Loading	Valve	10/18/2013 14:08	10/18/2013 14:44	11/22/2013 12:06	20
72431	Storage/Loading	Valve	1/13/2014 14:40	1/14/2014 14:47	2/24/2014 16:27	27
73066	Storage/Loading	Valve	1/15/2014 14:48	1/17/2014 12:45	2/24/2014 13:45	25
71319	Frac 1	Valve	10/15/2013 13:26	N/A	11/22/2013 11:34	23
71536	Storage/Loading	Valve	10/15/2013 13:33	N/A	11/27/2013 11:03	28
71616	Frac 1	Valve	9/9/2013 11:41	N/A	10/15/2013 16:05	21
71616	Frac 1	Valve	12/18/2013 14:15	N/A	1/8/2014 11:55	6
71616	Frac 1	Valve	2/24/2014 16:14	N/A	3/17/2014 14:28	6
71616	Frac 1	Valve	5/14/2014 12:38	N/A	6/6/2014 11:06	8
71617	Frac 1	Valve	1/8/2014 11:57	N/A	2/24/2014 16:16	32
71617	Frac 1	Valve	3/17/2014 14:38	N/A	4/16/2014 10:35	15
72107	Storage/Loading	Valve	3/17/2014 14:52	N/A	4/22/2014 15:14	21
72107	Storage/Loading	Valve	6/6/2014 11:57	N/A	7/8/2014 11:21	17
72243	Storage/Loading	Valve	4/23/2014 12:56	N/A	5/13/2014 15:30	5
72398	Storage/Loading	Valve	10/18/2013 14:01	N/A	11/22/2013 12:05	20
72398	Storage/Loading	Valve	11/22/2013 12:05	N/A	12/18/2013 15:20	11
72398	Storage/Loading	Valve	12/18/2013 15:20	N/A	1/13/2014 14:21	11
72398	Storage/Loading	Valve	1/13/2014 14:21	N/A	2/24/2014 13:22	27

72398	Storage/Loading	Valve	6/6/2014 12:29	N/A	7/7/2014 10:33	16
72431	Storage/Loading	Valve	3/17/2014 15:06	N/A	4/23/2014 18:23	22
72431	Storage/Loading	Valve	6/6/2014 12:34	N/A	7/7/2014 15:20	16
73066	Storage/Loading	Valve	5/14/2014 13:09	N/A	6/6/2014 14:54	8
73215	Storage/Loading	Valve	11/22/2013 12:22	N/A	12/18/2013 15:44	11

**Williams OVM Moundsville LDAR**

Table 3						
<i>Failure to monitor monthly after detecting leak</i>						
Component ID	Unit	Component Type	Date Leak Detected	Date of Successful Monitoring	Date of Next Monitoring	# of Days Until Next Monitoring
71673	Frac 1	Valve	5/9/2013 14:19	5/10/2013 10:04	7/24/2013 16:57	76
71695	Frac 1	Valve	5/9/2013 14:37	5/10/2013 10:26	7/24/2013 17:11	76

## E.2 Oak Grove Notice of Noncompliance





**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION III**

**1650 Arch Street**

**Philadelphia, Pennsylvania 19103-2029**

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

AUG 17 2017

Don Wicburg, General Manager and Vice President  
Williams Ohio Valley Midstream LLC  
100 Teletech Drive, Suite 2  
Moundsville, WV 26041

Re: Clean Air Act Compliance at Oak Grove Facility

Dear Mr. Wicburg:

As you are aware, the United States Environmental Protection Agency (“EPA” or the “Agency”), in conjunction with the United States Department of Justice (“DOJ”), is currently engaged in discussions with Williams Ohio Valley Midstream (“Williams OVM”) regarding Clean Air Act (“CAA”) compliance at Williams OVM’s Moundsville facility located at 200 Caiman Drive, Moundsville, WV. I am writing to apprise Williams Ohio Valley Midstream LLC (“Williams OVM”) of Clean Air Act compliance issues identified by EPA at Williams OVM’s Oak Grove facility located at 52558 Fork Ridge Rd. Moundsville, WV 26041 (the “Facility”). On the basis of a compliance evaluation conducted pursuant to the authority of the CAA, Section 114, 42 U.S.C. § 7414, EPA has determined that Williams OVM has failed to comply with certain requirements of the CAA, including provisions of the new source performance standards (“NSPS”) for crude oil and natural gas production, transmission and distribution, promulgated under Section 111 of the CAA, 42 U.S.C. § 7411, and codified at 40 C.F.R. Subpart OOOO (§§ 60.5360 - 60.5499) (“NSPS Subpart OOOO”).

The violations have occurred and are occurring at the Facility and were first identified at the time of EPA’s initial CAA inspection of the Facility on July 28-30, 2015 (the “EPA inspection”) and confirmed through review of additional information submitted by Williams OVM to EPA pursuant to subsequent information requests made by EPA pursuant to Section 114 of the CAA, 42 U.S.C. § 7414. Specific violations identified by EPA include the following:

- (a) failing to record a list of identification numbers for its facility connectors or debutanizer components in a log as set forth in 40 CFR § 60.486a(e)(1);
- (b) failing to identify connectors subject to 40 CFR § 60.482-11a(g);

- (c) failing to monitor connectors within the time set forth in 40 C.F.R. § 60.486a(e)(1);
- (d) failing to monitor 510 debutanizer valves within 180 days of their startup on December 12, 2014, as set forth in 40 C.F.R. § 60.482-1a(a);
- (e) failing to monitor 4 debutanizer pumps within 180 days of startup their startup on May 28-29, 2014, as set forth in by 40 C.F.R. § 60.482-2a; and
- (f) failing to conduct monthly monitoring of a stabilizer pump for a period of four months, as set forth in 40 C.F.R. § 60.482-2a(a)(1).

EPA looks forward to discussing the above-identified violations with Williams OVM and welcomes the opportunity to do so in conjunction with the ongoing discussions regarding Williams OVM's Moundsville facility. If you have any questions regarding this letter, please contact James Adamiec of my staff at (215) 814-2175, or Daniel Boehmcke of the Office of Regional Counsel at (215) 814-2607.

Sincerely,



Zelma Maldonado,  
Associate Director of Enforcement  
Air Protection Division

cc: Daniel Boehmcke  
Assistant Regional Counsel

Ashley L. O'Neill, Williams

### E.3 Harrison Hub Finding of Violation (2/9/2018)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

**FEB 09 2018**

REPLY TO THE ATTENTION OF:

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Christopher Bender, Environmental Compliance Coordinator  
Utica East Ohio Midstream LLC  
Harrison Hub Fractionation Plant  
37905 Crimm Road  
Scio, Ohio 43988

Re: Finding of Violation  
Utica East Ohio Harrison Hub Fractionation Plant  
Scio, Ohio

Dear Mr. Bender:

The U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to Utica East Ohio Midstream LLC, Harrison Hub Fractionation Plant (you) under Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1). We find that you are violating the (1) Standards of Performance for Crude Oil and Natural Gas Production (Subpart OOOO); (2) Standards of Performance for Equipment Leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemicals Manufacturing Industry (Subpart VVa); (3) Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (Subpart Db); and (4) Standards of Performance for Volatile Organic Liquid Storage Vessels (Subpart Kb) at your Scio, Ohio facility.

Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Luke Hullinger. You may call him at (312) 886-3011 to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,



Edward Nam  
Director  
Air and Radiation Division

Enclosure

cc: Bob Hodanbosi, Chief  
Division of Air Pollution Control  
bob.hodanbosi@epa.ohio.gov

Jessica Kuenzli  
Southeast District Office  
jessica.kuenzli@epa.ohio.gov

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

<b>IN THE MATTER OF:</b>	)	
	)	
<b>Utica East Ohio Midstream LLC</b>	)	<b>FINDING OF VIOLATION</b>
<b>Harrison Hub Fractionation Plant</b>	)	
<b>Scio, Ohio</b>	)	<b>EPA-5-18-OH-04</b>
	)	
Proceedings Pursuant to	)	
the Clean Air Act,	)	
42 U.S.C. §§ 7401 et seq.	)	
	)	

**FINDING OF VIOLATION**

The U.S. Environmental Protection Agency finds that Utica East Ohio Midstream LLC Harrison Hub Fractionation Plant (UEOM) is violating Section 111(e) of the Clean Air Act (CAA), 42 U.S.C. § 7411(e). Specifically, UEOM is violating (1) Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for Which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or Before September 18, 2015 at 40 C.F.R. §§ 60.5360-5430 (Subpart OOOO); (2) Standards of Performance for Equipment Leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 at 40 C.F.R. §§ 60.480a-60. 489a (Subpart VVa); (3) Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units at 40 C.F.R. §§ 60.40b-60. 49b (Subpart Db); and (4) Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 at 40 C.F.R. §§ 60.110b-60.117b (Subpart Kb) as follows:

**Statutory Background**

1. Section 111(b) of the CAA, 42 USC § 7411(b), requires EPA to list categories of sources, which cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare, and to promulgate standards of performance for new stationary sources within these categories. These standards are known as “new source performance standards” or “NSPS.”
  
2. Section 111(e) of the CAA, 42 USC § 7411(e), prohibits the owner or operator of any stationary source from operating in violation of any standard of performance.



**Subpart OOOO – Findings and Violations**

3. NSPS Subpart OOOO (40 C.F.R. §§ 60.5360 – 60.5430) establishes emission standards and compliance schedules for, among other things, volatile organic compound (VOC) emissions from affected facilities that commenced construction, modification, or reconstruction after August 23, 2011. 40 C.F.R. § 60.5360.
4. Pursuant to Subpart OOOO at 40 C.F.R. § 60.5365, the affected facilities to which Subpart OOOO applies include the group of all equipment (except compressors) within a process unit that is located at an onshore natural gas processing plant.
5. Subpart OOOO at 40 C.F.R. § 60.5430 defines “equipment” to mean “each pump, pressure relief device, open-ended valve or line, valve, and flange or other connector that is in VOC service or in wet gas service, and any device or system required by this subpart.”
6. Subpart OOOO at 40 C.F.R. § 60.5430 defines "process unit" to mean components assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products.
7. Subpart OOOO at 40 C.F.R. § 60.5430 defines a "natural gas processing plant (gas plant)" as "any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both."
8. Subpart OOOO at 40 C.F.R. § 60.5400 sets forth equipment leak standards that apply to affected facilities at an onshore natural gas processing plant. This section applies to the group of all equipment, except compressors, within a process unit.
9. Subpart OOOO at 40 C.F.R. § 60.5400(a) specifies, as relevant, that each affected facility must comply with the equipment leak requirements of Subpart VVa at 40 C.F.R. §§ 60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a., except as provided in § 60.5401.
10. Subpart OOOO at 40 C.F.R. § 60.5400(f) specifies that “each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service.”
11. UEOM owns and operates the Harrison Hub Fractionation Plant, an onshore natural gas processing plant, located at 37905 Crimm Road, Scio, Ohio 43988, which separates natural gas feed into separate ethane, butane, and gasoline fractions. The Plant commenced construction or modification after August 23, 2011 and on or before September 18, 2015.



12. EPA inspectors conducted an inspection of the Plant on September 25 – 28, 2017. During the inspection, among other things, inspectors took field measurements using a Toxic Vapor Analyzer and a Forward Looking Infrared (FLIR) camera, and requested information and records, including the Plant’s Leak Detection and Repair (LDAR) database that is uses comply with Subpart OOOO at 40 C.F.R. §§ 60.5421 and 60.5422.
13. Based on the September 2017 inspection, evaluation of the field measurement, and information and records obtained during the inspection, EPA determined UEOM’s Harrison Hub Fractionation Plant is in violation of the below specified provisions.

**Subpart VVa – Findings and Violations**

*Pumps – Initial Monitoring*

14. Subpart VVa at 40 C.F.R. § 60.482-2a(a)(1) states “[e]ach pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b), except as provided in § 60.482-1a(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period.” *See also* Applicability Determination Index (ADI) Control Number 1200052, “Request for Clarification of Initial Monitoring Requirement for Pumps and Valves for New Process Units,” dated October 28, 2011.
15. The Plant’s LDAR database designates the pumps listed in Attachment A as in light liquid service and does not designate any exemption from monthly monitoring.
16. For the pumps listed in Attachment A, by process unit, startup of process unit, and initial monitoring date, UEOM violated 40 C.F.R. § 60.482-2a(a)(1) by failing to perform the initial monthly monitoring within 30 days after the end of the startup period.

*Valves – Initial Monitoring*

17. Pursuant to Subpart VVa at 40 C.F.R. § 60.482-7a(a)(1) and (a)(2)(ii), subject to certain exemptions, each valve in gas/vapor or light liquid service must be monitored monthly and must be monitored for the first time within 30 days after startup. *See also* ADI Control Number 1200052.
18. The Plant’s LDAR database designates the valves listed in Attachment B as in gas vapor or light liquid service and does not designate any exemption from monthly monitoring.

19. In reviewing UEOM's LDAR database provided during the September 2017 inspection, EPA discovered 9441 valves that were not monitored initially within 30 days after startup (See Attachment B)
20. For the 9441 valves listed in Attachment B, by process unit, startup of process unit, and initial monitoring date, UEOM violated 40 C.F.R. § 60.482-7a(a)(1) and (a)(2)(ii) by failing to perform the initial monthly monitoring within 30 days after the end of the startup period.

*Enclosed Combustion Devices – Initial Performance Test*

21. The requirements under Subpart VVa at 40 C.F.R. § 60.482-10a apply to closed vent systems and control devices used to comply with provisions of Subpart VVa, including pressure relief devices controlled under Subpart VVa at 60.482-4a(c).
22. Subpart VVa at 40 C.F.R. § 60.481a defines “closed vent system,” in part, as a “system that . . . transport[s] gas or vapor from a piece or pieces of equipment to a control device.”
23. Subpart VVA at 40 C.F.R. § 60.481a defines “control device” as “an enclosed combustion device, vapor recovery system, or flare.”
24. Pursuant to 40 C.F.R. § 60.482-10a(c), enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.
25. Subpart VVa at 40 C.F.R. § 60.482-1a(a) requires an owner or operator to demonstrate compliance for each piece of equipment within 180 days of initial startup, and the NSPS General Provisions at 40 C.F.R. § 60.8 requires an initial performance test to be completed not later than 180 days after initial startup.
26. The Plant includes two enclosed combustors that are used in part to control emissions from pressure relief devices. The enclosed combustors are: The John Zink model (VIN 900-SK25.006) installed in December 2015, and the Jordan Technologies model (VIN JT-VCU-2600-1-1) installed in June 2013.
27. During the September 2017 inspection, EPA requested documentation of the initial performance tests demonstrating compliance with the enclosed combustor standards. UEOM did not provide documentation or UEOM did not conduct initial performance tests.

28. By failing to conduct initial performance tests within 180 days of startup to demonstrate compliance for the John Zink model (VIN 900-SK25.006) enclosed combustor, UEOM violated 40 C.F.R. § 60.482-1a(a), and 40 C.F.R. § 60.8.
29. By failing to conduct initial performance tests within 180 days of startup to demonstrate compliance for the Jordan Technologies model (VIN JT-VCU-2600-1-1) enclosed combustor, UEOM violated 40 C.F.R. § 60.482-1a(a), and 40 C.F.R. § 60.8.

Truck Loading System – Open-Ended Lines

30. Pursuant to Subpart VVa at 40 C.F.R. § 60.482-6a(a), subject to certain exemptions, each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve that shall seal the open end at all times.
31. Subpart VVa at 40 C.F.R. § 60.481a defines “open-ended valve or line” as “any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.”
32. During the September 2017 Inspection, EPA recorded infrared FLIR videos of emissions from the open ends of two hoses in Truck Loading Lane No.1 (see Attachment C). Neither was equipped with cap, plug, or second valve to seal the hose.
33. By failing to equip each of the two hoses in Truck Loading Lane No 1 with cap, blind flange, plug or second valve to seal the open end at all times, UEOM violated 40 C.F.R. § 60.482-6a(a).

Valves and Connectors – First Attempt Within 5 Days

34. Pursuant to Subpart VVa at 40 C.F.R. § 60.482-11a(d), subject to certain exemptions, for each connector in gas/vapor or light liquid service, “a first attempt at repair shall be made no later than 5 calendar days after the leak is detected.”
35. Pursuant to Subpart VVa at 40 C.F.R. § 60.482-7a(d), subject to certain exemptions, for each valve in gas/vapor or light liquid service, “a first attempt at repair shall be made no later than 5 calendar days after each leak is detected.”
36. The LDAR database designates the valves listed in Attachment D as in gas vapor or light liquid service, and does not designate any exemption from the repair attempt requirements.
37. Attachment D identifies, for each of the listed valves, the tag number, the equipment type, the date the valve or connector was detected leaking, and the date the first attempt at repair was made.

38. By failing to make a first attempt at repair within 5 days after a leak was detected for each of the 7 valves identified in Attachment D, UEOM violated 40 C.F.R. § 60.482-7a(d) and 40 C.F.R. § 60.482-11a(d).

*Pressure Relief Devices – Detectable Emissions Greater than 500 ppm*

39. Pursuant to Subpart VVa at 40 C.F.R. § 60.482-4a(a), subject to certain exemptions, “each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background.”
40. The LDAR database designates each of the pressure relief devices listed in Attachment E as in gas/vapor service and does not designate any exemption from standard.
41. During the September 2017 Inspection, EPA (and UEOM) detected and measured emissions greater than 500 part per million (ppm) for each for each of the 75 pressure relief devices identified in Attachment E by date, process unit, equipment tag, EPA’s measurement and UEOM’s measurement.
42. By failing to operate each of the 75 pressure relief devices identified in Attachment E with detectable emissions less than 500 ppm, UEOM violated 40 C.F.R. § 60.482-4a(a)

**Subpart Db – Findings and Violations**

*Hot Oil Heater – NOx CEMS and Initial Performance Test*

43. NSPS Subpart Db (40 C.F.R. §§ 60.40b – 60.49b) applies, as relevant, to each steam generating unit that commenced construction after June 19, 1984 that has a heat input capacity greater than 100 million British thermal units per hour (MMBtu/hr). 40 C.F.R. § 60.40b(a).
44. The Hot Oil Process Heater at the Plant fires natural gas, has a design capacity of 150 MMBtu/hr, and was constructed after June 19, 1984.
45. Pursuant to 40 C.F.R. § 60.44b(a)(1)(i), on and after the date on which the initial performance test is completed or required to be completed under 40 C.F.R. § 60.18, NOx emissions from the Hot Oil Process Heater shall not exceed 0.10 lb/MMBtu.
46. Pursuant 40 C.F.R. § 60.8, the initial performance test for NOx was required to be completed not later than 180 days after initial startup of a subject steam generating unit.



47. Pursuant to 40 C.F.R. § 60.48b(b)(1), as relevant, the owner or operator of each steam generating unit shall install, calibrate, maintain a continuous emissions monitoring system (CEMS) for measuring NO<sub>x</sub> emissions.
48. By failing to conduct an initial performance test on the Hot Oil Process Heater for NO<sub>x</sub>, UEOM violated 40 C.F.R. § 60.8.
49. By failing to install, calibrate, maintain, and operate a CEMS for measuring NO<sub>x</sub> emissions from the Hot Oil Process Heater, UEOM violated 40 C.F.R. § 60.48b(b)(1).


### **NSPS Subpart Kb – Findings and Violations**

#### **Storage Tank A – Leaks**

50. Pursuant to Subpart OOOO at 40 C.F.R. § 60.5395(d), standards for storage tanks identified under that section do not apply to storage tanks subject to and controlled in accordance with the requirements for storage tanks under Subpart Kb.
51. Subpart Kb (40 C.F.R. §§ 60.110b – 60.117b) applies, as relevant, to each storage tank with a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) that is used to store volatile organic liquids (VOL), for which construction is commenced after July 23, 1984. 40 C.F.R. § 60.110b(a).
52. Subpart Kb at 40 C.F.R. § 60.112b(a) specifies the VOC standard for storage tanks with, as relevant, a design capacity greater than or equal to 151 m<sup>3</sup>, containing a VOL that, as stored has a maximum true vapor pressure equal to or greater than 5.2 kilopascals (kPa) but less than 76.6 kPa.
53. Storage Tank A has a design capacity greater than 151 m<sup>3</sup>, was constructed after July 23, 1984, and is used to store gasoline, a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 5.2 kPa but less than 76.6 kPa.
54. To comply with 40 C.F.R. § 60.112b(a), Storage Tank A is equipped with a fixed roof in combination with an internal floating roof, and, as such, is required to meet the specifications identified under 40 C.F.R. § 60.112b(a)(1).
55. Pursuant 40 C.F.R. § 60.112b(a)(1)(ii) – which requires an internal floating roof to have a closure device between the wall of the storage vessel and the edge of the internal floating roof – the internal floating roof of Storage Tank A is equipped with two seals. 40 C.F.R. § 60.112(b)(a)(1)(ii)(B) requires each of the two seals to form a continuous closure around the circumference of the tank.

- 56. Pursuant to 40 C.F.R. § 60.112b(a)(1)(vi), rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating.
- 57. During the September 2017 Inspection EPA recorded FLIR video of emissions leaking from the rim vents of Storage Tank A. At the time the internal roof was floating.
- 58. UEOM violated 40 C.F.R. § 60.112(b)(a)(1)(ii)(B) by failing to equip the internal roof with two seals that form a continuous closure around the circumference of the tank, and/or UEOM violated 40 C.F.R. § 60.112b(a)(1)(vi) by setting the rim vent gasket to open when the internal roof was floating.

2/9/18  
Date

  
\_\_\_\_\_  
Edward Nam  
Director  
Air and Radiation Division



## Attachment – A

Process Unit	Number of Pumps	Start-Up of Process Unit	Initial Monitoring Date
RAIL	10	August 10, 2013	February 7, 2014
RAIL	6	December 8, 2014	May 13, 2015
TNKFM	8	August 10, 2013	January 26, 2014
TNKFM	5	August 10, 2013	January 27, 2014
TNKFM	4	August 10, 2013	February 6, 2014
TNKFM	2	February 2, 2014	June 25, 2014
TNKFM	2	February 2, 2014	June 30, 2014
TNKFM	1	December 8, 2014	May 10, 2015
TNKFM	9	December 8, 2014	May 12, 2015
TRN1	1	July 28, 2013	February 5, 2014
TRN1	3	August 10, 2013	January 31, 2014
TRN1	5	August 10, 2013	February 5, 2014
TRN1	2	February 2, 2014	June 27, 2014
TRN1	1	February 2, 2014	June 28, 2014
TRN1	1	February 8, 2014	June 27, 2014
TRN2	3	April 13, 2014	October 4, 2014
TRN2	2	April 13, 2014	October 5, 2014
TRN2	1	April 13, 2014	October 9, 2014
TRN2	2	April 13, 2014	October 10, 2014
TRN3	5	December 8, 2014	April 28, 2015
TRN3	1	December 8, 2014	April 29, 2015
TRN3	1	December 8, 2014	April 30, 2015

**Attachment – B**

<b>Process Unit</b>	<b>Number of Valves</b>	<b>Start-Up of Process Unit</b>	<b>Initial Monitoring Date</b>
Railcar	176	August 10, 2013	January 29, 2014
Railcar	207	August 10, 2013	January 30, 2014
Railcar	252	August 10, 2013	January 31, 2014
Railcar	18	August 10, 2013	February 7, 2014
Railcar	1	August 10, 2013	February 20, 2014
Railcar	1	December 8, 2014	April 29, 2015
Railcar	387	December 8, 2014	May 12, 2015
Railcar	135	December 8, 2014	May 13, 2015
Railcar	59	March 1, 2016	May 5, 2016
Railcar	90	March 1, 2016	May 6, 2016
Railcar	4	March 1, 2016	May 30, 2016
TNKFM	2	August 7, 2013	September 7, 2014
TNKFM	385	August 10, 2013	January 26, 2014
TNKFM	311	August 10, 2013	January 27, 2014
TNKFM	252	August 10, 2013	January 29, 2014
TNKFM	141	August 10, 2013	January 30, 2014
TNKFM	8	August 10, 2013	February 1, 2014
TNKFM	17	August 10, 2013	February 4, 2014
TNKFM	112	August 10, 2013	February 7, 2014
TNKFM	6	August 10, 2013	February 8, 2014
TNKFM	4	September 7, 2013	September 7, 2014
TNKFM	152	February 2, 2014	June 25, 2014
TNKFM	72	February 2, 2014	June 30, 2014
TNKFM	5	February 2, 2014	July 25, 2014
TNKFM	1	February 2, 2014	November 27, 2014
TNKFM	1	December 8, 2014	April 29, 2015
TNKFM	91	December 8, 2014	May 10, 2015
TNKFM	296	December 8, 2014	May 12, 2015
TNKFM	45	December 8, 2014	May 13, 2015
TNKFM	1	December 8, 2014	May 15, 2015
TRN1	143	July 28, 2013	February 5, 2014
TRN1	245	August 10, 2013	January 31, 2014
TRN1	721	August 10, 2013	February 5, 2014
TRN1	125	August 10, 2013	February 6, 2014

TRN1	20	August 10, 2013	February 7, 2014
TRN1	158	August 10, 2013	February 8, 2014
TRN1	2	August 10, 2013	March 27, 2014
TRN1	369	February 2, 2014	June 27, 2014
TRN1	149	February 2, 2014	June 28, 2014
TRN1	200	February 2, 2014	June 29, 2014
TRN1	9	February 8, 2014	June 19, 2014
TRN1	262	February 8, 2014	June 27, 2014
TRN1	2	February 8, 2014	June 28, 2014
TRN1	67	February 8, 2014	June 29, 2014
TRN1	1	February 8, 2014	June 30, 2014
TRN1	6	February 8, 2014	July 25, 2014
TRN2	2	April 3, 2014	October 7, 2014
TRN2	48	April 13, 2014	September 27, 2014
TRN2	6	April 13, 2014	September 28, 2014
TRN2	583	April 13, 2014	October 3, 2014
TRN2	480	April 13, 2014	October 4, 2014
TRN2	476	April 13, 2014	October 5, 2014
TRN2	82	April 13, 2014	October 6, 2014
TRN2	152	April 13, 2014	October 7, 2014
TRN2	17	April 13, 2014	October 8, 2014
TRN2	2	April 13, 2014	October 9, 2014
TRN3	745	December 8, 2014	April 28, 2015
TRN3	721	December 8, 2014	April 29, 2015
TRN3	298	December 8, 2014	April 30, 2015
TRN3	1	December 8, 2014	May 7, 2015
TRN3	2	December 8, 2014	May 9, 2015
TRN3	109	December 8, 2014	May 11, 2015
TRN3	6	May 28, 2015	June 29, 2015

**Attachment – C**

Digital Image Log – See CD – UEO Harrison

<b>Image Number</b>	<b>File Name</b>	<b>Date and Time (incl. time zone and DST)</b>	<b>Description of Image</b>
1	MOV_2020.mp4	9/28/2017 3:05:30 PM	Rail car loading valve
2	MOV_2021.mp4	9/28/2017 3:13:28 PM	LD4-5
3	MOV_2022.mp4	9/28/2017 3:19:36 PM	LD4-5
4	MOV_2023.mp4	9/28/2017 3:22:26 PM	LD4-4
5	MOV_2024.mp4	9/28/2017 3:24:52 PM	LD3-3
6	MOV_2025.mp4	9/28/2017 3:27:18 PM	LD4-3
7	MOV_2026.mp4	9/28/2017 3:29:34 PM	LD4-2
8	MOV_2027.mp4	9/28/2017 3:33:06 PM	LD3-2
9	MOV_2028.mp4	9/28/2017 3:35:14 PM	LD4-1
10	MOV_2029.mp4	9/28/2017 3:37:00 PM	LD3-1
11	MOV_2030.mp4	9/28/2017 3:52:54 PM	LD2-5
12	MOV_2031.mp4	9/28/2017 3:54:50 PM	LD1-4
13	MOV_2032.mp4	9/28/2017 3:56:18 PM	LD2-4
14	MOV_2033.mp4	9/28/2017 4:24:56 PM	Truck loading lane 1
15	MOV_2036.mp4	9/28/2017 4:59:04 PM	Tank A vents
16	MOV_2037.mp4	9/28/2017 5:08:38 PM	Flare stage and loading

**Attachment – D**

Tag Number	Date Inspected	Attempt Date	Equipment Type
12751	April 27, 2017	May 5, 2017	VLV
20089	March 27, 2017	June 19, 2017	PRV
24804	March 27, 2017	June 19, 2017	PRV
24834	March 27, 2017	June 19, 2017	PRV
24865	March 27, 2017	June 19, 2017	PRV
24984	March 27, 2017	June 19, 2017	PRV
24989	March 27, 2017	June 19, 2017	PRV

VLV = Valve, PRV= Pressure Relief Valve

**Attachment – E**

Date	Process Unit	Equipment Tag #	Equipment Type	EPA's Reading (ppm)	UEO's Reading (ppm)
9/28/2017	Railcar	17164	PSV	570	8250
9/28/2017	Railcar	17119	PSV	1000	flame out
9/28/2017	Railcar	17115	PSV	1200	3469
9/28/2017	Railcar	17090	PSV	1500	20000
9/28/2017	Railcar	17060	PSV	1500	20000
9/28/2017	Railcar	17047	PSV	2800	10000
9/28/2017	Railcar	17033	PSV	1900	10000
9/28/2017	Railcar	17003	PSV	880	3515
9/28/2017	Railcar	16999	PSV	770	1791
9/28/2017	Railcar	16986	PSV	580	3488
9/28/2017	Railcar	16982	PSV	3400	10000
9/28/2017	Railcar	16949	PSV	2700	10000
9/28/2017	Railcar	16273	PSV	1400	1400
9/28/2017	Railcar	16283	PSV	14000	14000
9/28/2017	Railcar	16311	PSV	9600	confirmed
9/28/2017	Railcar	16315	PSV	2000	confirmed
9/28/2017	Railcar	16329	PSV	2080	confirmed
9/28/2017	Railcar	16341	PSV	20000	confirmed
9/28/2017	Railcar	16370	PSV	13700	confirmed
9/28/2017	Railcar	16374	PSV	805	confirmed
9/28/2017	Railcar	16396	PSV	650	confirmed
9/28/2017	Railcar	16400	PSV	16000	confirmed
9/28/2017	Railcar	16429	PSV	21000	27000
9/28/2017	Railcar	16441	PSV	5600	2643
9/28/2017	Railcar	4155	PSV	2100	745
9/28/2017	Railcar	4179	PSV	1365	1098
9/28/2017	Railcar	4244	PSV	1800	2672
9/28/2017	Railcar	4279	PSV	1300	2275
9/27/2017	Railcar	17177	PSV	4300	16000
9/27/2017	Railcar	17231	PSV	5800	9999
9/27/2017	Railcar	17292	PSV	830	1400
9/27/2017	Railcar	4971	PSV	5100	16000
9/27/2017	Railcar	16479	PSV	15000	19800
9/27/2017	Railcar	16739	PSV	1600	30170



9/27/2017	Railcar	16536	PSV	20500	48250
9/27/2017	Railcar	16666	PSV	1550	5310
9/27/2017	Railcar	16623	PSV	980	2000
9/27/2017	Railcar	16120	PSV	745	2780
9/27/2017	Railcar	16129	PSV	6800	7200
9/27/2017	Railcar	16153	PSV	15800	23800
9/27/2017	Railcar	16170	PSV	18800	33760
9/27/2017	Railcar	16174	PSV	20000	35500
9/27/2017	Railcar	16203	PSV	20600	16800
9/27/2017	Railcar	16211	PSV	1350	15750
9/27/2017	Railcar	16225	PSV	16500	44400
9/27/2017	Railcar	16252	PSV	1425	907
9/27/2017	Railcar	16262	PSV	20500	30000

**CERTIFICATE OF MAILING**

I certify that I sent a Finding of Violation, No. EPA-5-18-OH-04, by Certified Mail, Return Receipt Requested, to:


Christopher Bender, Environmental Compliance Coordinator  
Utica East Ohio Midstream LLC  
Harrison Hub Fractionation Plant  
37905 Crimm Road, Scio, Ohio 43988  
Scio, Ohio 43988

I also certify that I sent copies of the Finding of Violation by first-class mail to:

Bob Hodanbosi, Chief  
Division of Air Pollution Control  
bob.hodanbosi@epa.ohio.gov

Jessica Kuenzli  
Southeast District Office  
jessica.kuenzli@epa.ohio.gov

On the 13<sup>th</sup> day of February 2018



Kathy Jones  
Program Technician  
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7014 2870 0001 9578 9749

E.4 Ignacio Notice of Violation (3/16/2018)



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

1595 Wynkoop Street  
Denver, CO 80202-1129  
Phone 800-227-8917  
www.epa.gov/region8

**MAR 16 2018**

Ref: ENF-AT

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

Glen Jasek  
General Manager, Vice President  
Williams Four Corners LLC  
188 County Road 4900  
Bloomfield, New Mexico 87413

Re: Notice of Violation  
Ignacio Gas Plant  
Ignacio, Colorado

Dear Mr. Jasek:

Please be advised that on the basis of on-site inspections conducted by duly authorized representatives of the U.S. Environmental Protection Agency and a review of pertinent information, the EPA has determined that Williams Four Corners LLC (Four Corners) has failed to comply with certain requirements of the Clean Air Act (CAA), as amended, 42 U.S.C. §§ 7401-7671q, and its implementing regulations, at the Ignacio Gas Plant, located at 3746 County Road 307 in Durango, Colorado (the Facility).

Based upon information and belief, this Notice of Violation (NOV), in part, alleges violations of the leak detection and repair requirements of CAA section 111 new source performance standards (40 C.F.R. Part 60, Subparts OOOO and KKK) and CAA section 112 national emission standards for hazardous air pollutants (40 C.F.R. Part 63, Subpart HH); the Prevention of Significant Deterioration preconstruction permitting requirements at 42 U.S.C. § 7475; and the Title V permitting provisions at 42 U.S.C. §§ 7661-7661f.

As a result of these findings, the EPA is issuing you this NOV pursuant to sections 113(a)(1) and (3) of the CAA, 42 U.S.C. § 7413(a)(1) and (3). You may, upon request, confer with the EPA. The conference will enable you to present evidence bearing on the findings of violation, on the nature of violation, and on any efforts you may have taken or propose to take to achieve compliance. Four Corners has a right to be represented by counsel. A request for conference must be made within 10 days of receipt of this NOV. A request for a conference or other inquiries concerning this NOV should be made to:

Laurie Ostrand  
Environmental Scientist  
Air & Toxics Technical Enforcement Program  
U.S. EPA Region VIII  
Mail Code 8ENF-AT  
1595 Wynkoop Street  
Denver, Colorado 80202  
(303) 312-6437

8:05 8 1 8AM

If you are represented by counsel, your attorney may contact:

Abigail Dean, Esq.  
Legal Enforcement Program  
U.S. EPA Region VIII  
Mail Code 8ENF-AT  
1595 Wynkoop Street  
Denver, Colorado 80202  
(303) 312-6106

Sincerely,



Suzanne J. Bohan  
Assistant Regional Administrator  
Office of Enforcement, Compliance  
and Environmental Justice

Enclosure

cc: Christine Sage, Chairman  
Southern Ute Indian Tribe

electronic cc:

Mark Hutson, Environmental Director  
Southern Ute Indian Tribe

Danny Powers, Air Quality Program Manager  
Southern Ute Indian Tribe

Laura Hill, Senior Counsel  
Williams

Garry Keele, Attorney  
McAfee & Taft

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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FILED  
EPA REGION VIII  
HEARING CLERK

IN THE MATTER OF: )  
)  
Williams Four Corners LLC/Ignacio Gas )  
Plant, Durango, Colorado )  
)  
Proceeding Pursuant to )  
the Clean Air Act, )  
42 U.S.C. §§ 7401 et seq. )  
)

NOTICE OF VIOLATION  
  
EPA-CAA-08-2018-0004

**NOTICE OF VIOLATION**

The U.S. Environmental Protection Agency alleges that Williams Four Corners LLC (Four Corners) violated and continues to violate sections 111 and 112 of the Clean Air Act (CAA), 42 U.S.C. §§ 7411 and 7412, and regulations approved thereunder, at the Ignacio Gas Plant (Ignacio Plant). Specifically, Four Corners violated and continues to violate the Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011, 40 C.F.R. §§ 60.630 – 60.636 (subpart KKK); the Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015, 40 C.F.R. §§ 60.5360 – 60.5430 (subpart OOOO); and the National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities, 40 C.F.R. §§ 63.760 – 63.779 (subpart HH). The EPA also alleges that Four Corners violated and continues to violate the Prevention of Significant Deterioration of Air Quality (PSD) permitting provisions of the CAA at 42 U.S.C. §§ 7471 – 7479; the Title V permitting provisions of the CAA at 42 U.S.C. §§ 7661 – 7661f; and the regulations implementing Title V at 40 C.F.R. part 71 at the Ignacio Plant.

The issuance of this Notice of Violation does not in any way limit or preclude the EPA from pursuing additional enforcement options concerning the inspections or review referenced in this Notice of Violation. Moreover, this Notice of Violation does not preclude enforcement action for violations not specifically addressed in this Notice of Violation.

**Statutory and Regulatory Authority**

**Standards of Performance - General**

1. Section 111 of the CAA, 42 U.S.C. § 7411, authorizes the EPA to promulgate regulations establishing New Source Performance Standards (NSPS).
2. Section 111(e) of the CAA, 42 U.S.C. § 7411(e), states that after the effective date of standards of performance promulgated under section 111, it shall be unlawful for any



owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

3. Section 111(a)(2) of the CAA, 42 U.S.C. § 7411(a)(2), defines “new source” as any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance which will be applicable to such source.

4. Section 111(a)(3) of the CAA, 42 U.S.C. § 7411(a)(3), defines “stationary source” as any building, structure, facility, or installation which emits or may emit an air pollutant.

5. A “modification” is “any physical change in . . . a stationary source which increases the amount of any air pollutant emitted by such source.” 42 U.S.C. § 7411(a)(4).

### **Standards of Performance – Subpart A**

6. Subpart A, at 40 C.F.R. § 60.1(a), specifies that the provisions of subpart A apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

7. Subpart A, at 40 C.F.R. § 60.14(a), provides that any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the CAA. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

8. Subpart A, at 40 C.F.R. § 60.2, defines “capital expenditure” as an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable “annual asset guideline repair allowance percentage” specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any “excluded additions” as defined in IRS Publication 534, as would be done for tax purposes.

9. Subpart A, at 40 C.F.R. § 60.18, contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61.

10. Subpart A, at 40 C.F.R. § 60.18(c)(4)(ii), indicates that steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of section 60.18, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

11. Subpart A, at 40 C.F.R. § 60.18(d), indicates that owners or operators of flares used to comply with the provisions of subpart A shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

### **Standards of Performance - Subparts KKK and VV**

12. On June 24, 1985, the EPA promulgated subpart KKK, which sets forth standards of performance for equipment leaks of VOC from onshore natural gas processing plants for which construction, reconstruction, or modification commenced after January 20, 1984, and on or before August 23, 2011. 50 F.R. 26,124 (June 24, 1985).

13. Subpart KKK, at 40 C.F.R. § 60.630(a)(3), applies to the group of all equipment except compressors within a process unit at onshore natural gas processing plants.

14. Subpart KKK, at 40 C.F.R. § 60.631, states that as used in subpart KKK, all terms not defined therein shall have the meaning given them in the CAA, subpart A or subpart VV of 40 C.F.R. part 60.

15. Subpart KKK, at 40 C.F.R. § 60.631, defines “process unit” as equipment assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.

16. Subpart KKK, at 40 C.F.R. § 60.631, defines “equipment” as each pump, pressure relief device, open-ended valve or line, valve, compressor and flange or other connector that is in VOC service or in wet gas service, and any device or system required by subpart KKK.

17. Subpart KKK, at 40 C.F.R. § 60.631, defines “onshore” as all facilities except those that are located in the territorial seas or on the outer continental shelf.

18. Subpart KKK, at 40 C.F.R. § 60.631, defines “natural gas processing plant” as any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.

19. Subpart KKK, at 40 C.F.R. § 60.631, defines “in wet gas service” as a piece of equipment containing or contacting the field gas before the extraction step in a gas processing plant.

20. Subpart KKK, at 40 C.F.R. § 60.631, defines “in light liquid service” as a piece of equipment containing a liquid that meets the conditions specified in 40 C.F.R. §§ 60.485(e) or 60.633(h)(2).

21. Subpart KKK, at 40 C.F.R. § 60.631, defines “field gas” as feedstock gas entering the natural gas processing plant.

22. Subpart KKK, at 40 C.F.R. § 60.632(a), (d), and (e), specifies the provisions of the Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals

Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006 (subpart VV) that apply to owners and operators of affected facilities.

23. Subpart VV, at 40 C.F.R. § 60.481, defines “in gas/vapor service” as a piece of equipment containing process fluid that is in the gaseous state at operating conditions.

24. Subpart VV, at 40 C.F.R. § 60.481, defines “in VOC service” as a piece of equipment containing or contacting a process fluid that is at least 10 percent VOC by weight.

25. Subpart VV, at 40 C.F.R. § 60.481, defines “volatile organic compounds or VOC” to mean any reactive organic compounds as defined in 40 C.F.R. § 60.2.

26. Subpart VV, at 40 C.F.R. § 60.481, defines “repaired” to mean that equipment is adjusted, or otherwise altered, in order to eliminate a leak as defined in the applicable sections of this subpart and, except for leaks identified in accordance with 40 C.F.R. §§ 60.482-2(b)(2)(ii) and (d)(6)(ii) and (iii), 60.482-3(f), and 60.482-10(f)(1)(ii), is re-monitored as specified in 40 C.F.R. § 60.485(b) to verify that emissions from the equipment are below the applicable leak definition.

27. Subpart VV, at 40 C.F.R. § 60.482-2, sets forth standards for pumps in light liquid service.

28. Subpart VV, at 40 C.F.R. § 60.482-2(a)(1), specifies that each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. § 60.485(b).

29. Subpart VV, at 40 C.F.R. § 60.482-2(b)(1), specifies that if an instrument reading of 10,000 ppm or greater is measured at a pump in light liquid service, a leak is detected.

30. Subpart VV, at 40 C.F.R. § 60.482-2(c)(1), specifies that when a leak is detected at a pump in light liquid service, it shall be repaired as soon as practicable, but no later than 15 days after it is detected unless the leaking equipment is placed on delay of repair pursuant to 40 C.F.R. § 60.482-9.

31. Subpart VV, at 40 C.F.R. § 60.482-7, sets forth standards for valves in gas/vapor and in light liquid service.

32. Subpart VV, at 40 C.F.R. § 60.482-7(a)(1), specifies that each valve shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. § 60.485(b) and shall comply with paragraphs (b) through (e) of 40 C.F.R. § 60.482-7.

33. Subpart VV, at 40 C.F.R. § 60.482-7(a)(2)(i), specifies that each valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period.

34. Subpart VV, at 40 C.F.R. § 60.482-7(b), specifies that if an instrument reading of 10,000 ppm or greater is measured at a valve in gas/vapor or light liquid service, a leak is detected.

35. Subpart VV, at 40 C.F.R. § 60.482-7(c)(1)(i), specifies that any valve in gas/vapor or light liquid service for which a leak is not detected for two successive months may be monitored quarterly until a leak is detected.

36. Subpart VV, at 40 C.F.R. § 60.482-7(c)(2), specifies that any valve in gas/vapor or light liquid service being monitored quarterly that is found to be leaking must be monitored monthly until a leak is not detected for two successive months.

37. Subpart VV, at 40 C.F.R. § 60.482-10(d), specifies that flares used to comply with subpart VV shall also comply with the requirements of 40 C.F.R. § 60.18.

### **Standards of Performance - Subparts OOOO and VVa**

38. Subpart OOOO establishes emission standards and compliance schedules for the control of VOC and sulfur dioxide (SO<sub>2</sub>) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011 and on or before September 18, 2015. 40 C.F.R. § 60.5360.

39. Subpart OOOO, at 40 C.F.R. § 60.5370, specifies that affected facilities must be in compliance with the standards of subpart OOOO no later than October 15, 2012, or upon startup, whichever is later.

40. Subpart OOOO, at 40 C.F.R. § 60.5365(f), states that subpart OOOO applies to the group of all equipment except compressors within a process unit at onshore natural gas processing plants.

41. Subpart OOOO, at 40 C.F.R. § 60.5365(f)(1), specifies that the addition or replacement of equipment for the purpose of process improvement during the August 23, 2011, to September 18, 2015, time-period is not a “modification” that triggers the applicability of subpart OOOO unless it constitutes a “capital expenditure,” as these terms are defined in the CAA and in 40 C.F.R. part 60. 42 U.S.C. § 7411(a)(4); 40 C.F.R. §§ 60.2, 60.480a, and 60.481.

42. Subpart OOOO, at 40 C.F.R. § 60.5430, specifies that all terms not defined therein shall have the meaning given them in the CAA, in subpart A or subpart VVa of 40 C.F.R. part 60.

43. Subpart OOOO, at 40 C.F.R. § 60.5430, defines “process unit” as components assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.

44. Subpart OOOO, at 40 C.F.R. § 60.5430, defines “equipment” as used in the standards and requirements in subpart OOOO relative to the equipment leaks of VOC from



onshore natural gas processing plants, as each pump, pressure relief device, open-ended valve or line, valve, and flange or other connector that is in VOC service or in wet gas service, and any device or system required by those same standards and requirements in subpart OOOO.

45. Subpart OOOO, at 40 C.F.R. § 60.5430, defines “onshore” as all facilities except those that are located in the territorial seas or on the outer continental shelf.

46. Subpart OOOO, at 40 C.F.R. § 60.5430, defines “natural gas processing plant” as any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.

47. Subpart OOOO, at 40 C.F.R. § 60.5430, defines “in wet gas service” as a compressor or piece of equipment containing or contacting the field gas before the extraction step in a gas processing plant.

48. Subpart OOOO, at 40 C.F.R. § 60.5430, defines “in light liquid service” as a piece of equipment containing a liquid that meets the conditions specified in 40 C.F.R. §§ 60.485a(e) or 60.5401(g)(2).

49. Subpart OOOO, at 40 C.F.R. § 60.5430, defines “field gas” as feedstock gas entering the natural gas processing plant.

50. Subpart OOOO, at 40 C.F.R. § 60.5400(a), (d), and (e), specifies the provisions of the Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (subpart VVa) that apply to owners and operators of subpart OOOO affected facilities.

51. Subpart VVa, at 40 C.F.R. § 60.481a, defines “connector” as flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation.

52. Subpart VVa, at 40 C.F.R. § 60.481a, defines “in gas/vapor service” as a piece of equipment containing process fluid that is in the gaseous state at operating conditions.

53. Subpart VVa, at 40 C.F.R. § 60.481a, defines “in VOC service” as a piece of equipment containing or contacting a process fluid that is a least 10 percent VOC by weight.

54. Subpart VVa, at 40 C.F.R. § 60.481a, defines “repaired” to mean that equipment is adjusted, or otherwise altered, in order to eliminate a leak as defined in the applicable sections of this subpart and, except for leaks identified in accordance with 40 C.F.R. §§ 60.482-2a(b)(2)(ii) and (d)(6)(ii) and (d)(6)(iii), 60.482-3a(f), and 60.482-10a(f)(1)(ii), is re-monitored as specified in 40 C.F.R. § 60.485a(b) to verify that emissions from the equipment are below the applicable leak definition.

55. Subpart VVa, at 40 C.F.R. § 60.481a, defines “first attempt at repair” to mean to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

56. Subpart VVa, at 40 C.F.R. § 60.482-2a, sets forth standards for pumps in light liquid service.

57. Subpart VVa, at 40 C.F.R. § 60.482-2a(a)(1), specifies that each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. § 60.485a(b).

58. Subpart VVa, at 40 C.F.R. § 60.482-7a, sets forth standards for valves in gas/vapor and in light liquid service.

59. Subpart VVa, at 40 C.F.R. § 60.482-7a(a)(1), specifies that each valve be monitored monthly to detect leaks by the methods specified in § 60.485a(b) and that each valve shall comply with paragraphs (b) through (e) of 40 C.F.R. § 60.482-7a.

60. Subpart VVa, at 40 C.F.R. § 60.482-7a(b), specifies that if an instrument reading of 500 ppm or greater is measured at a valve in gas/vapor service or in light liquid service, a leak is detected.

61. Subpart VVa, at 40 C.F.R. § 60.482-7a(c)(1)(i), specifies that any valve for which a leak is not detected for two successive months may be monitored quarterly until a leak is detected.

62. Subpart VVa, at 40 C.F.R. § 60.482-7a(c)(2), specifies that any valve being monitored quarterly that is found to be leaking must be monitored monthly until a leak is not detected for two successive months.

63. Subpart VVa, at 40 C.F.R. § 60.482-7a(d)(1), specifies that when a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except if the valve is placed on delay of repair.

64. Subpart VVa, at 40 C.F.R. § 60.482-7a(d)(2), specifies that when a leak is detected, a first attempt at repair shall be made no later than five calendar days after each leak is detected.

65. Subpart VVa, at 40 C.F.R. § 60.482-11a, sets forth standards for connectors in gas/vapor service and in light liquid service.

66. Subpart VVa, at 40 C.F.R. § 60.482-11a(a), requires initial monitoring of all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after initial startup.

67. Subpart VVa, at 40 C.F.R. § 60.482-11a(b)(1) and (2), indicates that connectors shall be monitored by the method specified in 40 C.F.R. § 60.485a(b) and that if an instrument reading greater than or equal to 500 ppm is measured, a leak is detected.



68. Subpart VVa, at 40 C.F.R. § 60.482-11a(d), specifies that when a leak is detected it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected unless the connector is placed on delay of repair. A first attempt at repair shall be made no later than five calendar days after the leak is detected.

69. Subpart VVa, at 40 C.F.R. § 60.485a(b), requires owners and operators to determine compliance with applicable standards using Method 21 of Appendix A-7 of 40 C.F.R. part 60.

70. Subpart OOOO, at 40 C.F.R. § 60.5421, sets forth recordkeeping requirements for affected facilities subject to the VOC requirements for onshore natural gas processing plants and indicates affected facilities must comply with the requirements of 40 C.F.R. § 60.486a along with other requirements for pressure relief devices.

71. Subpart VVa, at 40 C.F.R. § 60.486a(b), sets forth requirements for identification of leaking components.

72. Subpart VVa, at 40 C.F.R. § 60.486a(e)(1), sets forth the recordkeeping requirements for identifying all equipment subject to the standards in 40 C.F.R. §§ 60.482-1a to 60.482-11a.

73. Subpart OOOO, at 40 C.F.R. § 60.5422, sets forth reporting requirements for affected facilities subject to the VOC requirements for onshore natural gas processing plants and indicates affected facilities must comply with the requirements in 40 C.F.R. § 60.487a along with other requirements for pressure relief devices.

74. Subpart VVa, at 40 C.F.R. § 60.482-10a(d), specifies that flares used to comply with subpart VVa shall also comply with the requirements of 40 C.F.R. § 60.18.

### **National Emission Standards - General**

75. Section 112 of the CAA, 42 U.S.C. § 7412, authorizes the EPA to promulgate regulations establishing National Emission Standards for Hazardous Air Pollutants (NESHAP).

76. Section 112(f)(4) of the CAA, 42 U.S.C. § 7412(f)(4), states that no air pollutant to which a standard under this subsection applies may be emitted from any stationary source in violation of such standard.

77. Section 112(a)(3) of the CAA, 42 U.S.C. § 7412(a)(3), defines “stationary source” as having the same meaning as such term has under section 111(a) of the CAA, 42 U.S.C. § 7411(a).

### **National Emission Standards – Subpart A**

78. Subpart A, at 40 C.F.R. § 63.1(c)(1), indicates that if a relevant standard has been established under part 63, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of section 63.1.

79. Subpart A, at 40 C.F.R. § 63.11(b)(1), specifies that owners and operators using flares to comply with the provisions of part 63 shall monitor the control devices to assure that they are operated and maintained in conformance with their designs.

80. Subpart A, at 40 C.F.R. § 63.11(b)(7)(ii), indicates that steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of section 63.11, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

### **National Emission Standards - Subparts HH and V**

81. Subpart HH, at 40 C.F.R. § 63.760(b)(1)(iii), applies to the group of all ancillary equipment, except compressors, intended to operate in volatile hazardous air pollutant (VHAP) service (as defined in 40 C.F.R. § 63.761), which are located at natural gas processing plants at a major source.

82. Subpart HH, at 40 C.F.R. § 63.760(f)(1), specifies that sources which commenced construction or reconstruction before February 6, 1998, shall achieve compliance with the applicable provisions of subpart HH no later than June 17, 2002.

83. Subpart HH, at 40 C.F.R. § 63.760(f)(2), specifies that sources which commenced construction or reconstruction on or after February 6, 1998, shall achieve compliance with the applicable provisions of subpart HH immediately upon startup or June 17, 1999, whichever date is later.

84. Subpart HH includes requirements for monitoring equipment such as pumps and valves for leaks of air pollutants, repairing leaks, recordkeeping, and reporting to regulators. 40 C.F.R. §§ 63.764, 63.769, 63.773, 63.774, and 63.775. Subpart HH also incorporates certain other regulations in 40 C.F.R. part 61 by reference, including certain provisions of the National Emission Standard for Equipment Leaks (subpart V), 40 C.F.R. §§ 61.240 – 247.

85. Subpart HH, at 40 C.F.R. § 63.765(b)(1)(iii), specifies the glycol dehydration unit process vent standards for small glycol dehydration units.

86. Subpart HH, at 40 C.F.R. § 63.771(f)(1), specifies that a flare may be used as a control device for small glycol dehydration units.

87. Subpart HH, at 40 C.F.R. § 63.771(f)(1)(iii), specifies that the flare must be designed and operated in accordance with the requirements of 40 C.F.R. § 63.11(b).

88. Subpart V, at 40 C.F.R. § 61.242-11(d), specifies that flares used to comply with subpart V shall also comply with the requirements of 40 C.F.R. § 60.18.

### **Permitting – General**

89. Part C of subchapter I of the CAA, sections 161-169, 42 U.S.C. §§ 7471 – 7479, sets forth requirements for the prevention of significant deterioration of air quality in those areas

designated as attainment or unclassifiable. These provisions are referred to herein as the “PSD program.” The PSD permitting regulations for Indian country are found at 40 C.F.R. § 52.21.

90. Title V of the CAA, 42 U.S.C. §§ 7661 – 7661f, and its implementing regulations at 40 C.F.R. part 71 establish an operating permit program for certain sources.

91. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), and 40 C.F.R. § 71.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the CAA, no source subject to Title V may operate except in compliance with a Title V permit.

### **Findings of Fact**

92. Four Corners is a “person” within the meaning of section 302(e) of the CAA, 42 U.S.C. § 7602(e).

93. Four Corners owns and operates the Ignacio Plant located at 3746 County Road 307 in Durango, Colorado.

94. The Ignacio Plant is a major source under subpart HH.

95. The Ignacio Plant is a “natural gas processing plant” as defined in 40 C.F.R. §§ 60.631 60.5430, and 63.761.

96. The Ignacio Plant contains affected facilities as described in 40 C.F.R. §§ 60.630 60.5365(f), and 63.760(b)(1)(iii).

97. The Ignacio Plant is subject to the LDAR requirements in subparts V, VV, VVa, KKK, OOOO, and HH.

98. The EPA conducted onsite inspections at the Ignacio Plant on June 13, 2013, and July 17, 2014. The EPA prepared inspection reports following the inspections on December 16, 2013, and February 2, 2015, respectively.

99. On August 25, 2014, Four Corners notified the EPA that certain equipment subject to subpart HH at the Ignacio Plant may not have been properly included in the Plant’s LDAR program.

100. The EPA issued CAA section 114 requests for information to Four Corners on December 1, 2015, and January 19, 2017. Four Corners responded to the December 1, 2015, request for information on February 2, 2016, and March 4, 2016, and to the January 19, 2017, request for information on March 24, 2017.

101. In its March 4, 2016, response to the CAA section 114 request for information, Four Corners identified the following process units at the Ignacio Plant: Inlet, Amine Treatment, West Dehydration/Mol Sieve, TXP (Cryo), Fractionation, Storage & Loading, and Flare. Four Corners indicated that all process units, except the TXP (Cryo), at the Ignacio Plant were constructed in 1956, and that the TXP (Cryo) was constructed in 1984. Four Corners also

indicated that modifications in 2015 at the Inlet, Flare and Amine Treatment process units resulted in these process units becoming subject to subpart OOOO.

102. Four Corners submitted semiannual reports to the EPA required by subparts HH, KKK, and OOOO in January and July from July 2011 through July 2017.

103. Four Corners' July 21, 2017, semiannual report identified the Storage and Loading and TXP process units as being subject to subpart KKK.

104. Based on its review of the LDAR information described in Paragraphs 98 through 103 above, the EPA makes the following factual findings:

- a. Four Corners failed to perform a first attempt at repair no later than five days after each leak was detected at two subpart OOOO valves in the Inlet process unit following leaks identified in August 2015.
- b. Four Corners failed to repair leaks as soon as practicable, but no later than 15 calendar days after the leak was detected, or to place the equipment on delay of repair at:
  - i. two subpart OOOO valves in the Inlet process unit following leaks identified in August 2015;
  - ii. one subpart OOOO connector in the Inlet process unit following a leak identified in October 2015; and
  - iii. one subpart KKK pump in the Storage and Loading process unit following a leak identified in August 2015.
- c. Four Corners failed to monitor valves monthly after identification of a leak until no leak was detected for two successive months at:
  - i. three subpart KKK valves in the TXP process unit following leaks identified in February and March 2014, and
  - ii. two subpart OOOO valves in the Inlet process unit following leaks identified in August 2015.
- d. Four Corners failed to monitor valves within 30 days after installation at 187 subpart KKK valves in the Inlet process unit after adding the valves in October 2013 and April 2014.
- e. Four Corners failed to monitor valves monthly after installation until no leak was detected for two successive months at 39 valves in the TXP and Inlet process units after adding the valves between June 2013 and March 2014.
- f. Four Corners failed to monitor:



- i. 19 subpart KKK pumps monthly in the Inlet, TXP and Storage and Loading process units in the second quarter of 2014, and
  - ii. 3 subpart KKK valves quarterly in the Inlet process unit between the fourth quarter of 2013 and the first quarter of 2014.
- g. Four Corners added equipment, including connectors, pressure relief valves, pumps, and valves to the Storage and Loading process unit and to the TXP process unit. Specifically, Four Corners added 75 pieces of equipment to the Storage and Loading process unit in the first quarter of 2012, 118 pieces of equipment to the Storage and Loading process unit in the fourth quarter of 2014, and 659 pieces of equipment to the Storage and Loading process unit in April 2015; eight pieces of equipment to the TXP process unit in August 2012; and 194 pieces of equipment to the TXP process unit in April 2015. These equipment additions constitute a modification of the Storage and Loading and TXP process units under subpart OOOO.
- h. Four Corners failed to identify applicability of subpart OOOO to equipment at the TXP and Storage and Loading process units, described above in Paragraph 104.g above, resulting in missed monitoring, missed repairs, missed recordkeeping, and missed reporting. In the event that the equipment was not newly added but instead was missed in the LDAR program, Four Corners failed to identify applicability of subpart KKK to the equipment at the TXP and Storage and Loading process units, resulting in missed monitoring, missed repairs, missed recordkeeping, and missed reporting.
- i. Four Corners failed to identify applicability of MACT HH to 567 pieces of equipment at the Ignacio Plant, resulting in missed repairs, missed recordkeeping, and missed reporting.

105. On December 22, 2010, the EPA issued a PSD permit to Williams Four Corners, LLC, for the Ignacio Plant (Permit Number, PSD-SU-00027-01.00).

106. Section III.G.1. of the December 22, 2010, PSD permit contains VOC emission limits of 1.16 lbs per hour and 5.1 tons per year for the thermal oxidizer.

107. On November 19, 2003, the EPA issued the initial Title V operating permit for the Ignacio Plant (Permit Number V-SU-0027-00.0). On January 28, 2013, the EPA issued the First Renewal Title V Operating Permit for the Ignacio Plant (Permit Number V-SU-000027-2008.00).

108. Section VIII.F.1(a) of the January 28, 2013, Title V permit contains VOC emission limits of 1.16 lbs per hour and 5.1 tons per year for the thermal oxidizer.

109. Four Corners submitted a thermal oxidizer test report to the EPA on October 20, 2015, for the testing conducted on August 20 and 21, 2015. The test report indicates that the thermal oxidizer was emitting at 1.18 lbs per hour of VOC and 5.2 tons per year of VOC.

110. Section III.F. of the December 22, 2010, PSD permit establishes that Best Available Control Technology (BACT) for VOC emissions from the West Dehydrator is a Flare. Section III.F.6 requires that at all times including periods of startup, shutdown, and equipment malfunction, the Permittee shall maintain and operate the West Dehydrator in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator, which may include, but not be limited to, monitoring results, review of operating and maintenance procedures, and inspection of the permitted facility.

111. Section VIII.E.6 of the January 28, 2013, Title V permit requires that at all times including periods of startup, shutdown, and equipment malfunction, the Permittee shall maintain and operate the West Dehydrator in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator, which may include, but not be limited to, monitoring results, review of operating and maintenance procedures, and inspection of the permitted facility.

112. Section VI.D.1. of the January 28, 2013, Title V permit requires that the permittee comply with the requirements of 40 C.F.R. §§ 60.482-1(a), (b) and (d) and 60.482-2 through 60.482-10, except as provided in 40 C.F.R. § 60.633, as soon as practicable, but no later than 180 days after initial startup.

113. In its October 9, 2013, Initial Notification for small dehydrators located at a HAP major source, Four Corners reported that the West Dehydrator was considered a small glycol dehydration unit.

114. In its January 1, 2016, Notification of Compliance Status for the subpart HH glycol dehydration unit process vent standards, Four Corners reported that the West Dehydrator uses a flare to meet the emission limits in subpart HH.

115. The EPA inspected the Ignacio Plant on June 22, 2016, and observed, with an optical gas imaging camera, un-combusted hydrocarbons being emitted from the flare, an indication that Four Corners was not operating the flare with good air pollution control practices for minimizing emissions.

116. In its March 24, 2017, response to the CAA section 114 request for information, Four Corners provided steam flow rates and steam-to-vent gas ratios recommended by the flare manufacturer. Four Corners also provided the monitored or estimated amount of flare gas and steam sent to the flare, as well as the steam-to-vent gas ratio, on an hourly basis between January 1, 2012, and January 1, 2017. Based on the EPA's review of this information, the EPA identified several instances in which the actual steam-to-vent gas ratio exceeded the manufacturer's recommendation.

117. In its March 24, 2017, response to the CAA section 114 request for information, Four Corners provided the net heating value (NHV) of the flare gas in BTU/scf. Based on the EPA's review of this information, the EPA identified several instances in which the NHV is below 1,000 BTU/scf.



**Alleged Violations**

118. Four Corners failed to perform a first attempt at repair no later than five days after each leak was detected at two subpart OOOO valves in the Inlet process unit in violation of 40 C.F.R. §§ 60.5400 and 60.482-7a(d)(2). See Attachment A Table 1.

119. Four Corners failed to repair leaks as soon as practicable, but no later than 15 calendar days after the leak was detected, or to place the equipment on delay of repair at two subpart OOOO valves in the Inlet process unit in violation of 40 C.F.R. §§ 60.5400 and 60.482-7a(d)(1). See Attachment A Table 2.

120. Four Corners failed to repair leaks as soon as practicable, but no later than 15 calendar days after the leak was detected, or to place the equipment on delay of repair at one subpart OOOO connector in the Inlet process unit in violation of 40 C.F.R. §§ 60.5400 and 60.482-11a(d). See Attachment A Table 2.

121. Four Corners failed to repair leaks as soon as practicable, but no later than 15 calendar days after the leak was detected, or to place the equipment on delay of repair at one subpart KKK pump in the Storage and Loading process unit in violation of 40 C.F.R. §§ 60.632(a) and 60.482-2(c)(1). See Attachment A Table 2.

122. Four Corners failed to monitor valves monthly after identification of a leak until the valves did not leak for two successive months at three subpart KKK valves in the TXP process unit in violation of 40 C.F.R. §§ 60.632(a) and 60.482-7(c)(2). See Attachment A Table 3.

123. Four Corners failed to monitor valves monthly after identification of a leak until no leak was detected for two successive months at two subpart OOOO valves in the Inlet process unit in violation of 40 C.F.R. §§ 60.5400 and 60.482-7a(c)(2). See Attachment A Table 3.

124. Four Corners failed to monitor valves within 30 days after installation at 187 subpart KKK valves in the Inlet process unit in violation of 40 C.F.R. §§ 60.632(a) and 60.482-7(a)(2)(i). See Attachment A Table 4.

125. Four Corners failed to monitor valves monthly after installation until no leak was detected for two successive months at 39 subpart KKK valves in the TXP and Inlet process units in violation of 40 C.F.R. §§ 60.632(a), 60.482-7(a)(1) and 60.482-7(c)(1)(i). See Attachment A Table 5.

126. Four Corners failed to monitor 19 subpart KKK pumps monthly in violation of 40 C.F.R. § 60.482-2(a)(1). See Attachment A Table 6.

127. Four Corners failed to monitor three subpart KKK valves quarterly in the Inlet process unit, in violation of 40 C.F.R. §60.482-7(a)(1), and 60.482-7(c)(1)(i). See Attachment A Table 6.

128. Four Corners failed to identify applicability of subpart OOOO to equipment at the TXP and Storage and Loading process units, resulting in missed monitoring, missed repairs,

missed recordkeeping, and missed reporting, in violation of 40 C.F.R. §§ 60.5400, 60.5421, and 60.5422. See Attachment A Table 7. In the event that the equipment described above was not newly added but instead was missed in the LDAR program, the EPA alleges in the alternative, that Four Corners failed to identify applicability of subpart KKK to 994 pieces of equipment at the TXP and Storage and Loading process units, resulting in missed monitoring, missed repairs, missed recordkeeping, and missed reporting, in violation of 40 C.F.R. §§ 60.632, 60.635, and 60.636. See Attachment A Table 8.

129. Four Corners failed to identify applicability of subpart HH to 567 pieces of equipment at the Ignacio Plant, resulting in missed repairs, missed recordkeeping, and missed reporting, in violation of 40 C.F.R. §§ 63.764, 63.769, 63.774, and 63.775. See Attachment A Table 9.

130. Four Corners failed to meet the thermal oxidizer PSD VOC emission limits, in violation of Section III.G.1. of the December 22, 2010, PSD permit and Section VIII.F.1(a) of the January 28, 2013, Title V permit.

131. Four Corners failed to maintain and operate the West Dehydrator and its control device (the flare) in a manner consistent with good air pollution control practice for minimizing emissions in violation of Section III.F.6 of the December 22, 2010, PSD Permit Number PSD-SU-00027-01.00, and Section VIII.E.6 of the January 28, 2013, Title V Permit Number V-SU-000027-2008.00.

132. Four Corners failed to operate and maintain its flare in accordance with its design in violation of 40 C.F.R. §§ 60.18(d), 60.482-10(d), 60.482-10a(d), 61.242-11(d), 63.11(b)(1) and 63.771(f)(1)(iii). See Attachment A Table 10.

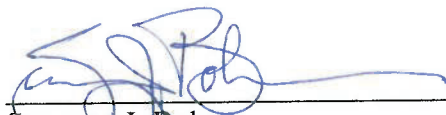
133. Four Corners failed to operate and maintain its flare in accordance with its minimum net heating value requirements in violation of 40 C.F.R. §§ 60.18(c)(4)(ii), 60.482-10(d), 60.482-10a(d), 61.242-11(d), 63.11(b)(7)(ii) and 63.771(f)(1)(iii). See Attachment A Table 11.

### **Enforcement Authority**

134. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), provides that whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of, any requirement or prohibition of, *inter alia*, any rule promulgated under the NSPS requirements of section 111(e) of the CAA, 42 U.S.C. § 7411(e), the NESHAP requirements of section 112(d), 42 U.S.C. § 7412(d), the PSD requirements of sections 161-169 of the CAA, 42 U.S.C. §§ 7471-7479, and Title V requirements of sections 501-507, of the CAA, 42 U.S.C. §§ 7661-7661f, or any rule or permit issued thereunder, the Administrator may issue an administrative penalty order under section 113(d), issue an order requiring compliance with such requirement or prohibition, or bring a civil action pursuant to section 113(b) for injunctive relief and/or civil penalties.

Date

3/16/18



Suzanne J. Bohan  
Assistant Regional Administrator  
Office of Enforcement, Compliance  
and Environmental Justice

Attachment A - Table 1

Response	Component Class	Leak Date	Leak Reading	Unit Description	Component ID	Component Tag
Four Corners indicated that the Inlet process unit was modified in June 2015 making it subject to subpart OOOO but that this component was regulated under subpart KKK through 9/30/15. Subpart OOOO, at 40 C.F.R. § 60.5370(a), indicates that companies must be in compliance with the standards of this subpart no later than October 15, 2012, or upon startup, whichever is later.	VALVE	8/25/2015	1075	Ignacio - INLET	113533	121835
Four Corners indicated that the Inlet process unit was modified in June 2015 making it subject to subpart OOOO but that this component was regulated under subpart KKK through 9/30/15. Subpart OOOO, at 40 C.F.R. § 60.5370(a), indicates that companies must be in compliance with the standards of this subpart no later than October 15, 2012, or upon startup, whichever is later.	VALVE	8/27/2015	1113	Ignacio - INLET	115332	123507

Attachment A - Table 2

Response	Component Class	Leak Date	Leak Reading	Unit Description	Component ID	Component Tag
Four Corners indicated that the Inlet process unit was modified in June 2015 making it subject to subpart OOOO but that this component was regulated under subpart KKK through 9/30/15. Subpart OOOO, at 40 C.F.R. § 60.5370(a), indicates that companies must be in compliance with the standards of this subpart no later than October 15, 2012, or upon startup, whichever is later.	VALVE	8/25/2015	1075	Ignacio - INLET	113533	121835
Four Corners indicated that the Inlet process unit was modified in June 2015 making it subject to subpart OOOO but that this component was regulated under subpart KKK through 9/30/15. Subpart OOOO, at 40 C.F.R. § 60.5370(a), indicates that companies must be in compliance with the standards of this subpart no later than October 15, 2012, or upon startup, whichever is later.	VALVE	8/27/2015	1113	Ignacio - INLET	115332	123507
Four Corners indicated that the Inlet process unit was modified in June 2015 making it subject to subpart OOOO but that this component was regulated under subpart KKK through 9/30/15. Subpart OOOO, at 40 C.F.R. § 60.60.5370(a), indicates that companies must be in compliance with the standards of this subpart no later than October 15, 2012, or upon startup, whichever is later.	CONNECTOR	10/5/2015	100000	Ignacio - INLET	118864	GHG122107.3
Definition of "repaired" includes remonitoring. Remonitoring not done until 9/21/15. Therefore, not repaired within 15 days.	PUMP	8/28/2015	19900	Ignacio - Storage and Loading	112207	124821

Attachment A - Table 3

Response	Class Description	Leak Date	Leak Reading	Unit Description	Component ID	Component Tag	2nd Month Following
New Leak 2/19/2014, repaired 2/21/2014. New leak 3/25/2014, repaired 3/28/2014. No monitoring information found for April 2014.	VALVE	2/19/2014	100000	Ignacio - TXP	111795	123772	
New leak 3/25/2014, repaired 3/28/2014. No monitoring information found for April 2014. New leak 5/29/2014, put on DOR 6/9/2014.	VALVE	3/25/2014	100000	Ignacio - TXP	111795	123772	5/29/2014 - 99999 ppm
Four Corners indicated that the Inlet process unit was modified in June 2015 making it subject to subpart OOOO but that this component was regulated under subpart KKK through 9/30/15. Subpart OOOO, at 40 C.F.R. § 60.5370(a), indicates that companies must be in compliance with the standards of this subpart no later than October 15, 2012, or upon startup, whichever is later.	VALVE	8/25/2015	1075	Ignacio - INLET	113533	121835	
Four Corners indicated that the Inlet process unit was modified in June 2015 making it subject to subpart OOOO but that this component was regulated under subpart KKK through 9/30/15. Subpart OOOO, at 40 C.F.R. § 60.5370(a), indicates that companies must be in compliance with the standards of this subpart no later than October 15, 2012, or upon startup, whichever is later.	VALVE	8/27/2015	1113	Ignacio - INLET	115332	123507	
Repaired 2/21/2014. Monitored 3/25/2014. No information found in April 2014. Passing readings recorded on 5/29/2014 and 6/5/2014.	VALVE	2/19/2014	32627	Ignacio - TXP	115891	123602	



Attachment A Table 4

Response	Regulation Description	Date Added	First Inspection Date	Unit Description	Component ID	Component Tag	Component Class
Four Corners indicated these components were temporarily out of service (TOOS). However, other components in the Inlet Process Unit were inspected between 11/20/13 and 11/22/13.	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	112866	122529	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	116303	122295	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	112971	122323	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	114269	122324	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	115711	122296	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	116213	122325	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	114484	122530	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	111427	122326	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	115808	122329	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	114806	122334	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	114191	122330	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	114317	122331	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	111504	121920	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	111793	122337	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	112004	122339	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	115673	122532	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	113891	122533	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	114164	122534	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	112071	122535	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	114058	122327	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	115667	122333	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	112296	122332	VALVE
	EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	113865	121919	VALVE
EPA60-0000	25-Oct-13	14-Dec-13	Ignacio - INLET	115497	122338	VALVE	
EPA60-0000	23-Oct-13	15-Dec-13	Ignacio - INLET	115897	122293	VALVE	
EPA60-0000	23-Oct-13	15-Dec-13	Ignacio - INLET	116379	122291	VALVE	
EPA60-0000	23-Oct-13	15-Dec-13	Ignacio - INLET	113500	122292	VALVE	
Per Four Corners, no information found for these components between April - May 2014.	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115360	122516	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112285	122517	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112897	122518	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113743	122541	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115274	122544	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114805	122556	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113665	122559	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115050	122561	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112006	122564	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114023	122567	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115082	122569	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113305	122575	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115641	122579	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	116148	122576	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114537	122578	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114111	122571	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111723	122582	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112540	122585	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115070	123459	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114623	123451	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113277	123452	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111772	123416	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112700	123414	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111881	123461	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	116164	123389	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114941	123388	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112947	123387	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111995	123398	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112311	123392	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	116113	123393	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	116051	123394	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115550	123395	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115835	123402	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112508	123404	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	116281	123372	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114337	123378	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	111998	123379	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114596	123380	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111618	123408	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115649	123409	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114409	123419	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113510	123421	VALVE
EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112425	123429	VALVE	
EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113087	123430	VALVE	
EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112266	123425	VALVE	

Attachment A Table 4							
Response	Regulation Description	Date Added	First Inspection Date	Unit Description	Component ID	Component Tag	Component Class
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115044	123424	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112018	123435	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115372	123431	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	116018	123433	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112145	123432	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115724	123437	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	111583	123426	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	116172	123448	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113443	123446	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114252	123445	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114398	123444	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114524	123443	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	111810	123442	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113136	123441	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	116475	123440	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111822	123463	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112546	123464	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112831	123473	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113795	123474	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112237	123469	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115991	123471	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113874	123480	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112172	123488	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112733	123486	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115951	123496	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113782	123495	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114752	123492	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115708	123493	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115968	123497	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	116526	123484	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113635	123477	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114400	123498	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115105	123499	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114681	123501	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112782	123503	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113035	123504	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112896	123505	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115332	123507	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112821	123508	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114291	123509	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114429	123511	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114898	123512	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115204	123412	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112568	123369	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114080	123367	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113075	122515	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113640	122519	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115985	122520	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113329	122539	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114710	122548	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113596	122543	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114774	122550	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114350	122551	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114345	122555	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113008	122557	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113843	122558	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114457	122560	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	116217	122562	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	116534	122563	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112915	122565	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	116510	122566	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113731	122568	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111573	122580	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113359	122577	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112515	122574	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114100	122572	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113254	123396	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	114200	122584	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111394	122586	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115494	123453	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112819	123454	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113108	123458	VALVE

Attachment A Table 4

Response	Regulation Description	Date Added	First Inspection Date	Unit Description	Component ID	Component Tag	Component Class
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113651	123415	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112723	123403	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113191	123460	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115549	123390	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	116143	123386	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115664	123397	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112307	123391	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	116016	123400	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114764	123401	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114808	123374	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112779	123373	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112812	123382	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112254	123410	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115785	123411	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113459	123420	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	116334	123422	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	116134	123427	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115704	123428	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115419	123436	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	115640	123434	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112238	123447	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111959	123465	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113880	123462	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113816	123467	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115325	123468	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113145	123470	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	112561	123472	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	116350	123491	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114333	123489	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113939	123490	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113848	123487	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	113503	123485	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114495	123494	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	111589	123476	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115725	123475	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	115033	123500	VALVE
	EPA60-0000/63-HH	28-Apr-14	30-May-14	Ignacio - INLET	114945	123502	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	111385	123506	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	116036	123413	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113433	123405	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112008	123406	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	113232	123370	VALVE
	EPA60-0000	28-Apr-14	30-May-14	Ignacio - INLET	112548	123368	VALVE



Attachment A Table 5

Response	Date Added	Added Month Monitored	Next Month Monitored	2nd Month Monitored	Unit Description	Component ID	Component Tag	Component Class	Location Description
Per Four Corners, no information found for these components between July 2013 and September 2013.	25-Jun-13	6/29/2013 - 3 ppm			Ignacio - INLET	116252	121740	VALVE	W SIDE OF SLUG CATCHER ABOVE FINGERS 00/10
	29-Jun-13	6/29/2013 - 3 ppm			Ignacio - INLET	116196	121726	VALVE	W SIDE OF SLUG CATCHER AT 5/G 00/01
	30-Jun-13	6/30/2013 - 8 ppm			Ignacio - INLET	115442	122353	VALVE	S OF INLET COMPRESSOR BUILDING 10FT SW OF Y56051 SUCTION SCRUBBER OH 00/15
	30-Jun-13	6/30/2013 - 2882 ppm			Ignacio - INLET	114646	122378	VALVE	S OF INLET COMPRESSOR BUILDING 10FT SW OF AC6054 TURBINE GAS COOLER 00/15
	30-Jun-13	6/30/2013 - 412 ppm			Ignacio - INLET	114854	122328	VALVE	S OF INLET COMPRESSOR BUILDING 10FT SW OF AC6054 TURBINE GAS COOLER 00/15
	30-Jun-13	6/30/2013 - 5 ppm			Ignacio - INLET	112955	122121	VALVE	W SIDE OF SLUG CATCHER AT 5/G 00/01
	30-Jun-13	6/29/2013 - 3 ppm			Ignacio - INLET	111688	122171	VALVE	S OF INLET COMPRESSOR BUILDING 10FT S OF AC6054 TURBINE GAS COOLER 00/15
	30-Jun-13	6/29/2013 - 9 ppm			Ignacio - INLET	114945	122326	VALVE	E SIDE OF INLET GAS CHILLER HEEL16 00/06
	25-Mar-14	3/28/2014 - 3 ppm		5/29/2014 - 2.15 ppm	Ignacio - TXP	113378	123654	VALVE	E SIDE OF INLET GAS CHILLER HEEL16 00/06
	25-Mar-14	3/28/2014 - 3 ppm		5/29/2014 - 7.58 ppm	Ignacio - TXP	113641	123664	VALVE	E SIDE OF INLET GAS CHILLER HEEL16 00/06
25-Mar-14	3/28/2014 - 3 ppm		5/29/2014 - 4.23 ppm	Ignacio - TXP	116375	123662	VALVE	E SIDE OF INLET GAS CHILLER HEEL16 00/06	
This component was monitored in 11/2013, was TOOS 12/2014 through 3/2014, and monitored in 5/2014. It should have been monitored in 4/2014.	25-Oct-13		11/24/2013 - 59 ppm		Ignacio - INLET	115935	121909	VALVE	INLET COMPRESSOR BUILDING ON N SIDE OF INLET TURBINE CG9901 01/04
	23-Oct-13		12/15/2013 - 2 ppm		Ignacio - INLET	115897	122293	VALVE	30 YRDS NW OF INLET COMPRESSOR BUILDING UP LADDER ON PLATFORM 01/03
	25-Oct-13		12/14/2013 - 3 ppm		Ignacio - INLET	112866	122529	VALVE	20 YRDS N OF C-TRUNK INLET SCRUBBER IN P/R 00/04
	25-Oct-13		12/14/2013 - 20 ppm		Ignacio - INLET	116303	122295	VALVE	80 YRDS NW OF INLET COMPRESSOR BUILDING ON SOUTH SIDE OF BRIDGE 00/03
	25-Oct-13		12/14/2013 - 3 ppm		Ignacio - INLET	112971	122323	VALVE	N SIDE OF PLANT 5 YRDS NW OF B PLANT INLET SCRUBBER 00/04
	25-Oct-13		12/14/2013 - 5 ppm		Ignacio - INLET	114269	122324	VALVE	N SIDE OF PLANT 5 YRDS NW OF B PLANT INLET SCRUBBER 00/04
	25-Oct-13		12/14/2013 - 2 ppm		Ignacio - INLET	115673	122632	VALVE	30 YRDS N OF INLET GAS COOLERS IN P/R 00/04
	25-Oct-13		12/14/2013 - 2 ppm		Ignacio - INLET	113891	122633	VALVE	30 YRDS N OF INLET GAS COOLERS IN P/R 00/04
	25-Oct-13		12/14/2013 - 2 ppm		Ignacio - INLET	114164	122634	VALVE	30 YRDS N OF INLET GAS COOLERS IN P/R 00/04
	25-Oct-13		12/14/2013 - 2 ppm		Ignacio - INLET	113071	122635	VALVE	30 YRDS N OF INLET GAS COOLERS IN P/R 00/04
Four Corners indicated these components were TOOS. However, other components in the Inlet Process Unit were inspected between 11/20/13 and 11/22/13.	25-Oct-13		12/14/2013 - 85 ppm		Ignacio - INLET	116058	122327	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING 00/04
	25-Oct-13		12/14/2013 - 5 ppm		Ignacio - INLET	116607	122333	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING AND DANIELS METER 00/04
	25-Oct-13		12/14/2013 - 3 ppm		Ignacio - INLET	117296	122332	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING AND DANIELS METER 00/04
	25-Oct-13		12/14/2013 - 4 ppm		Ignacio - INLET	113865	122019	VALVE	INLET COMPRESSOR BUILDING ON N SIDE OF INLET TURBINE CG9901 01/04
	25-Oct-13		12/14/2013 - 3 ppm		Ignacio - INLET	115497	122338	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING AND DANIELS METER 00/04
	25-Oct-13		12/14/2013 - 10 ppm		Ignacio - INLET	115711	122296	VALVE	80 YRDS NW OF INLET COMPRESSOR BUILDING ON SOUTH SIDE OF BRIDGE 00/03
	25-Oct-13		12/14/2013 - 3 ppm		Ignacio - INLET	116213	122325	VALVE	N SIDE OF PLANT 5 YRDS NW OF B PLANT INLET SCRUBBER 00/04
	23-Oct-13		12/15/2013 - 2 ppm		Ignacio - INLET	116379	122291	VALVE	30 YRDS NW OF INLET COMPRESSOR BUILDING UP LADDER ON PLATFORM 01/03
	23-Oct-13		12/14/2013 - 3 ppm		Ignacio - INLET	113500	122292	VALVE	30 YRDS NW OF INLET COMPRESSOR BUILDING UP LADDER ON PLATFORM 01/03
	25-Oct-13		12/14/2013 - 3 ppm		Ignacio - INLET	114484	122530	VALVE	10 YRDS N OF EAST GLYCOL CONTACTOR IN P/R BY BACK BRIDGE 00/03
25-Oct-13		12/14/2013 - 57 ppm		Ignacio - INLET	111427	122326	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING 00/06	
25-Oct-13		12/14/2013 - 6 ppm		Ignacio - INLET	115808	122329	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING AND DANIELS METER 00/04	
25-Oct-13		12/14/2013 - 3 ppm		Ignacio - INLET	114191	122330	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING AND DANIELS METER 00/04	
25-Oct-13		12/14/2013 - 4 ppm		Ignacio - INLET	114317	122331	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING AND DANIELS METER 00/04	
25-Oct-13		12/14/2013 - 12 ppm		Ignacio - INLET	111504	121920	VALVE	INLET COMPRESSOR BUILDING ON N SIDE OF INLET TURBINE CG9901 01/04	
25-Oct-13		12/14/2013 - 2 ppm		Ignacio - INLET	111793	122337	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING AND DANIELS METER 00/04	
25-Oct-13		12/14/2013 - 10 ppm		Ignacio - INLET	112004	122339	VALVE	5 YRDS S OF C-TRUNK DEHY ON INLET PIPING AND DANIELS METER 00/04	

Attachment A - Table 6

Response	Class Description	Process Unit ID	Unit Description	2013 4	2014 1	2014 2
No information found for missed events in 2014Q2.	PUMP	10186	Ignacio - Storage and Loading			10 missed
No information found for missed events in 2014Q2. Tag 12137 was a valve before the April 2015 re-inventory.	PUMP	10190	Ignacio - INLET			3 missed
Tag 124067 was a valve before the April 2015 re-inventory. No information found for missed events in 2014Q2.	PUMP	10191	Ignacio - TXP			6 missed
No information was found for tags 121740 and 122221.	VALVE	10190	Ignacio - INLET	3 missed		

Attachment A - Table 7

## Storage and Loading

Per database from 3/2017

		Counts added in 1st qtr 2012	Counts added in 10/2014	Counts added in 4/2015
<b>Connectors/Flanges</b>		0	6	31
<b>PRV's</b>		2	3	32
<b>Pumps</b>		2	2	3
<b>Valves</b>	≤1"	38	62	372
	1.5-2"	18	10	111
	3"	1	10	34
	4"	6	18	20
	6"	6	7	52
	8"	2	0	4
	10"	0	0	0
<b>Total</b>		75	118	659

## TXP

Per database from 3/2017

		Counts added in 8/2012	Counts added on 4/1/15
<b>Connectors/Flanges</b>			23
<b>PRV's</b>			3
<b>Pumps</b>		1	2
<b>Valves</b>	≤1"	4	122
	1.5-2"		20
	3"		8
	4"	2	4
	6"	1	6
	8"		2
	10"		4
<b>Total</b>		8	194



<b>Attachment A - Table 8</b>			
<b>Storage and Loading</b>			
Per database from 3/2017			
	Counts added to database in 1st qtr 2012	Counts added to database in 4th qtr 2014	Counts added to database in 4/2015
<b>PRVs</b>	2	3	32
<b>Pumps</b>	2	2	3
<b>Valves</b>	71	107	593
<b>Total</b>	75	112	628

<b>TXP</b>		
Per database from 3/2017		
	Counts added to database in 8/2012	Counts added to database in 4/2015
	0	0
<b>PRV</b>	0	3
<b>Pumps</b>	1	2
<b>Valves</b>	7	166
<b>Total</b>	8	171

Attachment A - Table 9  
 On 8/25/14 Four Corners reported that they had a potential non-compliance because it missed MACT HH LDAR requirements at the Ignacio Gas Plant. Based on the January 21, 2015 semiannual report, Four Corners added, and changed the classification, of the following components to MACT HH

Process Unit	Component Type	Added	From KKK to HH	Total
INGAS	Valve	49	292	341
YTRG	Valve	141	78	219
	Pump	3	4	7
Total Components		193	374	567

Attachment A - Table 10				
Tag Name	FI82030.PV	FI82030A.PV	FIC8197.PV	
Units	LB/HR		LB/HR*	LB/LB*
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	FLARE STEAM FLOW	FLARE STM/HC RATIO
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	FIC8197.PV - Average	
1/16/2012 21:00	173.99	25.93	500.0	2.874
1/16/2012	172.67	26.36	500.0	2.896
4/3/2012 2:00	145.78	48.92	500.0	3.430
4/3/2012 3:00	172.04	52.3	500.0	2.906
4/3/2012 4:00	155.06	52.29	500.0	3.225
4/3/2012 5:00	174.49	52.1	500.0	2.865
4/3/2012 6:00	173.25	52.14	500.0	2.886
4/3/2012	21.36	18.02	500.0	23.408
4/4/2012 5:00	9.67	33.72	500.0	51.706
4/4/2012 6:00	74.47	36.36	500.0	6.714
4/4/2012 8:00	152.68	25.95	500.0	3.275
4/4/2012 13:00	172.5	20.77	500.0	2.899
4/4/2012 14:00	122.85	22.88	500.0	4.070
4/4/2012 15:00	149.5	24.35	500.0	3.344
4/4/2012 16:00	18.68	19.86	500.0	26.767
4/4/2012 18:00	39.78	18.71	500.0	12.569
4/4/2012 21:00	77.26	34.72	500.0	6.472
4/4/2012	93.28	32.44	500.0	5.360
4/4/2012 23:00	52.99	31.23	500.0	9.436
4/5/2012 8:00	177.6	21.67	500.0	2.815
5/19/2012 11:00	123.8	28.24	500.0	4.039
5/19/2012 12:00	28.47	38.21	500.0	17.562
5/19/2012 14:00	177.91	34.73	500.0	2.810
5/19/2012 16:00	102.73	33.25	500.0	4.867
5/19/2012 18:00	148.04	23.45	500.0	3.377
1/3/2013 17:00	169.41	20.72	500.0	2.951
1/3/2013 18:00	148.96	20.79	500.0	3.357
1/3/2013 19:00	165.31	20.82	500.0	3.025
1/3/2013 20:00	163.6	20.82	500.0	3.056
1/3/2013 21:00	147.15	20.96	500.0	3.398
1/3/2013	142.7	21.05	500.0	3.504
1/3/2013 23:00	142.91	21.31	500.0	3.499
1/5/2013 3:00	158	21.89	500.0	3.165
1/5/2013 4:00	149.85	22.85	500.0	3.337
1/5/2013 5:00	150.67	21.94	500.0	3.319
1/5/2013 15:00	174.49	22.24	500.0	2.865
1/5/2013 17:00	140.79	22.03	500.0	3.551
1/5/2013 18:00	134.92	21.61	500.0	3.706
1/5/2013 19:00	137.21	21.64	500.0	3.644
1/5/2013 20:00	137.28	21.62	500.0	3.642
1/5/2013 21:00	139.13	21.53	500.0	3.594
1/5/2013	133.03	21.47	500.0	3.759
1/5/2013 23:00	148.02	21.24	500.0	3.378
1/6/2013 0:00	141.03	21.2	500.0	3.545
1/6/2013 1:00	148.62	21.44	500.0	3.364
1/6/2013 2:00	141.82	21.45	500.0	3.526
1/6/2013 3:00	137.95	21.53	500.0	3.625
1/6/2013 4:00	147.3	21.34	500.0	3.394
1/6/2013 5:00	142.49	21.52	500.0	3.509
1/6/2013 6:00	133.16	21.51	500.0	3.755
1/6/2013 7:00	149.32	21.39	500.0	3.349
1/6/2013 8:00	139.99	21.46	500.0	3.572

Attachment A - Table 10				
Tag Name	FI82030.PV	FI82030A.PV	FIC8197.PV	
Units	LB/HR		LB/HR*	LB/LB*
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	FLARE STEAM FLOW	FLARE STM/HC RATIO
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	FIC8197.PV - Average	
1/6/2013 9:00	159.02	22.02	500.0	3.144
1/6/2013 10:00	178.83	22.02	500.0	2.796
1/6/2013 13:00	104.67	18.8	500.0	4.777
1/6/2013 14:00	129.36	21.62	500.0	3.865
1/6/2013 17:00	172.45	22.92	500.0	2.899
1/6/2013 18:00	151.63	21.87	500.0	3.298
1/6/2013 19:00	155.32	21.42	500.0	3.219
1/6/2013 20:00	149.35	21.3	500.0	3.348
1/6/2013 21:00	155.41	21.16	500.0	3.217
1/6/2013	158.1	21.19	500.0	3.163
1/6/2013 23:00	172.04	21.74	500.0	2.906
1/7/2013 1:00	161.63	20.96	500.0	3.093
1/7/2013 2:00	168.99	21.07	500.0	2.959
1/7/2013 3:00	175.21	21.17	500.0	2.854
1/7/2013 4:00	177.23	21.25	500.0	2.821
1/7/2013 14:00	153.01	21.76	500.0	3.268
1/7/2013 15:00	148.13	21.85	500.0	3.375
1/7/2013 17:00	165.88	21.64	500.0	3.014
1/7/2013 21:00	171.45	21.38	500.0	2.916
1/7/2013	169.29	21.17	500.0	2.954
1/7/2013 23:00	170.72	21.02	500.0	2.929
1/8/2013 0:00	149.11	20.68	500.0	3.353
1/8/2013 3:00	173.02	21.61	500.0	2.890
1/8/2013 4:00	162.51	21.11	500.0	3.077
1/8/2013 5:00	165.82	21.09	500.0	3.015
1/8/2013 7:00	162.48	21.38	500.0	3.077
1/8/2013 8:00	168.37	21.17	500.0	2.970
1/8/2013 9:00	176.42	21.1	500.0	2.834
1/8/2013 13:00	141.24	20.82	500.0	3.540
1/9/2013 17:00	178.69	22.96	500.0	2.798
1/9/2013 18:00	174.96	22.66	500.0	2.858
1/10/2013 14:00	173.06	23.14	500.0	2.889
1/11/2013 21:00	169.29	26.57	500.0	2.954
1/11/2013	144.37	24.53	500.0	3.463
1/12/2013 0:00	132.52	22.68	500.0	3.773
1/12/2013 1:00	129.83	22.66	500.0	3.851
1/12/2013 2:00	128.8	22.42	500.0	3.882
1/12/2013 3:00	113.89	22.28	500.0	4.390
1/12/2013 4:00	109.32	22.7	500.0	4.574
1/12/2013 5:00	126.34	23.02	500.0	3.958
1/12/2013 6:00	147.72	23.93	500.0	3.385
1/12/2013 7:00	138.56	26.81	500.0	3.609
1/12/2013 8:00	126.36	26.67	500.0	3.957
1/12/2013 9:00	98.01	25.84	500.0	5.102
1/12/2013 10:00	94.67	25.47	500.0	5.282
1/12/2013 12:00	147.05	26.09	500.0	3.400
1/12/2013 13:00	172.2	26.1	500.0	2.904
1/12/2013 14:00	157.98	25.73	500.0	3.165
1/12/2013 15:00	157.88	25.65	500.0	3.167
1/12/2013 16:00	119.17	25.25	500.0	4.196
1/12/2013 17:00	91.08	25.03	500.0	5.490
1/12/2013 18:00	88.25	25.02	500.0	5.666



Attachment A - Table 10				
Tag Name	FI82030.PV	FI82030A.PV	FIC8197.PV	
Units	LB/HR		LB/HR*	LB/LB*
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	FLARE STEAM FLOW	FLARE STM/HC RATIO
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	FIC8197.PV - Average	
1/12/2013 19:00	99.01	24.26	500.0	5.050
1/12/2013 20:00	89.18	24.12	500.0	5.607
1/12/2013 21:00	86.09	23.89	500.0	5.808
1/12/2013	91.26	24.04	500.0	5.479
1/12/2013 23:00	94.69	23.73	500.0	5.280
1/13/2013 0:00	94.16	23.23	500.0	5.310
1/13/2013 2:00	105.58	22.58	500.0	4.736
1/13/2013 3:00	131.57	22.93	500.0	3.800
1/13/2013 4:00	116.02	22.86	500.0	4.310
1/13/2013 5:00	109.63	22.38	500.0	4.561
1/13/2013 7:00	153.01	23.05	500.0	3.268
1/13/2013 8:00	119.54	22.56	500.0	4.183
1/13/2013 9:00	122.33	22.73	500.0	4.087
1/13/2013 10:00	122.81	22.61	500.0	4.071
1/13/2013 11:00	139.29	22.88	500.0	3.590
1/13/2013 12:00	148.38	23.83	500.0	3.370
1/13/2013 13:00	128.84	24.69	500.0	3.881
1/13/2013 14:00	152.33	24.54	500.0	3.282
1/13/2013 15:00	156.05	24.83	500.0	3.204
1/13/2013 16:00	168.29	24.4	500.0	2.971
1/13/2013 17:00	156.43	23.54	500.0	3.196
1/13/2013 19:00	172.16	24.32	500.0	2.904
1/13/2013 20:00	150.34	23.55	500.0	3.326
1/13/2013 23:00	167.53	22.94	500.0	2.985
1/14/2013 0:00	168.83	22.58	500.0	2.962
1/14/2013 1:00	172.55	22.39	500.0	2.898
1/14/2013 10:00	174.74	24.47	500.0	2.861
1/14/2013 11:00	153.58	24.44	500.0	3.256
1/15/2013 3:00	173.8	20.89	500.0	2.877
1/15/2013 4:00	165.42	21.29	500.0	3.023
1/15/2013 5:00	172.21	21.4	500.0	2.903
1/15/2013 6:00	163.57	21.39	500.0	3.057
1/15/2013 11:00	174.11	22.74	500.0	2.872
1/15/2013 17:00	166.47	23.65	500.0	3.004
1/15/2013 18:00	135.11	22.91	500.0	3.701
1/15/2013 19:00	130.95	22.94	500.0	3.818
1/15/2013 20:00	132.6	23.14	500.0	3.771
1/15/2013 21:00	133.57	22.91	500.0	3.743
1/15/2013	135.26	22.6	500.0	3.697
1/15/2013 23:00	140.21	22.38	500.0	3.566
1/16/2013 0:00	138.96	22.41	500.0	3.598
1/16/2013 1:00	137.72	22.49	500.0	3.631
1/16/2013 2:00	125.76	21.97	500.0	3.976
1/16/2013 3:00	134.41	21.8	500.0	3.720
1/16/2013 4:00	137.84	21.79	500.0	3.627
1/16/2013 5:00	137.75	21.77	500.0	3.630
1/16/2013 7:00	177.55	21.12	500.0	2.816
1/17/2013 0:00	176.88	22.63	500.0	2.827
1/17/2013 13:00	160.68	23.13	500.0	3.112
1/17/2013 15:00	177.42	23.64	500.0	2.818
5/20/2013 21:00	0.28	53.19	500.0	1785.714
5/21/2013 2:00	47.17	48.27	500.0	10.600

Attachment A - Table 10				
Tag Name	FI82030.PV	FI82030A.PV	FIC8197.PV	
Units	LB/HR		LB/HR*	LB/LB*
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	FLARE STEAM FLOW	FLARE STM/HC RATIO
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	FIC8197.PV - Average	
5/21/2013 3:00	131.03	45.53	500.0	3.816
5/21/2013 4:00	116.2	41.94	500.0	4.303
5/21/2013 5:00	63.78	39.97	500.0	7.839
5/21/2013 6:00	8.93	39.04	500.0	55.991
5/21/2013 9:00	14.83	39.85	500.0	33.715
5/21/2013 10:00	15.25	40.42	500.0	32.787
5/21/2013 11:00	16.94	40.32	500.0	29.516
5/21/2013 12:00	20.06	41.09	500.0	24.925
5/21/2013 13:00	7.78	42.54	500.0	64.267
5/21/2013 14:00	36.38	44.03	500.0	13.744
5/21/2013 15:00	10.53	44.19	500.0	47.483
5/21/2013 16:00	11.74	43.86	500.0	42.589
5/21/2013 17:00	38.69	44.31	500.0	12.923
5/21/2013 18:00	49.07	44.6	500.0	10.190
5/21/2013 19:00	30.48	45.21	500.0	16.404
5/21/2013 20:00	15.65	45.67	500.0	31.949
5/21/2013 21:00	4.42	46.84	500.0	113.122
5/21/2013	0.28	46.02	500.0	1785.714
5/22/2013 0:00	0.28	44.9	500.0	1785.714
5/22/2013 1:00	0.56	44.08	500.0	892.857
5/22/2013 6:00	0.56	40.58	500.0	892.857
5/22/2013 8:00	11.62	39.78	500.0	43.029
5/22/2013 9:00	20.85	39.06	500.0	23.981
5/22/2013 13:00	171.77	42.47	500.0	2.911
5/22/2013 14:00	153.37	40.39	500.0	3.260
5/22/2013 17:00	156.42	38.6	500.0	3.197
5/22/2013 18:00	120.25	39.86	500.0	4.158
5/22/2013 19:00	120.25	39.98	500.0	4.158
5/22/2013 20:00	108.05	40.12	500.0	4.627
5/22/2013 21:00	98.94	40.25	500.0	5.054
5/22/2013	117.33	40.68	500.0	4.261
5/22/2013 23:00	118.23	40.4	500.0	4.229
5/23/2013 0:00	100.22	39.78	500.0	4.989
5/23/2013 1:00	69.71	38.69	500.0	7.173
5/23/2013 2:00	74.8	37.13	500.0	6.684
5/23/2013 3:00	88.47	36.77	500.0	5.652
5/23/2013 4:00	98.8	36.46	500.0	5.061
5/23/2013 5:00	77.6	36.17	500.0	6.443
5/20/2014 13:00	123.38	47.4	453.7	3.677
5/20/2014 14:00	165.65	50.63	471.7	2.847
5/20/2014 15:00	169.41	51.89	489.7	2.890
5/20/2014 16:00	125.6	51.55	507.7	4.042
5/20/2014 17:00	119.69	51.3	525.7	4.392
5/20/2014 18:00	124.46	51.31	543.7	4.368
5/20/2014 19:00	198.36	50.76	561.7	2.832
5/21/2014 1:00	212.88	41.05	669.7	3.146
5/21/2014 2:00	49.29	41.38	687.7	13.953
5/21/2014 3:00	125.81	41.73	705.7	5.609
5/21/2014 6:00	147.4	38.09	759.7	5.154
5/21/2014 7:00	80.17	38.63	777.7	9.701
5/21/2014 8:00	54.18	39.43	795.8	14.687
5/21/2014 9:00	29.04	40.89	813.8	28.022



Attachment A - Table 10				
Tag Name	FI82030.PV	FI82030A.PV	FIC8197.PV	
Units	LB/HR		LB/HR*	LB/LB*
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	FLARE STEAM FLOW	FLARE STM/HC RATIO
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	FIC8197.PV - Average	
5/21/2014 10:00	24.25	42.84	831.8	34.299
5/21/2014 11:00	175.7	44.31	849.8	4.836
5/21/2014 12:00	169.41	41.55	867.8	5.122
5/21/2014 13:00	129.48	42.16	885.8	6.841
5/21/2014 14:00	283.04	41.1	903.8	3.193
5/21/2014 15:00	125.53	40.51	921.8	7.343
5/21/2014 16:00	124.05	39.74	939.8	7.576
5/21/2014 17:00	122.47	39.82	957.8	7.821
5/21/2014 18:00	95.56	39.77	975.8	10.211
5/21/2014 19:00	75.91	39.65	993.8	13.092
5/21/2014 20:00	105.97	39.41	1011.8	9.548
5/21/2014 21:00	124.3	39.39	1029.8	8.285
5/21/2014	192.69	41.27	1047.8	5.438
12/27/2014 0:00	504.54	22.11	1620.9	3.213
12/28/2014 9:00	580.67	24.6	3088.6	5.319
4/3/2015 15:00	156.63	23.93	552.5	3.528
6/10/2015 15:00	89.8	45.95	473.0	5.267
6/10/2015 16:00	164.26	41.56	883.5	5.378
6/10/2015 17:00	254.32	46.16	1294.0	5.088
6/10/2015 18:00	238.49	44.53	1292.8	5.421
6/10/2015 20:00	127.31	27.86	484.7	3.807
6/13/2015 15:00	142.38	20.09	464.4	3.262
6/13/2015 16:00	158.48	19.39	531.1	3.351
6/14/2015 17:00	122.96	19	450.9	3.667
6/14/2015 18:00	132.95	19.1	537.5	4.043
6/14/2015 20:00	173.29	18.54	580.2	3.348
6/14/2015 21:00	176.12	18.61	580.1	3.294
6/14/2015	183.27	18.98	562.7	3.070
6/14/2015 23:00	170.25	18.43	545.6	3.205
6/15/2015 0:00	167.94	18.43	564.0	3.358
6/15/2015 1:00	178.46	18.36	564.0	3.160
6/15/2015 2:00	170.89	18.29	575.6	3.368
6/15/2015 3:00	184.77	18.59	556.9	3.014
6/15/2015 4:00	161.98	18.32	496.0	3.062
6/15/2015 5:00	158.32	18.34	532.5	3.364
6/15/2015 6:00	161.93	18.39	560.7	3.462
6/15/2015 7:00	177.02	18.56	501.7	2.834
6/15/2015 12:00	152.37	20.62	432.8	2.840
6/15/2015 21:00	119.42	20.23	480.0	4.020
6/15/2015	154.36	20.28	441.8	2.862
6/16/2015 0:00	164.96	19.61	485.9	2.946
6/16/2015 1:00	168.92	19.14	515.8	3.053
6/16/2015 2:00	171.84	19.67	518.9	3.019
6/16/2015 3:00	186.34	18.84	528.0	2.833
7/30/2015 13:00	203.63	19.6	574.8	2.823
7/30/2015 15:00	175.44	19.19	552.3	3.148
7/30/2015 16:00	192.78	19.17	556.8	2.888
7/30/2015 17:00	180.35	19.66	567.7	3.148
8/6/2015 7:00	191.17	25.94	575.7	3.012
8/7/2015 5:00	193.03	25.98	547.4	2.836
8/8/2015 5:00	174.57	27.79	575.4	3.296
8/8/2015 6:00	140.66	27.98	565.6	4.021

Attachment A - Table 10				
Tag Name	FI82030.PV	FI82030A.PV	FIC8197.PV	
Units	LB/HR		LB/HR*	LB/LB*
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	FLARE STEAM FLOW	FLARE STM/HC RATIO
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	FIC8197.PV - Average	
8/8/2015 7:00	138.49	27.66	567.9	4.100
8/18/2015 6:00	196.65	26	570.8	2.903
8/18/2015 7:00	157.48	26.73	570.7	3.624
8/28/2015 8:00	190.89	25.36	554.5	2.905
9/10/2015 4:00	169.69	24.8	570.0	3.359
9/12/2015 3:00	194.81	25.5	567.7	2.914
9/12/2015 5:00	207.17	25.2	586.5	2.831
9/20/2015 3:00	199.28	25.41	613.8	3.080
9/25/2015 5:00	181.98	25.75	594.5	3.267
9/26/2015 7:00	193.51	26.27	605.9	3.131
10/7/2015 0:00	203.51	24.37	598.6	2.941
10/7/2015 1:00	199.62	24.9	602.9	3.020
10/7/2015 2:00	183.35	24.98	614.3	3.350
10/7/2015 3:00	201.05	24.62	612.5	3.046
10/7/2015 5:00	207.8	24.94	609.2	2.932
10/7/2015 6:00	184.14	24.66	608.0	3.302
10/7/2015 8:00	215.25	24.76	611.6	2.841
10/8/2015 1:00	202.83	25.04	614.8	3.031
10/8/2015 7:00	195.38	24.9	648.3	3.318
10/8/2015 8:00	206.54	25.17	646.0	3.127
12/28/2015 7:00	924.23	20.32	5257.0	5.688
1/24/2016 13:00	201.83	21.69	569.1	2.819
2/18/2016 11:00	199.36	23.37	558.2	2.800
2/23/2016 16:00	185.12	23.71	550.8	2.976
3/1/2016 2:00	187	24.79	532.7	2.849
3/1/2016 3:00	180.97	25.22	524.0	2.896
3/12/2016 3:00	186.57	25.3	540.4	2.897
3/12/2016 11:00	165.05	27.47	536.2	3.249
3/12/2016 13:00	153.3	25.57	566.4	3.694
3/12/2016 19:00	167.97	25.69	516.5	3.075
3/12/2016	184	27.74	548.9	2.983
3/12/2016 23:00	156.01	25.44	531.1	3.404
3/13/2016 17:00	154.41	26.11	464.7	3.009
3/14/2016 18:00	144.41	27.75	483.8	3.350
3/15/2016 1:00	175.28	27.07	539.9	3.080
3/15/2016 2:00	185.5	25.94	540.8	2.915
3/15/2016 3:00	169.14	25.84	527.0	3.116
3/15/2016 6:00	181.38	25.73	563.3	3.106
3/15/2016 8:00	206.66	27.36	597.0	2.889
3/15/2016 9:00	199.57	25.12	590.5	2.959
3/15/2016 14:00	186.96	26.81	566.0	3.027
3/15/2016 18:00	173.18	26.07	555.4	3.207
3/15/2016 19:00	176.93	25.59	542.5	3.066
3/15/2016 21:00	176.18	26.04	537.9	3.053
3/17/2016 13:00	165.08	26.45	479.2	2.903
3/17/2016 15:00	167.74	26.71	477.0	2.844
3/17/2016 21:00	166.35	25.33	506.9	3.047
3/17/2016	170.49	25.56	485.3	2.846
3/18/2016 20:00	173.51	28.01	502.0	2.893
3/18/2016 23:00	160.49	25.65	485.7	3.026
3/19/2016 2:00	162.63	25.01	478.1	2.940
3/19/2016 20:00	156.31	25.52	484.9	3.102

Attachment A - Table 10				
Tag Name	FI82030.PV	FI82030A.PV	FIC8197.PV	
Units	LB/HR		LB/HR*	LB/LB*
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	FLARE STEAM FLOW	FLARE STM/HC RATIO
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	FIC8197.PV - Average	
3/19/2016	149.73	26.5	511.6	3.417
3/19/2016 23:00	147.82	25.34	522.0	3.531
3/20/2016 1:00	142.57	25.09	528.0	3.703
3/20/2016 4:00	166.25	24.8	517.6	3.113
3/22/2016 1:00	160.62	26.37	490.7	3.055
3/22/2016 3:00	177	26.6	500.4	2.827
3/22/2016 4:00	159.12	26.09	489.4	3.076
3/22/2016 6:00	164.84	26.05	487.8	2.959
3/22/2016 13:00	126.92	26.96	468.5	3.691
3/22/2016 15:00	128.58	26.66	487.7	3.793
3/22/2016 16:00	138.02	26.99	479.7	3.475
3/22/2016 17:00	161.25	27.29	480.6	2.980
3/22/2016 18:00	138.95	26.95	483.8	3.481
3/22/2016 19:00	127.17	26.65	492.5	3.872
3/22/2016	148.03	25.74	568.1	3.838
3/23/2016 1:00	174.73	26.29	531.0	3.039
3/23/2016 3:00	196.08	25.91	554.0	2.825
3/23/2016 6:00	190.11	25.52	590.2	3.105
3/23/2016 18:00	188.44	27.19	527.8	2.801
3/23/2016 20:00	170.72	26.08	537.7	3.150
3/24/2016 16:00	164.68	25.76	479.5	2.912
3/24/2016 17:00	161.19	25.81	478.3	2.967
3/24/2016 18:00	172.02	26.39	483.9	2.813
3/24/2016 20:00	168.25	26.08	539.4	3.206
3/24/2016	159.25	25.91	494.6	3.106
3/25/2016 19:00	174.47	25.87	551.4	3.161
3/26/2016 0:00	187.73	25.38	577.2	3.074
3/26/2016 1:00	182.4	24.92	577.9	3.168
3/27/2016 15:00	170.97	26.88	499.5	2.922
3/28/2016 1:00	169.42	25.6	539.2	3.182
3/29/2016 0:00	178.62	26	507.9	2.843
3/29/2016 1:00	163.19	26.24	527.5	3.232
3/29/2016 2:00	178.32	25.92	548.2	3.074
3/29/2016 3:00	185.45	26.09	544.7	2.937
3/29/2016 5:00	160.61	26.71	572.5	3.565
3/29/2016 6:00	177.54	26.51	568.4	3.202
3/29/2016 12:00	169.47	28.47	533.2	3.146
3/30/2016 16:00	183.55	26.54	564.0	3.073
3/30/2016 17:00	183.11	27.38	556.7	3.040
3/31/2016 13:00	145.75	27.05	490.2	3.363
3/31/2016 15:00	128.44	26.48	485.5	3.780
3/31/2016 16:00	121.78	26.45	479.3	3.936
3/31/2016 21:00	157.16	26.93	484.2	3.081
3/31/2016 23:00	180.04	25.75	550.6	3.058
4/1/2016 14:00	178.51	27.34	501.4	2.809
4/1/2016 17:00	171.76	26.81	500.4	2.913
4/1/2016 18:00	143.03	27.07	480.5	3.359
4/1/2016 20:00	134.18	24.97	495.9	3.696
4/1/2016 23:00	155.03	25.64	521.7	3.365
4/2/2016 0:00	158.06	25.6	548.3	3.469
4/2/2016 1:00	161.4	25.19	536.1	3.322
4/2/2016 2:00	156.48	25.29	530.2	3.388

Attachment A - Table 10				
Tag Name	FI82030.PV	FI82030A.PV	FIC8197.PV	
Units	LB/HR		LB/HR*	LB/LB*
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	FLARE STEAM FLOW	FLARE STM/HC RATIO
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	FIC8197.PV - Average	
4/2/2016 4:00	181.81	25.8	549.2	3.021
4/2/2016 5:00	181.54	25.8	549.9	3.029
4/2/2016 19:00	132.4	24.74	450.0	3.399
4/3/2016 2:00	161.84	25.93	506.2	3.128
4/3/2016 5:00	195.66	26.39	548.3	2.802
4/4/2016 1:00	142.31	25.87	488.9	3.435
4/4/2016 3:00	153.36	25.91	492.1	3.209
4/4/2016 20:00	115.07	25.47	445.4	3.870
4/4/2016 23:00	156.02	26.72	470.7	3.017
4/5/2016 1:00	169.09	27.17	496.4	2.936
4/5/2016 4:00	180.78	26.45	517.6	2.863
4/5/2016 15:00	188.84	28.29	542.4	2.872
4/5/2016 19:00	133.09	26.58	524.9	3.944
4/5/2016 21:00	148.36	25.89	531.3	3.581
4/5/2016 23:00	167.58	25.29	549.5	3.279
4/6/2016 19:00	119.57	27.46	384.7	3.217
4/6/2016 20:00	150.7	26.64	428.8	2.845
4/7/2016 0:00	147.39	26.35	471.3	3.198
4/7/2016 19:00	77.62	28.1	352.0	4.535
4/7/2016 21:00	150.12	28.89	448.8	2.990
4/7/2016 23:00	167.16	27.44	503.1	3.009
4/8/2016 1:00	190.02	28.01	540.2	2.843
4/8/2016 3:00	155.08	27.51	544.5	3.511
4/9/2016 0:00	129	27.36	477.3	3.700
4/9/2016 2:00	137.82	27.2	480.5	3.486
4/9/2016 5:00	137.93	27.35	503.1	3.647
4/9/2016 7:00	158.33	28.43	495.4	3.129
4/9/2016 10:00	120.42	26.98	458.0	3.803
4/9/2016 12:00	144.77	27.67	436.2	3.013
4/9/2016 13:00	130.85	28.45	432.7	3.307
4/9/2016 17:00	134.85	27.9	425.3	3.154
4/9/2016 18:00	97.53	27.69	321.5	3.296
4/9/2016 21:00	128.74	27.08	359.6	2.793
4/9/2016	121.86	26.79	420.1	3.447
4/10/2016 0:00	147.37	28.1	460.3	3.123
4/10/2016 1:00	130.56	26.68	454.4	3.481
4/10/2016 2:00	135.1	26.28	451.4	3.341
4/10/2016 5:00	138.01	27.36	480.8	3.484
4/10/2016 6:00	139.1	27.27	502.0	3.609
4/10/2016 8:00	160.78	27.75	499.1	3.104
4/10/2016 14:00	151.67	28.09	447.0	2.947
4/10/2016 17:00	145.53	29.76	432.2	2.970
4/10/2016 20:00	159.81	28.92	472.4	2.956
4/11/2016 19:00	134.11	27.73	472.4	3.523
4/15/2016 13:00	151.39	31.37	492.2	3.251
4/16/2016 19:00	175.63	27.7	547.4	3.117
4/17/2016 13:00	164.28	30.06	467.9	2.848
4/18/2016 19:00	148.88	25.22	541.6	3.638
4/18/2016 20:00	145.03	25.76	552.6	3.810
4/18/2016 21:00	153.74	25.85	521.1	3.390
4/19/2016 0:00	166.27	25.66	471.3	2.835
4/20/2016 13:00	174.18	30.01	489.3	2.809

Attachment A - Table 10				
Tag Name	FI82030.PV	FI82030A.PV	FIC8197.PV	
Units	LB/HR		LB/HR*	LB/LB*
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	FLARE STEAM FLOW	FLARE STM/HC RATIO
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	FIC8197.PV - Average	
4/20/2016 19:00	138.36	26.89	449.9	3.251
4/20/2016 20:00	130.87	27.45	462.6	3.535
5/13/2016 20:00	142.13	31.08	528.4	3.718
5/15/2016 0:00	120.42	28.61	393.2	3.265
5/15/2016 5:00	138.93	29.16	489.0	3.520
5/17/2016 15:00	709.9	13.51	2496.8	3.517
5/17/2016 16:00	377.63	44.85	2460.8	6.517
5/17/2016 17:00	278.57	43.47	2424.8	8.705
5/17/2016 18:00	287.68	43.61	2388.8	8.304
5/18/2016 6:00	685.06	37.01	1956.7	2.856
5/18/2016 8:00	655.25	36.83	1884.7	2.876
5/18/2016 9:00	610.31	37.13	1848.7	3.029
5/18/2016 10:00	566.68	37.32	1812.7	3.199
5/18/2016 11:00	617.54	33.97	1776.6	2.877
5/18/2016 12:00	499.85	34.15	1740.6	3.482
5/18/2016 13:00	497.08	34.12	1704.6	3.429
5/18/2016 14:00	454.56	33.74	1668.6	3.671
5/18/2016 15:00	426.95	34.2	1632.6	3.824
5/18/2016 16:00	425.84	34.4	1596.6	3.749
5/18/2016 17:00	390.08	34.47	1560.6	4.001
5/18/2016 20:00	387.29	18.01	1452.5	3.751
5/18/2016	381.4	17.96	1380.5	3.620
5/18/2016 23:00	372.69	17.37	1344.5	3.608
5/19/2016 0:00	442.41	18.76	1308.5	2.958
5/19/2016 3:00	184.4	19.09	1200.5	6.510
5/19/2016 4:00	185.24	18.22	1164.5	6.286
5/19/2016 5:00	186.62	18.09	1128.5	6.047
5/19/2016 6:00	186.07	18.16	1092.4	5.871
5/19/2016 7:00	184.73	18.19	1056.4	5.719
5/19/2016 8:00	191.2	18.2	1020.4	5.337
5/19/2016 9:00	249.1	22.31	984.4	3.952
5/19/2016 10:00	271.69	23.33	948.4	3.491
5/19/2016 11:00	216.76	21.06	912.4	4.209
5/19/2016 12:00	170.3	19.24	876.4	5.146
5/19/2016 13:00	172.46	19.66	840.4	4.873
5/19/2016 15:00	170.6	20.75	768.4	4.504
5/19/2016 16:00	241.08	21.72	732.3	3.038
7/1/2016 9:00	399.44	25.27	1132.7	2.836
12/10/2016 18:00	162.01	17.78	1129.8	6.974

\*Highlighted text from 1/16/2012 to 5/23/2013:  
 Estimated from 1/1/12 to 1/24/14 due to no historian data available on steam flow during this period. Calculated approximate steam/hydrocarbon ratio with correction for molecular weight for the following two years (2014-2015). Used calculated curve to estimate steam flow with min steam of 500 lb/hr and max of 7500 lb/hr.



Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
1/16/2012 9:00	831.28	18.79	982.5
2/3/2012 10:00	1915.17	18.97	991.5
2/3/2012 11:00	1917.49	18.89	987.5
2/3/2012 12:00	2063.59	18.6	973.1
2/3/2012 13:00	1891.15	18.94	990.0
3/12/2012 11:00	1830.56	19.14	999.9
3/12/2012 12:00	2150.98	18.48	967.1
3/12/2012 13:00	1606	18.9	988.0
3/12/2012 16:00	2059.62	18.38	962.1
3/12/2012 17:00	2031.57	18.34	960.1
3/12/2012 18:00	2101.54	18.28	957.1
3/12/2012 19:00	2131.62	18.34	960.1
4/3/2012 14:00	692.78	18.69	977.5
4/3/2012 15:00	274.47	18.65	975.5
4/3/2012 16:00	288.27	18.5	968.1
4/3/2012 17:00	287.39	18.06	946.2
4/3/2012 18:00	289.66	17.76	931.3
4/3/2012 19:00	287.99	18.08	947.2
4/3/2012 20:00	277.19	17.82	934.3
4/3/2012 21:00	249.05	17.88	937.3
4/3/2012	21.36	18.02	944.2
4/3/2012 23:00	0	18.53	969.6
4/4/2012 10:00	954.05	17.73	929.8
4/4/2012 11:00	869.89	17.55	920.9
4/4/2012 12:00	465.84	17.84	935.3
4/4/2012 18:00	39.78	18.71	978.5
4/6/2012 1:00	1372.71	18.87	986.5
4/17/2012 17:00	3273.49	18.96	991.0
7/19/2012 21:00	2437.49	18.44	965.1
9/5/2012 19:00	11894.21	18.08	947.2
9/27/2012 20:00	299.3	19.03	994.4
9/27/2012	282.09	18.6	973.1
9/27/2012 23:00	295.03	19	992.9
9/28/2012 0:00	277.23	18.27	956.7
9/28/2012 1:00	291.16	18.32	959.1
9/28/2012 2:00	277.58	18.6	973.1
9/28/2012 3:00	286.58	18.69	977.5
1/6/2013 13:00	104.67	18.8	983.0
1/29/2013 6:00	1239.36	18.87	986.5
1/29/2013 7:00	1620.42	18.6	973.1
9/13/2013 19:00	939.95	15.99	843.3
9/13/2013 20:00	2940.66	18.17	951.7



Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
10/15/2013 5:00	1939.82	18.42	964.1
2/9/2014 12:00	22681.59	18.27	956.7
5/22/2014 2:00	8603.37	17.92	939.3
5/22/2014 3:00	2911.97	18.72	979.0
10/21/2014 6:00	3371.7	18.97	991.5
10/21/2014 7:00	2920.44	18.25	955.7
10/21/2014 8:00	2968.15	18.2	953.2
10/21/2014 9:00	3091.05	18.19	952.7
10/21/2014 10:00	3047.92	18.16	951.2
10/21/2014 11:00	3005.74	18.13	949.7
10/21/2014 14:00	3198.04	18.39	962.6
10/21/2014 15:00	3117.34	18.33	959.6
10/21/2014 16:00	3058.86	18.18	952.2
10/21/2014 17:00	4100.28	18.31	958.6
10/21/2014 21:00	1542.79	18.8	983.0
1/13/2015 1:00	863.79	18.85	985.5
1/13/2015 2:00	862.25	18.56	971.1
1/13/2015 3:00	847.17	18.52	969.1
1/13/2015 4:00	845.37	18.58	972.1
1/13/2015 5:00	836	18.56	971.1
1/13/2015 6:00	834.79	18.46	966.1
1/13/2015 7:00	841.34	18.45	965.6
1/13/2015 8:00	847.4	18.42	964.1
1/13/2015 9:00	827.08	18.43	964.6
1/13/2015 10:00	852.72	18.63	974.6
1/13/2015 11:00	839.18	18.67	976.5
1/13/2015 12:00	852.09	18.77	981.5
1/13/2015 13:00	838.36	18.88	987.0
1/13/2015 14:00	835.89	18.79	982.5
1/13/2015 15:00	840.34	18.76	981.0
1/13/2015 18:00	858.72	18.96	991.0
1/14/2015 0:00	854.83	19.02	993.9
1/14/2015 3:00	854.53	18.92	989.0
1/14/2015 5:00	902.04	19.13	999.4
1/14/2015 8:00	849.24	18.88	987.0
1/14/2015 11:00	839.6	18.82	984.0
1/14/2015	875.63	18.8	983.0
1/14/2015 23:00	884.99	18.81	983.5
1/15/2015 0:00	860.01	18.61	973.6
1/15/2015 1:00	880.91	18.69	977.5
1/15/2015 2:00	860.41	18.4	963.1
1/15/2015 3:00	854.94	18.36	961.1

Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
1/15/2015 4:00	687.72	18.84	985.0
3/4/2015 15:00	11688.16	17.42	914.4
5/16/2015 21:00	1040.18	18.83	984.5
5/16/2015	977.43	18.97	991.5
5/17/2015 10:00	2032.18	18.42	964.1
5/17/2015 11:00	3026.56	17.69	927.8
5/17/2015 12:00	1971.06	18.07	946.7
5/20/2015 15:00	6648.02	18.64	975.0
6/2/2015	5169.56	18.74	980.0
6/2/2015 23:00	4349.58	18.47	966.6
6/11/2015 7:00	71.97	18.84	985.0
6/11/2015 8:00	88.44	18.83	984.5
6/11/2015 9:00	119.37	18.91	988.5
6/11/2015 14:00	66.65	18.6	973.1
6/11/2015 15:00	71.12	18.04	945.2
6/11/2015 16:00	110.14	18.02	944.2
6/11/2015 21:00	85.5	18.87	986.5
6/11/2015	77.76	18.39	962.6
6/11/2015 23:00	71.93	18.42	964.1
6/12/2015 0:00	77.24	18.36	961.1
6/12/2015 1:00	99.35	18.41	963.6
6/12/2015 2:00	106.02	18.41	963.6
6/12/2015 3:00	124.44	18.84	985.0
6/12/2015 4:00	129.25	18.6	973.1
6/12/2015 5:00	122.08	18.51	968.6
6/12/2015 6:00	134.09	18.7	978.0
6/12/2015 7:00	135.2	18.6	973.1
6/12/2015 8:00	149.87	18.74	980.0
6/12/2015 9:00	151.21	18.87	986.5
6/12/2015 21:00	104.36	18.65	975.5
6/12/2015	120.25	18.4	963.1
6/12/2015 23:00	119.09	18.25	955.7
6/13/2015 0:00	118.91	18.09	947.7
6/13/2015 1:00	290.55	18.56	971.1
6/13/2015 2:00	395.66	18.45	965.6
6/13/2015 3:00	641.63	18.48	967.1
6/13/2015 5:00	201.23	19.04	994.9
6/13/2015 6:00	216.81	18.87	986.5
6/13/2015 17:00	202.39	18.66	976.0
6/13/2015 18:00	263.84	18.56	971.1
6/13/2015 19:00	255.22	18.43	964.6
6/13/2015 20:00	247.37	18.36	961.1

Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
6/13/2015 21:00	250.57	18.21	953.7
6/13/2015	248.07	18.09	947.7
6/13/2015 23:00	252.18	18.01	943.7
6/14/2015 0:00	244.72	18	943.2
6/14/2015 1:00	250.47	18.38	962.1
6/14/2015 2:00	225.95	18.12	949.2
6/14/2015 3:00	234.27	18.09	947.7
6/14/2015 4:00	242.31	18.51	968.6
6/14/2015 5:00	219.54	18.6	973.1
6/14/2015 6:00	213.09	18.49	967.6
6/14/2015 7:00	215.35	18.47	966.6
6/14/2015 8:00	226.62	18.24	955.2
6/14/2015 9:00	240.18	18.81	983.5
6/14/2015 13:00	4987.27	18.84	985.0
6/14/2015 17:00	122.96	19	992.9
6/14/2015 18:00	132.95	19.1	997.9
6/14/2015 19:00	237.98	18.83	984.5
6/14/2015 20:00	173.29	18.54	970.1
6/14/2015 21:00	176.12	18.61	973.6
6/14/2015	183.27	18.98	992.0
6/14/2015 23:00	170.25	18.43	964.6
6/15/2015 0:00	167.94	18.43	964.6
6/15/2015 1:00	178.46	18.36	961.1
6/15/2015 2:00	170.89	18.29	957.6
6/15/2015 3:00	184.77	18.59	972.6
6/15/2015 4:00	161.98	18.32	959.1
6/15/2015 5:00	158.32	18.34	960.1
6/15/2015 6:00	161.93	18.39	962.6
6/15/2015 7:00	177.02	18.56	971.1
6/15/2015 8:00	481.71	18.62	974.1
6/16/2015 1:00	168.92	19.14	999.9
6/16/2015 3:00	186.34	18.84	985.0
6/16/2015 5:00	179.01	18.72	979.0
6/16/2015 7:00	194.71	18.61	973.6
7/30/2015 18:00	221.02	18.81	983.5
12/26/2015 7:00	654.23	19.1	997.9
12/26/2015 8:00	661.04	19.06	995.9
12/26/2015 9:00	696	19.01	993.4
12/26/2015 12:00	694.8	19.03	994.4
12/26/2015 21:00	618.28	19.06	995.9
12/26/2015	649.2	19.08	996.9
12/27/2015 1:00	751.3	19.04	994.9

Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
12/27/2015 2:00	750.13	18.85	985.5
12/27/2015 3:00	788.81	18.88	987.0
12/27/2015 4:00	791.72	18.88	987.0
12/27/2015 5:00	788.16	19.1	997.9
12/27/2015 6:00	799.75	19	992.9
12/27/2015 7:00	806.66	19.06	995.9
12/27/2015 9:00	800.6	19	992.9
12/27/2015 10:00	809.47	18.88	987.0
12/27/2015 11:00	796.14	18.99	992.5
1/1/2016 0:00	640.93	19.12	998.9
1/1/2016 3:00	661.01	19.13	999.4
1/1/2016 4:00	668.75	19.13	999.4
1/1/2016 5:00	657.94	19.07	996.4
1/1/2016 6:00	657.75	19.14	999.9
1/1/2016 8:00	669.51	19.09	997.4
1/1/2016 9:00	642.69	18.98	992.0
1/10/2016 11:00	792.05	19.11	998.4
1/11/2016 0:00	666.7	19.14	999.9
1/11/2016 1:00	708.16	19.04	994.9
1/11/2016 2:00	756.51	19.03	994.4
1/11/2016 3:00	802.13	18.96	991.0
1/11/2016 4:00	801.39	18.86	986.0
1/11/2016 5:00	787.61	19.02	993.9
1/11/2016 6:00	805.72	18.91	988.5
1/11/2016 7:00	833.54	19.09	997.4
1/11/2016 8:00	811.6	18.96	991.0
1/11/2016 9:00	865.65	19.06	995.9
1/11/2016 10:00	797.25	18.9	988.0
1/12/2016 11:00	910.25	19.13	999.4
1/12/2016	709.77	19.13	999.4
1/12/2016 23:00	766.33	19	992.9
1/13/2016 0:00	836.7	19.08	996.9
1/13/2016 1:00	801.99	18.78	982.0
1/13/2016 3:00	911.54	19.07	996.4
1/13/2016 8:00	908.37	19.03	994.4
1/13/2016 9:00	901.89	18.88	987.0
1/13/2016 11:00	855.19	19.12	998.9
1/16/2016 1:00	694.04	19.11	998.4
1/16/2016 2:00	686.6	19.06	995.9
1/16/2016 3:00	725.29	18.97	991.5
1/16/2016 8:00	773.4	19.12	998.9
1/17/2016 0:00	659.37	19.03	994.4

Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
1/17/2016 1:00	698.31	18.91	988.5
1/17/2016 2:00	710.8	18.36	961.1
1/17/2016 3:00	717.04	18.61	973.6
1/17/2016 4:00	728.27	18.72	979.0
1/17/2016 5:00	722.59	18.58	972.1
1/17/2016 6:00	716.17	18.55	970.6
1/17/2016 7:00	710.46	18.73	979.5
1/17/2016 8:00	723.44	18.89	987.5
1/17/2016 9:00	735.53	19.01	993.4
1/17/2016 10:00	739.95	18.86	986.0
1/17/2016 11:00	692.45	18.59	972.6
1/22/2016 8:00	562	19.1	997.9
1/25/2016 8:00	550.96	19.12	998.9
2/3/2016 10:00	740.42	19.01	993.4
2/3/2016 11:00	730.49	19.13	999.4
2/4/2016 11:00	709.64	18.99	992.5
2/5/2016 2:00	660.85	19.14	999.9
2/5/2016 3:00	657.69	19.11	998.4
5/9/2016 15:00	1133.93	18.59	972.6
5/17/2016 13:00	4331.74	15.86	836.8
5/17/2016 15:00	709.9	13.51	720.0
5/18/2016 20:00	387.29	18.01	943.7
5/18/2016	381.4	17.96	941.2
5/18/2016 23:00	372.69	17.37	911.9
5/19/2016 0:00	442.41	18.76	981.0
5/19/2016 2:00	464.8	18.31	958.6
5/19/2016 3:00	184.4	19.09	997.4
5/19/2016 4:00	185.24	18.22	954.2
5/19/2016 5:00	186.62	18.09	947.7
5/19/2016 6:00	186.07	18.16	951.2
5/19/2016 7:00	184.73	18.19	952.7
5/19/2016 8:00	191.2	18.2	953.2
7/9/2016 20:00	165.19	18.43	964.6
7/9/2016 21:00	537.26	18.05	945.7
7/9/2016	340.78	16.85	886.1
7/9/2016 23:00	289.56	17.91	938.8
7/10/2016 0:00	278.67	17.45	915.9
7/10/2016 1:00	266.88	17.7	928.3
7/10/2016 2:00	261.2	17.02	894.5
7/10/2016 3:00	242.21	17.04	895.5
7/10/2016 4:00	261.74	17.33	909.9
7/10/2016 5:00	222.58	17.15	901.0



Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
7/10/2016 6:00	312.72	16.69	878.1
7/10/2016 7:00	240.14	17.11	899.0
7/10/2016 8:00	269.19	17.03	895.0
7/10/2016 9:00	260.37	17.98	942.2
7/10/2016 10:00	223.01	17.64	925.3
7/10/2016 11:00	216	17.62	924.3
7/10/2016 12:00	211.45	17.9	938.3
7/10/2016 13:00	223.86	17.92	939.3
7/10/2016 14:00	214.51	18.59	972.6
7/10/2016 15:00	210.7	18.26	956.2
7/10/2016 16:00	204.82	18.41	963.6
7/10/2016 17:00	183.72	17.96	941.2
7/10/2016 18:00	182.29	17.87	936.8
7/10/2016 19:00	214.72	17.99	942.7
7/10/2016 20:00	185.72	17.54	920.4
7/10/2016 21:00	202.77	17.35	910.9
7/10/2016	231.11	17.18	902.5
7/10/2016 23:00	218.19	17.29	907.9
7/11/2016 0:00	212.54	17.43	914.9
7/11/2016 1:00	218.83	17.81	933.8
7/11/2016 2:00	209.39	17.16	901.5
7/11/2016 3:00	204.38	17.52	919.4
7/11/2016 4:00	192.29	17.09	898.0
7/11/2016 5:00	210.9	17.12	899.5
7/11/2016 6:00	208.17	17.04	895.5
7/11/2016 7:00	207.33	17.04	895.5
7/11/2016 8:00	206.17	17.03	895.0
7/11/2016 10:00	199.88	17.39	912.9
7/11/2016 11:00	189.63	17.01	894.0
7/11/2016 12:00	172.05	17.06	896.5
7/11/2016 13:00	177.29	17	893.5
7/11/2016 14:00	196.04	17.71	928.8
7/11/2016 15:00	176.02	17.59	922.8
7/11/2016 16:00	180.32	16.97	892.0
7/11/2016 17:00	146.65	16.96	891.5
7/11/2016 18:00	212.3	17.34	910.4
7/11/2016 19:00	177.48	17.82	934.3
7/11/2016 20:00	187.39	18.08	947.2
7/11/2016 21:00	211.43	17.5	918.4
7/11/2016	236.37	17.24	905.4
7/11/2016 23:00	212.71	17.46	916.4
7/12/2016 0:00	225.18	17.39	912.9



Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
7/12/2016 1:00	227.78	17.74	930.3
7/12/2016 2:00	271.26	18.63	974.6
7/12/2016 4:00	201.53	17.22	904.4
7/12/2016 5:00	218.28	16.85	886.1
7/12/2016 6:00	214.87	16.98	892.5
7/12/2016 7:00	223.37	16.82	884.6
7/12/2016 8:00	217.58	16.9	888.5
7/12/2016 9:00	224.86	16.99	893.0
7/12/2016 10:00	193.61	17.02	894.5
7/12/2016 11:00	186.33	16.85	886.1
7/12/2016 12:00	184.39	17.2	903.5
7/12/2016 13:00	184.72	17.09	898.0
7/12/2016 14:00	197.86	17.96	941.2
7/12/2016 15:00	172.88	17.36	911.4
7/12/2016 16:00	184.72	17.88	937.3
7/12/2016 17:00	199.59	17.98	942.2
7/12/2016 18:00	263.29	17.75	930.8
7/12/2016 19:00	133.94	17.5	918.4
7/12/2016 20:00	169.14	17.92	939.3
7/12/2016 21:00	190.34	17.55	920.9
7/12/2016	201.56	17.64	925.3
7/12/2016 23:00	175.09	17.51	918.9
7/13/2016 0:00	187.53	17.26	906.4
7/13/2016 1:00	182.05	16.87	887.0
7/13/2016 2:00	182.95	16.75	881.1
7/13/2016 3:00	194.53	16.69	878.1
7/13/2016 4:00	194.85	16.64	875.6
7/13/2016 5:00	200.05	16.7	878.6
7/13/2016 6:00	200.4	17.04	895.5
7/13/2016 7:00	195.84	16.92	889.5
7/13/2016 8:00	202.42	17.02	894.5
7/13/2016 9:00	208.13	17.27	906.9
7/13/2016 10:00	191.33	17.28	907.4
7/13/2016 11:00	172.07	17.18	902.5
7/13/2016 12:00	164.11	17.5	918.4
7/13/2016 13:00	175.88	18.74	980.0
7/13/2016 14:00	160.07	17.84	935.3
7/13/2016 15:00	146.21	17.75	930.8
7/13/2016 16:00	161.74	17.96	941.2
7/13/2016 17:00	175.45	18.46	966.1
7/13/2016 18:00	156.19	18.66	976.0
7/13/2016 19:00	200.21	18.5	968.1

Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
7/13/2016 20:00	174.01	19.1	997.9
7/13/2016 21:00	191.2	18.22	954.2
7/13/2016	191.34	18.15	950.7
7/13/2016 23:00	188.02	18.07	946.7
7/14/2016 0:00	176.88	17.79	932.8
7/14/2016 1:00	224.18	18.83	984.5
7/14/2016 3:00	216.67	19.06	995.9
7/14/2016 4:00	186.21	17.99	942.7
7/14/2016 5:00	181.49	17.66	926.3
7/14/2016 6:00	187.53	17.66	926.3
7/14/2016 7:00	186.72	17.69	927.8
7/14/2016 8:00	197.59	17.55	920.9
7/14/2016 9:00	204.18	17.58	922.3
7/14/2016 10:00	179.68	17.5	918.4
7/14/2016 11:00	163.34	17.47	916.9
7/14/2016 12:00	161.83	17.67	926.8
7/14/2016 13:00	180.81	18.85	985.5
7/15/2016 12:00	176.98	18.32	959.1
7/15/2016 14:00	716.51	17.2	903.5
7/15/2016 15:00	167.7	17.67	926.8
7/15/2016 16:00	155.81	18.32	959.1
7/15/2016 17:00	179.34	18.96	991.0
7/15/2016 18:00	183.36	18.97	991.5
7/15/2016 19:00	170.81	18.25	955.7
7/15/2016 20:00	177.46	17.75	930.8
7/15/2016 21:00	212.62	18.54	970.1
7/15/2016	247.37	18.37	961.6
7/16/2016 1:00	218.02	18.14	950.2
7/16/2016 2:00	217.76	17.35	910.9
7/16/2016 3:00	209.4	17.27	906.9
7/16/2016 4:00	210.23	17.12	899.5
7/16/2016 5:00	228.52	17.21	903.9
7/16/2016 6:00	225.66	17.52	919.4
7/16/2016 7:00	224.41	17.55	920.9
7/16/2016 8:00	226.6	17.46	916.4
7/16/2016 9:00	232.58	17.55	920.9
7/16/2016 10:00	201.66	17.54	920.4
7/16/2016 14:00	198.37	18.63	974.6
7/16/2016 17:00	194.76	19.06	995.9
7/16/2016 18:00	188.83	18.27	956.7
7/16/2016 19:00	173.95	18.27	956.7
7/16/2016 20:00	192.95	18.18	952.2

Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
7/16/2016 21:00	207.56	17.83	934.8
7/16/2016	240.28	18.8	983.0
7/17/2016 1:00	205.63	17.7	928.3
7/17/2016 2:00	210.97	17.35	910.9
7/17/2016 3:00	207.53	17.24	905.4
7/17/2016 4:00	217.64	17.28	907.4
7/17/2016 5:00	220.73	17.34	910.4
7/17/2016 6:00	213.64	17.37	911.9
7/17/2016 7:00	221.46	17.48	917.4
7/17/2016 8:00	225.1	17.4	913.4
7/17/2016 9:00	221.67	17.32	909.4
7/17/2016 10:00	191.28	17.35	910.9
7/17/2016 11:00	173.1	17.27	906.9
7/17/2016 12:00	179.78	17.48	917.4
7/17/2016 13:00	202.68	18.52	969.1
7/17/2016 14:00	203.5	18.58	972.1
7/17/2016 17:00	244.2	18.86	986.0
7/17/2016 19:00	280.25	19.11	998.4
7/17/2016 20:00	323.39	18.45	965.6
7/17/2016 21:00	364.83	18.2	953.2
7/17/2016	426.79	18.63	974.6
7/17/2016 23:00	452.5	18.82	984.0
7/18/2016 0:00	472.24	18.49	967.6
7/18/2016 1:00	1408.74	17.74	930.3
7/18/2016 2:00	2639.56	15.84	835.8
7/18/2016 3:00	269.75	17.14	900.5
7/18/2016 4:00	305.97	18.18	952.2
7/18/2016 5:00	339.66	18.12	949.2
7/18/2016 6:00	337.03	17.75	930.8
7/18/2016 7:00	1930.56	17.11	899.0
7/18/2016 8:00	4097.38	15.9	838.8
7/18/2016 9:00	4931.43	16.05	846.3
7/18/2016 11:00	5892.39	17.92	939.3
7/18/2016 12:00	2366.59	18.63	974.6
7/18/2016 13:00	2391.51	17.27	906.9
7/18/2016 14:00	1374.37	17.55	920.9
9/12/2016 15:00	3261.76	18	943.2
9/12/2016 16:00	904.3	18.6	973.1
11/12/2016 6:00	510.7	18.94	990.0
11/12/2016 9:00	555.39	18.98	992.0
11/14/2016 9:00	627.96	18.72	979.0
11/18/2016 7:00	729.49	19.07	996.4

Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
11/18/2016 10:00	840.07	19.1	997.9
11/18/2016 11:00	747.2	18.91	988.5
11/19/2016 1:00	647.28	18.9	988.0
11/19/2016 2:00	681.32	19	992.9
11/19/2016 4:00	646.1	18.47	966.6
11/19/2016 5:00	641.19	18.51	968.6
11/19/2016 6:00	642.79	18.4	963.1
11/19/2016 7:00	642.45	18.33	959.6
11/19/2016 8:00	630.39	18.12	949.2
11/19/2016 9:00	668.18	18.34	960.1
11/19/2016 10:00	698.62	18.37	961.6
11/19/2016	510.55	18.74	980.0
11/20/2016 0:00	526.1	19.06	995.9
11/20/2016 3:00	519.83	19.09	997.4
11/20/2016 5:00	543.97	19.02	993.9
11/20/2016 6:00	545.34	18.98	992.0
11/20/2016 8:00	555.41	18.94	990.0
11/20/2016 10:00	526.6	19.05	995.4
11/23/2016 0:00	459.81	19.11	998.4
11/23/2016 1:00	454.24	18.77	981.5
11/23/2016 9:00	555.93	19	992.9
11/23/2016 11:00	607.76	18.92	989.0
11/23/2016 23:00	509.02	18.89	987.5
11/24/2016 0:00	527.89	18.99	992.5
11/24/2016 1:00	523.37	18.72	979.0
11/24/2016 2:00	544.15	18.6	973.1
11/24/2016 3:00	547.79	18.54	970.1
11/24/2016 7:00	547.91	18.57	971.6
11/24/2016 8:00	617.81	19.1	997.9
11/24/2016 9:00	574.22	18.51	968.6
11/24/2016 10:00	619.61	18.37	961.6
11/24/2016 11:00	576.34	18.75	980.5
11/25/2016 0:00	549.32	19.12	998.9
11/25/2016 11:00	651.84	18.65	975.5
11/25/2016	530.32	19.07	996.4
11/25/2016 23:00	561.37	19.12	998.9
11/26/2016 0:00	560.35	18.92	989.0
11/26/2016 1:00	575.07	18.75	980.5
11/27/2016 6:00	616.1	18.75	980.5
11/27/2016 7:00	647.29	18.98	992.0
11/27/2016 8:00	656.68	18.89	987.5
11/27/2016 9:00	633.88	18.64	975.0

Attachment A - Table 11

Tag Name	FI82030.PV	FI82030A.PV	
Units	LB/HR		BTU/SCF
Description	FLARE GAS FLOW	FLARE GAS MOLE WEIGHT	Flare Gas NHV
Timestamp	FI82030.PV - Average	FI82030A.PV - Average	
11/27/2016 10:00	686.21	18.67	976.5
11/27/2016 12:00	716.13	18.55	970.6
11/27/2016 13:00	746.28	18.69	977.5
11/27/2016 14:00	692.85	18.82	984.0
11/27/2016 15:00	645.35	18.84	985.0
11/27/2016 16:00	643.78	18.79	982.5
11/27/2016 17:00	630.78	18.64	975.0
11/27/2016 18:00	609.49	18.66	976.0
11/27/2016 19:00	623.78	18.86	986.0
11/27/2016 21:00	664.85	18.74	980.0
11/27/2016	663.94	18.7	978.0
11/27/2016 23:00	672.94	18.8	983.0
11/28/2016 0:00	669.6	18.92	989.0
11/28/2016 12:00	713.78	18.7	978.0
11/28/2016 13:00	729.62	18.92	989.0
11/28/2016 17:00	707.85	18.77	981.5
11/28/2016 20:00	712.3	18.97	991.5
11/28/2016	743.73	18.88	987.0
11/28/2016 23:00	678.38	18.22	954.2
11/29/2016 0:00	680.96	18.13	949.7
11/29/2016 1:00	677.36	18.01	943.7
11/29/2016 2:00	686.82	18.08	947.2
11/29/2016 5:00	744.42	19.04	994.9
11/29/2016 6:00	730.84	18.6	973.1
11/29/2016 7:00	708.29	18.52	969.1
11/29/2016 8:00	879.29	19.01	993.4
11/29/2016 14:00	568.32	18.31	958.6
11/29/2016 15:00	533.22	18.48	967.1
11/29/2016 16:00	575.01	18.54	970.1
11/29/2016 17:00	566.63	18.51	968.6
11/29/2016 20:00	615.86	18.73	979.5
11/29/2016 21:00	617.19	18.79	982.5
11/29/2016 23:00	657.52	18.75	980.5
11/30/2016 0:00	678.25	18.49	967.6
11/30/2016 1:00	706.58	18.53	969.6
11/30/2016 4:00	724.17	18.75	980.5
11/30/2016 9:00	823.5	18.89	987.5
11/30/2016 10:00	514.92	18.41	963.6
12/10/2016 18:00	162.01	17.78	932.3

E.5 Parachute Creek Notice of Violation (3/16/2018)





**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

1595 Wynkoop Street  
Denver, CO 80202-1129  
Phone 800-227-8917  
[www.epa.gov/region8](http://www.epa.gov/region8)

**MAR 16 2018**

Ref: ENF-AT

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

Kirsten Derr  
Environmental Specialist, Piceance  
Bargath LLC  
2717 County Road 215, Suite 200  
Parachute, Colorado 81635

Re: Notice of Violation  
Parachute Creek Gas Plant  
Parachute, Colorado

Dear Ms. Derr:

Please be advised that on the basis of an on-site inspection conducted by duly authorized representatives of the U.S. Environmental Protection Agency and a review of pertinent information, the EPA has determined that Bargath LLC (Bargath) has failed to comply with certain requirements of the Clean Air Act (CAA), as amended, 42 U.S.C. §§ 7401-7671q, and its implementing regulations, at the Parachute Creek Gas Plant, located at 4289 County Road 215 in Parachute, Colorado.

Based upon information and belief, this Notice of Violation (NOV), in part, alleges violations of the leak detection and repair requirements of CAA section 111 new source performance standards (40 C.F.R. Part 60, Subparts OOOO and KKK) and CAA section 112 national emission standards for hazardous air pollutants (40 C.F.R. Part 63, Subpart HH).

As a result of these findings, the EPA is issuing you this NOV pursuant to sections 113(a)(1) and (3) of the CAA, 42 U.S.C. § 7413(a)(1) and (3). You may, upon request, confer with the EPA. The conference will enable you to present evidence bearing on the findings of violation, on the nature of violation, and on any efforts you may have taken or propose to take to achieve compliance. Bargath has a right to be represented by counsel. A request for conference must be made within 10 days of receipt of this NOV. A request for a conference or other inquiries concerning this NOV should be made to:

Joseph Wilwerding  
Environmental Engineer  
Air & Toxics Technical Enforcement Program  
U.S. EPA Region VIII  
Mail Code 8ENF-AT  
1595 Wynkoop Street  
Denver, Colorado 80202  
(303) 312-6729

If you are represented by counsel, your attorney may contact:

Abigail Dean, Esq.  
Legal Enforcement Program  
U.S. EPA Region VIII  
Mail Code 8ENF-AT  
1595 Wynkoop Street  
Denver, Colorado 80202  
(303) 312-6106

Sincerely,



Suzanne J. Bohan  
Assistant Regional Administrator  
Office of Enforcement, Compliance  
and Environmental Justice

Enclosure

cc: Shannon McMillan  
Compliance and Enforcement Program Manager  
Air Pollution Control Division  
Colorado Department of Public Health and the Environment

electronic cc:  
Laura Hill, Senior Counsel  
Williams

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

2018 MAR 16 PM 2:50

FILED  
EPA REGION VIII  
HEARING CLERK

IN THE MATTER OF: )

Bargath LLC/Parachute Creek Gas )  
Plant, Parachute, Colorado )

NOTICE OF VIOLATION

EPA- CAA-08-2018-0005

Proceeding Pursuant to )  
the Clean Air Act, )  
42 U.S.C. §§ 7401 et seq. )

NOTICE OF VIOLATION

The U.S. Environmental Protection Agency alleges that Bargath LLC (Bargath) violated and continues to violate sections 111 and 112 of the Clean Air Act (CAA), 42 U.S.C. §§ 7411 and 7412, and regulations approved thereunder, at the Parachute Creek Gas Plant (Parachute Creek Plant). Specifically, Bargath violated and continues to violate the Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011, 40 C.F.R. §§ 60.630 – 60.636 (subpart KKK); the Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015, 40 C.F.R. §§ 60.5360 – 60.5430 (subpart OOOO); and the National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities, 40 C.F.R. §§ 63.760 – 63.779 (subpart HH).

The issuance of this Notice of Violation does not in any way limit or preclude the EPA from pursuing additional enforcement options concerning the inspections or review referenced in this Notice of Violation. Moreover, this Notice of Violation does not preclude enforcement action for violations not specifically addressed in this Notice of Violation.

Statutory and Regulatory Authority

**Standards of Performance - General**

1. Section 111 of the CAA, 42 U.S.C. § 7411, authorizes the EPA to promulgate regulations establishing New Source Performance Standards (NSPS).

2. Section 111(e) of the CAA, 42 U.S.C. § 7411(e), states that after the effective date of standards of performance promulgated under section 111, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

3. Section 111(a)(2) of the CAA, 42 U.S.C. § 7411(a)(2), defines “new source” as any stationary source, the construction or modification of which is commenced after the

publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

4. Section 111(a)(3) of the CAA, 42 U.S.C. § 7411(a)(3), defines “stationary source” as any building, structure, facility, or installation which emits or may emit an air pollutant.

5. A “modification” is “any physical change in . . . a stationary source which increases the amount of any air pollutant emitted by such source.” 42 U.S.C. § 7411(a)(4).

#### **Standards of Performance – Subpart A**

6. Subpart A, at 40 C.F.R. § 60.1(a), specifies that the provisions of subpart A apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

7. Subpart A, at 40 C.F.R. § 60.14(a), provides that any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the CAA. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

8. Subpart A, at 40 C.F.R. § 60.2, defines “capital expenditure” as an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable “annual asset guideline repair allowance percentage” specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any “excluded additions” as defined in IRS Publication 534, as would be done for tax purposes.

#### **Standards of Performance - Subparts KKK and VV**

9. On June 24, 1985, the EPA promulgated subpart KKK, which sets forth standards of performance for equipment leaks of VOC from onshore natural gas processing plants for which construction, reconstruction, or modification commenced after January 20, 1984, and on or before August 23, 2011. 50 F.R. 26,124 (June 24, 1985).

10. Subpart KKK, at 40 C.F.R. § 60.630(a)(3), applies to the group of all equipment except compressors within a process unit at onshore natural gas processing plants.

11. Subpart KKK, at 40 C.F.R. § 60.631, states that as used in subpart KKK, all terms not defined therein shall have the meaning given them in the CAA, in subpart A or subpart VV of 40 C.F.R. part 60.

12. Subpart KKK, at 40 C.F.R. § 60.631, defines “process unit” as equipment assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids



into natural gas products, or other operations associated with the processing of natural gas products. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.

13. Subpart KKK, at 40 C.F.R. § 60.631, defines “equipment” as each pump, pressure relief device, open-ended valve or line, valve, compressor and flange or other connector that is in VOC service or in wet gas service, and any device or system required by subpart KKK.

14. Subpart KKK, at 40 C.F.R. § 60.631, defines “onshore” as all facilities except those that are located in the territorial seas or on the outer continental shelf.

15. Subpart KKK, at 40 C.F.R. § 60.631, defines “natural gas processing plant” as any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.

16. Subpart KKK, at 40 C.F.R. § 60.631, defines “in wet gas service” as a piece of equipment containing or contacting the field gas before the extraction step in a gas processing plant.

17. Subpart KKK, at 40 C.F.R. § 60.631, defines “in light liquid service” as a piece of equipment containing a liquid that meets the conditions specified in 40 C.F.R. §§ 60.485(e) or 60.633(h)(2).

18. Subpart KKK, at 40 C.F.R. § 60.631, defines “field gas” as feedstock gas entering the natural gas processing plant.

19. Subpart KKK, at 40 C.F.R. § 60.632(a), (d), and (e), specifies the provisions of the Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006 (subpart VV) that apply to owners and operators of affected facilities.

20. Subpart VV, at 40 C.F.R. § 60.481, defines “first attempt at repair” as to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

21. Subpart VV, at 40 C.F.R. § 60.481, defines “in gas/vapor service” as a piece of equipment containing process fluid that is in the gaseous state at operating conditions.

22. Subpart VV, at 40 C.F.R. § 60.481, defines “in VOC service” as a piece of equipment containing or contacting a process fluid that is a least 10 percent VOC by weight.

23. Subpart VV, at 40 C.F.R. § 60.481, defines “process unit shutdown” as a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. Process unit shutdowns are not (1) unscheduled work practices or operational procedures that stop production from a process unit or part of a process unit for less than 24 hours, (2)

unscheduled work practices or operational procedures that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown, or (3) the use of spare equipment and technically feasible bypassing of equipment without stopping production.

24. Subpart VV, at 40 C.F.R. § 60.481, defines “volatile organic compounds or VOC” to mean any reactive organic compounds as defined in 40 C.F.R. § 60.2.

25. Subpart VV, at 40 C.F.R. § 60.481, defines “repaired” to mean that equipment is adjusted, or otherwise altered, in order to eliminate a leak as defined in the applicable sections of this subpart and, except for leaks identified in accordance with §§ 60.482-2(b)(2)(ii) and (d)(6)(ii) and (iii), 60.482-3(f), and 60.482-10(f)(1)(ii), is re-monitored as specified in 40 C.F.R. § 60.485(b) to verify that emissions from the equipment are below the applicable leak definition.

26. Subpart VV, at 40 C.F.R. § 60.482-2, sets forth standards for pumps in light liquid service.

27. Subpart VV, at 40 C.F.R. § 60.482-2(a)(1), specifies that each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. § 60.485(b).

28. Subpart VV, at 40 C.F.R. § 60.482-2(b)(1), specifies that if an instrument reading of 10,000 ppm or greater is measured at a pump in light liquid service, a leak is detected.

29. Subpart VV, at 40 C.F.R. § 60.482-2(c)(1), specifies that when a leak is detected at a pump in light liquid service, it shall be repaired as soon as practicable, but no later than 15 days after it is detected unless the leaking equipment is placed on delay of repair pursuant to 40 C.F.R. § 60.482-9.

30. Subpart VV, at 40 C.F.R. § 60.482-4, sets forth standards for pressure relief devices in gas/vapor service.

31. Subpart VV, at 40 C.F.R. § 60.482-4(a) and (b), specifies that except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 C.F.R. § 60.485(c). After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions as soon as practicable, but no later than five calendar days after the pressure release. No later than five calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions.

32. Subpart VV, at 40 C.F.R. § 60.482-7, sets forth standards for valves in gas/vapor and in light liquid service.



33. Subpart VV, at 40 C.F.R. § 60.482-7(a)(1), specifies that each valve shall be monitored monthly to detect leaks by the methods specified in 40 C.F.R. § 60.485(b) and shall comply with paragraphs (b) through (e) of 40 C.F.R. § 60.482-7.

34. Subpart VV, at 40 C.F.R. § 60.482-7(b), specifies that if an instrument reading of 10,000 ppm or greater is measured at a valve in gas/vapor or light liquid service, a leak is detected.

35. Subpart VV, at 40 C.F.R. § 60.482-7(d)(1), specifies that when a leak is detected at a valve in gas/vapor or light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except if the valve is placed on delay of repair according to 40 C.F.R. § 60.482-9.

36. Subpart VV, at 40 C.F.R. § 60.482-9(a) through (c), specifies that delay of repair of equipment for which leaks have been detected will be allowed if repair of the equipment within 15 days is technically infeasible without a process unit shutdown, if the equipment is isolated from the process and does not remain in VOC service, or if the owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair and the owner or operator collects and destroys the purged material in a control device complying with 40 C.F.R. § 60.482-10 when repairs are effected.

37. Subpart VV, at 40 C.F.R. § 60.482-9(e), specifies that delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted.

38. Subpart VV, at 40 C.F.R. § 60.485(b), requires owners and operators to determine compliance with applicable standards using Method 21 of Appendix A-7 of 40 C.F.R. part 60.

39. Subpart KKK, at 40 C.F.R. § 60.635, sets forth the recordkeeping requirements for affected facilities subject to the VOC requirements for onshore natural gas processing plants and indicates affected facilities must comply with the requirements of 40 C.F.R. § 60.486 along with other requirements for pressure relief devices.

40. Subpart VV, at 40 C.F.R. § 60.486(e)(1), sets forth the recordkeeping requirements for identifying all equipment subject to the standards in 40 C.F.R. §§ 60.482-1 to 60.482-10.

41. Subpart KKK, at 40 C.F.R. § 60.636, sets forth the reporting requirements for affected facilities subject to the VOC requirements for onshore natural gas processing plants and indicates affected facilities must also comply with the requirements in 40 C.F.R. § 60.487.

42. Subpart VV, at 40 C.F.R. § 60.487, sets forth the reporting requirements, and states at 40 C.F.R. § 60.487(c) that all semiannual reports to the Administrator shall include the process unit identification, revisions to equipment inventory counts in the process unit if changes have occurred, the dates of process unit shutdowns which occurred within the semiannual reporting period, and, for each month during the semiannual reporting period, information on the

number of leaks detected, the number leaks not repaired, and the facts regarding delay of repair for any unrepaired leaks in the process unit.

### **Standards of Performance - Subparts OOOO and VVa**

43. Subpart OOOO establishes emission standards and compliance schedules for the control of VOC and sulfur dioxide (SO<sub>2</sub>) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011, and on or before September 18, 2015. 40 C.F.R. § 60.5360.

44. Subpart OOOO, at 40 C.F.R. § 60.5365(f), states that subpart OOOO applies to the group of all equipment except compressors within a process unit at onshore natural gas processing plants.

45. Subpart OOOO, at 40 C.F.R. § 60.5430, specifies that all terms not defined therein shall have the meaning given them in the CAA, in subpart A or subpart VVa of 40 C.F.R. part 60.

46. Subpart OOOO, at 40 C.F.R. § 60.5365(f)(1), specifies that the addition or replacement of equipment for the purpose of process improvement during the August 23, 2011, to September 18, 2015, time period is not a “a modification” that triggers the applicability of subpart OOOO unless it constitutes a “capital expenditure,” as these terms are defined in the CAA and in 40 C.F.R. part 60. 42 U.S.C. § 7411(a)(4); 40 C.F.R. §§ 60.2, 60.480a, and 60.481.

47. Subpart OOOO includes requirements for monitoring equipment such as pumps, valves, and connectors for leaks of air pollutants, repairing leaks, recordkeeping, and reporting to regulators. 40 C.F.R. §§ 60.5400, 60.5421 and 60.5422.

48. Subpart OOOO incorporates certain other regulations in 40 C.F.R. part 60 by reference, including certain provisions of the Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (subpart VVa), 40 C.F.R. §§ 60.480a–60.489a.

49. Subpart OOOO, at 40 C.F.R. § 60.5370, specifies that affected facilities must be in compliance with the standards of subpart OOOO no later than October 15, 2012, or upon startup, whichever is later.

50. Subpart VVa, 40 C.F.R. § 60.482-7a(b), specifies that if an instrument reading of 500 ppm or greater is measured at a valve in gas/vapor service or in light liquid service, a leak is detected.

51. Subpart VVa, at 40 C.F.R. § 60.482-7a(c)(1)(i), specifies that any valve for which a leak is not detected for two successive months may be monitored quarterly until a leak is detected.

52. Subpart VVa, at 40 C.F.R. § 60.482-7a(d)(1), specifies that when a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except if the valve is placed on delay of repair.

53. Subpart VVa, at 40 C.F.R. § 60.482-9a(a) through (c), specifies that delay of repair of equipment for which leaks have been detected will be allowed if repair of the equipment within 15 days is technically infeasible without a process unit shutdown, if the equipment is isolated from the process and does not remain in VOC service, or if the owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair and the owner or operator collects and destroys the purged material in a control device complying with 40 C.F.R. § 60.482-10a when repairs are effected.

54. Subpart VVa, at 40 C.F.R. § 60.482-9a(e), specifies that delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted.

#### **National Emission Standards - General**

55. Section 112 of the CAA, 42 U.S.C. § 7412, authorizes the EPA to promulgate regulations establishing National Emission Standards for Hazardous Air Pollutants (NESHAP).

56. Section 112(f)(4) of the CAA, 42 U.S.C. § 7412(f)(4), states that no air pollutant to which a standard under this subsection applies may be emitted from any stationary source in violation of such standard.

57. Section 112(a)(3) of the CAA, 42 U.S.C. § 7412(a)(3), defines “stationary source” as having the same meaning as such term has under section 111(a) of the CAA, 42 U.S.C. § 7411(a).

#### **National Emission Standards - Subparts HH and V**

58. Subpart HH, at 40 C.F.R. § 63.760(b)(1)(iii), applies to the group of all ancillary equipment, except compressors, intended to operate in volatile hazardous air pollutant (VHAP) service (as defined in 40 C.F.R. § 63.761), which are located at natural gas processing plants at a major source.

59. Subpart HH, at 40 C.F.R. § 63.760(f)(1), specifies that sources which commenced construction or reconstruction before February 6, 1998, shall achieve compliance with the applicable provisions of subpart HH no later than June 17, 2002.

60. Subpart HH, at 40 C.F.R. § 63.760(f)(2), specifies that sources which commenced construction or reconstruction on or after February 6, 1998, shall achieve compliance with the applicable provisions of subpart HH immediately upon startup or June 17, 1999, whichever date is later.



61. Subpart HH, at 40 C.F.R. § 63.761, defines “ancillary equipment” as any of the following pieces of equipment: pumps, pressure relief devices, sampling connection systems, open-ended valves, or lines, valves, flanges, or other connectors.

62. Subpart HH, at 40 C.F.R. § 63.761, defines “in VHAP service” to mean a piece of ancillary equipment or compressor that either contains or contacts a fluid (liquid or gas), which has a total VHAP concentration equal to or greater than 10 percent by weight as determined according to the provisions in 40 C.F.R. § 63.772(a).

63. Subpart HH, at 40 C.F.R. § 63.761 defines “in wet gas service” to mean a piece of equipment that contains or contacts the field gas before the extraction of natural gas liquids.

64. Subpart HH, at 40 C.F.R. § 63.761, defines “natural gas processing plant” as any processing site engaged in the extraction of natural gas liquids (NGL) from field gas, or the fractionation of mixed NGL to natural gas products, or a combination of both.

65. Subpart HH, at 40 C.F.R. § 63.761, defines “hazardous air pollutants or HAP” as the chemical compounds listed in section 112(b) of the CAA. All chemical compounds listed in section 112(b) of the CAA need to be considered when making a major source determination. Only the HAP compounds listed in Table 1 of subpart HH need to be considered when determining compliance.

66. Subpart HH, at 40 C.F.R. § 63.769(c), specifies that for each piece of ancillary equipment and each compressor located at an existing or new source, the owner or operator shall meet the requirements of the National Emission Standard for Equipment Leaks (subpart V), 40 C.F.R. §§ 61.241 – 247 (subpart V).

67. Subpart V, 40 C.F.R. § 61.242-7(b), as modified by 40 C.F.R. § 63.769(c), specifies that if an instrument reading of 500 ppm or greater is measured at a valve, a leak is detected. [The leak definition in 40 C.F.R. § 63.769(c) was modified to 500 ppm on August 16, 2012, 77 FR 49571.]

68. Subpart V, at 40 C.F.R. § 61.242-7(d)(1) and (2), specifies that when a leak is detected at a valve, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected and that a first attempt at repair shall be made no later than five calendar days after each leak is detected. 40 C.F.R. § 63.769(c) modifies this requirement, such that a leak detected from a valve at a source constructed: (1) on or before August 23, 2011, shall be repaired in accordance with the schedule in 40 C.F.R. § 61.242-7(d), or by October 15, 2013, whichever is later; or (2) after August 23, 2011, shall be repaired in accordance with the schedules in 40 C.F.R. § 61.242-7(d), or by October 15, 2012, whichever is later.

69. Subpart V, at 40 C.F.R. § 61.246(b), sets forth the recordkeeping requirements for leaking components.

70. Subpart HH, at 40 C.F.R. § 63.775(e)(2)(iv), states that owners and operators subject to the provisions specified in 40 C.F.R. § 63.769 shall comply with the reporting requirements specified in 40 C.F.R. § 61.247.

**Findings of Fact**

71. Bargath is a “person” within the meaning of section 302(e) of the CAA, 42 U.S.C. § 7602(e).

72. Bargath owns and operates the Parachute Creek Plant located at 4289 County Road 215 in Parachute, Colorado.

73. The Parachute Creek Plant is a major source under subpart HH.

74. The Parachute Creek Plant is a “natural gas processing plant” as defined in 40 C.F.R. §§ 60.631, 60.5430, and 63.761.

75. The Parachute Creek Plant contains affected facilities as described in 40 C.F.R. §§ 60.630, 60.5365(f), and 63.760(b)(1)(iii).

76. Bargath submitted semiannual reports to the EPA required by subparts HH and KKK in January and July from July 2011 through January 2016.

77. Bargath has stated in semiannual reports that the Parachute Creek Plant is subject to the LDAR requirements in subparts KKK and HH.

78. In its semiannual reports from July 2011 through July 2014, Bargath did not identify any process units at the Parachute Creek Plant. As of its January 29, 2015, semiannual report, Bargath identified the following process units at the Parachute Creek Plant: Plant 1, Plant 2, Plant 3, Plant 3.5, and Plant PGX.

79. The EPA conducted an onsite inspection at the Parachute Creek Plant on July 11-12, 2016.

80. Bargath provided the EPA with LDAR records in person during the onsite inspection on July 11-12, 2016, and after the onsite inspection, via email and a company File Transfer Protocol site.

81. Bargath provided process block flow diagrams and plot plans for the Parachute Creek Plant to the EPA during the July 11-12, 2016, inspection, which show unit operations for the Inlet Gas Scrubber and Filter/Coalescers, Amine Treatment, Dehydration, Refrigeration, Cold Separation, Stabilization, Recompression, and Flare.

82. During the onsite inspection on July 11-12, 2016, Bargath representatives indicated that all process units at the Parachute Creek Gas Plant were constructed between 2002 and 2009.

83. On September 16, 2016, Bargath notified the EPA that valves at the Parachute Creek Plant subject to subpart HH requirements were not repaired as required.

84. Based on its review of the LDAR information described in Paragraphs 76 through 83, above, the EPA makes the following factual findings:

- a. After identifying leaks in 256 instances at subpart HH valves in Plants 1, 2, 3, 3.5 and PGX, between October 15, 2013, and September 1, 2016, Bargath failed to:
  - i. perform a first attempt at repair no later than five days after each leak was detected;
  - ii. make a final repair as soon as practicable, but no later than 15 calendar days after each leak was detected, or place the equipment on delay of repair,
  - iii. perform monthly monitoring after each leak was detected until no leak was detected for two successive months; and
  - iv. perform required recordkeeping and reporting.
- b. After identifying leaks in 66 instances at subpart HH valves in Plants 1, 2, 3, 3.5 and PGX, after October 15, 2012, and on or before October 14, 2013, Bargath failed to:
  - i. repair or place the leaking valves on delay of repair by, October 15, 2013, or in accordance with the schedule in 40 C.F.R. § 61.242-7(d);
  - ii. perform monthly monitoring after each leak was detected until no leak at the valve was detected for two successive months; and
  - iii. perform required recordkeeping and reporting.
- c. After identifying leaks in 12 instances at subpart KKK valves in Plants 2, 3, and 3.5, between December 26, 2012, and September 1, 2016, Bargath failed to repair the valves within 15 calendar days when the valves were technically feasible to repair without a process unit shutdown.
- d. After identifying leaks in 50 instances at subpart KKK valves in Plants 1, 2, and 3.5, between March 12, 2013, and March 6, 2014, Bargath failed to monitor the valves monthly after installation until no leak was detected for two successive months.
- e. Bargath failed to monitor subpart KKK pumps monthly in 26 instances and subpart KKK valves quarterly in 845 instances in Plants 1, 2, 3, and 3.5, between the third quarter of 2012 and the second quarter of 2016.
- f. Bargath added equipment to process units at the Parachute Creek Plant. Specifically, in January 2014, Bargath added 375 valves to Plant 3, 301 valves to Plant 3.5, 10 pressure relief valves to Plant 3, and 13 pressure relief valves to Plant 3.5. These equipment additions constitute a modification of the Plant 3 and Plant 3.5 process areas under subpart OOOO.



- g. Bargath failed to identify applicability of subpart OOOO to process units at the Parachute Creek Plant, as described above in Paragraph 84.f, resulting in missed monitoring, missed repairs, missed recordkeeping, and missed reporting for approximately 10,900 pieces of equipment.
- h. Bargath failed to identify applicability of subparts KKK and OOOO to equipment which was first added to the LDAR program in the third quarter of 2016, but existed at the site prior to that time, resulting in missed monitoring, missed repairs, missed recordkeeping, and missed reporting for 435 components in the Plant 1, Plant 2, and Plant PGX areas, and 452 components in the Plant 3 and Plant 3.5 areas (887 components total).
- i. Bargath failed to report the process unit identification; revisions to equipment inventory counts in the process unit; the dates of process unit shutdowns which occurred within the semiannual reporting period; and, for each month during the semiannual reporting period, information on the number of leaks detected, the number leaks not repaired, and the facts regarding delay of repair for any unrepaired leaks in the process unit for the Inlet, Amine Treatment, Dehydration, Refrigeration, Cold Separation, Stabilization, Recompression, and Flare process units within the Plant 1, Plant 2, Plant 3, and Plant 3.5 areas in its semiannual reports between July 2011 and January 2016.

### **Alleged Violations**

85. Bargath failed to perform a first attempt at repair at subpart HH valves after identifying leaks in 256 instances, as described above in paragraph 84.a.i, in violation of 40 C.F.R. §§ 63.769(c) and 61.242-7(d)(2). See Attachment A Table 1.

86. Bargath failed to repair leaks at subpart HH valves in 322 instances, as described above in Paragraphs 84.a.ii and 84.b.i, in violation of 40 C.F.R. §§ 63.769(c) and 61.242-7(d)(1). See Attachment A Tables 2a and 2b.

87. Bargath failed to monitor subpart HH valves monthly after identification of a leak in at least 322 instances, as described above in Paragraphs 84.a.iii and 84.b.ii, in violation of 40 C.F.R. §§ 63.769(c) and 61.242-7(c)(2). See Attachment A Tables 2a and 2b.

88. Bargath failed to perform required recordkeeping for leaks at subpart HH valves in 322 instances, as described above in Paragraphs 84.a.iv and 84.b.iii, in violation of 40 C.F.R. §§ 63.769(c) and 61.246. See Attachment A Tables 2a and 2b.

89. Bargath failed to perform required reporting for leaks at subpart HH valves in 322 instances, as described above in Paragraphs 84.a.iv and 84.b.iii, in violation of 40 C.F.R. §§ 63.769(c) and 61.247. See Attachment A Tables 2a and 2b.

90. Bargath failed to repair leaks at subpart KKK valves in 12 instances, as described above in Paragraph 84.c, in violation of 40 C.F.R. §§ 60.632(a) and 60.482-7(d)(1). See Attachment A Tables 3 and 4.

91. Bargath failed to monitor subpart KKK valves monthly after leaks were identified in 50 instances, as described above in Paragraph 84.d, in violation of 40 C.F.R. §§ 60.632(a) and 60.482-7(a)(1). See Attachment A Table 5.

92. Bargath failed to monitor subpart KKK pumps monthly in 26 instances, as described above in Paragraph 84.e, in violation of 40 C.F.R. §§ 60.632(a) and 60.482-2(a)(1). See Attachment A Table 6.

93. Bargath failed to monitor subpart KKK valves quarterly in 845 instances, as described above in Paragraph 84.e, in violation of 40 C.F.R. §§ 60.632(a) and 60.482-7(c)(1)(i). See Attachment A Table 6.

94. Bargath failed to timely identify applicability of subpart OOOO to process units at the Parachute Creek Plant, as described above in Paragraph 84.g, resulting in missed monitoring, missed repairs, missed recordkeeping, and missed reporting for approximately 10,900 pieces of equipment, in violation of 40 C.F.R. §§ 60.5400, 60.5421, and 60.5422. See Attachment A Table 7.

95. Bargath failed to identify applicability of subparts KKK or OOOO to equipment which was added to the LDAR program, as described above in Paragraph 84.h, resulting in missed monitoring, missed repairs, missed recordkeeping, and missed reporting for 435 components in the Plant 1, Plant 2, and Plant PGX areas; and 452 components in the Plant 3 and Plant 3.5 areas, in violation of 40 C.F.R. §§ 60.632, 60.635, 60.636, 60.5400, 60.5421, and 60.5422. See Attachment A Table 8.


96. Bargath failed to report the process unit identification; revisions to equipment inventory counts in the process unit; the dates of process unit shutdowns which occurred within the semiannual reporting period; and, for each month during the semiannual reporting period, information by process unit on the number of leaks detected, the number leaks not repaired, and the facts regarding delay of repair for any unrepaired leaks in the process unit; in their semiannual reports, as described above in Paragraph 84.i, in violation of 40 C.F.R. §§ 60.636, 60.5422, 60.487(c), and 60.487a(c).

### **Enforcement Authority**

97. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), provides that whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of, any requirement or prohibition of, *inter alia*, any rule promulgated under the NSPS requirements of section 111(e) of the CAA, 42 U.S.C. § 7411(e), the NESHAP requirements of section 112(d), 42 U.S.C. § 7412(d), or any rule or permit issued thereunder, the Administrator may issue an administrative penalty order under section 113(d), issue an order requiring compliance with such requirement or prohibition, or bring a civil action pursuant to section 113(b) for injunctive relief and/or civil penalties.

3/16/18

Date



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Suzanne J. Bohan  
Assistant Regional Administrator  
Office of Enforcement, Compliance  
and Environmental Justice

Attachment A - Table 1

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 1	VALVE	0536	000	12/11/2013	0	2413
PLANT 1	VALVE	0584	000	12/11/2013	0	733
PLANT 1	VALVE	3655	000	12/24/2013	0	1042
PLANT 2	VALVE	0506	000	12/9/2013	0	1277
PLANT 2	VALVE	0508	000	12/9/2013	0	3508
PLANT 2	VALVE	6173	000	12/9/2013	0	748
PLANT 2	VALVE	1596	000	12/9/2013	0	1768
PLANT 3.5	VALVE	0485	000	11/25/2013	0	3459
PLANT 3.5	VALVE	0390	000	11/26/2013	0	957
Plant PGX	VALVE	4204	000	11/22/2013	0	1972
PLANT 1	VALVE	0536	000	3/10/2014	0	639
PLANT 1	VALVE	0583	000	3/10/2014	0	767
PLANT 1	VALVE	0584	000	3/10/2014	0	647
PLANT 1	VALVE	0596	000	3/10/2014	0	528
PLANT 1	VALVE	0597	000	3/10/2014	0	810
PLANT 1	VALVE	40801	000	3/11/2014	0	1968
PLANT 1	VALVE	0583	000	6/26/2014	0	718
PLANT 1	VALVE	0536	000	9/4/2014	0	2784
PLANT 1	VALVE	0597	000	9/4/2014	0	555
PLANT 1	VALVE	169175	000	9/5/2014	0	556
PLANT 1	VALVE	0140	000	12/1/2014	0	1080
PLANT 1	VALVE	0580	000	12/2/2014	0	8137
PLANT 1	VALVE	0584	000	12/2/2014	0	751
PLANT 1	VALVE	1742	000	12/3/2014	0	4848
PLANT 1	VALVE	3655	000	12/3/2014	0	2151
PLANT 2	VALVE	6155	000	3/3/2014	0	802
PLANT 2	VALVE	0510	000	3/3/2014	0	1223
PLANT 2	VALVE	0585	000	3/3/2014	0	5226
PLANT 2	VALVE	1596	000	3/3/2014	0	4494
PLANT 2	VALVE	0896	000	3/4/2014	0	546
PLANT 2	VALVE	0508	000	6/17/2014	0	859
PLANT 2	VALVE	0798	000	6/18/2014	0	971
PLANT 2	VALVE	0508	000	9/8/2014	0	7854
PLANT 2	VALVE	0697	000	9/8/2014	0	577
PLANT 2	VALVE	0704	000	9/8/2014	0	9494
PLANT 2	VALVE	1596	000	9/8/2014	0	1261
PLANT 2	VALVE	0508	000	12/1/2014	0	964
PLANT 2	VALVE	0697	000	12/1/2014	0	707
PLANT 2	VALVE	0726	000	12/1/2014	0	6215
PLANT 2	VALVE	0798	000	12/1/2014	0	568
PLANT 3	VALVE	1161	000	2/13/2014	0	861
PLANT 3	VALVE	1165	000	2/13/2014	0	1294
PLANT 3	VALVE	1166	000	2/13/2014	0	516
PLANT 3	VALVE	1167	000	2/13/2014	0	2994
PLANT 3	VALVE	1168	000	2/13/2014	0	5361
PLANT 3	VALVE	50989	000	3/20/2014	0	1084



Attachment A - Table 1

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 3	VALVE	50997	000	3/20/2014	0	740
PLANT 3	VALVE	50998	000	3/20/2014	0	5033
PLANT 3	VALVE	1167	000	5/8/2014	0	1214
PLANT 3	VALVE	1168	000	5/8/2014	0	5289
PLANT 3	VALVE	1335	000	5/8/2014	0	1113
PLANT 3	VALVE	1337	000	5/8/2014	0	1231
PLANT 3	VALVE	1339	000	5/8/2014	0	1205
PLANT 3	VALVE	6293	000	5/8/2014	0	3092
PLANT 3	VALVE	127607	000	5/8/2014	0	1141
PLANT 3	VALVE	1540	000	5/9/2014	0	816
PLANT 3	VALVE	1666	000	5/9/2014	0	533
PLANT 3	VALVE	50988	000	5/14/2014	0	1587
PLANT 3	VALVE	50989	000	5/14/2014	0	959
PLANT 3	VALVE	50990	000	5/14/2014	0	988
PLANT 3	VALVE	50996	000	5/14/2014	0	507
PLANT 3	VALVE	50997	000	5/14/2014	0	1220
PLANT 3	VALVE	50998	000	5/14/2014	0	792
PLANT 3	VALVE	1044	000	8/5/2014	0	2888
PLANT 3	VALVE	1164	000	8/5/2014	0	1153
PLANT 3	VALVE	1165	000	8/5/2014	0	3234
PLANT 3	VALVE	1505	000	8/7/2014	0	5359
PLANT 3	VALVE	50983	000	8/11/2014	0	627
PLANT 3	VALVE	50984	000	8/11/2014	0	588
PLANT 3	VALVE	50986	000	8/11/2014	0	762
PLANT 3	VALVE	50989	000	8/11/2014	0	3632
PLANT 3	VALVE	50997	000	8/11/2014	0	3163
PLANT 3	VALVE	84347	000	8/11/2014	0	1343
PLANT 3	VALVE	1044	000	11/3/2014	0	693
PLANT 3	VALVE	1166	000	11/3/2014	0	1519
PLANT 3	VALVE	50981	000	11/5/2014	0	589
PLANT 3	VALVE	50983	000	11/5/2014	0	611
PLANT 3	VALVE	50988	000	11/5/2014	0	765
PLANT 3	VALVE	50990	000	11/5/2014	0	532
PLANT 3	VALVE	50991	000	11/5/2014	0	553
PLANT 3	VALVE	50993	000	11/5/2014	0	559
PLANT 3	VALVE	50997	000	11/5/2014	0	884
PLANT 3	VALVE	50998	000	11/5/2014	0	6898
PLANT 3.5	VALVE	83886	000	2/10/2014	0	661
PLANT 3.5	VALVE	83888	000	2/10/2014	0	703
PLANT 3.5	VALVE	83889	000	2/10/2014	0	708
PLANT 3.5	VALVE	83892	000	2/10/2014	0	3368
PLANT 3.5	VALVE	83894	000	2/10/2014	0	2395
PLANT 3.5	VALVE	83895	000	2/10/2014	0	3449
PLANT 3.5	VALVE	83897	000	2/10/2014	0	8280
PLANT 3.5	VALVE	0485	000	2/11/2014	0	2548
PLANT 3.5	VALVE	0601	000	2/11/2014	0	835

Attachment A - Table 1

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 3.5	VALVE	83890	000	3/20/2014	0	3564
PLANT 3.5	VALVE	83892	000	3/20/2014	0	7130
PLANT 3.5	VALVE	83895	000	3/20/2014	0	4837
PLANT 3.5	VALVE	83897	000	3/20/2014	0	7903
PLANT 3.5	VALVE	83902	000	3/20/2014	0	592
PLANT 3.5	VALVE	83911	000	3/20/2014	0	1674
PLANT 3.5	VALVE	83912	000	3/20/2014	0	8142
PLANT 3.5	VALVE	0400	000	5/13/2014	0	589
PLANT 3.5	VALVE	0485	000	5/13/2014	0	4517
PLANT 3.5	VALVE	83892	000	5/21/2014	0	1631
PLANT 3.5	VALVE	83893	000	5/21/2014	0	1675
PLANT 3.5	VALVE	83894	000	5/21/2014	0	1291
PLANT 3.5	VALVE	83895	000	5/21/2014	0	2457
PLANT 3.5	VALVE	83909	000	5/21/2014	0	927
PLANT 3.5	VALVE	83911	000	5/21/2014	0	6057
PLANT 3.5	VALVE	83912	000	5/21/2014	0	1415
PLANT 3.5	VALVE	0400	000	8/13/2014	0	748
PLANT 3.5	VALVE	0555	000	8/13/2014	0	1273
PLANT 3.5	VALVE	83890	000	8/14/2014	0	627
PLANT 3.5	VALVE	83892	000	8/14/2014	0	6116
PLANT 3.5	VALVE	83909	000	8/14/2014	0	1906
PLANT 3.5	VALVE	83912	000	8/14/2014	0	1502
PLANT 3.5	VALVE	0485	000	11/3/2014	0	852
PLANT 3.5	VALVE	83890	000	11/5/2014	0	9600
PLANT 3.5	VALVE	83892	000	11/5/2014	0	8332
PLANT 3.5	VALVE	83894	000	11/5/2014	0	2734
PLANT 3.5	VALVE	83897	000	11/5/2014	0	2239
PLANT 3.5	VALVE	83912	000	11/5/2014	0	3014
Plant PGX	VALVE	4204	000	2/14/2014	0	3671
Plant PGX	VALVE	4204	000	5/14/2014	0	3813
Plant PGX	VALVE	0112	000	8/15/2014	0	2290
Plant PGX	VALVE	0146	000	8/15/2014	0	641
Plant PGX	VALVE	4204	000	11/10/2014	0	6759
PLANT 1	VALVE	0580	000	3/4/2015	0	7130
PLANT 1	VALVE	0578	000	3/4/2015	0	722
PLANT 1	VALVE	0596	000	3/4/2015	0	596
PLANT 1	VALVE	0597	000	3/4/2015	0	820
PLANT 1	VALVE	0536	000	6/2/2015	0	7277
PLANT 1	VALVE	0580	000	6/2/2015	0	848
PLANT 1	VALVE	0584	000	6/2/2015	0	1409
PLANT 1	VALVE	0578	000	6/2/2015	0	1260
PLANT 1	VALVE	0596	000	6/2/2015	0	549
PLANT 1	VALVE	0597	000	6/2/2015	0	697
PLANT 1	VALVE	0536	000	9/9/2015	0	711
PLANT 1	VALVE	0580	000	9/9/2015	0	528
PLANT 1	VALVE	0584	000	9/9/2015	0	978



Attachment A - Table 1

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 1	VALVE	0597	000	9/9/2015	0	563
PLANT 1	VALVE	0597	000	12/3/2015	0	1840
PLANT 1	VALVE	0413	000	12/3/2015	0	564
PLANT 1	VALVE	0536	000	12/3/2015	0	8988
PLANT 1	VALVE	0580	000	12/3/2015	0	6613
PLANT 1	VALVE	0584	000	12/3/2015	0	2399
PLANT 1	VALVE	1858	000	12/3/2015	0	981
PLANT 2	VALVE	6154	000	3/9/2015	0	645
PLANT 2	VALVE	0508	000	3/9/2015	0	843
PLANT 2	VALVE	0777	000	3/9/2015	0	3307
PLANT 2	VALVE	0798	000	3/9/2015	0	560
PLANT 2	VALVE	0782	000	9/10/2015	0	1477
PLANT 2	VALVE	0798	000	9/11/2015	0	1275
PLANT 2	VALVE	0798	000	12/11/2015	0	809
PLANT 3	VALVE	1044	000	2/9/2015	0	524
PLANT 3	VALVE	1164	000	2/9/2015	0	769
PLANT 3	VALVE	1165	000	2/9/2015	0	638
PLANT 3	VALVE	1166	000	2/9/2015	0	716
PLANT 3	VALVE	1168	000	2/9/2015	0	520
PLANT 3	VALVE	50989	000	2/12/2015	0	1053
PLANT 3	VALVE	50998	000	2/12/2015	0	1452
PLANT 3	VALVE	102003	000	5/4/2015	0	2381
PLANT 3	VALVE	1559	000	5/5/2015	0	625
PLANT 3	VALVE	102003	000	8/3/2015	0	1334
PLANT 3	VALVE	102000	000	8/3/2015	0	1849
PLANT 3	VALVE	1165	000	8/3/2015	0	2685
PLANT 3	VALVE	50994	000	8/5/2015	0	5217
PLANT 3	VALVE	50999	000	8/5/2015	0	564
PLANT 3	VALVE	50977	000	11/11/2015	0	1856
PLANT 3	VALVE	50989	000	11/11/2015	0	5651
PLANT 3	VALVE	1559	000	11/12/2015	0	2060
PLANT 3	VALVE	50998	000	12/16/2015	0	691
PLANT 3.5	VALVE	0208	000	2/2/2015	0	538
PLANT 3.5	VALVE	0209	000	2/2/2015	0	539
PLANT 3.5	VALVE	83887	000	2/9/2015	0	635
PLANT 3.5	VALVE	83888	000	2/9/2015	0	640
PLANT 3.5	VALVE	83889	000	2/9/2015	0	867
PLANT 3.5	VALVE	83890	000	2/9/2015	0	696
PLANT 3.5	VALVE	83892	000	2/9/2015	0	8301
PLANT 3.5	VALVE	83894	000	2/9/2015	0	4539
PLANT 3.5	VALVE	83897	000	2/9/2015	0	7529
PLANT 3.5	VALVE	83909	000	2/9/2015	0	1739
PLANT 3.5	VALVE	83912	000	2/9/2015	0	1474
PLANT 3.5	VALVE	0485	000	3/25/2015	0	3486
PLANT 3.5	VALVE	0401	000	5/4/2015	0	1184
PLANT 3.5	VALVE	29204	000	5/5/2015	0	747

Attachment A - Table 1

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 3.5	VALVE	0555	000	5/5/2015	0	3354
PLANT 3.5	VALVE	83894	000	5/8/2015	0	609
PLANT 3.5	VALVE	83897	000	5/8/2015	0	545
PLANT 3.5	VALVE	83912	000	5/8/2015	0	912
PLANT 3.5	VALVE	29204	000	8/4/2015	0	2549
PLANT 3.5	VALVE	83891	000	8/5/2015	0	2590
PLANT 3.5	VALVE	83897	000	8/5/2015	0	520
PLANT 3.5	VALVE	83909	000	8/5/2015	0	528
PLANT 3.5	VALVE	83912	000	8/5/2015	0	4520
PLANT 3.5	VALVE	83894	000	11/13/2015	0	740
PLANT 3.5	VALVE	83897	000	11/13/2015	0	7202
Plant PGX	VALVE	4204	000	2/27/2015	0	7767
Plant PGX	VALVE	4212	000	2/27/2015	0	1931
Plant PGX	VALVE	4204	000	11/13/2015	0	1200
PLANT 1	VALVE	102053	000	3/3/2016	0	2460
PLANT 1	VALVE	0584	000	3/10/2016	0	566
PLANT 1	VALVE	0580	000	3/10/2016	0	2949
PLANT 1	VALVE	102052	000	6/6/2016	0	2797
PLANT 1	VALVE	0580	000	7/15/2016	0	4895
PLANT 1	VALVE	0536	000	8/27/2016	1	1107
PLANT 1	VALVE	0597	000	8/27/2016	1	673
PLANT 2	VALVE	0725	000	2/5/2016	0	1205
PLANT 2	VALVE	0508	000	3/3/2016	0	799
PLANT 2	VALVE	0896	000	3/17/2016	0	753
PLANT 2	VALVE	1150	000	3/17/2016	0	2471
PLANT 2	VALVE	0508	000	6/8/2016	0	1848
PLANT 2	VALVE	0508	000	8/25/2016	6	8352
PLANT 2	VALVE	0798	000	8/26/2016	4	1230
PLANT 3	VALVE	50998	000	1/4/2016	0	1487
PLANT 3	VALVE	102000	000	2/3/2016	0	2252
PLANT 3	VALVE	1190	000	2/3/2016	0	1092
PLANT 3	VALVE	1191	000	2/3/2016	0	700
PLANT 3	VALVE	1192	000	2/3/2016	0	4827
PLANT 3	VALVE	50973	000	2/5/2016	0	1326
PLANT 3	VALVE	50977	000	2/5/2016	0	2596
PLANT 3	VALVE	50988	000	2/5/2016	0	958
PLANT 3	VALVE	50989	000	2/5/2016	0	554
PLANT 3	VALVE	84338	000	2/5/2016	0	516
PLANT 3	VALVE	84339	000	2/5/2016	0	689
PLANT 3	VALVE	84340	000	2/5/2016	0	753
PLANT 3	VALVE	102002	000	5/13/2016	0	1266
PLANT 3	VALVE	50973	000	5/13/2016	0	1827
PLANT 3	VALVE	50990	000	5/13/2016	0	1178
PLANT 3	VALVE	50994	000	5/13/2016	0	6862
PLANT 3	VALVE	50997	000	5/13/2016	0	2142
PLANT 3	VALVE	84349	000	5/13/2016	0	980

Attachment A - Table 1

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 3	VALVE	1044	000	8/1/2016	4	6980
PLANT 3	VALVE	1164	000	8/1/2016	4	2536
PLANT 3	VALVE	1165	000	8/1/2016	4	1707
PLANT 3	VALVE	102125	000	8/4/2016	4	1331
PLANT 3	VALVE	50973	000	8/5/2016	4	938
PLANT 3	VALVE	50990	000	8/5/2016	4	782
PLANT 3	VALVE	50994	000	8/5/2016	4	545
PLANT 3	VALVE	50997	000	8/5/2016	4	2732
PLANT 3.5	VALVE	29204	000	2/4/2016	0	1793
PLANT 3.5	VALVE	0637	000	2/4/2016	0	1034
PLANT 3.5	VALVE	83894	000	2/5/2016	0	3174
PLANT 3.5	VALVE	83896	000	2/5/2016	0	513
PLANT 3.5	VALVE	83912	000	2/5/2016	0	1470
PLANT 3.5	VALVE	83912	000	5/12/2016	0	964
PLANT 3.5	VALVE	0400	000	5/12/2016	0	614
PLANT 3.5	VALVE	0400	000	8/2/2016	0	989
PLANT 3.5	VALVE	29204	000	8/2/2016	0	960
PLANT 3.5	VALVE	0581	000	8/2/2016	0	1170
PLANT 3.5	VALVE	0744	000	8/3/2016	0	906
PLANT 3.5	VALVE	83867	000	8/4/2016	3	1631
PLANT 3.5	VALVE	83868	000	8/4/2016	3	914
PLANT 3.5	VALVE	83890	000	8/5/2016	1	8459
PLANT 3.5	VALVE	83891	000	8/5/2016	1	1073
PLANT 3.5	VALVE	83892	000	8/5/2016	1	717
Plant PGX	VALVE	4218	000	5/16/2016	0	782
Plant PGX	VALVE	0112	000	8/5/2016	5	776

Attachment A - Table 2a

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 1	VALVE	0536	000	12/11/2013	0	2413
PLANT 1	VALVE	0584	000	12/11/2013	0	733
PLANT 1	VALVE	3655	000	12/24/2013	0	1042
PLANT 2	VALVE	0506	000	12/9/2013	0	1277
PLANT 2	VALVE	0508	000	12/9/2013	0	3508
PLANT 2	VALVE	6173	000	12/9/2013	0	748
PLANT 2	VALVE	1596	000	12/9/2013	0	1768
PLANT 3.5	VALVE	0485	000	11/25/2013	0	3459
PLANT 3.5	VALVE	0390	000	11/26/2013	0	957
Plant PGX	VALVE	4204	000	11/22/2013	0	1972
PLANT 1	VALVE	0536	000	3/10/2014	0	639
PLANT 1	VALVE	0583	000	3/10/2014	0	767
PLANT 1	VALVE	0584	000	3/10/2014	0	647
PLANT 1	VALVE	0596	000	3/10/2014	0	528
PLANT 1	VALVE	0597	000	3/10/2014	0	810
PLANT 1	VALVE	40801	000	3/11/2014	0	1968
PLANT 1	VALVE	0583	000	6/26/2014	0	718
PLANT 1	VALVE	0536	000	9/4/2014	0	2784
PLANT 1	VALVE	0597	000	9/4/2014	0	555
PLANT 1	VALVE	169175	000	9/5/2014	0	556
PLANT 1	VALVE	0140	000	12/1/2014	0	1080
PLANT 1	VALVE	0580	000	12/2/2014	0	8137
PLANT 1	VALVE	0584	000	12/2/2014	0	751
PLANT 1	VALVE	1742	000	12/3/2014	0	4848
PLANT 1	VALVE	3655	000	12/3/2014	0	2151
PLANT 2	VALVE	6155	000	3/3/2014	0	802
PLANT 2	VALVE	0510	000	3/3/2014	0	1223
PLANT 2	VALVE	0585	000	3/3/2014	0	5226
PLANT 2	VALVE	1596	000	3/3/2014	0	4494
PLANT 2	VALVE	0896	000	3/4/2014	0	546
PLANT 2	VALVE	0508	000	6/17/2014	0	859
PLANT 2	VALVE	0798	000	6/18/2014	0	971
PLANT 2	VALVE	0508	000	9/8/2014	0	7854
PLANT 2	VALVE	0697	000	9/8/2014	0	577
PLANT 2	VALVE	0704	000	9/8/2014	0	9494
PLANT 2	VALVE	1596	000	9/8/2014	0	1261
PLANT 2	VALVE	0508	000	12/1/2014	0	964
PLANT 2	VALVE	0697	000	12/1/2014	0	707
PLANT 2	VALVE	0726	000	12/1/2014	0	6215
PLANT 2	VALVE	0798	000	12/1/2014	0	568
PLANT 3	VALVE	1161	000	2/13/2014	0	861
PLANT 3	VALVE	1165	000	2/13/2014	0	1294
PLANT 3	VALVE	1166	000	2/13/2014	0	516
PLANT 3	VALVE	1167	000	2/13/2014	0	2994
PLANT 3	VALVE	1168	000	2/13/2014	0	5361
PLANT 3	VALVE	50989	000	3/20/2014	0	1084



Attachment A - Table 2a

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 3	VALVE	50997	000	3/20/2014	0	740
PLANT 3	VALVE	50998	000	3/20/2014	0	5033
PLANT 3	VALVE	1167	000	5/8/2014	0	1214
PLANT 3	VALVE	1168	000	5/8/2014	0	5289
PLANT 3	VALVE	1335	000	5/8/2014	0	1113
PLANT 3	VALVE	1337	000	5/8/2014	0	1231
PLANT 3	VALVE	1339	000	5/8/2014	0	1205
PLANT 3	VALVE	6293	000	5/8/2014	0	3092
PLANT 3	VALVE	127607	000	5/8/2014	0	1141
PLANT 3	VALVE	1540	000	5/9/2014	0	816
PLANT 3	VALVE	1666	000	5/9/2014	0	533
PLANT 3	VALVE	50988	000	5/14/2014	0	1587
PLANT 3	VALVE	50989	000	5/14/2014	0	959
PLANT 3	VALVE	50990	000	5/14/2014	0	988
PLANT 3	VALVE	50996	000	5/14/2014	0	507
PLANT 3	VALVE	50997	000	5/14/2014	0	1220
PLANT 3	VALVE	50998	000	5/14/2014	0	792
PLANT 3	VALVE	1044	000	8/5/2014	0	2888
PLANT 3	VALVE	1164	000	8/5/2014	0	1153
PLANT 3	VALVE	1165	000	8/5/2014	0	3234
PLANT 3	VALVE	1505	000	8/7/2014	0	5359
PLANT 3	VALVE	50983	000	8/11/2014	0	627
PLANT 3	VALVE	50984	000	8/11/2014	0	588
PLANT 3	VALVE	50986	000	8/11/2014	0	762
PLANT 3	VALVE	50989	000	8/11/2014	0	3632
PLANT 3	VALVE	50997	000	8/11/2014	0	3163
PLANT 3	VALVE	84347	000	8/11/2014	0	1343
PLANT 3	VALVE	1044	000	11/3/2014	0	693
PLANT 3	VALVE	1166	000	11/3/2014	0	1519
PLANT 3	VALVE	50981	000	11/5/2014	0	589
PLANT 3	VALVE	50983	000	11/5/2014	0	611
PLANT 3	VALVE	50988	000	11/5/2014	0	765
PLANT 3	VALVE	50990	000	11/5/2014	0	532
PLANT 3	VALVE	50991	000	11/5/2014	0	553
PLANT 3	VALVE	50993	000	11/5/2014	0	559
PLANT 3	VALVE	50997	000	11/5/2014	0	884
PLANT 3	VALVE	50998	000	11/5/2014	0	6898
PLANT 3.5	VALVE	83886	000	2/10/2014	0	661
PLANT 3.5	VALVE	83888	000	2/10/2014	0	703
PLANT 3.5	VALVE	83889	000	2/10/2014	0	708
PLANT 3.5	VALVE	83892	000	2/10/2014	0	3368
PLANT 3.5	VALVE	83894	000	2/10/2014	0	2395
PLANT 3.5	VALVE	83895	000	2/10/2014	0	3449
PLANT 3.5	VALVE	83897	000	2/10/2014	0	8280
PLANT 3.5	VALVE	0485	000	2/11/2014	0	2548
PLANT 3.5	VALVE	0601	000	2/11/2014	0	835

Attachment A - Table 2a

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 3.5	VALVE	83890	000	3/20/2014	0	3564
PLANT 3.5	VALVE	83892	000	3/20/2014	0	7130
PLANT 3.5	VALVE	83895	000	3/20/2014	0	4837
PLANT 3.5	VALVE	83897	000	3/20/2014	0	7903
PLANT 3.5	VALVE	83902	000	3/20/2014	0	592
PLANT 3.5	VALVE	83911	000	3/20/2014	0	1674
PLANT 3.5	VALVE	83912	000	3/20/2014	0	8142
PLANT 3.5	VALVE	0400	000	5/13/2014	0	589
PLANT 3.5	VALVE	0485	000	5/13/2014	0	4517
PLANT 3.5	VALVE	83892	000	5/21/2014	0	1631
PLANT 3.5	VALVE	83893	000	5/21/2014	0	1675
PLANT 3.5	VALVE	83894	000	5/21/2014	0	1291
PLANT 3.5	VALVE	83895	000	5/21/2014	0	2457
PLANT 3.5	VALVE	83909	000	5/21/2014	0	927
PLANT 3.5	VALVE	83911	000	5/21/2014	0	6057
PLANT 3.5	VALVE	83912	000	5/21/2014	0	1415
PLANT 3.5	VALVE	0400	000	8/13/2014	0	748
PLANT 3.5	VALVE	0555	000	8/13/2014	0	1273
PLANT 3.5	VALVE	83890	000	8/14/2014	0	627
PLANT 3.5	VALVE	83892	000	8/14/2014	0	6116
PLANT 3.5	VALVE	83909	000	8/14/2014	0	1906
PLANT 3.5	VALVE	83912	000	8/14/2014	0	1502
PLANT 3.5	VALVE	0485	000	11/3/2014	0	852
PLANT 3.5	VALVE	83890	000	11/5/2014	0	9600
PLANT 3.5	VALVE	83892	000	11/5/2014	0	8332
PLANT 3.5	VALVE	83894	000	11/5/2014	0	2734
PLANT 3.5	VALVE	83897	000	11/5/2014	0	2239
PLANT 3.5	VALVE	83912	000	11/5/2014	0	3014
Plant PGX	VALVE	4204	000	2/14/2014	0	3671
Plant PGX	VALVE	4204	000	5/14/2014	0	3813
Plant PGX	VALVE	0112	000	8/15/2014	0	2290
Plant PGX	VALVE	0146	000	8/15/2014	0	641
Plant PGX	VALVE	4204	000	11/10/2014	0	6759
PLANT 1	VALVE	0580	000	3/4/2015	0	7130
PLANT 1	VALVE	0578	000	3/4/2015	0	722
PLANT 1	VALVE	0596	000	3/4/2015	0	596
PLANT 1	VALVE	0597	000	3/4/2015	0	820
PLANT 1	VALVE	0536	000	6/2/2015	0	7277
PLANT 1	VALVE	0580	000	6/2/2015	0	848
PLANT 1	VALVE	0584	000	6/2/2015	0	1409
PLANT 1	VALVE	0578	000	6/2/2015	0	1260
PLANT 1	VALVE	0596	000	6/2/2015	0	549
PLANT 1	VALVE	0597	000	6/2/2015	0	697
PLANT 1	VALVE	0536	000	9/9/2015	0	711
PLANT 1	VALVE	0580	000	9/9/2015	0	528
PLANT 1	VALVE	0584	000	9/9/2015	0	978



Attachment A - Table 2a

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 1	VALVE	0597	000	9/9/2015	0	563
PLANT 1	VALVE	0597	000	12/3/2015	0	1840
PLANT 1	VALVE	0413	000	12/3/2015	0	564
PLANT 1	VALVE	0536	000	12/3/2015	0	8988
PLANT 1	VALVE	0580	000	12/3/2015	0	6613
PLANT 1	VALVE	0584	000	12/3/2015	0	2399
PLANT 1	VALVE	1858	000	12/3/2015	0	981
PLANT 2	VALVE	6154	000	3/9/2015	0	645
PLANT 2	VALVE	0508	000	3/9/2015	0	843
PLANT 2	VALVE	0777	000	3/9/2015	0	3307
PLANT 2	VALVE	0798	000	3/9/2015	0	560
PLANT 2	VALVE	0782	000	9/10/2015	0	1477
PLANT 2	VALVE	0798	000	9/11/2015	0	1275
PLANT 2	VALVE	0798	000	12/11/2015	0	809
PLANT 3	VALVE	1044	000	2/9/2015	0	524
PLANT 3	VALVE	1164	000	2/9/2015	0	769
PLANT 3	VALVE	1165	000	2/9/2015	0	638
PLANT 3	VALVE	1166	000	2/9/2015	0	716
PLANT 3	VALVE	1168	000	2/9/2015	0	520
PLANT 3	VALVE	50989	000	2/12/2015	0	1053
PLANT 3	VALVE	50998	000	2/12/2015	0	1452
PLANT 3	VALVE	102003	000	5/4/2015	0	2381
PLANT 3	VALVE	1559	000	5/5/2015	0	625
PLANT 3	VALVE	102003	000	8/3/2015	0	1334
PLANT 3	VALVE	102000	000	8/3/2015	0	1849
PLANT 3	VALVE	1165	000	8/3/2015	0	2685
PLANT 3	VALVE	50994	000	8/5/2015	0	5217
PLANT 3	VALVE	50999	000	8/5/2015	0	564
PLANT 3	VALVE	50977	000	11/11/2015	0	1856
PLANT 3	VALVE	50989	000	11/11/2015	0	5651
PLANT 3	VALVE	1559	000	11/12/2015	0	2060
PLANT 3	VALVE	50998	000	12/16/2015	0	691
PLANT 3.5	VALVE	0208	000	2/2/2015	0	538
PLANT 3.5	VALVE	0209	000	2/2/2015	0	539
PLANT 3.5	VALVE	83887	000	2/9/2015	0	635
PLANT 3.5	VALVE	83888	000	2/9/2015	0	640
PLANT 3.5	VALVE	83889	000	2/9/2015	0	867
PLANT 3.5	VALVE	83890	000	2/9/2015	0	696
PLANT 3.5	VALVE	83892	000	2/9/2015	0	8301
PLANT 3.5	VALVE	83894	000	2/9/2015	0	4539
PLANT 3.5	VALVE	83897	000	2/9/2015	0	7529
PLANT 3.5	VALVE	83909	000	2/9/2015	0	1739
PLANT 3.5	VALVE	83912	000	2/9/2015	0	1474
PLANT 3.5	VALVE	0485	000	3/25/2015	0	3486
PLANT 3.5	VALVE	0401	000	5/4/2015	0	1184
PLANT 3.5	VALVE	29204	000	5/5/2015	0	747

Attachment A - Table 2a

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 3.5	VALVE	0555	000	5/5/2015	0	3354
PLANT 3.5	VALVE	83894	000	5/8/2015	0	609
PLANT 3.5	VALVE	83897	000	5/8/2015	0	545
PLANT 3.5	VALVE	83912	000	5/8/2015	0	912
PLANT 3.5	VALVE	29204	000	8/4/2015	0	2549
PLANT 3.5	VALVE	83891	000	8/5/2015	0	2590
PLANT 3.5	VALVE	83897	000	8/5/2015	0	520
PLANT 3.5	VALVE	83909	000	8/5/2015	0	528
PLANT 3.5	VALVE	83912	000	8/5/2015	0	4520
PLANT 3.5	VALVE	83894	000	11/13/2015	0	740
PLANT 3.5	VALVE	83897	000	11/13/2015	0	7202
Plant PGX	VALVE	4204	000	2/27/2015	0	7767
Plant PGX	VALVE	4212	000	2/27/2015	0	1931
Plant PGX	VALVE	4204	000	11/13/2015	0	1200
PLANT 1	VALVE	102053	000	3/3/2016	0	2460
PLANT 1	VALVE	0584	000	3/10/2016	0	566
PLANT 1	VALVE	0580	000	3/10/2016	0	2949
PLANT 1	VALVE	102052	000	6/6/2016	0	2797
PLANT 1	VALVE	0580	000	7/15/2016	0	4895
PLANT 1	VALVE	0536	000	8/27/2016	1	1107
PLANT 1	VALVE	0597	000	8/27/2016	1	673
PLANT 2	VALVE	0725	000	2/5/2016	0	1205
PLANT 2	VALVE	0508	000	3/3/2016	0	799
PLANT 2	VALVE	0896	000	3/17/2016	0	753
PLANT 2	VALVE	1150	000	3/17/2016	0	2471
PLANT 2	VALVE	0508	000	6/8/2016	0	1848
PLANT 2	VALVE	0508	000	8/25/2016	6	8352
PLANT 2	VALVE	0798	000	8/26/2016	4	1230
PLANT 3	VALVE	50998	000	1/4/2016	0	1487
PLANT 3	VALVE	102000	000	2/3/2016	0	2252
PLANT 3	VALVE	1190	000	2/3/2016	0	1092
PLANT 3	VALVE	1191	000	2/3/2016	0	700
PLANT 3	VALVE	1192	000	2/3/2016	0	4827
PLANT 3	VALVE	50973	000	2/5/2016	0	1326
PLANT 3	VALVE	50977	000	2/5/2016	0	2596
PLANT 3	VALVE	50988	000	2/5/2016	0	958
PLANT 3	VALVE	50989	000	2/5/2016	0	554
PLANT 3	VALVE	84338	000	2/5/2016	0	516
PLANT 3	VALVE	84339	000	2/5/2016	0	689
PLANT 3	VALVE	84340	000	2/5/2016	0	753
PLANT 3	VALVE	102002	000	5/13/2016	0	1266
PLANT 3	VALVE	50973	000	5/13/2016	0	1827
PLANT 3	VALVE	50990	000	5/13/2016	0	1178
PLANT 3	VALVE	50994	000	5/13/2016	0	6862
PLANT 3	VALVE	50997	000	5/13/2016	0	2142
PLANT 3	VALVE	84349	000	5/13/2016	0	980

Attachment A - Table 2a

Plant	ComponentType	Tag	Extension	InspectionDate	Background	Reading
PLANT 3	VALVE	1044	000	8/1/2016	4	6980
PLANT 3	VALVE	1164	000	8/1/2016	4	2536
PLANT 3	VALVE	1165	000	8/1/2016	4	1707
PLANT 3	VALVE	102125	000	8/4/2016	4	1331
PLANT 3	VALVE	50973	000	8/5/2016	4	938
PLANT 3	VALVE	50990	000	8/5/2016	4	782
PLANT 3	VALVE	50994	000	8/5/2016	4	545
PLANT 3	VALVE	50997	000	8/5/2016	4	2732
PLANT 3.5	VALVE	29204	000	2/4/2016	0	1793
PLANT 3.5	VALVE	0637	000	2/4/2016	0	1034
PLANT 3.5	VALVE	83894	000	2/5/2016	0	3174
PLANT 3.5	VALVE	83896	000	2/5/2016	0	513
PLANT 3.5	VALVE	83912	000	2/5/2016	0	1470
PLANT 3.5	VALVE	83912	000	5/12/2016	0	964
PLANT 3.5	VALVE	0400	000	5/12/2016	0	614
PLANT 3.5	VALVE	0400	000	8/2/2016	0	989
PLANT 3.5	VALVE	29204	000	8/2/2016	0	960
PLANT 3.5	VALVE	0581	000	8/2/2016	0	1170
PLANT 3.5	VALVE	0744	000	8/3/2016	0	906
PLANT 3.5	VALVE	83867	000	8/4/2016	3	1631
PLANT 3.5	VALVE	83868	000	8/4/2016	3	914
PLANT 3.5	VALVE	83890	000	8/5/2016	1	8459
PLANT 3.5	VALVE	83891	000	8/5/2016	1	1073
PLANT 3.5	VALVE	83892	000	8/5/2016	1	717
Plant PGX	VALVE	4218	000	5/16/2016	0	782
Plant PGX	VALVE	0112	000	8/5/2016	5	776

Attachment A - Table 2b

LeakDate	LeakReading	ProcessUnitID	UnitDescription	Component_ID	Tag
02-Nov-12	4646	PLANTPGX	Plant PGX	59681	0078
02-Nov-12	3747	PLANTPGX	Plant PGX	59715	0112
21-Nov-12	6246	PLANT3.5	PLANT 3.5	59121	0204
26-Nov-12	1093	PLANT3.5	PLANT 3.5	59305	0400
26-Nov-12	882	PLANT3.5	PLANT 3.5	59390	0493
27-Nov-12	591	PLANT3.5	PLANT 3.5	59507	0622
27-Nov-12	2332	PLANT3.5	PLANT 3.5	59508	0623
03-Dec-12	510	PLANT1	PLANT 1	53478	0597
03-Dec-12	1560	PLANT1	PLANT 1	53483	0602
04-Dec-12	781	PLANT1	PLANT 1	53293	0413
04-Dec-12	1186	PLANT1	PLANT 1	53303	125757
05-Dec-12	2961	PLANT1	PLANT 1	53588	3633
05-Dec-12	3776	PLANT1	PLANT 1	53590	3635
05-Dec-12	5975	PLANT1	PLANT 1	53592	3637
11-Dec-12	514	PLANT2	PLANT 2	53793	104197
11-Dec-12	508	PLANT2	PLANT 2	53801	0694
12-Dec-12	3015	PLANT2	PLANT 2	54247	1152
12-Dec-12	600	PLANT2	PLANT 2	68900	4101
01-Feb-13	1093	PLANT3	PLANT 3	58274	1208
01-Feb-13	761	PLANT3.5	PLANT 3.5	59125	0208
04-Feb-13	2198	PLANT3.5	PLANT 3.5	59295	0390
04-Feb-13	808	PLANT3	PLANT 3	58562	1509
05-Feb-13	905	PLANT3.5	PLANT 3.5	59384	0487
05-Feb-13	1113	PLANT3.5	PLANT 3.5	59609	0495
05-Feb-13	5985	PLANT3.5	PLANT 3.5	78029	4553
05-Feb-13	839	PLANT3.5	PLANT 3.5	59406	0518
05-Feb-13	1590	PLANT3.5	PLANT 3.5	64604	1053
05-Feb-13	2218	PLANT3.5	PLANT 3.5	59479	0593
05-Feb-13	815	PLANT3.5	PLANT 3.5	59487	0601
05-Feb-13	1270	PLANT3.5	PLANT 3.5	59505	0620
04-Mar-13	505	PLANT2	PLANT 2	53619	6156
04-Mar-13	1182	PLANT2	PLANT 2	53623	0510
04-Mar-13	599	PLANT2	PLANT 2	53833	0726
04-Mar-13	1577	PLANT2	PLANT 2	78739	1596
04-Mar-13	920	PLANT2	PLANT 2	53901	0798
05-Mar-13	1597	PLANT1	PLANT 1	78717	6110
06-Mar-13	826	PLANT2	PLANT 2	54381	103925
06-Mar-13	925	PLANT1	PLANT 1	53453	0571
06-Mar-13	910	PLANT1	PLANT 1	53463	0583
06-Mar-13	802	PLANT1	PLANT 1	53464	0584
12-Mar-13	513	PLANT2	PLANT 2	54902	3621
21-Mar-13	7782	PLANT3.5	PLANT 3.5	59382	0485
27-Mar-13	4411	PLANT1	PLANT 1	53606	3656
03-May-13	697	PLANT3	PLANT 3	58625	1570
03-May-13	783	PLANT3.5	PLANT 3.5	59055	0136

Attachment A - Table 2b

LeakDate	LeakReading	ProcessUnitID	UnitDescription	Component_ID	Tag
03-May-13	653	PLANT3.5	PLANT 3.5	59056	0137
03-May-13	804	PLANT3.5	PLANT 3.5	59098	0180
14-May-13	508	PLANT3.5	PLANT 3.5	59441	0555
04-Jun-13	747	PLANT2	PLANT 2	60218	6161
04-Jun-13	1765	PLANT2	PLANT 2	53629	0516
04-Jun-13	5533	PLANT2	PLANT 2	53632	0518
04-Jun-13	752	PLANT2	PLANT 2	53806	0699
04-Jun-13	728	PLANT2	PLANT 2	53832	0725
04-Jun-13	573	PLANT2	PLANT 2	53887	0782
06-Jun-13	5673	PLANT1	PLANT 1	53458	0578
06-Jun-13	1198	PLANT1	PLANT 1	53477	0596
07-Jun-13	624	PLANT2	PLANT 2	54468	1353
24-Jun-13	2350	PLANT1	PLANT 1	52798	F916
02-Aug-13	689	PLANT3	PLANT 3	58199	1132
06-Aug-13	2811	PLANTPGX	Plant PGX	68911	4204
06-Aug-13	540	PLANTPGX	Plant PGX	59710	0107
03-Sep-13	626	PLANT2	PLANT 2	53637	0523
03-Sep-13	581	PLANT1	PLANT 1	53136	0166
04-Sep-13	559	PLANT2	PLANT 2	78737	1594
04-Sep-13	3376	PLANT1	PLANT 1	53418	0536
05-Sep-13	517	PLANT2	PLANT 2	54248	1153



Attachment A - Table 3

ComponentType	Subtype	Inspection_ID	Added	DateCompleted	ProcessUnitID	UnitDescription	Component_ID	Tag	Extension
VALVE	Control Valve	395390	26-Dec-12	19-Apr-13	PLANT2	PLANT 2	53832	0725	000
VALVE	Control Valve	556453	24-Dec-13	06-Jul-15	PLANT2	PLANT 2	53832	0725	000
VALVE	Control Valve	396091	26-Dec-12	19-Apr-13	PLANT2	PLANT 2	53887	0782	000
VALVE	Control Valve	562235	07-Jan-14	05-Aug-15	PLANT2	PLANT 2	53887	0782	000
VALVE	Control Valve	681307	12-Nov-15	9/1/2016	PLANT2	PLANT 2	53887	0782	000
VALVE	Control Valve	646187	16-Apr-15	9/1/2016	PLANT3.5	PLANT 3.5	59382	0485	000
VALVE	Control Valve	618708	05-Nov-14	05-Feb-16	PLANT3.5	PLANT 3.5	128491	83800	000
VALVE	Control Valve	653449	14-May-15	10-Jun-16	PLANT3.5	PLANT 3.5	128583	83892	000
VALVE	Control Valve	603500	29-Aug-14	10-Jun-16	PLANT3.5	PLANT 3.5	128586	83895	000

Attachment A - Table 4

Inspection_ID	Added	DateCompleted	Expected	Due	Subtype	ProcessUnitID	UnitDescription	Component_ID	Tag	Extension
625925	12/16/2014	7/6/2015	28-Feb-15	28-Feb-15	GATE VALVE	PLANT2	PLANT 2	53793	104197	000
395390	12/26/2012	4/19/2013	26-Jan-13	26-Jan-13	Control Valve	PLANT2	PLANT 2	53832	0725	000
396091	12/26/2012	4/19/2013	26-Jan-13	26-Jan-13	Control Valve	PLANT2	PLANT 2	53887	0782	000
681307	11/12/2015	9/1/2016	01-Jun-17	01-Jun-17	Control Valve	PLANT2	PLANT 2	53887	0782	000
395831	12/26/2012	4/19/2013	26-Jan-13	26-Jan-13	GATE VALVE	PLANT2	PLANT 2	53997	103933	000
538629	9/9/2013	10/1/2013	30-Oct-13	30-Oct-13	GATE VALVE	PLANT3	PLANT 3	58522	1468	000
646187	4/16/2015	9/1/2016	01-Jul-17	01-Jul-17	Control Valve	PLANT3.5	PLANT 3.5	59382	0485	000
603500	8/29/2014	6/10/2016	29-Aug-16	29-Aug-16	Control Valve	PLANT3.5	PLANT 3.5	128586	83895	000

Attachment A - Table 5

UnitDescription	Component_ID	Tag	POOSDate	ComponentType	Subtype	ServiceType	DTM	NonDetectableEmitter	CVS	AddDate
PLANT 2	121603	46462		VALVE	GATE VALVE	GAS	0	0	0	12-Mar-13
PLANT 2	121604	46463		VALVE	GATE VALVE	GAS	0	0	0	12-Mar-13
PLANT 2	121605	46464		VALVE	Control Valve	GAS	0	0	0	12-Mar-13
PLANT 2	121606	46465		VALVE	Ball Valve	GAS	0	0	0	12-Mar-13
PLANT 2	121607	46466		VALVE	GATE VALVE	GAS	0	0	0	12-Mar-13
PLANT 2	121608	46467		VALVE	GATE VALVE	GAS	0	0	0	12-Mar-13
PLANT 2	121609	46468		VALVE	NEEDLE VALVE	GAS	0	0	0	12-Mar-13
PLANT 2	121610	46469		VALVE	NEEDLE VALVE	GAS	0	0	0	12-Mar-13
PLANT 2	121611	46469x		VALVE	NEEDLE VALVE	GAS	0	0	0	29-Mar-13
PLANT 3.5	127917	0750		VALVE	Hand Valve	LIGHT LIQUID	0	0	0	05-Aug-13
PLANT 3.5	127917	0750		VALVE	Hand Valve	LIGHT LIQUID	0	0	0	05-Aug-13
PLANT 1	128286	102156		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	09-Dec-13
PLANT 2	129022	84377		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129022	84377		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129023	84378		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129023	84378		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129024	84379		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129024	84379		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129025	84380		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129025	84380		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129026	84381		VALVE	Control Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129026	84381		VALVE	Control Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129027	84382		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129027	84382		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129028	84383		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129028	84383		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129029	84384		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129029	84384		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129030	84385		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129030	84385		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129031	84386		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129031	84386		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129032	84387		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129032	84387		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129033	84388		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129033	84388		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129034	84389		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129034	84389		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129035	84390	09-Mar-16	VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129036	84391		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129036	84391		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129037	84392		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129037	84392		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	03-Mar-14
PLANT 2	129038	103936		VALVE	GATE VALVE	LIGHT LIQUID	0	0	0	04-Mar-14
PLANT 2	129038	103936		VALVE	GATE VALVE	LIGHT LIQUID	0	0	0	04-Mar-14
PLANT 2	129039	6082		VALVE	GATE VALVE	LIGHT LIQUID	0	0	0	05-Mar-14
PLANT 2	129040	6251		VALVE	GATE VALVE	LIGHT LIQUID	0	0	0	05-Mar-14
PLANT 2	129041	1294		VALVE	Ball Valve	GAS	0	0	0	05-Mar-14
PLANT 2	129042	84393		VALVE	Ball Valve	LIGHT LIQUID	0	0	0	06-Mar-14
PLANT 2	129043	1402		VALVE	GATE VALVE	LIGHT LIQUID	0	0	0	06-Mar-14

Attachment A - Table 6

CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2012 3	7/1/2012	53259	2436	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	52545	1752	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53273	2450	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53261	2438	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53262	2439	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53274	2451	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53275	2452	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53278	2455	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53260	2437	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53272	2449	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53271	2448	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53263	2440	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53264	2441	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53265	2442	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53266	2443	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53267	2444	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53268	2445	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	52761	2435	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2012 3	7/1/2012	53269	2446	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	53270	2447	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 3	7/1/2012	52546	1753	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 3	7/1/2012	54201	1105	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 3	7/1/2012	54628	1696	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 3	7/1/2012	54531	1420	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 3	7/1/2012	54576	1642	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 3	7/1/2012	54867	2460	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 3	7/1/2012	54536	1425	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 3	7/1/2012	54533	1422	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 3	7/1/2012	54532	1421	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 3	7/1/2012	54602	1669	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2012 3	7/1/2012	58901	1850	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 3	2012 3	7/1/2012	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3	2012 3	7/1/2012	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2012 3	7/1/2012	60287	1914	000	Monthly	0	0	0	02-Feb-10
VALVE	PLANT 3.5	2012 3	7/1/2012	78034	4558	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2012 3	7/1/2012	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2012 3	7/1/2012	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 1	2012 4	10/1/2012	53276	2453	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 4	10/1/2012	53277	2454	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 4	10/1/2012	53279	2456	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 4	10/1/2012	53004	0040	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 4	10/1/2012	52988	0024	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2012 4	10/1/2012	53006	0042	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	53708	0598	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	54369	1251	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	53709	0600	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	54201	1105	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	53710	0602	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	54370	1252	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	53610	0350	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	54602	1669	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	54628	1696	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	54629	1697	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	54576	1642	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	54867	2460	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2012 4	10/1/2012	54895	3614	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2012 4	10/1/2012	58901	1850	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 3	2012 4	10/1/2012	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 1	1/1/2013	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09



Attachment A - Table 6

CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2013 1	1/1/2013	53460	0580	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	53887	0782	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 2	2013 1	1/1/2013	53710	0602	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	53832	0725	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	54201	1105	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	54370	1252	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	53709	0600	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	54369	1251	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	53708	0598	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	53997	103933	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 2	2013 1	1/1/2013	54576	1642	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	54602	1669	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	54895	3614	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	54628	1696	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 1	1/1/2013	54867	2460	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2013 1	1/1/2013	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3	2013 1	1/1/2013	58901	1850	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 3	2013 1	1/1/2013	79617	6067	000	Quarterly	0	0	0	01-Jan-01
PUMP	PLANT 1	2013 2	4/1/2013	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2013 2	4/1/2013	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 2	4/1/2013	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 2	4/1/2013	54201	1105	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 2	4/1/2013	54867	2460	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 2	4/1/2013	54576	1642	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2013 2	4/1/2013	58901	1850	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 3	2013 2	4/1/2013	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2013 2	4/1/2013	78746	6287	000	Quarterly	0	0	0	06-Jul-10
PUMP	PLANT 1	2013 3	7/1/2013	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2013 3	7/1/2013	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2013 3	7/1/2013	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2013 3	7/1/2013	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2013 3	7/1/2013	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09



Attachment A - Table 6

CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2013 3	7/1/2013	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 3	7/1/2013	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 3	7/1/2013	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	54370	1252	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	54369	1251	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	53708	0598	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	53710	0602	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	54201	1105	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	53709	0600	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	54602	1669	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	54867	2460	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	54576	1642	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	54628	1696	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 3	7/1/2013	54895	3614	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2013 3	7/1/2013	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2013 3	7/1/2013	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3.5	2013 3	7/1/2013	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2013 3	7/1/2013	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2013 3	7/1/2013	78034	4558	000	Quarterly	0	0	0	13-May-10
PUMP	PLANT 1	2013 4	10/1/2013	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2013 4	10/1/2013	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 4	10/1/2013	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 4	10/1/2013	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 4	10/1/2013	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 4	10/1/2013	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01

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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2013 4	10/1/2013	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2013 4	10/1/2013	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2013 4	10/1/2013	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2013 4	10/1/2013	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 4	10/1/2013	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 4	10/1/2013	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 4	10/1/2013	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2013 4	10/1/2013	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2013 4	10/1/2013	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2013 4	10/1/2013	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 2	2013 4	10/1/2013	54370	1252	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	54201	1105	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	53710	0602	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	53708	0598	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	54369	1251	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	53709	0600	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	54867	2460	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	54895	3614	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	54602	1669	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	54628	1696	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2013 4	10/1/2013	54576	1642	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2013 4	10/1/2013	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2013 4	10/1/2013	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3.5	2013 4	10/1/2013	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2013 4	10/1/2013	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2013 4	10/1/2013	78034	4558	000	Quarterly	0	0	0	13-May-10
PUMP	PLANT 1	2014 1	1/1/2014	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2014 1	1/1/2014	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2014 1	1/1/2014	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2014 1	1/1/2014	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09

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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2014 1	1/1/2014	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2014 1	1/1/2014	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 1	1/1/2014	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 1	1/1/2014	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
PUMP	PLANT 1	2014 2	4/1/2014	52195	0854	000	Monthly	0	0	0	01-Jan-01
PUMP	PLANT 1	2014 2	4/1/2014	52196	0867	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2014 2	4/1/2014	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2014 2	4/1/2014	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09



Attachment A - Table 6

CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2014 2	4/1/2014	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 2	4/1/2014	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 2	4/1/2014	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 2	4/1/2014	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 2	4/1/2014	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 2	4/1/2014	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2014 2	4/1/2014	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 2	4/1/2014	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2014 2	4/1/2014	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 2	4/1/2014	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 2	4/1/2014	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 2	4/1/2014	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 2	4/1/2014	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3.5	2014 2	4/1/2014	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2014 2	4/1/2014	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2014 2	4/1/2014	78034	4558	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2014 2	4/1/2014	59275	0365	000	Quarterly	0	0	0	07-Jul-09
PUMP	PLANT 1	2014 3	7/1/2014	52195	0854	000	Monthly	0	0	0	01-Jan-01
PUMP	PLANT 1	2014 3	7/1/2014	52196	0867	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 3	7/1/2014	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 3	7/1/2014	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2014 3	7/1/2014	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53003	0039	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	78716	3162	000	Quarterly-3	0	0	0	06-Jul-10
VALVE	PLANT 1	2014 3	7/1/2014	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 3	7/1/2014	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 3	7/1/2014	53010	0046	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53000	0036	000	Quarterly-3	0	0	0	07-Jul-09

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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2014 3	7/1/2014	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53002	0038	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53001	0037	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53577	3622	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	52999	0035	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2014 3	7/1/2014	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 3	7/1/2014	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	52997	0033	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 3	7/1/2014	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	52996	0032	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	52995	0031	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 3	7/1/2014	52994	0030	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	52998	0034	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2014 3	7/1/2014	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 3	7/1/2014	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 3	7/1/2014	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2014 3	7/1/2014	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 3	7/1/2014	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2014 3	7/1/2014	53887	0782	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 2	2014 3	7/1/2014	53832	0725	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2014 3	7/1/2014	54351	1235	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2014 3	7/1/2014	54871	2464	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2014 3	7/1/2014	121611	46469x	000	Quarterly-3	0	0	0	29-Mar-13
VALVE	PLANT 3	2014 3	7/1/2014	58092	1026	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58103	1037	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2014 3	7/1/2014	58080	1015	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3	2014 3	7/1/2014	58093	1027	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58714	1659	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58104	1038	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58105	1039	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58079	1014	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58106	1040	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58094	6285	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58102	1036	000	Quarterly	0	0	0	07-Jul-09



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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 3	2014 3	7/1/2014	58101	1035	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58100	1034	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58096	1030	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58097	1031	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58099	1033	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 3	7/1/2014	58098	1032	000	Quarterly	0	0	0	07-Jul-09
PUMP	PLANT 1	2014 4	10/1/2014	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2014 4	10/1/2014	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 4	10/1/2014	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 4	10/1/2014	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 4	10/1/2014	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 4	10/1/2014	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 4	10/1/2014	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 4	10/1/2014	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 4	10/1/2014	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 4	10/1/2014	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2014 4	10/1/2014	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2014 4	10/1/2014	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2014 4	10/1/2014	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2014 4	10/1/2014	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2014 4	10/1/2014	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2014 4	10/1/2014	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 2	2014 4	10/1/2014	53887	0782	000	Monthly	0	0	0	01-Jan-01

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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 2	2014 4	10/1/2014	53832	0725	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2014 4	10/1/2014	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2014 4	10/1/2014	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3.5	2014 4	10/1/2014	128432	83744	000	Quarterly	0	0	0	28-Jan-14
VALVE	PLANT 3.5	2014 4	10/1/2014	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2014 4	10/1/2014	128586	83895	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2014 4	10/1/2014	128408	83720	000	Quarterly	0	0	0	28-Jan-14
VALVE	PLANT 3.5	2014 4	10/1/2014	128431	83743	000	Quarterly	0	0	0	28-Jan-14
VALVE	PLANT 3.5	2014 4	10/1/2014	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2014 4	10/1/2014	78034	4558	000	Quarterly	0	0	0	13-May-10
PUMP	PLANT 1	2015 1	1/1/2015	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2015 1	1/1/2015	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2015 1	1/1/2015	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2015 1	1/1/2015	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2015 1	1/1/2015	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2015 1	1/1/2015	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 1	1/1/2015	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09

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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2015 1	1/1/2015	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 1	1/1/2015	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2015 1	1/1/2015	53887	0782	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 2	2015 1	1/1/2015	53832	0725	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2015 1	1/1/2015	53793	104197	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2015 1	1/1/2015	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2015 1	1/1/2015	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3.5	2015 1	1/1/2015	78034	4558	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 1	1/1/2015	128408	83720	000	Quarterly	0	0	0	28-Jan-14
VALVE	PLANT 3.5	2015 1	1/1/2015	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 1	1/1/2015	128431	83743	000	Quarterly	0	0	0	28-Jan-14
VALVE	PLANT 3.5	2015 1	1/1/2015	128586	83895	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2015 1	1/1/2015	128491	83800	000	Quarterly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2015 1	1/1/2015	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 1	1/1/2015	128432	83744	000	Quarterly	0	0	0	28-Jan-14
PUMP	PLANT 1	2015 2	4/1/2015	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2015 2	4/1/2015	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2015 2	4/1/2015	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2015 2	4/1/2015	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2015 2	4/1/2015	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53029	0058	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09



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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2015 2	4/1/2015	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2015 2	4/1/2015	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 2	4/1/2015	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 2	4/1/2015	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2015 2	4/1/2015	53887	0782	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 2	2015 2	4/1/2015	53793	104197	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2015 2	4/1/2015	53832	0725	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2015 2	4/1/2015	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2015 2	4/1/2015	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3.5	2015 2	4/1/2015	128408	83720	000	Quarterly	0	0	0	28-Jan-14
VALVE	PLANT 3.5	2015 2	4/1/2015	128586	83895	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2015 2	4/1/2015	128431	83743	000	Quarterly	0	0	0	28-Jan-14
VALVE	PLANT 3.5	2015 2	4/1/2015	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 2	4/1/2015	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 2	4/1/2015	128491	83800	000	Quarterly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2015 2	4/1/2015	128432	83744	000	Quarterly	0	0	0	28-Jan-14
VALVE	PLANT 3.5	2015 2	4/1/2015	78034	4558	000	Quarterly	0	0	0	13-May-10
PUMP	PLANT 1	2015 3	7/1/2015	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2015 3	7/1/2015	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2015 3	7/1/2015	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2015 3	7/1/2015	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09

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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2015 3	7/1/2015	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2015 3	7/1/2015	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 3	7/1/2015	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 3	7/1/2015	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2015 3	7/1/2015	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2015 3	7/1/2015	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2015 3	7/1/2015	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3.5	2015 3	7/1/2015	128491	83800	000	Quarterly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2015 3	7/1/2015	78034	4558	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 3	7/1/2015	128586	83895	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2015 3	7/1/2015	128583	83892	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2015 3	7/1/2015	59382	0485	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 3.5	2015 3	7/1/2015	59275	0365	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3.5	2015 3	7/1/2015	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 3	7/1/2015	78032	4556	000	Quarterly	0	0	0	13-May-10
PUMP	PLANT 1	2015 4	10/1/2015	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2015 4	10/1/2015	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2015 4	10/1/2015	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2015 4	10/1/2015	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2015 4	10/1/2015	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2015 4	10/1/2015	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09



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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2015 4	10/1/2015	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2015 4	10/1/2015	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2015 4	10/1/2015	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2015 4	10/1/2015	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3	2015 4	10/1/2015	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3.5	2015 4	10/1/2015	128491	83800	000	Quarterly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2015 4	10/1/2015	59382	0485	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 3.5	2015 4	10/1/2015	78034	4558	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 4	10/1/2015	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 4	10/1/2015	59006	0083	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3.5	2015 4	10/1/2015	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2015 4	10/1/2015	59275	0365	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3.5	2015 4	10/1/2015	128583	83892	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2015 4	10/1/2015	128586	83895	000	Monthly	0	0	0	29-Jan-14
PUMP	PLANT 1	2016 1	1/1/2016	52196	0867	000	Monthly	0	0	0	07-Jul-09
PUMP	PLANT 1	2016 1	1/1/2016	52195	0854	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2016 1	1/1/2016	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2016 1	1/1/2016	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2016 1	1/1/2016	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2016 1	1/1/2016	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09

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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2016 1	1/1/2016	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 1	1/1/2016	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 1	1/1/2016	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 1	1/1/2016	53709	0600	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 1	1/1/2016	53887	0782	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 2	2016 1	1/1/2016	54370	1252	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 1	1/1/2016	53710	0602	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 1	1/1/2016	54369	1251	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 1	1/1/2016	53708	0598	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 1	1/1/2016	54895	3614	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2016 1	1/1/2016	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3	2016 1	1/1/2016	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3.5	2016 1	1/1/2016	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2016 1	1/1/2016	59382	0485	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 3.5	2016 1	1/1/2016	128583	83892	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2016 1	1/1/2016	128491	83800	000	Quarterly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2016 1	1/1/2016	59275	0365	000	Quarterly	0	0	0	07-Jul-09
VALVE	PLANT 3.5	2016 1	1/1/2016	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2016 1	1/1/2016	78034	4558	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2016 1	1/1/2016	128586	83895	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2016 1	1/1/2016	59006	0083	000	Quarterly	0	0	0	07-Jul-09
PUMP	PLANT 1	2016 2	4/1/2016	52195	0854	000	Monthly	0	0	0	01-Jan-01
PUMP	PLANT 1	2016 2	4/1/2016	52196	0867	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53208	1879	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 2	4/1/2016	53221	0855	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53198	0842	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53217	0852	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53214	0849	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53215	0850	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53235	0870	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53212	0847	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53199	1867	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 2	4/1/2016	53209	0844	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53194	0838	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53195	0839	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53226	0860	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53210	0845	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53229	0863	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53232	0866	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53202	1870	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 2	4/1/2016	53204	1874	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 2	4/1/2016	53228	0862	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53193	0837	000	Quarterly-3	0	0	0	07-Jul-09

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CompType	UnitDescription	Quarter	Quarter Start Date	Component_ID	Tag	Extension	Freq	DTMonit	CVS	AOV	AddDate
VALVE	PLANT 1	2016 2	4/1/2016	53233	0868	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53223	0857	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53205	1875	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 2	4/1/2016	53222	0856	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53225	0859	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53234	0869	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53206	1876	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 2	4/1/2016	53224	0858	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53201	1868	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 2	4/1/2016	53192	0836	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53203	1871	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 2	4/1/2016	53207	1877	000	Quarterly-3	0	0	0	01-Jan-01
VALVE	PLANT 1	2016 2	4/1/2016	53227	0861	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53230	0864	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53242	0877	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53246	0881	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53245	0880	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	60198	4160	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2016 2	4/1/2016	78658	4159	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2016 2	4/1/2016	53248	0883	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	78657	4158	000	Quarterly-3	0	0	0	05-Jun-10
VALVE	PLANT 1	2016 2	4/1/2016	53247	0882	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53243	4161	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53244	0879	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53239	0874	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	60197	1880	000	Quarterly-3	0	0	0	07-Dec-09
VALVE	PLANT 1	2016 2	4/1/2016	53238	0873	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53237	0872	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 1	2016 2	4/1/2016	53236	0871	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 2	4/1/2016	54369	1251	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 2	4/1/2016	53708	0598	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 2	4/1/2016	53710	0602	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 2	4/1/2016	53887	0782	000	Monthly	0	0	0	01-Jan-01
VALVE	PLANT 2	2016 2	4/1/2016	53709	0600	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 2	4/1/2016	54895	3614	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 2	2016 2	4/1/2016	54370	1252	000	Quarterly-3	0	0	0	07-Jul-09
VALVE	PLANT 3	2016 2	4/1/2016	78746	6287	000	Quarterly	0	0	0	06-Jul-10
VALVE	PLANT 3	2016 2	4/1/2016	79617	6067	000	Quarterly	0	0	0	01-Jan-01
VALVE	PLANT 3.5	2016 2	4/1/2016	78032	4556	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2016 2	4/1/2016	78033	4557	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2016 2	4/1/2016	128586	83895	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2016 2	4/1/2016	59382	0485	000	Monthly	0	0	0	07-Jul-09
VALVE	PLANT 3.5	2016 2	4/1/2016	78034	4558	000	Quarterly	0	0	0	13-May-10
VALVE	PLANT 3.5	2016 2	4/1/2016	128583	83892	000	Monthly	0	0	0	29-Jan-14
VALVE	PLANT 3.5	2016 2	4/1/2016	59275	0365	000	Quarterly	0	0	0	07-Jul-09

Attachment A - Table 7

UnitDescription	Project StartDate	Project EndDate	Pre-Project Valve Count	Project Valves Added	Post-Project Valve Count	Pre-Project Pump Count	Project Pumps Added	Post-Project Pump Count	Pre-Project PRD Count	Project PRDs Added	Post-Project PRD Count
PLANT 3	29-Jan-14	30-Jan-14	828	375	1203	4	0	4	25	10	35
PLANT 3.5	28-Jan-14	31-Jan-14	916	301	1217	3	0	3	22	13	35



Attachment A - Table 8

UnitDescription	ComponentType	Subtype	Size	Status	Number of Components Added During 2016 Q3
PLANT 1	CONNECTOR	Check Valve, Non-Externally Actuated	1	Added	1
PLANT 1	CONNECTOR	Connector	0.25	Added	11
PLANT 1	CONNECTOR	Connector	0.5	Added	2
PLANT 1	CONNECTOR	Connector	1	Added	46
PLANT 1	CONNECTOR	Connector	2	Added	29
PLANT 1	CONNECTOR	Flange	1	Added	1
PLANT 1	CONNECTOR	Flange	2	Added	32
PLANT 1	CONNECTOR	Flange	3	Added	33
PLANT 1	CONNECTOR	Flange	4	Added	7
PLANT 1	CONNECTOR	Flange	6	Added	9
PLANT 1	CONNECTOR	Flange	8	Added	13
PLANT 1	CONNECTOR	Flange	10	Added	4
PLANT 1	CONNECTOR	Flange	12	Added	4
PLANT 1	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	1	Added	1
PLANT 1	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	2	Added	3
PLANT 1	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	4	Added	1
PLANT 1	VALVE	Ball Valve	0.5	Added	1
PLANT 1	VALVE	Ball Valve	1	Added	11
PLANT 1	VALVE	Ball Valve	2	Added	6
PLANT 1	VALVE	Ball Valve	3	Added	5
PLANT 1	VALVE	Ball Valve	12	Added	1
PLANT 1	VALVE	Check Valve, Externally Actuated	0.5	Added	1
PLANT 1	VALVE	Control Valve	2	Added	1
PLANT 1	VALVE	GATE VALVE	4	Added	1
PLANT 1	VALVE	NEEDLE VALVE	0.25	Added	3
PLANT 1	VALVE	NEEDLE VALVE	0.5	Added	1
PLANT 1	VALVE	Valve	0.5	Added	4
PLANT 1	VALVE	Valve	0.75	Added	1
PLANT 1	VALVE	Valve	1	Added	1
PLANT 1	VALVE	Valve	3	Added	1
PLANT 1	VALVE	Valve	4	Added	19
PLANT 2	CONNECTOR	Connector	0.25	Added	2
PLANT 2	CONNECTOR	Connector	0.5	Added	4
PLANT 2	CONNECTOR	Connector	1	Added	26
PLANT 2	CONNECTOR	Connector	1.5	Added	3
PLANT 2	CONNECTOR	Connector	2	Added	16
PLANT 2	CONNECTOR	Flange	1	Added	2
PLANT 2	CONNECTOR	Flange	2	Added	27
PLANT 2	CONNECTOR	Flange	3	Added	20
PLANT 2	CONNECTOR	Flange	4	Added	18
PLANT 2	CONNECTOR	Flange	6	Added	10
PLANT 2	CONNECTOR	Flange	8	Added	6
PLANT 2	CONNECTOR	Flange	10	Added	3
PLANT 2	CONNECTOR	Flange	12	Added	5
PLANT 2	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	1	Added	1
PLANT 2	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	2	Added	2
PLANT 2	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	3	Added	2
PLANT 2	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	6	Added	2
PLANT 2	VALVE	Ball Valve	0.25	Added	4
PLANT 2	VALVE	Ball Valve	1	Added	2
PLANT 2	VALVE	Ball Valve	1.5	Added	1
PLANT 2	VALVE	Ball Valve	2	Added	4
PLANT 2	VALVE	Ball Valve	3	Added	7
PLANT 2	VALVE	Ball Valve	4	Added	4
PLANT 2	VALVE	GATE VALVE	6	Added	2
PLANT 2	VALVE	NEEDLE VALVE	0.25	Added	4
PLANT 3	CONNECTOR	Connector	0.25	Added	2



Attachment A - Table 8

UnitDescription	ComponentType	Subtype	Size	Status	Number of Components Added During 2016 Q3
PLANT 3	CONNECTOR	Connector	0.75	Added	1
PLANT 3	CONNECTOR	Connector	1	Added	28
PLANT 3	CONNECTOR	Connector	2	Added	17
PLANT 3	CONNECTOR	Connector	3	Added	1
PLANT 3	CONNECTOR	Flange	1	Added	2
PLANT 3	CONNECTOR	Flange	2	Added	33
PLANT 3	CONNECTOR	Flange	3	Added	25
PLANT 3	CONNECTOR	Flange	4	Added	15
PLANT 3	CONNECTOR	Flange	6	Added	7
PLANT 3	CONNECTOR	Flange	8	Added	9
PLANT 3	CONNECTOR	Flange	10	Added	3
PLANT 3	CONNECTOR	Flange	12	Added	18
PLANT 3	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	1	Added	2
PLANT 3	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	2	Added	7
PLANT 3	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	3	Added	1
PLANT 3	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	4	Added	3
PLANT 3	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	6	Added	1
PLANT 3	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	8	Added	1
PLANT 3	VALVE	Ball Valve	0	Added	1
PLANT 3	VALVE	Ball Valve	0.25	Added	7
PLANT 3	VALVE	Ball Valve	0.5	Added	15
PLANT 3	VALVE	Ball Valve	1	Added	18
PLANT 3	VALVE	Ball Valve	2	Added	20
PLANT 3	VALVE	Ball Valve	3	Added	2
PLANT 3	VALVE	Ball Valve	4	Added	6
PLANT 3	VALVE	Ball Valve	8	Added	1
PLANT 3	VALVE	Ball Valve	12	Added	5
PLANT 3	VALVE	Control Valve	2	Added	1
PLANT 3	VALVE	Control Valve	3	Added	1
PLANT 3	VALVE	Control Valve	12	Added	2
PLANT 3	VALVE	GATE VALVE	0.5	Added	3
PLANT 3	VALVE	GATE VALVE	1	Added	2
PLANT 3	VALVE	GATE VALVE	2	Added	1
PLANT 3	VALVE	GATE VALVE	10	Added	1
PLANT 3	VALVE	NEEDLE VALVE	0.25	Added	6
PLANT 3	VALVE	NEEDLE VALVE	1	Added	1
PLANT 3.5	CONNECTOR	Connector	0.25	Added	2
PLANT 3.5	CONNECTOR	Connector	1	Added	21
PLANT 3.5	CONNECTOR	Connector	2	Added	10
PLANT 3.5	CONNECTOR	Flange	1	Added	1
PLANT 3.5	CONNECTOR	Flange	2	Added	44
PLANT 3.5	CONNECTOR	Flange	3	Added	16
PLANT 3.5	CONNECTOR	Flange	4	Added	6
PLANT 3.5	CONNECTOR	Flange	6	Added	9
PLANT 3.5	CONNECTOR	Flange	8	Added	8
PLANT 3.5	CONNECTOR	Flange	10	Added	3
PLANT 3.5	CONNECTOR	Flange	12	Added	6
PLANT 3.5	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	1	Added	2
PLANT 3.5	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	2	Added	6
PLANT 3.5	PRESSURE RELIEF DEVICE	PRESSURE RELIEF VALVE TO CVS	8	Added	1
PLANT 3.5	VALVE	Ball Valve	0.25	Added	6
PLANT 3.5	VALVE	Ball Valve	0.5	Added	6
PLANT 3.5	VALVE	Ball Valve	1	Added	4
PLANT 3.5	VALVE	Ball Valve	2	Added	11
PLANT 3.5	VALVE	Ball Valve	6	Added	2
PLANT 3.5	VALVE	Control Valve	1	Added	1
PLANT 3.5	VALVE	GATE VALVE	0.5	Added	1

Attachment A - Table 8

UnitDescription	ComponentType	Subtype	Size	Status	Number of Components Added During 2016 Q3
PLANT 3.5	VALVE	GATE VALVE	10	Added	1
PLANT 3.5	VALVE	NEEDLE VALVE	0.25	Added	2
PLANT 3.5	VALVE	Valve	0.5	Added	5
PLANT 3.5	VALVE	Valve	0.75	Added	1
PLANT 3.5	VALVE	Valve	1	Added	8
Plant PGX	VALVE	Ball Valve	0.5	Added	2
Plant PGX	VALVE	Ball Valve	2	Added	1
Plant PGX	VALVE	Control Valve	1	Added	1
					887