IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

Civil Action No. 1:18-cv-02559-RBJ

United States of America, and
the State of Colorado,

Plaintiffs

v.

K.P. Kauffman Company, Inc.

Defendant.

CONSENT DECREE

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WHEREAS, on October 5, 2018, Plaintiff United States of America, on behalf of the United States Environmental Protection Agency ("EPA"), and Plaintiff State of Colorado, on behalf of the Colorado Department of Public Health and Environment ("CDPHE"), filed a Complaint, pursuant to Section 113(b) of the Clean Air Act ("Act"), 42 U.S.C. § 7413(b), and Sections 121 and 122 of the Colorado Air Pollution Prevention and Control Act (the "Colorado Act"), C.R.S. §§ 25-7-121 and 122. The Complaint alleges that Defendant, K.P. Kauffman Company, Inc. ("KPK") violated requirements of Colorado Air Quality Control Commission Regulation Number 7 ("Reg. 7"), the Act and Colorado's federally approved State Implementation Plan ("SIP"),[1] at Condensate storage tanks that are part of KPK's natural gas production system in the Denver-Julesburg ("D-J") Basin. The Condensate storage tanks covered by this Decree are all within the Ozone 8-hour Control Area;

WHEREAS, the Condensate storage tanks store hydrocarbon liquids known as "Condensate" prior to transport and sale. Condensate is separated from natural gas near the well-head in a device known as a "Separator." After reaching pre-set levels in the Separator, the Condensate, also known as "Pressurized Liquids," is emptied in batches into storage tanks kept at or near atmospheric pressure. As Condensate is "dumped" (the term commonly used within the industry) into storage tanks, the pressure decreases and vapors, which include volatile organic compounds ("VOCs") and other air pollutants, are released or "flashed" into a gaseous state. Such vapors are known as "flash gas." Additional vapors are released from the Condensate

[1] Reg. 7 has been periodically revised over time. The latest SIP-Approved version of Reg. 7 was approved by EPA on July 3, 2018 with an effective date of August 2, 2018. *See* 83 Fed. Reg. 31,068 (July 3, 2018). For ease of reference, the Consent Decree uses citations to the current version of Reg. 7 approved by the Air Quality Control Commission, which includes certain provisions that have been incorporated into the SIP as of the lodging of this Consent Decree and contains other provisions approved only by the State as of the lodging of this Consent Decree.

due to temperature fluctuations and liquid level changes. These are known as “working,” “breathing,” and “standing” losses;

WHEREAS, the Condensate storage tanks that are subject to this Decree are equipped with systems to route vapors from the Condensate storage tanks by vent lines to air pollution control equipment;

WHEREAS, the Condensate storage tanks that are subject to this Decree are subject to certain requirements of Reg. 7, including the requirement that: “all condensate collection, storage, processing and handling operations, regardless of size, shall be designed, operated, and maintained so as to minimize leakage of VOCs to the atmosphere to the maximum extent practicable,” Reg. 7, Sec. XII.C.1.b; and “all such air pollution control equipment shall be adequately designed and sized . . . to handle reasonably foreseeable fluctuations in emissions of [VOCs]. Fluctuations in emissions that occur when the separator dumps into the tank are reasonably foreseeable.” Reg. 7, Sec. XII.C.1.a. The Condensate storage tanks are also subject to certain provisions of Reg. 7 enforceable only by the State, including Reg. 7, Secs. XVII.B.1.b, XVII.C.2.a, and XVII.C.2.b;

WHEREAS, the Complaint alleges that from October 2013 through February 2018, inspectors from the CDPHE’s Air Pollution Control Division and the EPA conducted inspections of groups of one or more Condensate storage tanks with a unique AIRS identification number (“AIRS Tanks”) and using optical gas imaging infrared cameras observed that at least 41 of the AIRS Tanks were emitting VOCs to the atmosphere at the time of the inspection. In some instances, the inspectors had complementary sensory observations of VOC emissions, including observations of hydrocarbon odor, observations of audible hissing, observations of visible wave refractions, and observations of hydrocarbon stains on the Condensate storage tanks emanating

from pressure relief valves ("PRVs") and thief hatches indicative of past VOC emissions. The inspectors observed VOC emissions, or alleged signs of VOC emissions, at at least 41 of the AIRS Tanks inspected. The inspectors also observed valves in the open-position allowing VOCs to be emitted uncontrolled to the atmosphere rather than being routed to air pollution control equipment;

WHEREAS, in response to an August 2015 request for information by the EPA pursuant to Section 114 of the Act, 42 U.S.C. § 7414, KPK provided extensive data to EPA regarding certain AIRS Tanks. The data includes detailed analyses of samples of Pressurized Liquids taken at AIRS Tanks and associated production data, as well as detailed information about the vapor control systems at those AIRS Tanks. Based upon an evaluation of this data, the United States and the State further allege in the Complaint that some of the AIRS Tanks were equipped with vapor control systems that, even under optimal conditions, would not have had sufficient capacity to route all the vapors from the Condensate storage tanks to emissions control devices without first building pressure in the Condensate storage tanks that exceeds the set point of the PRVs and/or thief hatches, such that vapors would have been emitted directly to the atmosphere without any combustion;

WHEREAS, KPK has well production facilities configured to, under certain conditions, allow for sales gas to be routed to the Vapor Control System, which in the past resulted in over-pressurization events of the Vapor Control System when KPK was unable to produce into the midstream sales gas line;

WHEREAS, the United States and the State have reviewed Financial Information provided by KPK and have determined that KPK qualifies for a civil penalty adjustment pursuant to EPA's "Guidance on Determining a Violator's Ability to Pay a Civil Penalty";

WHEREAS, KPK does not admit any liability to the United States or the State arising out of the transactions or occurrences alleged in the Complaint, nor does KPK admit to any specific violations of Reg. 7, the Act and Colorado's federally approved SIP; and

WHEREAS, the Parties recognize, and the Court by entering this Decree finds, that this Decree has been negotiated by the Parties in good faith and will avoid litigation among the Parties and that this 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 (Jurisdiction and Venue), and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action and the Parties pursuant to 28 U.S.C. §§ 1331, 1345, 1355, and 1367, and Section 113(b) of the Act, 42 U.S.C. § 7413(b), and Sections 121 and 122 of the Colorado Act, §§ 25-7-121 and -122, C.R.S. Venue is proper in this judicial district pursuant to Section 113(b) of the Act, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and 1395(a), because the violations alleged in the Complaint are alleged to have occurred in, and KPK conducts business in, this judicial district. KPK consents to and will not challenge entry of this Consent Decree or this Court's jurisdiction to enter and enforce this Decree, and KPK further consents to venue in this judicial district. Except as expressly provided for herein, this Decree will not create any rights in or obligations of any party other than the Parties to this Decree. Except as provided in Section XXI (Public Participation) of this Decree, the Parties consent to the entry of this Decree without further notice.

2. The State has actual notice of the commencement of this action in accordance with the requirements of Section 113 of the Act, 42 U.S.C. § 7413.

II. APPLICABILITY

3. The obligations of this Consent Decree apply to and are binding upon the United States and the State, and upon KPK and any successors, assigns, or other entities or persons otherwise bound by law. Unless otherwise noted, the obligations of this Decree shall become enforceable on its Effective Date as provided in Section XVII (Effective Date).

4. KPK will provide a copy of this Consent Decree to its Chairman, President, CEO, COO, Vice Presidents, all officers, employees, and agents who will be responsible for implementing the terms of this Decree, as well as to any contractor retained to perform work required under this Decree.

5. In any action to enforce this Consent Decree, KPK shall not raise as a defense to liability or stipulated penalties, the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Decree. This section does not preclude KPK from holding any employee, agent, or contractors who are alleged to have not complied with this Consent Order liable for their actions.

III. DEFINITIONS

6. For purposes of this Consent Decree, every term expressly defined by this Section shall have the meaning given that term herein. Every other term used in this Decree that is also defined in the Act, 42 U.S.C. § 7401 *et seq.*, in the regulations promulgated pursuant to the Act, or in the Colorado SIP (including Reg. 7 that was approved as part of the Colorado SIP effective on August 2, 2018, 83 Fed. Reg. 31,068 (July 3, 2018)), shall mean in this Decree what such

term means under the Act, those regulations, or the Colorado SIP. In the case of a conflict between federal and state definitions, federal definitions shall control.

a. "Actual Uncontrolled Annual VOC Emissions" means the amount of VOC emissions from a Tank System during the previous 12-month period based on actual production prior to the routing of those VOCs to an emissions control device, and using either the default emission factor or site-specific emission factors approved by the State as provided in Reg. 7, § XII.C.2.a.(i).

b. "AIRS Tank" means one or more storage tanks that store Condensate and have a unique AIRS identification number. The AIRS Tanks that are subject to this Decree are identified in Appendix A.

c. "Business Day" means Monday through Friday, with the exception of federal holidays. In computing any period of time under this Decree expressed in Business Days, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until 11:59 p.m. Mountain Time of the next Business Day.

d. "Bypass Gas" means produced sales gas routed to a Vapor Control System.

e. "Bypass Gas Flow Rate" means the highest single month of sales gas production determined from 2018-2019 monthly sales gas production for each relevant Tank System identified in Appendix A and applied in the Modeling Guideline.

f. "Calendar Day" means any of the seven days of the week. In computing any period of time under this Decree expressed in Calendar Days, where the last Calendar Day would fall on a Saturday, Sunday, or federal holiday, the period shall not be extended to the next Business Day.

g. "CDPHE" means the Colorado Department of Public Health and

Environment, and its Air Pollution Control Division ("APCD").

h. "Closed Loop Vapor Control System" shall mean a Vapor Control System equipped with a system of feedback loops from the Tank System to production equipment upstream of the Tank System to continuously measure, control, and record pressure in the Tank System or tanks within the Tank System as described in the Closed Loop Design Guideline and Appendix B to this Consent Decree. Closed Loop Vapor Control Systems automatically regulate hydrocarbon flow from separation equipment to the Tank System, thereby controlling the vapor flow rate, duration, and frequency so as to maintain Tank System pressure below the Leak Point of the Tank System pressure relief device as described in the Closed Loop Design Guideline.

i. "Closed Loop Design Guideline" shall refer to the Design Guideline developed by or on behalf of KPK pursuant to Paragraph 7 (Development of Modeling and Design Guidelines) to install a Closed Loop Vapor Control System.

j. "Complaint" means the complaint filed by the United States and the State in this action.

k. "Compromised Equipment" means on-site equipment associated with a Vapor Control System that is considered beyond reasonable repair or with evidence of damage beyond normal wear and tear (which cannot be addressed by cleaning the equipment). Examples include, but are not limited to, cracks or grooves in gaskets, abnormally or heavily corroded equipment, and beveling or other indications of inefficient connection of the thief hatch to the tank.

l. "Condensate" means hydrocarbon liquids that remain liquid at standard conditions (68 degrees Fahrenheit and 29.92 inches mercury) and are formed by

condensation from, or produced with, natural gas, and which have an American Petroleum Institute gravity ("API gravity") of 40 degrees or greater.

m. "Consent Decree" or "Decree" means this Consent Decree and all appendices attached hereto listed in Section XXV (Appendices).

n. "Control Point" means the designated pressure at which the Closed Loop Vapor Control System control logic takes action (*e.g.*, closes valves) to maintain the Tank System pressure below the Leak Point. The Control Point should be set below the Trigger Point in accordance with the Closed Loop Design Guideline.

o. "Date of Lodging" means the date this Decree is filed for lodging with the Clerk of the Court for the United States District Court for the District of Colorado.

p. "Defendant" or "KPK" means K.P. Kauffman Company, Inc.

q. "Effective Date" shall have the definition provided in Section XVII (Effective Date).

r. "Engineering Design Standard" means an engineering standard developed by KPK pursuant to Appendix C, Paragraph 2 for Open Loop Vapor Control Systems.

s. "EPA" means the United States Environmental Protection Agency and any of its successor departments or agencies.

t. "Flame Arrestor" means a device in a Vapor Control System which allows gas to pass through it but stops a flame in order to prevent a larger fire or explosion.

u. "Financial Information" means Defendant's recent audited annual financial statements for 2014 through 2018, monthly balance sheets and income statements for January 2019 through June 2019, and state and federal corporate income tax returns for 2013 through 2017.

v. "Fouling" means the formation of deposits and may be due to corrosion, solid matter entering the feed, or deposits formed by the condensing of vapor.

w. "Interest" means the London Interbank Offered Rate on the Effective Date plus 4%.

x. "IR Camera Inspection" means an inspection of a Vapor Control System using an optical gas imaging infrared camera designed for and capable of detecting hydrocarbon emissions, including VOCs, conducted by trained personnel who maintain proficiency through regular use of the optical gas imaging infrared camera.

y. "Knock-Out Vessel" means a vessel used along the Vapor Control System vapor line after a tank at near atmospheric conditions that collects any liquid, such as that from condensation, and is designed to prevent liquid from being routed to the emission control device.

z. "Leak Point" means:

(1) For Open Loop Vapor Control Systems, a designated pressure above the Open Loop Trigger Point but below the lowest Set Point of any pressure relief device in the Tank System as determined by Appendix C, Paragraph 7(c), and at which Well Production Operations are shut-in in accordance with Appendix C, Paragraph 6(a)

(2) For Closed Loop Vapor Control Systems, the lowest pressure at which emissions are released from any pressure relief devices on a Tank System, as determined consistent with the Closed Loop Design Guideline. For purposes of establishing the Leak Point for

a Closed Loop Vapor Control System, the value of the Leak Point will not be a value exceeding the Set Point.

aa. "Low Pressure Point" shall mean a low pressure in the Tank System in a Closed Loop Vapor Control System at which the control logic is set to alarm, as established consistent with the Closed Loop Design Guideline. The Low Pressure Point is established to identify the potential for failed pressure monitors.

bb. "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, tank pressure monitoring equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by inadequate design, poor maintenance, or careless operation are not Malfunctions.

cc. "Maximum Design Pressure" means the highest pressure that the Vapor Control System can maintain in the Tank System while precluding uncontrolled emissions to the atmosphere due to over-pressurization.

dd. "Non-Attainment Area" means the 8-hour Ozone Control Area within the meaning of Reg. 7, Sec. II.A.1.

ee. "Normal Operations" means all periods of operation, excluding Malfunctions. For storage tanks at well production facilities, normal operations includes, but is not limited to, liquid dumps from the Separator and routing of Bypass Gas to storage tanks or air pollution control equipment.

ff. "Open Loop Vapor Control Systems" means the Vapor Control System at each Tank System listed as "Open" on Appendix A that must comply with the requirements of Appendix C.

gg. "Open Loop Modeling Guideline" shall refer to the Modeling Guideline developed by or on behalf of KPK pursuant to Appendix C, Paragraph 1 (Development of an Open Loop Modeling Guideline) to determine if a Vapor Control System is adequately designed and sized to handle the Potential Peak Instantaneous Vapor Flow Rate.

hh. "Open Loop Trigger Point" means the Trigger Point as developed by Appendix C, subparagraph 7(c).

ii. "Paragraph" means a portion of this Decree identified by an Arabic numeral.

jj. "Parties" means the United States, the State, and KPK.

kk. "Peak Modeled Pressure" means the highest pressure experienced by the Vapor Control System during Normal Operations, as determined by the Open Loop Modeling Guideline and Open Loop Engineering Design Standard.

ll. "Plaintiffs" means the United States and the State.

mm. "Potential Peak Instantaneous Vapor Flow Rate" or "PPIVFR" means the maximum instantaneous rate of vapors routed to a Vapor Control System during Normal Operations, including flashing, working, and breathing losses, and other applicable vapor sources (including Bypass Gas) as determined using the Open Loop Modeling Guideline.

nn. "Pressurized Liquids" means hydrocarbon liquids separated from, condensed from, or produced with natural gas while still under pressure and upstream of the Condensate storage tanks servicing the well.

oo. "psi" means pounds per square inch.

pp. "QA/QC" means quality assurance and quality control.

qq. "Reliable Information" means any observance or detection of hydrocarbon emissions, including VOCs, from a Tank System, associated open-ended line (*e.g.*, vent

line, blowdown valve or line), associated pressure relief device, or associated combustion device using an optical gas imaging infrared camera, EPA Method 21 monitoring, CDPHE Approved Instrument Monitoring Method ("AIMM"), or audio, visual, olfactory ("AVO") techniques by EPA, CDPHE, local government inspectors acting as duly designated representatives of CDPHE, KPK employees, or KPK contractors or subcontractors trained to conduct inspections for emissions. Reliable Information may be obtained at any time after the Effective Date.

(1) In addition, the following information will be considered Reliable Information:

(a) Following the optimization phase, a pressure reading at or above the Leak Point at a Closed Loop Vapor Control System.

(b) Any observance or detection of Visible Smoke Emissions from a combustion device used to control emissions from a Tank System by EPA, CDPHE, local government inspectors acting as duly designated representatives of CDPHE, KPK employees, KPK contractors or subcontractors trained to conduct inspections for emissions.

(2) Further, the following will not be considered Reliable Information:

(a) Observations from a Vapor Control System while all wells associated with that Vapor Control System are temporarily shut-in, and during which working and standing emissions may occur;

(b) Observations from a Tank System while pressure relief devices (e.g. thief hatches) are open for active maintenance, gauging, well unloading, or truck unloading activities– and while personnel are on-

site for the purpose of conducting those activities;

(c) For purposes of this Decree only, evidence of surface staining alone;

(d) Emissions observations during the verification and optimization phase for Closed Loop Vapor Control Systems, except that open thief hatches or open blowdown valves will be considered Reliable Information unless otherwise excluded by this paragraph 6; or

(e) Unlit pilot lights that are not accompanied by any other corresponding observation, including, but not limited to, hydrocarbon odor, hissing sounds, smoke, an emissions plume from the combustor observed through an IR camera, or other evidence of incomplete combustion.

rr. "Section" means a portion of this Decree identified by a Roman numeral.

ss. "Separator" means a pressurized vessel used for separating a well stream into gaseous and liquid components.

tt. "Set Point" means the rated pressure at which the tank pressure relief device is designed to open or relieve. The Set Point shall be less than or equal to the manufacturer's rated pressure of the associated Condensate tank(s).

uu. "State" means the State of Colorado, acting on behalf of CDPHE.

vv. "Static Alarm" means the alarm established by the Closed Loop Vapor Control System control logic to indicate failed pressure monitors. The Static Alarm shall be triggered when pressure readings remain constant for the duration established in the Closed Loop Design Guideline

ww. "STEM Plan" means the Storage Tank Emission Management plan required by Reg. 7, 5 C.C.R. 1001-9, § XVII.C.2.b.

xx. "Tank System" means one or more atmospheric storage tanks that store Condensate, and any other interconnected tank (*e.g.*, produced water tank), and that share a common Vapor Control System. The Tank Systems that are subject to this Decree are identified in Appendix A.

yy. "TPY" means tons per year.

zz. "Trigger Point" means:

(1) For a Closed Loop Vapor Control System, a selected tank pressure below the Leak Point and above the Control Point, at which the Closed Loop Vapor Control System control logic triggers an alarm, and at which Well Production Operations are automatically Shut-In.

(2) For an Open Loop Tank System, a selected tank pressure below the Open Loop Leak Point and the lowest Set Point of any pressure relief device, and the point at which Appendix C, Paragraph 6 requires a site investigation.

aaa. "United States" means the United States of America, acting on behalf of EPA.

bbb. "Vapor Control System" means the system used to contain, convey, and control vapors from one or more Condensate tank(s) (including flashing, working, and standing losses, as well as any natural gas carry-through to Condensate tanks). A Vapor Control System includes a Tank System, piping to convey vapors from a Tank System to a combustion device and/or vapor recovery unit, fittings, connectors, liquid knockout vessels or vapor control piping, openings on tanks (such as PRVs and thief hatches), and air pollution control equipment, including combustion devices.

ccc. "VCS Root Cause Analysis" means an assessment conducted through a process of investigation to determine the primary cause and contributing cause(s), if any,

of Reliable Information, as well as common causes of multiple instances of Reliable Information, from a Vapor Control System.

ddd. "Visible Smoke Emissions" means observations of smoke for any period or periods of duration greater than or equal to one (1) minute in any fifteen (15) minute period during Normal Operations, pursuant to EPA Method 22. Visible smoke emissions do not include radiant energy or water vapor.

eee. "VOC" or "VOCs" means volatile organic compounds.

fff. "Well Production Operations" means those surface operations to produce Condensate and/or natural gas from any well associated with a Tank System but shall not include well maintenance activities (*e.g.*, swabbing).

IV. INJUNCTIVE RELIEF

7. Development of Modeling and Design Guidelines. KPK must develop written Modeling and Design Guidelines for Closed Loop Vapor Control Systems and Open Loop Vapor Control Systems, respectively. The purpose of the Closed Loop Design Guideline is to prescribe the steps taken to design, install and operate the Closed Loop Vapor Control Systems by reading tank pressures and controlling liquid flow and vapor flow to the tanks, thereby ensuring tank pressure does not exceed the Leak Point. KPK will apply the injunctive relief requirements in Appendix B (Requirements for Closed Loop Vapor Control System Design Guideline, Field Survey, Engineering Evaluation, and Initial Verification) to each Vapor Control System identified as "Closed" on Appendix A. The purpose of the Open Loop Modeling Guideline is to determine Potential Peak Instantaneous Vapor Flow Rate for purposes of designing and adequately sizing the Vapor Control Systems and to provide procedures for achieving this objective. KPK will apply the injunctive relief requirements in Appendix C (Requirements for

Open Loop Vapor Control Systems) to each Vapor Control System identified as "Open" on Appendix A.

8. Deadlines for Requirements of Appendices B and C. Upon signature of this Decree by all parties, KPK shall immediately commence work on all applicable commitments contained herein.

a. Closed Loop Deadlines. For each Tank System identified on Appendix A as a Closed Loop Vapor Control System, KPK will complete all applicable requirements of Appendix B, Paragraphs 1 through 2(c) (Development of a Closed Loop Vapor Control System Design Guideline; Closed Loop Vapor Control System Field Survey, Engineering Evaluation, and Initial Verification) at 50% of Closed Loop Vapor Control Systems listed on Appendix A within 90 Calendar Days of the Effective Date, or shut-in all Well Production Operations associated with those Tank Systems by that date; and the remaining 50% of Closed Loop Vapor Control Systems by within 270 Calendar Days of the Effective Date, or shut-in all Well Production Operations associated with that Tank System by that date.

b. Open Loop Deadlines.

1) Bypass Gas. Within 270 Calendar Days of the Effective Date, KPK must route Bypass Gas directly to air pollution control equipment at each Tank System in design deadline group 1 on Appendix A or directly to downstream air pollution control equipment for each Tank System in design deadline group 3 on Appendix A. Also within 270 Calendar Days of the Effective Date, KPK must route Bypass Gas directly to air pollution control equipment at

the following Tank Systems: MCELWAIN #34-17 & #44 17A, AIRS ID 001-1839; MCELWAIN #5, AIRS ID 001-1837; and OWEN #12-1, AIRS ID 123-6066. Air pollution control equipment installed pursuant to this Paragraph are subject to the operation and maintenance requirements under Paragraph 10 (Directed Inspection and Preventative Maintenance). Within 486 Calendar Days of the Effective Date, KPK must route Bypass Gas directly to air pollution control equipment for each Tank System listed in design deadline group 2 on Appendix A. Until KPK completes the requirements of subparagraph 8(b)(2) for Tank Systems in design deadline group 4 of Appendix A, KPK must immediately shut-in Well Production Operations if it is notified of service disruption by the third-party midstream operator, for the duration of the disruption. So long as KPK complies with this Paragraph, KPK need not account Bypass Gas as a vapor source its engineering analysis for Tank Systems in groups 1-3 to be in compliance with Appendix C.

2) Engineering Evaluation. For each Tank System identified on Appendix A as an Open Loop Vapor Control System, KPK will complete all applicable requirements of Appendix C, Paragraphs 1 through 3 (Development of an Open Loop Modeling Guideline, Open Loop Engineering Design Standards, Open Loop Vapor Control System Field Survey, Engineering Evaluation, and Modification) by the deadlines set forth below, or shut-in all Well Production Operations associated with those Tank Systems by those corresponding deadlines:

a) Appendix A, all Tank Systems listed in design deadline groups 1-2 within 180 Calendar Days of the Effective Date;

b) Appendix A, all Tank Systems listed in design deadline group 3 within 365 Calendar Days of the Effective Date;

c) Appendix A, 12 Tank Systems from design deadline groups 4-6 within 545 Calendar Days of the Effective Date (6 Tank Systems within 455 Calendar Days and the full 12 Tank Systems by 545 Calendar Days);

d) Appendix A, remaining 13 Tank Systems from design deadline groups 4-6 within 730 Calendar Days of the Effective Date (7 Tank Systems within 640 Calendar Days and the full 13 Tank Systems by 730 Calendar Days);

e) Appendix A, 3 Tanks Systems from design deadline group 7 within 820 Calendar Days of the Effective Date; and

f) The following Tank Systems within 270 Calendar Days of the Effective Date: MCELWAIN #34-17 & #44 17A, AIRS ID 001-1839; MCELWAIN #5, AIRS ID 001-1837; and OWEN #12-1, AIRS ID 123-6066.

c. For purposes of this Paragraph 8, closing the control valve before the Separator (so that hydrocarbon liquids do not flow into the Separator), is considered sufficient to shut-in Well Production Operations. For Tank Systems with Well Production Operations shut-in as of the applicable deadlines in this Paragraph that have not completed the requirements of Appendix B, Paragraphs 1 through 2(c) or Appendix C, Paragraphs 1 through 3, KPK will complete the requirements of Appendix B, Paragraphs

1 through 2(c) or Appendix C, Paragraphs 1 through 3 prior to resuming Normal Operations (except as otherwise authorized by subparagraph 8(d), below).

d. In the event that Well Production Operations are temporarily shut-in prior to, and continuing through the deadlines in this Paragraph 8 due to activities required of the wellbore(s) (*e.g.*, wellbore maintenance or per Colorado Oil and Gas Conservation's ("COGCC") Wellbore Integrity Program) or because well(s) cannot run due to high line pressure, KPK shall for the sole purpose of (i) undertaking an Engineering Evaluation at a Tank System, (ii) making necessary modifications pursuant to Appendix C subparagraph 3(d) (Open Loop Vapor Control System Modification), or (iii) taking corrective actions pursuant to Paragraph 13 (Reliable Information, Investigation, and Corrective Action), KPK shall be allowed to resume Well Production Operations associated with that Tank System for a period not to exceed 30 Calendar Days. If Well Production Operations are temporarily shut-in for other reasons, KPK shall, for the reasons identified above, be allowed to resume Well Production Operations associated with that Tank System for a period not to exceed seven (7) Calendar Days. Upon EPA and CDPHE written approval, the period of resumed Well Production Operations associated with a Tank System may be extended for up to five (5) additional Calendar Days.

9. Verification of AIRS ID Numbers of Tank Systems on Appendix A. Prior to the Deadlines in Paragraph 8, above, KPK must verify whether, for those Tank Systems that require an AIRS Identification Number, (i) an AIRS Identification Number assigned by CDPHE is marked on each Condensate storage tank; and (ii) whether there is visible signage on each combustor or other air pollution control equipment identifying an AIRS ID assigned by CDPHE

on each Condensate storage tank controlled by that equipment. KPK will submit verification that the requirements in this Paragraph 9 and subparagraphs 9(a)-(b) were completed, as appropriate, and submit a list of all AIRS ID Numbers of Tank Systems in its first Semi-Annual Report.

a. If a Condensate storage tank is not marked with an AIRS ID, KPK must shall either: (i) mark the tank with the AIRS ID if one has been assigned by CDPHE and provided to KPK via written communication; or (ii) promptly seek an AIRS ID, if one is required, and mark the tank with it within two weeks of receipt of an AIRS ID via written communication from the Division and/or within four weeks of equipment changes.

b. If a combustor or other air pollution control equipment is not marked with an AIRS ID for each Condensate storage tank controlled by that equipment, KPK must either: (i) mark the equipment with the AIRS ID if one has been assigned by CDPHE and provided to KPK via written communication; or (ii) promptly seek an AIRS ID, if one is required, and mark the tank with it within two weeks of receipt of an AIRS ID via written communication from the Division and/or within four weeks of equipment changes.

10. Directed Inspection and Preventative Maintenance Program. By Date of Lodging of this Consent Decree, KPK shall submit a Directed Inspection and Preventative Maintenance Standard Operating Procedure (hereinafter “DI/PM” and “SOP”) to the EPA and CDPHE to review and comment. The EPA and CDPHE shall submit comments to KPK on the DI/PM within 30 Calendar Days of receipt. KPK shall incorporate the comments from EPA and CDPHE into the DI/PM. Upon execution of the Consent Decree by all parties, KPK shall immediately commence work on all applicable commitments contained herein. KPK must implement the DI/PM program at each Tank System identified in Appendix A, and associated Well Production

Operations equipment, by 60 Calendar Days after Effective Date. As part of the DI/PM program, KPK must:

a. Address system-wide inspection, response, and preventative maintenance procedures for the Vapor Control Systems, including without limitation:

1) AVO Inspection. Weekly AVO walk-around inspection of all Tank Systems to check for VOC emissions, including checking for hissing, significant new staining, evidence of a spill, or other indicators of emissions. KPK must develop an SOP for the AVO walk-around inspection. The SOP will define the "audio," "visual," and "olfactory" components of AVO inspections to assist in training of the personnel who will conduct these inspections. This SOP should be informed by the results of Engineering Evaluations performed by KPK. In addition to any specific requirements of Regulation 7, the AVO walk-around inspection will include the following parameters at the following equipment, if present:

a) Separators – checking final stage of separation operating pressure and temperature (as compared to maximum operating pressure and minimum temperature), presence of any device restricting final stage Separator dump flow rate (and set point if the device is adjustable), and valves in correct position and not visibly clogged.

b) Tank System – checking that PRVs are properly sealed, thief hatches are closed, latched, and properly sealed, tank valve/load line/drain valve/vent line/PRV stack/or other open-

ended lines are in the correct and closed position, and checking seals (these activities do not require opening the thief hatch, or depressurizing the system, unless necessary to address Reliable Information or Compromised Equipment).

c) Vapor Control System – checking combustion device(s) for proper operation of the emission control device and back pressure regulator/throttle actuator (if present), visible inspection of indications of a clogged burner and burner tray, checking for no Visible Smoke Emissions, presence of a pilot light, inlet valves functioning properly, and auto-ignitor properly functioning, and draining of liquids from Knock-Out Vessel (or, if liquid level indicator is present, checking the indicator and draining liquids if present).

d) Address any site-specific parameters or practices (*e.g.* separator pressure, tank head space, lines clear of liquid) relied upon in the Engineering Evaluation of an Open Loop Vapor Control System (including those parameters or practices included in a Certification of Completion Report) by ensuring that such parameters or practices are readily identified for KPK field personnel while on location and verified during the weekly AVO inspection required by this Paragraph.

2) Preventive Maintenance. Establish and implement procedures for preventive maintenance, including evaluation of equipment performance to

identify appropriate long-term maintenance, inspection, and replacement schedules of "wear" equipment. KPK must include maintenance, inspection, and replacement schedules in the DI/PM program, along with an SOP for such activities with specific equipment to be included and inspection/work to be performed. The DI/PM will provide that Compromised Equipment will be replaced or upgraded if found. Schedules will include: (1) cleaning PRV and thief hatch seals and checking gaskets for integrity, cleaning gaskets, and confirming proper weighting of springs (semi-annually); (2) checking and cleaning or upgrading Flame Arrestor and air-intake, as appropriate (annually); (3) cleaning, reconditioning, or replacing burner trays (annually); and (4) ensuring proper operation of dump valve on Separator, blowing out vent lines to eliminate liquids accumulation and Fouling, and checking lines for exterior corrosion (semi-annually). Maintenance schedules for each tank, emissions control device, Separator, vent line, Vapor Recovery Tower, Vapor Recovery Unit, and Knock-Out Vessels must be no less frequent than specified above, or another more frequent basis as identified in the SOP. This SOP should be informed by the results of Engineering Evaluations performed by KPK. For Closed Loop Vapor Control Systems, on an annual basis KPK will: (a) check the calibration of tank pressure monitors (i.e. bench test or in-place test) and replace the tank pressure monitor if not calibrated consistent with the procedures developed in accordance with the DI/PM program; and (b) clean dump valve exhaust ports and solenoids. All maintenance, repair, replacement, upgrades, and corrective action identified pursuant to this subparagraph must be performed within seven (7) Calendar Days.

3) If after performing semi-annual maintenance activities under subparagraph 10(a)(2) for preventive maintenance, KPK determines that semi-annual frequency is not appropriate or necessary at a particular well production facility or for a specific model of air pollution control equipment (e.g. a Wellmark brand of PRV or Cimmaron burner tray) because cleaning a specific piece of equipment (*e.g.*, PRV, thief hatch, Flame Arrestor, etc.) may cause damage to equipment, KPK may revise its DI/PM to provide for an appropriate frequency at that well production facility and submit revisions to the DI/PM SOP to CDPHE/EPA with the next semi-annual report. If KPK reduces the frequency of semi-annual maintenance activities, KPK shall bear the burden of demonstrating that the reduced frequency is appropriate and did not cause or contribute to any observed Reliable Information. Further, if KPK employs technology or practices that avoid the need to open the thief hatch during liquids unloading to the truck and gauging activities, KPK will set forth the appropriate schedule of maintenance activities for those thief hatches in its DI/PM SOP.

4) Spare Parts Program. Maintain a spare parts program adequate to support normal operating, maintenance, and replacement requirements, establish a parts acquisition procedure document as an appendix to the DI/PM SOP submitted to CDPHE and EPA for review and comment (*e.g.*, vendor availability on a next-day basis), and evaluate appropriate parts to be reasonably available to pumpers and emissions crew (*e.g.*, thief hatch gaskets, seals, and PRVs at a reasonably accessible KPK facility or facilities). If KPK observes that delay in repair following observations of Reliable Information is caused by repeated delay

in obtaining spare parts, KPK will reevaluate its access to spare parts and update its parts acquisition procedures appendix.

5) Recordkeeping. Establish and implement requirements for appropriate documentation of compliance with DI/PM practices and procedures so that the Parties can verify that the DI/PM program is being implemented. This includes creating and maintaining documentation of maintenance, inspection, repair, replacement, upgrade, and other corrective action work. Activities identified in the DI/PM plan as being performed on a frequent and regular basis that do not include replacement of Compromised Equipment and which are not responsive to Reliable Information may not be considered "corrective action" work for purposes of this subparagraph. Examples of any activities excluded from "corrective action" work will be described in the DI/PM program. KPK will maintain records where parameters verified pursuant to subparagraph 10(a)(1)(d), above, are not consistent with the design analysis (including date, parameter value recorded, and date and nature of action taken in response, if any).

6) Training. By no later than the DI/PM implementation deadline in Paragraph 10, above, KPK must ensure that all persons (*e.g.*, employees and contractors) responsible for implementation of any part of the DI/PM program have completed training on the aspects of the DI/PM program, including any SOPs, that are relevant to the person's duties. KPK must conduct refresher training on a semi-annual basis and ensure that new personnel are sufficiently trained prior to any involvement in the DI/PM program. However, this requirement will not preclude new personnel from being involved in the DI/PM

program for purposes of training on the DI/PM program (*e.g.* a two-week training period with a field supervisor in which new personnel learn DI/PM responsibilities and shadow the supervisor with in-the-field training). After any new SOP is created, KPK shall have 90 Calendar Days from the date of creation to ensure that all persons are trained on that SOP.

7) Annual Review. Commencing in 2020 for records created or dated in the preceding calendar year, KPK will perform the following annually:

a) A DI/PM program-trained employee of KPK must undertake the following at each Vapor Control System, and any other equipment subject to the DI/PM, in consultation with persons performing DI/PM program duties for that particular Vapor Control System:

1. Verify that maintenance, inspection, and replacement schedules have been followed at the appropriate frequency; and
2. Make any appropriate updates to the DI/PM program, including SOPs.

b) A DI/PM program-trained Field Supervisor of KPK will conduct the following:

1. At an unannounced time, observe, at least once per year, each DI/PM program employee and contractor responsible for implementation of the DI/PM program in the field to ensure that such

duties are being conducted as required.

2. Review maintenance, corrective action, inspection, repair, replacement, and upgrade work records – including pressure monitoring data where the Alarm and Shut-in Log indicates pressure or performance concerns, records maintained pursuant to this Decree and those maintained to comply with Reg. 7 (*e.g.*, Reg. 7, §§ XII.F.3.d, XII.L.6, and XVII.C.3) to confirm proper recordkeeping, timely response to all issues (*e.g.*, emissions, or other operational issues), and to determine if there are recurrent or systemic issues associated with a particular Vapor Control System; and
3. Upon completion of review of all Vapor Control Systems, KPK must evaluate whether there are recurrent or systemic issues across KPK's Vapor Control Systems.

c) Should KPK determine that actions need to be taken to address operations or maintenance activities at one or more Vapor Control Systems based on KPK's review (as described above), such as making appropriate updates to the DI/PM program, including SOPs, KPK will take such actions within 60 Calendar Days, or, if KPK determines

more time is required, KPK will submit a proposed schedule to EPA and CDPHE for approval. KPK must submit a single report with the January Semi-Annual Report (beginning in January 2020) that documents, in spreadsheet format: (1) the date and time that the review required above in subparagraph 10(a)(7)(a)(1) and (b)(2) for each Vapor Control System, (2) the review required in subparagraph 10(a)(7)(b)(1) for each DI/PM program employee and contractor was undertaken; and (3) the nature and timing of any modifications or corrective actions. KPK will also include in this report a summary of review results, including recurring issues and actions taken (including dates).

11. Bypass Gas. For every Vapor Control System owned or operated by KPK, whether or not listed on Appendix A, KPK must estimate the uncontrolled actual VOC emissions from Bypass Gas events. Within 180 Calendar Days of the Effective Date, KPK will submit any necessary Air Pollutant Emission Notice ("APEN") and permit applications in accordance with Colorado Air Quality Control Commission Regulation Number 3, 5 Code Colo. Reg. §1001-5, Part A, Section II and Part B. Uncontrolled actual VOC emissions from Bypass Gas events must be calculated pursuant to a method or formula approved by CDPHE on December 12, 2019. KPK must also comply with Regulation 7, Section XVII.G, as applicable.

a. Recordkeeping and Reporting. KPK will maintain records demonstrating its compliance with Paragraph 11, above, and will include the following information in its the January 31, 2021 Semi-Annual Report: (i) a list identifying each Vapor Control System for which uncontrolled actual VOC emissions were estimated for Bypass Gas

events; (ii) the uncontrolled actual VOC emissions from Bypass Gas events for each such Vapor Control System; and (iii) the date that any APENs or permit applications deemed necessary were submitted to CDPHE. With each subsequent Semi-Annual Report, KPK will include a statement as to whether any of the information described above has changed and if so, will include a description of what has changed and what action KPK has taken as a result.

12. Periodic Inspections and Monitoring. Beginning on the Effective Date, KPK must undertake a program for inspection and monitoring of all Vapor Control Systems on Appendix A and all other Vapor Control Systems in the 8-hour Ozone Control Area with uncontrolled actual VOC emissions equal to or greater than 2 tpy (using calendar year 2018 data for those Vapor Control Systems not on Appendix A), and any associated open-ended lines (*e.g.*, vent lines, blowdown valves or lines), pressure relief devices, and air pollution control equipment, in accordance with the following requirements:

a. These inspections must be conducted pursuant to a written SOP prepared by KPK and reviewed and approved by EPA and CDPHE. KPK must use an Approved Instrument Monitoring Method ("AIMM"). AIMM includes optical gas imaging infrared cameras or other inspection methods meeting EPA Method 21 standards. Alternative methods may be used subject to the approval of both EPA and CDPHE, which approval shall not be unreasonably withheld.

b. KPK shall perform IR Camera Inspections at the schedule set forth below. An IR Camera Inspection completed pursuant to Appendix B, Paragraph 3(a)(2) (Closed Loop Vapor Control System Verification of Engineering Evaluation) and Appendix C, Paragraph 4 (Vapor Control System Initial Verification) for a Vapor Control System

during the applicable inspection period (see table below) shall also count as an inspection for purposes of this Paragraph.

Vapor Control System Annual Uncontrolled VOC Emissions	**Inspection Frequency**
2-12 tons per year	Quarterly
12+ tons per year	Monthly

c. KPK must maintain one or more logs documenting the following for each inspection:

1) The date, time, AIRS ID associated with the Vapor Control System, and number of tanks inspected;

2) The date and duration of any period where emissions are observed: (1) from a PRV, thief hatch, or other opening on a tank; (2) from an open-ended line (*e.g.*, vent line, blowdown valve or line); or (3) from a combustion device;

3) If emissions were observed from a tank opening, state whether such emissions resulted from a thief hatch open for purposes of active maintenance, gauging, or truck loading operations;

4) The timing of and efforts made to eliminate emissions from thief hatches, PRVs, combustion device, other openings on a tank, open-ended lines, or PRV stacks.

13. Reliable Information, Investigation, and Corrective Action. Within five (5) Calendar Days after KPK obtains any Reliable Information including, but not limited to, observances or detections of Reliable Information during inspections required by Appendix B, subparagraph 3(a)(2) (Closed Loop Vapor Control System Verification of Engineering

Evaluation), Appendix C, Paragraph 4 (Open Loop Vapor Control System Initial Verification), Paragraph 10 (Directed Inspection and Preventative Maintenance Program), Paragraph 12 (Periodic Inspections and Monitoring). KPK shall either (i) complete all necessary corrective actions to address the Reliable Information or (ii) temporarily shut-in Well Production Operations associated with the Tank System. If the Reliable Information can be addressed by isolation of one or more tanks in a Tank System, shutting in one or more wells or separators, or other similar action, such action is deemed to be an acceptable corrective action to meet the deadline in this Paragraph if completed within such deadline.

a. For each Tank System with any associated Well Production Operations temporarily shut-in pursuant to the requirements of this Paragraph, KPK must proceed as follows:

1) If the Tank System has not yet undergone an Engineering Evaluation, Well Production Operations shall remain shut-in, subject to subparagraph 8(a), until the Engineering Evaluation and any necessary modifications have been completed. For an Open Loop Vapor Control System, KPK will comply with the requirements of the Open Loop Vapor Control System Initial Verification within 30 Calendar Days of resuming Normal Operations of the Tank System; or for a Closed Loop Vapor Control System, KPK will comply with the requirements of Appendix B, subparagraph 3(a)(2) (Closed Loop Vapor Control System Verification of Engineering Evaluation) at that Tank System prior to resuming Normal Operations of the Tank System.

2) If the Tank System has already undergone an Engineering Evaluation, Well Production Operations will remain shut-in until completion of

any necessary corrective actions, including (if appropriate) a revised Engineering Evaluation for any Open Loop Vapor Control System. If a revised Open Loop Engineering Evaluation is appropriate and results in any modifications at the Tank System, KPK will comply with the requirements of Open Loop Vapor Control System Initial Verification at that Tank System within 30 Calendar Days of resuming Normal Operations of the Tank System.

b. For each Tank System with any associated Well Production Operations temporarily shut-in pursuant to the requirements of this Paragraph, KPK must document in a spreadsheet the following:

1) The date Reliable Information was obtained resulting in a temporary shut-in;

2) The AIRS ID associated with that Tank System;

3) The API number(s) of the well(s) shut-in, if fewer than all wells producing to that Tank System;

4) The cause of the Reliable Information (*e.g.*, Bypass Gas, thief hatch gasket needed replacing, etc.); and

5) The date that such Well Production Operations were temporarily shut-in;

6) If applicable, documentation of required information (see Paragraph) associated with any extension of the corrective action deadline;

7) The date modifications were made, including a description of the modifications;

8) The date that Well Production Operations were resumed; and

9) The date post-repair/Engineering Evaluation that an IR Camera Inspection was completed, and the results of that inspection.

c. For each instance where KPK obtains Reliable Information KPK must document in a spreadsheet the following:

1) The date Reliable Information was obtained;

2) The AIRS ID associated with that Tank System;

3) The cause of the Reliable Information (*e.g.*, Bypass Gas, thief hatch gasket needed replacing);

4) A statement that KPK has evaluated whether corrective action conducted in response to Reliable Information is necessary at other Open and Closed Loop Vapor Systems using either the same Open or Closed Loop Modeling Guideline or Open or Closed Loop Engineering Design Standard;

5) The date(s) all necessary corrective actions to address the emissions were made (including, if applicable, the date any isolated tank was drawn down to the load line(s)), including a description of such actions and verification by IR Camera that the corrective action addressed the emissions; and

6) If applicable, documentation of required information (see Paragraph 16) associated with any extension of the corrective action deadline.

d. KPK will attach copies of the spreadsheets required by this Paragraph to the next Semi-Annual Report that follows at least 30 Calendar Days after all necessary corrective actions to address the emissions were made or any required IR Camera Inspection was completed.

e. If KPK obtains three or more instances of Reliable Information related to any

single Vapor Control System in any rolling six-month period, KPK must complete within 90 Calendar Days a VCS Root Cause Analysis and identify appropriate response actions to be taken to address any operation, maintenance, or design cause(s) identified, along with a proposed schedule for the implementation of those response actions. Appropriate response actions may include proactive solutions to maintenance problems (*e.g.*, if thief hatches with gaskets greater than one-year-old are observed to have an increased failure rate, then a replacement schedule at or before one year after installation may be appropriate to implement pursuant to Paragraph 10 (Directed Inspection and Preventative Maintenance Program). The procedure by which KPK performs a VCS Root Cause Analysis will be described in the DI/PM.

1) In the next Semi-Annual Report, KPK must submit the results of each VCS Root Cause Analysis, including the timeline for response actions if those are not already completed at the time of the submission of the VCS Root Cause Analysis results.

2) Multiple instances of Reliable Information from the same Vapor Control System observed during the same site visit count as one instance of Reliable Information for purposes of subparagraph 13(e). Additional instances of Reliable Information at a Vapor Control at which KPK is currently performing a VCS Root Cause Analysis shall be added as additional information in that VCS Root Cause Analysis but shall not trigger additional VCS Root Cause Analyses until KPK has completed the ongoing VCS Root Cause Analysis.

14. Performance Standard. Following the completion of an Engineering Evaluation and any necessary modifications at a Tank System, KPK must:

a. Operate and maintain air pollution control equipment consistent with manufacturer specifications and good engineering and maintenance practices and shall keep manufacturer specifications on file;

b. Ensure that all air pollution control equipment is adequately designed and sized to achieve at least a 95% control efficiency for VOCs and to handle reasonably foreseeable fluctuations in emissions of VOCs (fluctuations in emissions that occur when a Separator dumps into the tank are reasonably foreseeable); and

c. Ensure that all Condensate collection, storage, processing, and handling operations, regardless of size, are designed, operated, and maintained to minimize leakage of VOCs to the atmosphere to the maximum extent practicable.

15. Compliance with Reg. 7, Sec. XVII.C.2.b. The requirements of this Paragraph are intended to provide injunctive relief for violations of Reg. 7, Sec. XVII.C.2.b; therefore, the Parties intend that the requirements of this Paragraph shall be enforceable under this Decree only by the State. For purposes of this Paragraph, updates to a STEM Plan may be made by including language in the STEM Plan itself or by appending a document that includes the required information:

a. By no later than the date KPK submits a Certification of Completion Report for each Tank System, append an analysis of the Engineering Evaluation for that Tank System to the STEM Plan for that Tank System. The analysis must include sufficient detail to allow for verification that the modifications undertaken pursuant to the Engineering Evaluation, have been completed;

b. By no later than the date KPK submits a Certification of Completion Report for each Tank System, update the STEM Plan to include the results of the field survey or

other Tank System site visit performed pursuant to Appendix C (Open Loop Vapor Control System Field Survey, Engineering Evaluation, and Modification), if corrective action was undertaken at that Tank System;

c. By no later than 60 Calendar Days following completion of a VCS Root Cause Analysis for a particular Tank System, append the results of that VCS Root Cause Analysis to the STEM Plan for that Tank System, including a statement describing whether and how the inspection and maintenance schedules in the STEM Plan need to be updated based upon the results of the VCS Root Cause Analysis; and

d. By no later than January 31 of each calendar year, beginning with 2021, update the STEM Plan(s) to document completion and results of the review required by subparagraph 10.a.7. (Directed Inspection and Preventative Maintenance Program) and any resulting modifications or corrective actions, including a statement describing whether and how the inspection and maintenance schedules in the STEM Plan need to be updated based upon the results of the review.

V. ENVIRONMENTAL MITIGATION PROJECTS

16. KPK will implement the Environmental Mitigation Projects ("Projects") described herein in compliance with the approved plans and schedules for such Projects and other terms of this Consent Decree and reporting requirements of this Section and Paragraph 33.

17. Project Plans:

a. At least 30 Calendar Days prior to the proposed date for project initiation, KPK must submit proposed plans (Project Plans) to the EPA and CDPHE. Each Project Plan is subject to review and approval by the EPA, after consultation with CDPHE, and such approval will not be unreasonably withheld.

b. KPK may, at its election, consolidate the Project Plans required by this Section into one or more Project Plans.

c. All Proposed Plans must include the following:

(1) A plan for implementation of the Project;

(2) A summary-level budget for the Project;

(3) A timeline for implementation of the Project; and

(4) A summary of the anticipated environmental benefits of the Project.

d. Upon approval by EPA, after consultation with CDPHE, of the Project Plan(s) required by this Section, KPK must complete the approved Projects in accordance with the approved Project Plans. Nothing in this Consent Decree shall be interpreted to prohibit KPK from completing the Projects ahead of schedule.

e. Nothing in this Section shall relieve KPK of its obligation to comply with all applicable federal, state, and local laws and regulations, including but not limited to any obligations to obtain any permits pursuant to the Clean Air Act.

18. Installation of Rod Lift Technology to Eliminate Emissions from Well Unloading.

a. At a minimum, starting on the date of approval of its Project Plan, and consistent with the requirements of the Consent Decree, KPK must, following its Project Plan, install and operate rod lift technology at a total of twelve (12) wells. KPK must install rod lift technology at the following eight (8) wells:

Table 1.

Well Name	API Number
OWEN #12-1	05-123-10756

MCCARTY #1	05-123-10232
CHRISTENSEN #4-9	05-001-09582
MCELWAIN 32-17	05-001-09423
MCELWAIN #44-17A	05-001-09467
MCELWAIN #5	05-001-08799
QUEBEC #12-8	05-001-09434
GENESIS #3	05-123-11504

KPK must select four (4) additional wells from Table 2, below, to install and operate rod lift technology. This equipment used to complete this Project Plan may not be removed from any other operating well owned or operated by KPK.

Table 2.

Well Name	**API Number**
SACK #7-11	05-001-09503
BROWN #13-8	05-001-09739
MCELWAIN #4	05-001-08799
GENESIS #9-2	05-123-36474
VAWTER #13-2	05-123-23456
VAWTER #14-2	05-123-22637
LAURIDSON 1-A	05-123-07992
SACK #8-11	05-001-09504

b. Description of Rod Lift Installation Program. As a well ages, it requires artificial lift to bring hydrocarbon liquids to the surface production equipment. Artificial

lift can come in several forms with typical methods including plunger lift and rod lift. Rod lifts typically replace plunger lifts because they provide surface level mechanical lift that is not dependent on reservoir pressure to lift hydrocarbon liquids to the surface. By utilizing rod lifts, "well unloading" no longer needs to be conducted reducing emissions caused by these events.

c. KPK must install and ensure normal operations of three (3) rod lifts during every 6 month period after the Effective Date until a total of twelve (12) rod lifts are installed and operating on the wells identified in Tables 1 and Table 2, above. All rod lifts must be installed within two (2) Calendar Years from the Effective Date of this Decree.

d. KPK will retain and operate Rod Lifts consistent with manufacturer recommendations and good air pollution control practices for minimizing emissions until the Consent Decree is terminated by the Court.

e. Reporting Requirements. KPK's reporting requirements for this Project must be satisfied by:

(1) Identification of the wells retrofitted with Rod Lift Technology during the period covered by the Semi-Annual Report;

(2) For those wells retrofitted with Rod Lift technology during the period covered by the Semi-Annual Report, provide a summary of expenditures for the installation and operation of the rod lifts and an estimate of emissions reduced during the reporting period; and

(3) A description of any challenges encountered during implementation of the project during the period covered by the Semi-Annual Report, including the date(s) of any well unloading

events that occurred at these wells during the reporting period.

19. Utilization of Boreal Laser System for the Detection of Methane Gas at Well Production Facilities.

a. At a minimum, starting on the date of approval of its Project Plan, and consistent with the requirements of the Consent Decree, KPK shall on an annual basis, following its Project Plan, use a Boreal LASER System to inspect well production facilities on Appendix A for methane emissions. Any positive readings for methane emissions by the Boreal LASER will be considered Reliable Information, and KPK will respond as provided in Paragraph 13 of this Decree, and KPK must comply with the recordkeeping and reporting requirements of Paragraph 13.

b. Description of Boreal Laser System Technology. The Boreal Laser System uses absorption spectroscopy to detect the presence of methane. The system utilizes a tunable laser diode tuned to the resonance frequency of methane molecules. As methane passes through the laser in the measurement cell, the beam is attenuated, and the resulting signal is received by an optical sensor. This sensor package is equipped on a motor vehicle and is used to detect methane at well production facilities on Appendix A. Alarms, data readouts, and mapping functions allow the operator to identify the presence of methane and trace it to the source of the methane leak.

c. KPK will operate its Boreal Laser System consistent with manufacturer recommendations and good air pollution control practices for minimizing emissions until the Consent Decree is terminated by the Court.

d. Reporting Requirements. KPK's reporting requirements for this Project must be satisfied by:

(1) Identification of well production facilities inspected with Boreal LASER during the period covered by the Semi-Annual Report, dates of the inspection;

(2) For those well production facilities inspected during the period covered by the Semi-Annual Report, provide a summary of expenditures for inspections, an estimate of emissions reduced, and methodology for emission calculations;

(3) Submittal of the spreadsheet required by Paragraph 13; and

(4) A description of any challenges encountered during implementation of the project during the period covered by the Semi-Annual Report.

20. Implementation of Directed Inspection and Preventative Maintenance Program for Additional Tank Systems.

a. KPK must implement the requirements of Paragraph 10 (Directed Inspection and Preventative Maintenance Program), Paragraph 12 (Periodic Inspections and Monitoring), and Paragraph 13 (Reliable Information, Investigation, and Corrective Action), including all recordkeeping and reporting requirements, at Tank Systems CUNDALL 5-12, 6-12 (AIRS number 001-1618); JACOBUCCI 1, 2, 3, 4 (AIRS number 123-5646); LEWIS #2-20 (AIRS number 123-9FB6); and MCCARTY #2 (AIRS number 123-7079) upon the Effective Date. Nothing in this Paragraph 20 shall be construed to mean that these Tank Systems are subject to Paragraph 8 of this Decree.

21. KPK must certify, as part of each plan submitted to EPA and CDPHE for any Project, that KPK is not otherwise required by law to perform the Project, that KPK is unaware

of any other person who is required by law to perform the Project, and that KPK will not use any Project, or portion thereof, to satisfy any obligations that it may have under other applicable requirements of law.

22. KPK will use its best efforts to secure as much environmental benefit as possible for implementing the mitigation projects listed in this section.

23. In connection with any communication to the public or shareholders regarding KPK's actions or expenditures relating in any way to the Environmental Mitigation Projects in this Decree, KPK shall include prominently in the communication the information that the actions and expenditures were required as a part of a Decree.

VI. CIVIL PENALTY

24. KPK shall pay to the Plaintiffs a total civil penalty, pursuant to Section 113 of the Act, 42 U.S.C. § 7413, and Section 25-7-122 C.R.S., and this Section VI, in the principal amount of $1 million with Interest.

25. Except as provided in Paragraph 27, the civil penalty shall be paid in eight installments of $100,000 plus a balloon payment of the final $200,000 due. Each of the first eight installments shall be divided into two payments, one of $50,000 to the United States and one of $50,000 to the State, and paid in accordance with the provisions of Paragraph 28 and 29, below. KPK must pay the first installment within 30 Calendar Days of the Effective Date. KPK must pay the seven subsequent installments, plus accrued Interest, on or before the six-month anniversaries of the Effective Date. The balloon payment of the final $200,000, plus Interest, shall be due on the fourth anniversary of the Effective Date. KPK may, at its election, prepay the remaining amount due (plus Interest accrued as of the payoff date) at any time.

26. KPK may contact counsel for Plaintiffs to request a calculation of the Interest due on any installment payment or a payoff amount.

27. If KPK commences, or a third party commences, any case, proceeding, or other action under any law relating to bankruptcy, insolvency, reorganization, or relief of debtors (a) seeking to have any order for relief of KPK's debts, or seeking to adjudicate KPK as bankrupt or insolvent; or (b) seeking appointment of a receiver, trustee, custodian, or other similar official for KPK for all or any substantial part of KPK's assets, KPK's obligations to make payment under Paragraph 25 shall be accelerated and any remaining payments shall be due immediately. However, if a third party commences any case, proceeding, or action against KPK as referenced in the previous sentence, KPK shall first have a period of one-hundred and twenty (120) days to seek dismissal of the case, proceeding, or action (as applicable) before the remaining payments are accelerated. If the case, proceeding, or action against KPK is not dismissed after the one-hundred and twenty (120) day period, or if, prior to the end of the one-hundred and twenty (120) day period, there is an order or decree approving or ordering the relief of KPK's debts or adjudicating KPK as bankrupt or insolvent, or the appointment of a receiver, trustee, custodian or other similar official for KPK, then KPK's obligations to make payment under Paragraph 25 shall be accelerated and any remaining installments shall then be due immediately.

28. Federal Payment Instructions. KPK shall pay the civil penalty due the United States pursuant to Paragraph 25 by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice account in accordance with instructions to be provided to KPK by the Financial Litigation Unit (FLU) of the U.S. Attorney's Office for the District of Colorado. The payment instructions provided by the FLU will include a Consolidated Debt Collection System (CDCS) number that KPK shall use to identify all payments required to be made in accordance

with this Consent Decree. KPK shall bear any costs of such EFT. The FLU will provide the payment instructions to:

Kevin P. Kauffman,
1675 Broadway, Suite 2800,
Denver, CO 80202
kpkauffman@kpk.com

Valerie Lohnes
1675 Broadway, Suite 2800,
Denver, CO 80202
vlohnes@kpk.com

on behalf of KPK. KPK may change the individual to receive payment instructions on its behalf by providing written notice of such change in accordance with Section XV (Notices).

At the time of payment, KPK shall send notice that payment has been made: (i) to EPA via email at acctsreceivable.cinwd@epa.gov or via regular mail at EPA Cincinnati Finance Office, 26 Martin Luther King Drive, Cincinnati, Ohio 45268; (ii) to the United States via email or regular mail in accordance with Section XV (Notices); and (iii) to EPA in accordance with Section XV (Notices). Such notice shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in *United States and the State of Colorado v. K.P. Kauffman Company, Inc.*, and shall reference the civil action number, CDCS number, and DOJ case number 90-5-2-1-11478.

29. State Payment Instructions. KPK shall pay the civil penalty due the State pursuant to Paragraph 25 by certified, corporate or cashier's check(s) drawn to the order of "Colorado Department of Public Health and Environment" and delivered to the attention of Manager, Compliance and Enforcement Program, Air Pollution Control Division, 4300 Cherry Creek Drive South, APCD-SS-B1, Denver, Colorado 80246-1530.

30. At the time of payment, KPK shall send notice that payment has been made the State in accordance with Section XV (Notices). Such notice shall state that the payment is for the civil penalty owned pursuant to the Consent Decree in *United States and the State of Colorado v. K.P. Kauffman Company, Inc.*, and shall reference the civil action number.

31. Not Tax Deductible. KPK shall not deduct any penalties paid under this Consent Decree pursuant to this Section or Section IX (Stipulated Penalties) in calculating its federal, state, or local income tax.

VII. CERTIFICATION

32. KPK hereby certifies, to the best of its knowledge and belief, after thorough inquiry, (a) that it has submitted to the United States and the State Financial Information that fairly, accurately, and materially sets forth its financial circumstances; (b) that those circumstances have not materially changed between August 2019 and the date that KPK signed this Consent Decree; and (c) that it does not have any insurance policies that may cover any payment of a civil or administrative penalty relating to this matter.

VIII. PERIODIC REPORTING

33. After entry of this Consent Decree, KPK must submit to the United States and the State in accordance with the requirements of Section XV (Notices), a periodic Semi-Annual Report within 30 Calendar Days after the end of each half of the calendar year (January through June, and July through December). The first Semi-Annual Report shall be due July 31, 2020, and each Semi-Annual Report shall contain the following information:

a. Development of a Closed Loop Vapor Control System Design Guideline (Appendix B, Paragraph 1(a)) or Development of Open Loop Modeling and Design Guideline (Appendix C, Paragraph 1): a copy of the Closed Loop Design Guideline if it

was revised during the reporting period and a copy of the Open Loop Modeling Guideline if it was revised during the reporting period;

b. Closed Loop Vapor Control Systems Field Survey and Engineering Evaluation (Appendix B, Paragraphs 2(a) through (c)); Open Loop Vapor Control System Field Survey, Engineering Evaluation, and Modification (Appendix C, Paragraph 3): Status and/or completion of either the Closed or Open Loop Engineering Evaluations and any Open Loop Vapor Control System modifications, including a list of any Tank Systems Shut-In for which either a Closed or Open Loop Engineering Evaluation or any Open Loop Vapor Control System modifications resulting from the Open Loop Engineering Evaluation that have not been performed, a summary of the modifications to Open Loop Vapor Control Systems completed during the reporting period and the information specified in either or Appendix B, subparagraph 2(b)(3) or Appendix C, subparagraph 3(b)(3) for Tank Systems that underwent the subparagraph Appendix B subparagraph 2(a)-(b) (Field Survey) or Appendix C, subparagraph 3(a)-(b) evaluation during the reporting period

c. Closed Loop Vapor Control System Verification of Engineering Evaluation (Appendix B, Paragraph 3); Open Loop Vapor Control System Initial Verification (Appendix C, Paragraph 4): The information identified in Appendix B, subparagraph 3(c) (Closed Loop Vapor Control Systems Certification of Completion Report) or Appendix C, subparagraph 4(b) (Open Loop Vapor Control Systems Certification of Completion Report).

d. Closed Loop Vapor Control System Modification (Appendix B, subparagraph 2(d)); Open Loop Vapor Control System Post-Certification of Completion Modifications

(Appendix C, Paragraph 5): A summary of any evaluations undertaken pursuant to Appendix B, subparagraph 2(d) or Appendix C, Paragraph 5 during that reporting period to determine whether modifications were necessary at Vapor Control Systems for other Tank Systems and the timing, results, locations, and description of any modifications of other Vapor Control Systems or a timeline for the completion such modifications.

e. Closed Loop Vapor Control System Alarm and Shut-In Log (Appendix B, subparagraph 3(d)): A copy of the Alarm and Shut-in Log required under Appendix B, subparagraph 3(d), in a spreadsheet.

f. Bypass Gas Vapor Source for Open Loop Vapor Control Systems: KPK must identify each Tank System from Appendix A, groups 1-3 and MCELWAIN #34-17 & #44 17A, AIRS ID 001-1839; MCELWAIN #5, AIRS ID 001-1837; and OWEN #12-1, AIRS ID 123-6066, where KPK is controlling Bypass Gas with emission control devices, including the date of installation of the air pollution control equipment controlling the Bypass Gas (whether at the well production facility or downstream thereof) during the reporting period, and KPK's analysis of the capacity of the air pollution control equipment to handle the volume of Bypass Gas routed to it. For Tank Systems in group 4 on Appendix A prior to completion of the requirements of subparagraph 8(b)(2), KPK must provide the following during the reporting period: identify each Tank System where Well Production Operations are shut-in for service disruption by a third-party midstream operator; the date and time of notification of the service disruption; the date and time of shut-in of the Well Production Operations; and the date and time that KPK brings Well Production Operations back to Normal Operations at each Tank System;

g. Bypass Gas Monitoring: In the January 30, 2021 Semi-Annual Report, KPK

must provide the monitoring data of the frequency and duration of Bypass Gas sent to each Tank System list in groups 1 and 3 of Appendix A and MCELWAIN #34-17 & #44 17A, AIRS ID 001-1839; MCELWAIN #5, AIRS ID 001-1837; and OWEN #12-1, AIRS ID 123-6066. This information is not required to be reported in subsequent Semi-Annual Reports;

h. Directed Inspection and Preventative Maintenance Program (Paragraph 10): Status as to development and implementation of the DI/PM program, including a copy of KPK's DI/PM program if revised during the reporting period, identification of any new or modified maintenance, inspection, or replacement schedule (see subparagraph 10(a)(5)), a summary of any reviews of or modifications to the spare parts program (see subparagraph 10(a)(4)), and, for January reports beginning with 2021, the information required by subparagraph 10(a)(7)(c).

i. Malfunctions: KPK must report all Malfunctions as defined in Paragraph 6, at any well production facility on Appendix A during the period covered by each Semi-Annual Report, including the date and a description demonstrating that the event meets the definition of Malfunction

j. Bypass Gas (Paragraph 11): KPK must report the information required in Paragraph 11(a).

k. Periodic Inspections and Monitoring (Paragraph 12): The information identified in subparagraph 12.c. for periodic inspections and monitoring.

l. Reliable Information, Investigation, and Corrective Action (Paragraph 13): Copies of the spreadsheets as specified and required by subparagraph 13(b)-(d) and the results of any VCS Root Cause Analysis as specified and required pursuant to

subparagraph 13(e)(1).

m. Open Loop Vapor Control System Verification of Engineering Evaluation (Appendix C, Paragraph 6(b)): All notifications of Open Loop Leak Point exceedances that triggered a Third Party Audit including the date of the Open Loop Leak Point exceedance, identification of all Tank Systems where a Third Party Audit was triggered, the date that the Third Party Audit, and the date and description of all corrective actions conducted at all Tank Systems as a result of the Final Audit Report in the reporting period;

n. Open Loop Tank Pressure Monitoring (Appendix C, Paragraph 7): Status and/or completion of installation of pressure monitors, including attachment of the information specified and required by Appendix C, subparagraph 7(d).

o. Environmental Mitigation Projects (Section V): A summary of activities undertaken, status of Environmental Mitigation Project milestones set forth in Section V, and a summary of costs incurred since the previous report.

p. A summary of any problems encountered or anticipated, together with implemented or proposed solutions, if available.

q. A description of any non-compliance with the requirements of this Consent Decree and an explanation of the likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.

34. If KPK violates, or has reason to believe that it may violate, any requirement of this Consent Decree, KPK must notify the United States and the State in accordance with the requirements of Section XV (Notices) of such violation and its likely duration, in writing, within 10 Business Days of the day KPK first becomes aware of the violation, with an explanation of

the likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. If the cause of a violation cannot be fully explained at the time the report is due, KPK shall so state in the report. KPK must investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within 30 Calendar Days of the day KPK becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves KPK of its obligation to provide the notice required by Section X (Force Majeure). If the EPA and the State become aware of a violation of any requirement of this Consent Decree, the EPA and the State will promptly notify KPK of the violation.

35. Whenever any event affecting KPK's operations or KPK's performance under this Consent Decree may pose an immediate threat to the public health or welfare or the environment, KPK must comply with any applicable federal and state or local laws and, in addition, shall notify EPA and the State as per Section XV (Notices) orally or by electronic or facsimile transmission as soon as possible, but no later than 24 hours after KPK first knew of the event. This notice requirement is in addition to the requirement to provide notice of a violation of this Decree set forth in the preceding Paragraph.

36. Each report submitted by KPK under this Section, and each Certification of Completion Report submitted pursuant to the requirements of Appendix B, Paragraph 2 (Closed Loop Vapor Control System Verification of Engineering Evaluation) and Appendix C, Paragraph 4 (Open Loop Vapor Control System Initial Verification), must 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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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

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

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

IX. STIPULATED PENALTIES

39. KPK will be liable for stipulated penalties to the United States and the State for violations of this Consent Decree as specified below, unless excused under Section X (Force Majeure), or reduced or waived by one or both of the Plaintiffs pursuant to Paragraph 46 of the Decree. A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree.

a. Compliance Requirements.

Consent Decree Violation	Stipulated Penalty (all days in Calendar Days)
Failure to evaluate the condition of all PRVs, thief hatches, blowdown valves, mountings, and gaskets at each Tank System by the deadlines set forth in Paragraph 8 (Deadlines for Requirements of Appendix B and Appendix C), as required by (i) Appendix B, subparagraph 2(b) (Closed Loop Vapor Control System Field Survey, Engineering Evaluation, and Modification or Appendix C, subparagraph 3(b) (Open Loop Vapor Control System Field Survey, Engineering Evaluation, and Modification) and/or (ii) take the actions required by Appendix B, subparagraphs 2(b)(1) or 2(b)(2); or Appendix C, subparagraphs 3(b)(1) or 3(b)(2).	$1,000 per day per Tank System until an evaluation satisfying the requirements of Appendix B, subparagraph 2(b), or Appendix C, subparagraph 3(b) is performed and actions required by Appendix B, subparagraphs 2(b)(1) or 2(b)(2) or Appendix C, subparagraphs 3(b)(1) or 3(b)(2) are taken.
Failure to comply with the recordkeeping requirements of Appendix B, subparagraph 2(b)(3) or Appendix C, subparagraph 3(b)(3) (Vapor Control System Field Survey, Engineering Evaluation, and Modification).	$2,500 per Tank System.
Failure to complete an Engineering Evaluation for a Tank System as required by Appendix B, subparagraph 2(c) (Open Loop Vapor Control System Engineering Evaluation) or Appendix C, subparagraph 3(c) (Closed Loop Vapor Control System Engineering Evaluation).	For each Tank System unless Shut-In as required by Paragraph 8: $1,000 per day for the first 30 days of noncompliance; and $2,500 per day thereafter.
Failure to complete modifications for a Vapor Control System as required by Appendix B, subparagraph 2(d) (Closed Loop Vapor Control System Modification), or Appendix C, subparagraph 3(d) (Open Loop Vapor Control System Modification).	For each Tank System unless Shut-In as required by Paragraph 8: $1,000 per day for the first 30 days of noncompliance; and $3,000 per day thereafter.
Failure to conduct an IR Camera Inspection of a Tank System as required by Appendix B, subparagraph 3(a)(2)(c) (Closed Loop Vapor Control System Initial Verification), or Appendix C, subparagraph 4(a) (Open Loop Vapor Control System Initial Verification).	$500 per day per violation for the first 30 days of noncompliance; and $1,000 per day per violation thereafter until an IR Camera Inspection satisfying Appendix B, subparagraph 4(a) or Appendix C, subparagraph 3(a)(2)(b) is conducted.

Failure to complete and submit a Certification of Completion Report as required by Appendix C, subparagraph 4(b) (Open Loop Vapor Control System Initial Verification), or Appendix B, subparagraph 3(c) (Closed Loop Vapor Control System Verification of Engineering Evaluation).	$500 per day for the first 30 days of noncompliance; and $1,000 per day thereafter;
Failure to implement the DI/PM program at each Tank System, and associated production equipment, as required by Paragraph 10(Directed Inspection and Preventative Maintenance Program).	$500 per day per Tank System for the first 30 days of noncompliance; $1,000 per day per Tank System thereafter, until an inspection satisfying subparagraph 10(a) or 10(b) is conducted.
Failure to establish, implement, or revise schedules; maintain, review, or modify spare parts inventory; train personnel; or perform the verifications, reviews, updates, evaluations, and corrections as required Paragraph 10 (Directed Inspection and Preventative Maintenance Program).	$500 per day per violation for the first 30 days of noncompliance; $1,500 per day per violation thereafter.
Failure to conduct periodic inspections as required by Paragraph 12 (Periodic Inspections and Monitoring).	$500 per day per Tank System for the first 30 days of noncompliance; $1,500 per day per Tank System thereafter, until the next periodic inspection satisfying requirements of Paragraph 12 is conducted.
Failure to maintain one or more logs documenting Tank System inspection information as required by subparagraph 12(c) (Periodic Inspections and Monitoring).	$2,500 per periodic inspection per Tank System.
Failure to quantify and, if appropriate, to submit an APEN and/or permit application addressing Bypass Gas as required by Paragraph 11	$1,500 per day per Tank System
Failure to complete all necessary corrective actions or Shut-In the Tank System as required by Paragraph 13 and subparagraph 13(a) (Reliable Information, Investigation, and Corrective Action).	$5,000 per day per Tank System for the first 30 days of noncompliance; $10,000 per day per Tank System thereafter.

Failure to comply with the recordkeeping and reporting requirements of subparagraphs 13(b), 13(c), or 13(d) (Reliable Information, Investigation, and Corrective Action).	$1500 per Tank System per failure.
Failure to complete a Root Cause Analysis or identify or implement appropriate response actions identified during a Root Cause Analysis as required by subparagraph 13(e) (Reliable Information, Investigation, and Corrective Action).	$500 per day per violation for the first 30 days of noncompliance; and $1,000 per day per violation thereafter.
Failure to respond to verified exceedances of the Leak Point (not related to pressure monitor errors) as required by Appendix C, Paragraph 6(a) (Verification of Open Loop Vapor Control System Engineering Evaluation).	$250 per day for the first 30 days of noncompliance; and $1,000 per day per violation thereafter.
Failure to conduct a Third Party Audit as required by Appendix C, subparagraph 6(b), (Third Party Verification).	$500 per day per Tank System for the first 30 days of noncompliance; $1,000 per day per Tank System thereafter; until verification satisfying the requirements of Appendix B, subparagraphs 6(c), 6(d), and 6(e) has been completed.
Failure to equip Tank Systems with pressure monitors or Closed Loop Vapor Control Systems in accordance with the requirements of Appendix C, Paragraph 7 (Open Loop Pressure Monitoring).	$500 per day per Tank System for the first 30 days of noncompliance; and $1,000 per day per Tank System thereafter.
Failure to conduct a site investigation or Root Cause Analysis in accordance with the requirements of Appendix C, subparagraph 7(b) (Open Loop Pressure Monitoring).	$500 per day per Tank System for the first 30 Days of noncompliance; and $1,000 per day per Tank System thereafter.
Failure to comply with the recordkeeping requirements of Appendix C, subparagraph 7(d) (Open Loop Pressure Monitoring)	$250 per Tank System per failure.

b. Environmental Mitigation Projects.

Consent Decree Violation	Stipulated Penalty
Failure to undertake and complete any of the Environmental Mitigation Projects in compliance with Section V.	$1,000 per day per violation for the first 30 days of noncompliance; $2,500 per day per violation thereafter.

c. Periodic Reports.

Consent Decree Violation	Stipulated Penalty
Failure to submit a Semi-Annual Report as required by Paragraph 33.	$1,000 per day for the first 30 days of noncompliance; and $1,500 per day thereafter.

40. Late Payment of Civil Penalty. If KPK fails to pay a civil penalty installment required to be paid under Section VI (Civil Penalty) when due, KPK must pay a stipulated penalty of $1,000 per Calendar Day for each day that the payment is late, split between the United States and the State. Late payment of the civil penalty shall be made in accordance with Section VI (Civil Penalty). Stipulated penalties for late payment of the civil penalty shall be paid in accordance with Paragraphs 42-48 below. 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 VI (Civil Penalty).

41. Stipulated penalties under this Section shall begin to accrue on the Calendar 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.

42. KPK must pay stipulated penalties to the United States and the State within 30 Calendar Days of a written demand by either the United States or the State, unless KPK invokes

the dispute resolution procedures under Section XI (Dispute Resolution) within the 30 Calendar Day period. KPK shall pay 50% of the total stipulated penalty amount due to the United States and 50% to the State. The Plaintiff making a demand for payment of a stipulated penalty shall simultaneously send a copy of the demand to the other Plaintiff.

43. Stipulated penalties shall continue to accrue as provided in Paragraph 41, during any Dispute Resolution, but need not be paid until:

a. If the dispute is resolved by agreement or by a decision of EPA or the State that is not appealed to the Court, KPK must pay accrued penalties agreed to or determined to be owing, together with interest, to the United States and the State within 30 Calendar Days of the effective date of the agreement or the receipt of EPA's or the State's decision or order;

b. If the dispute is appealed to the Court and the United States or the State prevails in whole or in part, KPK must pay all accrued penalties determined by the Court to be owing, together with interest, within 60 Calendar Days of receiving the Court's decision or order, except as provided in subparagraph c, below; or

c. If any Party appeals the District Court's decision, KPK must pay all accrued penalties determined to be owing, together with interest, within 15 Calendar Days of receiving the final appellate court decision.

44. If KPK fails to pay stipulated penalties within 30 Calendar Days after receiving the United States' or the State's written demand as required by Paragraph 42, KPK must pay Interest on unpaid stipulated penalties, as provided for in 28 U.S.C. § 1961, as follows: (i) if KPK has timely invoked dispute resolution such that the obligation to pay stipulated penalties has been stayed pending the outcome of dispute resolution, Interest accrues from the date

stipulated penalties are due pursuant to Paragraph 41 until the date of payment; and (b) if KPK does not timely invoke dispute resolution, interest accrues from KPK's receipt of the written demand pursuant to Paragraph 42 until the date of payment. Nothing in this Paragraph limits the United States or the State from seeking any remedy otherwise provided by law for KPK's failure to pay any stipulated penalties or interest.

45. Either the United States or the State may, in the unreviewable exercise of their respective discretion, reduce or waive stipulated penalties otherwise due it under this Consent Decree. The determination by one Plaintiff not to seek stipulated penalties, or subsequently to waive or reduce the amount it seeks, shall not preclude the other Plaintiff from seeking the full amount of the stipulated penalties owing.

46. KPK must pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraph 28 (Federal Payment Instructions), 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. KPK must pay stipulated penalties owing to the State in the manner set forth and with the confirmation notices required by Paragraph 29 (State Payment Instructions) except that the transmittal letter shall state the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.

47. KPK shall not deduct stipulated penalties paid under this Section in calculating its state and federal income tax.

48. Subject to the provisions of Section XIII (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States or the State for KPK's violation

of this Decree or applicable law. Where a violation of this Decree is also a violation of relevant statutory or regulatory requirements, KPK shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation under the applicable federal or State requirement.

X. FORCE MAJEURE

49. "Force majeure," for purposes of this Consent Decree, means any event arising from causes beyond the control of KPK, of any entity controlled by KPK, or of KPK's contractors, that delays or prevents the performance of any obligation under this Decree despite KPK's best efforts to fulfill the obligation. The requirement that KPK 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 (i) as it is occurring and (ii) following the potential force majeure, such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. "Force majeure" may include third party induced vandalism or trespass events that cause failure of air pollution control equipment, process equipment, tank pressure monitoring equipment, or a process to operate in a normal manner. The EPA and CDPHE will consider the following factors including: repeated third party vandalism or trespass events at the same facility; failure of KPK to comply with signage requirements under the state laws or regulations; or evidence of a failure of KPK to use best efforts to respond to those third party vandalism or trespass events. "Force majeure" does not include KPK's financial inability to perform any obligation under this Consent Decree.

50. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, for which KPK intends or may intend to assert a claim of force majeure, KPK must provide notice orally or by electronic transmission to EPA and

CDPHE as provided in Section XV (Notices), within 72 hours of when KPK first knew that the event might cause a delay. Within seven (7) Calendar Days thereafter, KPK must provide in writing to EPA and CDPHE (i) an explanation and description of the reasons for the delay; (ii) the anticipated duration of the delay; (iii) all actions taken or to be taken to prevent or minimize the delay; (iv) a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; and (v) KPK's rationale for attributing such delay to a force majeure event if it intends to assert such a claim. KPK must include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure. KPK will be deemed to know of any circumstance of which KPK, any entity controlled by KPK, or KPK's contractors knew or should have known. Failure to comply with the above requirements regarding an event precludes KPK from asserting any claim of force majeure regarding that event, provided, however, that if EPA, after reasonable opportunity for review and comment by CDPHE, despite the late notice, is able to assess to its satisfaction whether the event is a force majeure under Paragraph 49 and whether KPK has exercised best efforts under Paragraph 49, EPA may, in its unreviewable discretion, excuse in writing KPK's failure to submit timely notices under this Paragraph.

51. If EPA, after a reasonable opportunity for review and comment by CDPHE, agrees that the delay or anticipated delay is attributable to a force majeure, the time for performance of the obligations under this Consent Decree that are affected by the force majeure will be extended by EPA, after a reasonable opportunity for review and comment by the CDPHE, 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 does not, of itself, extend the time for performance of any other obligation not identified in the notice submitted by KPK pursuant

to Paragraph 50. KPK shall have the ability to update its notice if it becomes aware of additional other obligations are affected by the force majeure within 7 Calendar Days from the date of the force majeure event. EPA will notify KPK in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure.

52. If EPA, after a reasonable opportunity for review and comment by CDPHE, does not agree that the delay or anticipated delay has been or will be caused by a force majeure, EPA will notify KPK in writing of its decision.

53. If KPK elects to invoke the dispute resolution procedures set forth in Section XI (Dispute Resolution), it will do so no later than 30 Calendar Days after receipt of EPA's notice. In any such proceeding, KPK bears 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, 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 KPK complied with the requirements of Paragraphs 49 and 50. If KPK carries this burden, the delay at issue will be deemed not to be a violation by KPK of the affected obligation of this Consent Decree identified to EPA and the Court.

XI. DISPUTE RESOLUTION

54. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section are the exclusive mechanism to resolve disputes regarding this Consent Decree, provided that the Party invoking such procedure has first made a good faith attempt to resolve the matter with the other Party.

55. The dispute resolution procedures required herein shall be invoked by one Party giving written notice to the other Party advising of a dispute pursuant to this Section. The notice

shall describe the nature of the dispute and shall state the noticing Party's position with regard to such dispute. The Party receiving such a notice shall acknowledge receipt of the notice, and the Parties in dispute shall expeditiously schedule a meeting to discuss the dispute informally not later than 14 Calendar Days following receipt of such notice.

56. Disputes submitted to dispute resolution under this Section shall, in the first instance, be the subject of informal negotiations among the disputing Parties. Such period of informal negotiations shall not extend beyond 30 Calendar Days from the date of the first meeting among the Parties' representatives unless they agree in writing to shorten or extend this period.

57. If the Parties are unable to reach agreement during the information negotiation period, the United States and the State shall provide KPK with a written summary of its position regarding the dispute. The written position provided by EPA and the State shall be considered binding unless, within 45 Calendar Days thereafter, KPK seeks judicial resolution of the dispute by filing a petition with this Court. The United States and the State may respond to the petition within 45 Calendar Days of filing.

58. Where the nature of the dispute is such that a more timely resolution of the issue is required, the time periods set forth in this Section may be shortened upon this Court's approval of a motion of one of the Parties to the dispute.

59. This Court shall not draw any inferences nor establish any presumptions adverse to any Party as a result of invocation of this Section or the Parties' inability to reach agreement.

60. As part of the resolution of any dispute under this Section, in appropriate circumstances the Parties may agree, or this Court may order, an extension or modification of the schedule for completion of the activities required under this Consent Decree to account for the

delay that occurred as a result of dispute resolution. KPK may be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule, provided that KPK shall not be precluded from asserting that a force majeure event has caused or may cause delay in complying with the extended or modified schedule.

61. The Court shall decide all disputes pursuant to applicable principles of law for resolving such disputes. In their initial filings with the Court, the Parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute.

XII. INFORMATION COLLECTION AND RETENTION

62. The United States, the State, and their representatives, including attorneys, contractors, and consultants, shall have the right of entry into any facility covered by this Consent Decree, at all reasonable times (subject to any limitations set forth in any applicable federal health and safety laws and regulations), upon presentation of credentials, to conduct the items below. None of the items below will include operating or adjusting KPK equipment (e.g., opening thief hatches) without reasonable notice to KPK and accompaniment by a KPK employee.

a. Monitor the progress of activities required under this Decree;

b. Verify any data or information submitted to the United States or the State in accordance with the terms of this Decree;

c. Obtain samples and, upon request, splits or duplicates of any samples taken by KPK or its representatives, contractors, or consultants related to activities under this Decree;

d. Obtain documentary evidence, including photographs and similar data related to activities under this Decree; and

e. Assess KPK's compliance with this Decree.

63. Upon request, KPK will provide EPA, CDPHE, or their authorized representatives, splits or duplicates of any samples taken by KPK at a Tank System or other associated equipment. Upon request, EPA and CDPHE will provide KPK splits or duplicates of any samples taken by EPA, CDPHE, or their authorized representatives.

64. Until two years after the termination of this Consent Decree, KPK must 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) (hereinafter referred to as "Records") 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 KPK's performance of its obligations under this Decree. This information-retention requirement applies regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, upon request by the United States or the State, KPK must provide copies of any Records required to be maintained under this Paragraph. This retention requirement does not apply to voicemail or text messages, so long as those forms of communication are not used for substantive discussions concerning compliance with the Decree. Nor does this retention requirement apply to KPK's outside counsel or consultants retained specifically for the purposes of potential litigation.

65. Privileged and Business Confidential Documents. In response to a request for Records from EPA and/or CDPHE:

a. KPK may assert that all or part of a Record is privileged or protected under state or federal law. If KPK asserts such a privilege, it must provide the following: (1) the title of the Record; (2) the date of the Record; (3) the name and title of each author of the

Record; (4) the name and title of each addressee and recipient; (5) a general description of the contents of the Record that does not reveal any privileged or protected information; and (6) the privilege or protection asserted by KPK. If a claim of privilege or protection applies only to a portion of a Record, the Record shall be provided to the United States in redacted form to mask the privileged or protected portion only. KPK will retain all Records that it claims to be privileged or protected until the United States has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in KPK's favor.

b. KPK may also assert business confidentiality claims covering part or all of the Records required to be provided under this Section to the extent permitted by and in accordance with 40 C.F.R. § 2.203(b) and §24-72-204, C.R.S. Records determined to be confidential by EPA or CDPHE will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B and §24-72-204, C.R.S. If no claim of confidentiality accompanies Records when they are submitted to EPA or CDPHE, or if EPA or CDPHE has notified KPK that the Records are not confidential under the standards of 40 C.F.R. Part 2, Subpart B or §24-72-204, C.R.S., the public may be given access to such Records without further notice to KPK.

c. KPK may make no claim of privilege or protection (other than claims of Confidential Business Information) regarding any Records that KPK is required to create or generate pursuant to this Consent Decree.

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

KPK to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XIII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

67. This Consent Decree resolves the civil and administrative claims that the United States and/or the State may have against KPK for the following violations at the Tank Systems alleged in the Complaint filed by EPA and CDPHE in this matter, as well as any tank systems listed in Appendix A to this Consent Decree; any Tank Systems listed in the Notices of Violation issued by EPA on March 2, 2018 and by CDPHE on March 12, 2018 or the Compliance Advisory issued by CDPHE on December 9, 2015, and the CDPHE and/or EPA inspections described therein; and any inspections conducted by CDPHE and the EPA after the filing of the Complaint through the lodging of this Decree including associated Vapor Control Systems, through the date of lodging:

a. Failure to comply with APEN and permitting requirements for separation equipment pursuant to Regulation Number 3, 5 Code Colo. Reg. §1001-5, Part A, Section II.A and Part B, Section II.A.1 as set forth in Paragraph 11 (Bypass Gas);

b. Failure to achieve the system-wide emissions reductions required by Reg. 7, Sec. XII.D.2;

c. Failure to comply with the requirement of Reg. 7, Sec. XII.C.1.a that:

(1) "All air pollution control equipment required by this Section XII shall be operated and maintained consistent with manufacturer specifications and good engineering and maintenance practices. The owner or operator shall keep manufacturer specifications on file"; and

(2) "[A]ll such air pollution control equipment shall be adequately designed and sized to achieve the control efficiency rates required by this Section XII and to handle reasonably foreseeable fluctuations in emissions of volatile organic compounds. Fluctuations in emissions that occur when the separator dumps into the tank are reasonably foreseeable";

d. Failure to comply with the requirement of Reg. 7, Sec. XII.C.1.b, that all "condensate collection, storage, processing and handling operations, regardless of size, shall be designed, operated, and maintained so as to minimize leakage of volatile organic compounds to the atmosphere to the maximum extent practicable;"

e. Failure to achieve a control efficiency of 95% from any vapor recovery unit or combustion device as required by Reg. 7, Sec. XII.C.1.c or properly install, operate and maintain air pollution control equipment as required by Reg. 7, Sec. XII.C.1.c;

f. Failure to comply with any of the recordkeeping and reporting requirements under Reg. 7, Sec. XII.F, including, but not limited to, violations related to unreported air pollution control equipment downtime;

g. Failure to mark all relevant Condensate Tanks with an AIRS ID Number and provide every required controlled Tank System with visible signage pursuant to Reg. 7, Sec. XII.F.1. and F.2.

h. Failure to comply with Reg. 7, Sec. XII.C.1.d to have no visible emissions from a flare or other combustion device;

i. Failure to comply with any of the monitoring requirements under Reg. 7, Sec. XII.E.; and

j. Failure to properly report any information to the United States or the State with respect to any of the violations resolved in this Section XIV (Effect of Settlement/Reservation of Rights) of the Consent Decree.

68. This Consent Decree further resolves the civil and administrative claims that the State may have against KPK relating to the following issues at the Tank Systems listed in Appendix A, including associated Vapor Control Systems, through the date of lodging:

a. All observations related to emissions from Tank Systems observed by audible, visual, and olfactory inspection methods;

b. All observations related to emissions from Tank Systems observed by infrared camera; and

c. Any failure to properly design, operate, or maintain a Tank System, including associated Vapor Control Systems, or achieve emission reductions from such Tank System as required by Reg. 7.

d. Failure to meeting system-wide emissions reductions requirements for the 2017 and 2018 calendar years, as required by Reg.7, XII.D.

e. Failure to comply with Reg. 7, § XVII.B.1.a. that all "intermediate hydrocarbon liquids collection, storage, processing, and handling operations, regardless of size, shall be designed, operated, and maintained so as to minimize leakage of VOCs and other hydrocarbons to the atmosphere to the extent reasonably practicable;"

f. Failure to comply with Reg. 7, § XVII.B.1.b. that "at all times, including periods of start-up and shutdown, the facility and air pollution control equipment must be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions;"

g. Failure to comply with Reg. 7, § XVII.B.2.a. that

(1) "All air pollution control equipment shall be operated and maintained pursuant to the manufacturing specifications or equivalent to the extent practicable, and consistent with technological limitations and good engineering and maintenance practices. The owner or operator shall keep manufacturer specifications or equivalent on file;"

(2) "All such air pollution control equipment shall be adequately designed and sized to achieve the control efficiency rates and to handle reasonably foreseeable fluctuations in emissions of VOCs and other hydrocarbons during normal operations. Fluctuations in emissions that occur when the separator dumps into the tank are reasonably foreseeable;"

h. Failure to comply with Reg. 7, § XVII.B.2.b. to have no visible emissions from a flare or other combustion device and have such devices designed so that an observer can determine whether it is properly operating;

i. Failure to comply with Reg. 7, § XVII.C.2.a. that "[o]wners or operators of storage tanks must route all hydrocarbon emissions to air pollution control equipment, and must operate without venting hydrocarbon emissions from the thief hatch (or other access point to the tank) or pressure relief device during normal operation, unless venting is reasonably required for maintenance, gauging, or safety of personnel and equipment;"

j. Failure to comply with the STEM plan requirements in Reg. 7, § XVII.C.2.b.; and

k. Failure to comply with the recordkeeping requirements of Reg. 7, § XVII.C.

69. The United States and the State reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraphs 67 and 68. This Consent Decree does not limit the rights of the United States or the State to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal or state laws, regulations, or permit conditions, except as expressly specified in Paragraphs 67 and 68. The United States and the State 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, the Tank Systems and associated Vapor Control Systems, whether related to the violations addressed in this Decree or otherwise.

70. In any subsequent administrative or judicial proceeding initiated by the United States or the State for injunctive relief, civil penalties, or other appropriate relief relating to the Tank Systems and associated Vapor Control Systems or KPK's violations, KPK will 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 State 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 67 and 68.

71. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. KPK is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and KPK's compliance with this Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States and the

State do not, by their consent to the entry of this Decree, warrant or aver in any manner that KPK's compliance with any aspect of this Decree will result in compliance with provisions of the Act, the Colorado Act, the Colorado SIP, Reg. 7, or with any other provisions of federal, State, or local laws, regulations, or permits.

72. This Consent Decree does not limit or affect the rights of KPK or of the United States or the State against any third parties, not party to this Decree, nor does it limit the rights of third parties, not party to this Decree, against KPK, except as otherwise provided by law.

73. This Consent Decree does not create rights in, or grant any cause of action to, any third party not party to this Decree.

XIV. COSTS

74. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and the State shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by KPK.

XV. NOTICES

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

As to the United States by email:	eescdcopy.enrd@usdoj.gov Re: DJ # 90-5-2-1-11467
As to the United States by mail:	EES Case Management Unit Environment and Natural Resources Division U.S. Department of Justice P.O. Box 7611 Washington, D.C. 20044-7611 Re: DJ # 90-5-2-1-11467

As to EPA by email:	Stovern.michael@epa.gov Hammond.lauren@epa.gov
As to EPA by mail:	Director, Air Enforcement Division Office of Civil Enforcement USEPA Headquarters, MC 2242A 1200 Pennsylvania Ave., NW Washington, D.C. 20460 Director, Air & Toxics Technical Enforcement Office of Enforcement, Compliance & Environmental Justice Environmental Protection Agency, Region 8 1595 Wynkoop Street Denver, CO 80202
As to the State of Colorado by email:	Tom.Roan@coag.gov Robyn.Wille@coag.gov Shannon.McMillan@state.co.us Jennifer.Mattox@state.co.us
As to the State of Colorado by mail:	First Assistant Attorney General Air Quality Unit Colorado Department 1300 Broadway, 7th Floor Denver, CO 80203 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
As to KPK:	Jeffrey Kauffman President and COO K.P. Kauffman Company, Inc. 1675 Broadway, Suite 2800 Denver, CO 80202

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

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

XVI. SALES OR TRANSFERS OF OPERATIONS

78. This Consent Decree does not prohibit the sale or transfer of KPK's ownership of a working interest in any well, or any well and associated Tank System, provided that KPK both (a) remains the Operator of the well and associated Tank System and (b) retains the minimum working interest necessary to remain the Operator of the well and associated Tank System. If KPK proposes to sell an operational interest in, or transfer Operation of, any wells associated with a Tank System to a third party unaffiliated with KPK, KPK shall advise the third party in writing of the existence of this Consent Decree prior to such sale or transfer and shall send a copy of such written notification to the United States and the State pursuant to Section XV (Notices) at least 60 Calendar Days before such proposed sale or transfer.

79. No sale or transfer of an operational interest in, or the operation of, any well associated with a Tank System covered by this Decree in the Injunctive Relief (Section IV) or Environmental Mitigation Projects (Section V) sections shall take place before the third party, the United States, and the State have executed, and the Court has approved, a modification pursuant to Section XIX (Modification) of this Consent Decree making the third party a party to this Consent Decree and jointly and severally liable with KPK for all requirements of this Consent Decree that may be applicable to the well and associated Tank System.

80. This Consent Decree shall not be construed to impede the transfer of an operational interest in, or the Operation of, any well associated with a Tank System from KPK to a third party unaffiliated with KPK so long as the requirements of this Consent Decree are met.

This Consent Decree shall not be construed to prohibit a contractual allocation – as between KPK and a third party – of the responsibility for compliance with this Consent Decree provided that KPK and such third party shall remain jointly and severally liable for the obligations of this Consent Decree applicable to the transferred or purchased Tank Systems and associated well production assets.

81. If the United States and the State agree, such consent not to be unreasonably delayed or withheld, Plaintiffs, KPK, and the third party that has become a party to this Consent Decree pursuant to Paragraph 79 may execute a modification that relieves KPK of its liability under this Consent Decree, and makes the third party liable, for all obligations and liabilities applicable to the purchased or transferred Tank Systems and associated well production assets. Notwithstanding the foregoing, however, KPK may not assign, and may not be released from, any obligation under this Consent Decree that is not specific to the purchased or transferred Tank Systems and associated well production assets, including the obligations set forth in Sections V (Environmental Mitigation Projects) and VI (Civil Penalty). KPK may propose, and the United States and State may agree, to restrict the scope of joint and several liability of any purchaser or transferee of any Tank Systems and associated well production assets for any obligations of this Consent Decree that are not specific to the transferred or purchased Tank Systems and associated well production assets, to the extent that such obligations may be adequately separated in an enforceable manner.

82. Effect of Plug and Abandonment. The permanent plugging and abandonment of a well shall be deemed to satisfy all requirements of this Consent Decree applicable to the well and associated equipment (as long as the associated equipment is no longer servicing wells that have not been plugged and abandoned) after KPK has completed the following: (i) KPK submits and

obtains approval by COGCC of the initial Form 6; (ii) KPK submits COGCC's subsequent Form 6; and (iii) KPK submits notice of cancellation of an Emissions Permit/APEN Cancellation Request to CDPHE. Once KPK has notified CDPHE of cancellation of an APEN, no Well Production Operations shall be permissible at that well except as required to prepare the well for plugging and abandonment. KPK will use best management practices to limit well emissions during well plugging activities. KPK shall maintain copies of all documentation required by this Paragraph for inspection and review by EPA and CDPHE. In each Semi-Annual Report, KPK shall update Appendix A to reflect any wells and associated Tank Systems that have been permanently plugged and abandoned. Nothing herein shall preclude KPK from reusing any equipment from a plugged and abandoned well.

83. Acquisition of Tank System(s) in the 8-Hour Ozone Control Area.

a. Acquisition of Tank System(s) Not Subject to Federal Consent Decree. Whenever KPK acquires a Tank System from a third party unaffiliated with KPK and which Tank System is not subject to any other Clean Air Act Consent Decree with the State and United States, but which Tank System is subject to a Compliance Order on Consent with the State, KPK must, at least thirty (30) Calendar Days prior to the purchase or acquisition, submit a Notice of Intent that (i) notifies the United States and the State of the proposed purchase or acquisition and the name of the unaffiliated third party; and (ii) identifies the obligations of the Compliance Order on Consent applicable to that Tank System(s) and identifies the comparable obligations of this Decree and the deadlines by which KPK will comply with those obligations. The United States and the State have twenty one (21) Calendar Days to object to the content of the Notice of Intent, including the identification of additional obligations and different deadlines. Within five (5)

Business Days of closing on an acquisition of the Tank System(s) identified in the Notice of Intent, and provided that the Parties have resolved any issues raised by an objection to the Notice of Intent, KPK will submit a Notice of Closing to the United States and the State with: (i) an updated Appendix A, with AIRS number(s) and a new column titled "Status", in which KPK reflects the date that the Tank System was acquired and the name of the third party seller; (ii) a designation as to whether Appendix B or Appendix C will be applied to the Tank System(s), and the date by which the requirements thereof will be completed, or, if the Tank System has been subject to the selling party's open loop modeling guideline, the date on which that evaluation was performed and records demonstrating compliance with those obligations; (iii) the date by which other relevant requirements of this Decree will be applied consistent with the Notice of Intent as modified, if applicable, by the State or the United States; and (iv) a certification by a responsible official that KPK will apply all the obligations and liabilities of this Decree to the purchased or acquired Tank System in accordance with the Notice of Closing.

(1) Should KPK acquire a Tank System at which the seller has created a closed loop vapor control system, KPK must include in its Notice of Intent either: (i) a commitment that KPK agrees to continue to operate the acquired Tank System as a closed loop vapor control system consistent with the seller's Closed Loop Modeling Guideline and its Compliance Order on Consent; or (2) a commitment that KPK will apply Appendix B to that Tank System (and will comply with related requirements, including modification and verification) prior to operating the Tank System;

b. Acquisition of Tank System Subject to Consent Decree with the State and the United States. Any Tank System acquired by KPK from a third party that is subject to a Clean Air Act Consent Decree with the State and United States at the time of acquisition will become subject to the requirements of this Decree, provided that:

(1) The third party seller has completed all requirements (or comparable requirements) related to Paragraphs 7 and 8 and Appendices B and C for the relevant Tank System to be sold or transferred, or, if not, whether the Tank System to be acquired is subject to requirements comparable to Paragraphs 7 and 8 under this Decree and if so, the deadline by which KPK will complete the application of Paragraphs 7 and 8 and either Appendix B or C.

(a) Should KPK acquire a Tank System at which the seller has created a closed loop vapor control system, KPK must either: (i) include a commitment that KPK agrees to continue to operate the acquired Tank System as a closed loop vapor control system consistent with the seller's Closed Loop Modeling Guideline and its Consent Decree; or (2) include a commitment that KPK will apply Appendix B to that Tank System (and will comply with related requirements, including modification and verification) prior to operating the Tank System;

(2) At least 30 Calendar Days before the anticipated closing date of

the relevant transaction, KPK and the third party seller submit to the United States and the State a joint Notice of Intent identifying the seller, the specific Tank System(s) to be sold or transferred to KPK, the anticipated closing date of the sale or transfer, and the obligations of this Decree applicable to the Tank System and the deadlines by which KPK will comply with those obligations. The United States and the State have twenty one (21) Calendar Days to object to the content of the Notice of Intent, including the identification of additional obligations and different deadlines;

(3) The third party seller has submitted (either with the Notice of Intent, above, or in a previous Semi-Annual Report) the records required to confirm compliance with the comparable requirements of Paragraphs 7 and89 and Appendices B and C; and

(4) Within 5 Business Days of the closing of the relevant transaction, KPK and the third party seller submit to the United States and the State a Notice of Closing that: (i) identifies the specific Tank System(s) that were sold or transferred to KPK by AIRS number; (ii) contains a certification by a responsible official of KPK that the relevant Tank Systems are, upon the date of closing, subject to all requirements of this Decree; and (iii) includes a revised Appendix A including the newly acquired Tank System(s), with AIRS number and a new column titled “Status,” in which KPK reflects the date that the Tank System was acquired and the name

of the third party seller.

84. Transfer by Permanent Shutdown of Well Production Facility: If KPK ceases all Well Production Operations at a well production facility with one or more Tank Systems on Appendix A because KPK intends to relocate production from one or more wells to a new or different well production facility not on Appendix A, the permanent removal of well production facility equipment (except for well-heads) that renders all associated wells unable to produce into any Tank System at the well production facility will be deemed to satisfy all requirements of this Decree applicable to the well and associated equipment servicing that well. The obligations of this Decree will end as to that Tank System if the permanent removal of well production facility equipment results in the permanent cessation of Well Production Operations related to the Tank System, and the well production facility to which the production from the associated wells is transferred will become subject to this Decree, including complying with the requirements of Paragraphs 7 and 8 (and Appendices B or C). Obligations will end upon receipt of: (a) the APEN cancellation request for the on-site equipment at the shut-down well production facility; (b) a separate notice under this Decree advising the United States and the State that the equipment at that well production facility has been removed; and (c) a revised Appendix A with the new well production facility to which production from the wells has been directed, identified by AIRS number, with a new column entitled “status” identifying the date that the reconfigured wells first began producing into the new well production facility.

85. Upon the date of closing of the transaction, any Tank System sold or transferred to KPK under Paragraph 83 or added to Appendix A under Paragraph 84 above will become subject to all applicable requirements of this Decree, except the applicable requirements for which compliance was demonstrated as described in Paragraph 83(b)(1).

86. The Parties agree that the addition of a Tank System under Paragraphs 83 or 84 is not a material modification within the meaning of Section XIX (Modification) of this Decree.

XVII. EFFECTIVE DATE

87. The Effective Date of this Consent Decree is the date upon which the approval of the Decree is recorded on the Court's docket; provided, however, that KPK hereby agrees that it shall be bound to perform any respective duties scheduled to occur prior to the Effective Date. In the event the United States withdraws or withholds consent to this Decree before entry, or the Court declines to enter the Decree, then the preceding requirement to perform duties scheduled to occur before the Effective Date terminates.

XVIII. RETENTION OF JURISDICTION

88. The Court retains jurisdiction over this case until termination of this Consent Decree pursuant to Section XX (Termination) for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections XI (Dispute Resolution) and XIX (Modification), or effectuating or enforcing compliance with the terms of this Decree.

XIX. MODIFICATION

89. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by all the Parties. Where the modification constitutes a material change to this Decree, it is effective only upon approval by the Court.

90. Any disputes concerning modification of this Consent Decree shall be resolved pursuant to Section XI (Dispute Resolution. 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

91. Termination as to Specific Tank System(s). KPK may seek consent to terminate the requirements of this Consent Decree with respect to Tank System(s) which have completed all requirements of Paragraphs 7 and 8 (and Appendix B or C, as applicable) (including evaluation of PRVs and thief hatches, Engineering Evaluation, and any necessary modifications) and which are to be transferred entirely from KPK's operational control.

a. Such requests for termination must be provided to the United States and the State, in writing, and contain the following information:

(1) The date a Certification of Completion Report was submitted for the Tank System(s); or if such report has not been submitted, KPK must submit a Certification of Completion Report for the Tank System(s) in accordance with the requirements in Appendix B, subparagraph 3(c) (Closed Loop Vapor Control System Certification of Completion Report) or Appendix C, subparagraph 4(b) (Open Loop Certification of Completion Report); and

(2) Whether any Tank System has a pressure monitor pursuant to the requirements of Appendix B or C, as applicable and, if so, the monitor(s) shall be moved to another Tank System. KPK will maintain records identifying the Tank System to which the monitor(s) was/were moved, and the justification for selecting the new Tank System.

b. Until such time as the United States and the State consent to KPK's request for termination, KPK's obligations under this Consent Decree shall remain in effect as to such Tank System(s). The United States and the State may request additional information as to such Tank System(s) to verify that KPK has substantially complied with other requirements of this Consent Decree as to such Tank System(s) up to that time. Such consent shall not be unreasonably withheld.

c. Any individual request for termination shall not include more than five percent (5%) of all Tank Systems subject to this Consent Decree and, under no circumstances, may KPK seek terminations pursuant to this Paragraph involving more than fifteen percent (15%) of all Tank Systems subject to this Consent Decree.

92. After KPK has satisfied the following requirements of this Paragraph 92, KPK may send to the United States and the State a Request for Termination of this Consent Decree, which must be certified in accordance with Paragraph 36, stating that KPK has satisfied those requirements, together with all necessary supporting documentation:

a. Completed the applicable requirements of Appendix B or C;

b. Completed Paragraph 11 (Bypass Gas);

c. Completed Section V (Environmental Mitigation Project) and has been operating the Rod Lift Installation Program and Boreal Laser Technology for three (3) calendar years;

d. Substantially complied with Appendix C, Paragraph 5 (Open Loop Vapor Control System Post-Certification of Completion Modifications); Paragraphs 10 (Directed Inspection and Preventative Maintenance Program); 12 (Periodic Inspections and Monitoring); 13 (Reliable

Information, Investigation, and Corrective Action); and 14 (Performance Standard). This subparagraph does not apply to Tank Systems subject to this Consent Decree for which all wells associated with the Tank System are permanently plugged and abandoned in accordance with Paragraph 83 at the time of the Request for Termination of this Consent Decree; and

e. Has paid the civil penalty and any accrued stipulated penalties not waived or reduced by the United States or the State pursuant to Paragraph

93. Following receipt by the United States and the State of KPK's Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether KPK has satisfactorily complied with the requirements for termination of this Consent Decree, including documentation of compliance with and completion of each requirement. If the United States, after consultation with the State, agrees that the Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.

94. If the United States, after consultation with the State, does not agree that the Consent Decree may be terminated, KPK may invoke Dispute Resolution under Section XI (Dispute Resolution). However, KPK shall not seek Dispute Resolution of any dispute regarding termination until 60 Calendar Days after service of its Request for Termination.

XXI. PUBLIC PARTICIPATION

95. This Consent Decree will 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 Decree disclose facts or considerations indicating that the Decree is inappropriate, improper, or

inadequate. KPK consents to entry of this Decree without further notice and agrees not to withdraw from or oppose entry of this Decree by the Court or to challenge any provision of the Decree, unless the United States has notified KPK in writing that it no longer supports entry of the Decree.

XXII. SIGNATORIES/SERVICE

96. Each undersigned representative of KPK, the State of Colorado, and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

97. This Consent Decree may be signed in counterparts, and its validity may not be challenged on that basis.

98. KPK will identify, on the attached signature page, the name, address, and telephone number of an agent who is authorized to accept service of process by mail on its behalf with respect to all matters arising under or relating to this Consent Decree. KPK agrees to accept service in that manner and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court, including, but not limited to, service of a summons. KPK need not file an answer to the Complaint in this action unless or until the Court expressly declines to enter this Decree.

XXIII. INTEGRATION/HEADINGS

99. This Consent Decree and its Appendices constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Decree.

100. Headings to the Sections and subsections of this Consent Decree are provided for convenience and do not affect the meaning or interpretation of the provisions of this Consent Decree.

XXIV. FINAL JUDGMENT

101. Upon approval and entry of this Consent Decree by the Court, this Consent Decree constitutes a final judgment of the Court as to the United States, the State, and KPK.

XXV. APPENDICES

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

"Appendix A" is the List of Tank Systems, Deadlines for Open Loop Vapor Control System Design Deadlines; and Open Loop Design Audit Group;

"Appendix B" is the Closed Loop Vapor Control System Design Requirements, Field Survey, Engineering Evaluation, and Initial Verification; and

"Appendix C" is the Requirements for Open Loop Vapor Control Systems.

Dated and entered this 22nd day of April, 2020

UNITED STATES DISTRICT JUDGE

THE UNDERSIGNED PARTY enters into this Consent Decree in this action captioned United States and the State of Colorado v. K.P. Kauffman Company, Inc.

FOR THE UNITED STATES OF AMERICA:

JEFFREY BOSSERT CLARK
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

1/21/2020
Date

JAMES D. FREEMAN
Senior Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Denver, CO 80202

1/17/2020
Date

ALEXANDRA B. SHERERTZ
VANESSA M. MOORE
Trial Attorneys
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Washington, D.C. 20044

THE UNDERSIGNED PARTY enters into this Consent Decree in this action captioned United States and the State of Colorado v. K.P. Kauffman Company, Inc.

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

Date: 1/17/2020

SUSAN PARKER BODINE
Assistant Administrator
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency

Date: 1/15/2020

ROSEMARIE A. KELLEY
Director, Office of Civil Enforcement
U.S. Environmental Protection Agency

Date: 1/9/2020

PHILLIP A. BROOKS
Director, Air Enforcement Division
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency

Date: 01.06.2020

TIMOTHY J. SULLIVAN
Air Enforcement Division
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency

THE UNDERSIGNED PARTY enters into this Consent Decree in this action captioned United States and the State of Colorado v. K.P. Kauffman Company, Inc.

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

Date: 1/8/2020

GREGORY SOPKIN
Regional Administrator
U.S. Environmental Protection Agency, Region 8

Date: 1/8/2020

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

Date: 1/7/2020

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

Date: 01/07/20

LAUREN HAMMOND
Senior Assistant Regional Counsel
Legal Enforcement Branch
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 8

THE UNDERSIGNED PARTY enters into this Consent Decree in this action captioned United States and the State of Colorado v. K.P. Kauffman Company, Inc.

FOR THE STATE OF COLORADO:

Date: 1/14/2020

GARRISON KAUFMAN
Air Pollution Control Division Director
Colorado Department of Public Health and the Environment

Date: 1/10/20

ROBYN WILLE
Senior Assistant Attorney General
Natural Resources Section

THE UNDERSIGNED PARTY enters into this Consent Decree in this action captioned United States and the State of Colorado v. K.P. Kauffman Company, Inc.

FOR K.P. Kauffman Company, Inc.:

12/26/2019
Date

KEVIN P. KAUFFMAN
Chairman and Chief Executive Officer

Appendix A-Tank Systems

Appendix A

APCD ID	Tank Battery Name	System	Group
123-6072	FACILITY #2	Open	1
123-4328	FACILITY #4	Open	1
123-4332	FACILITY #8	Open	1
123-6041	AMOCO-CHARTER-SCHNEIDER	Open	3
123-1693	CONNER #21-34	Open	3
123-4334	FACILITY #1	Open	3
123-6038	FIRECRACKER	Open	3
123-4314	LANSON FARM	Open	3
123-9571	NRC #9-9-15H	Open	3
123-4237	OUR DIANE 31, 32-27	Open	3
123-6077	UPRR 42 PAN AM G	Open	3
001-2044	BROWN 11-8 & 13-8	Open	4
001-1619	EDSTROM 1	Open	4
123-9A4B	GITTLEIN 2, 7, 8, 17-4	Open	4
001-1948	SACK 1	Open	4
123-9A96	WUERTZ #12-3	Open	4
123-9A8D	SRC PRATT NE/4 WELLS	Open	5
123-9944	SRC PRATT SE/4 WELLS	Open	5
123-9A8A	SRC PRATT SW/4 WELLS	Open	5
123-8153	CHALLENGER #1-32	Open	5
001-1739	CHRISTENSEN 4-9	Open	5
123-9531	FRONT RANGE	Open	5
123-8110	GENESIS #3	Open	5
123-7239	GRAY-HEPP / HEPP #31-32	Open	5
123-9529	KOESTER #3-33-3	Open	5
123-8117	LEWIS #1-C	Open	5
123-6304	MCCARTY #1	Open	5
001-1838	MCELWAIN 32-17	Open	5
001-1836	MCELWAIN 4	Open	5
001-1622	MORRISON 2, 9-1, 11-1, 15-1, 16-1	Open	5
123-6180	STROH BATTERY 1	Open	5
123-7238	SUNMARKE BATTERY	Open	5
123-9246	VAWTER 13-2 & 14-2	Open	5
123-6295	VAWTER 9-2, 15-2, 16-2	Open	5
123-7643	WALTERS PAD	Open	5
005-1494	STATE #14	Open	6
123-9A75	FACILITY #7	Open	7

123-4327	FACILITY #S4WB	Open	7
123-4329	FACLITY #5	Open	7
001-2068	HAUGEN #1-30	Open	2(A)
001-1628	SIGNAL RESERVOIR	Open	2(A)
123-9B71	AMEN #1	Open	2(B)
123-1636	BAURER/EIBERGER	Open	2(B)
123-A05D	JOHNSTON #20-1	Open	2(B)
001-1623	NORTH QUEBEC 1-8, 12-8, 16-8	Open	2(B)
001-2051	BEISEL UNIT 1	Closed	N/A
123-8588	CF&C #3-83, #7-83 (HILL 1A, 1B)	Closed	N/A
123-9B53	GENESIS #1	Closed	N/A
123-6089	GILLYIN #1	Closed	N/A
001-1620	IVEY 16-11	Closed	N/A
123-6178	MATSUSHIMA #1-5, #2-6X	Closed	N/A
123-6179	MATSUSHIMA #3-14, #4-19X	Closed	N/A
001-1752	MCELWAIN 13-17	Closed	N/A
001-1839	MCELWAIN 34-17 & 44-17A	Open	N/A
001-1837	MCELWAIN 5	Open	N/A
123-6066	OWEN #12-1	Open	N/A
001-1626	SACK 7-11, 8-11	Closed	N/A
123-8152	SPADE #1-12	Closed	N/A
001-1629	STANDLEY 1-2 & 2-2	Closed	N/A
001-1631	STANDLEY 5-2, 6-2, 8-3	Closed	N/A
001-1774	STONEHOCKER 23-7	Closed	N/A
123-6653	CAMENISCH BATTERY 2	Closed	N/A
123-6036	CAMENISCH BATTERY 1	Closed	N/A
123-8129	HILL #3-10, #4-10	Closed	N/A
001-1890	NORTH WASHINGTON 1-23, 2-23, 8-23	Closed	N/A
123-6297	STROH BATTERY 2	Closed	N/A
123-9C2C	NOEL #3-18	Closed	N/A
123-9387	KOESTER BATTERY	Closed	N/A
123-6302	ANDERSON BATTERY	Closed	N/A
123-4337	STRONG #1-7	Closed	N/A

KPK - Engineering Evaluation / Open Loop Vapor Control System Design Deadlines

Open Loop Tank System Group	Deadline	Number of Tank Systems
Groups 1 & 2	Within **180** Calendar Days from the Effective Date	9
Group 3	Within **365** Calendar Days from the Effective Date	8
Group 4-6	**12** of the **25** Tank Systems within **545** Calendar Days from the Effective Date (**6** of the **12** Tank Systems within **455** Calendar Days from the Effective Date). The remaining **13** of the **25** Tank Systems within **730** days from the Effective Date (7 of the **13** Tank Systems within **640** Calendar Days from the Effective Date).	25
Group 7	Within **820** Calendar Days of the Effective Date	3
MCELWAIN 34-17 & 44-17A; MCELWAIN 5; OWEN #12-1	Within **270** Calendar Days from the Effective Date	3

Appendix A - Design Deadlines			
APCD ID	**Tank Battery Name**	**System**	**Group**
123-6072	FACILITY #2	Open	1
123-4328	FACILITY #4	Open	1
123-4332	FACILITY #8	Open	1
123-6041	AMOCO-CHARTER-SCHNEIDER	Open	3
123-1693	CONNER #21-34	Open	3
123-4334	FACILITY #1	Open	3
123-6038	FIRECRACKER	Open	3
123-4314	LANSON FARM	Open	3
123-9571	NRC #9-9-15H	Open	3
123-4237	OUR DIANE 31, 32-27	Open	3
123-6077	UPRR 42 PAN AM G	Open	3
001-2044	BROWN 11-8 & 13-8	Open	4
001-1619	EDSTROM 1	Open	4
123-9A4B	GITTLEIN 2, 7, 8, 17-4	Open	4
001-1948	SACK 1	Open	4
123-9A96	WUERTZ #12-3	Open	4
123-9A8D	SRC PRATT NE/4 WELLS	Open	5
123-9944	SRC PRATT SE/4 WELLS	Open	5
123-9A8A	SRC PRATT SW/4 WELLS	Open	5
123-8153	CHALLENGER #1-32	Open	5
001-1739	CHRISTENSEN 4-9	Open	5
123-9531	FRONT RANGE	Open	5
123-8110	GENESIS #3	Open	5
123-7239	GRAY-HEPP / HEPP #31-32	Open	5

123-9529	KOESTER #3-33-3	Open	5
123-8117	LEWIS #1-C	Open	5
123-6304	MCCARTY #1	Open	5
001-1838	MCELWAIN 32-17	Open	5
001-1836	MCELWAIN 4	Open	5
001-1622	MORRISON 2, 9-1, 11-1, 15-1, 16-1	Open	5
123-6180	STROH BATTERY 1	Open	5
123-7238	SUNMARKE BATTERY	Open	5
123-9246	VAWTER 13-2 & 14-2	Open	5
123-6295	VAWTER 9-2, 15-2, 16-2	Open	5
123-7643	WALTERS PAD	Open	5
005-1494	STATE #14	Open	6
001-2068	HAUGEN #1-30	Open	2(A)
001-1628	SIGNAL RESERVOIR	Open	2(A)
123-9B71	AMEN #1	Open	2(B)
123-1636	BAURER/EIBERGER	Open	2(B)
123-A05D	JOHNSTON #20-1	Open	2(B)
001-1623	NORTH QUEBEC 1-8, 12-8, 16-8	Open	2(B)
123-9A75	FACILITY #7	Open	7
123-4327	FACILITY #S4WB	Open	7
123-4329	FACLITY #5	Open	7
001-1839	MCELWAIN 34-17 & 44-17A	Open	N/A
001-1837	MCELWAIN 5	Open	N/A
123-6066	OWEN #12-1	Open	N/A
001-2051	BEISEL UNIT 1	Closed	N/A
123-8588	CF&C #3-83, #7-83 (HILL 1A, 1B)	Closed	N/A
123-9B53	GENESIS #1	Closed	N/A
123-6089	GILLYIN #1	Closed	N/A
001-1620	IVEY 16-11	Closed	N/A

123-6178	MATSUSHIMA #1-5, #2-6X	Closed	N/A
123-6179	MATSUSHIMA #3-14, #4-19X	Closed	N/A
001-1752	MCELWAIN 13-17	Closed	N/A
001-1626	SACK 7-11, 8-11	Closed	N/A
123-8152	SPADE #1-12	Closed	N/A
001-1629	STANDLEY 1-2 & 2-2	Closed	N/A
001-1631	STANDLEY 5-2, 6-2, 8-3	Closed	N/A
001-1774	STONEHOCKER 23-7	Closed	N/A
123-6653	CAMENISCH BATTERY 2	Closed	N/A
123-6036	CAMENISCH BATTERY 1	Closed	N/A
123-8129	HILL #3-10, #4-10	Closed	N/A
001-1890	NORTH WASHINGTON 1-23, 2-23, 8-23	Closed	N/A
123-6297	STROH BATTERY 2	Closed	N/A
123-9C2C	NOEL #3-18	Closed	N/A
123-9387	KOESTER BATTERY	Closed	N/A
123-6302	ANDERSON BATTERY	Closed	N/A
123-4337	STRONG #1-7	Closed	N/A

Open Loop Design Audit Group

APCD ID	Tank Battery Name	Design Audit Group	Well Type
123-6038	FIRECRACKER	R1	Rod Pump
123-4314	LANSON FARM	R1	Rod Pump
001-1948	SACK 1	R1	Rod Pump
001-1619	EDSTROM 1 & 3	R1	Rod Pump
123-1693	CONNER #21-34	R1	Rod Pump
123-6077	UPRR 42 PAN AM G	R1	Rod Pump
001-2068	HAUGEN #1-30	R1	Rod Pump
123-4237	OUR DIANE 31, 32-27	R1	Rod Pump
001-1628	SIGNAL RESERVOIR	R1	Rod Pump
123-9A96	WUERTZ #12-3	R2	Rod Pump
123-A05D	JOHNSTON #20-1	R3	Rod Pump
123-4334	FACILITY #1	R4	Rod Pump
123-9571	NRC #9-9-15H	R4	Rod Pump
123-9A4B	GITTLEIN 2, 7, 8, 17-4	R4	Rod Pump
123-6041	AMOCO-CHARTER-SCHNEIDER	R4	Rod Pump
123-4327	FACILITY #S4WB	R4	Rod Pump
123-9B71	AMEN #1	R5	Rod Pump
001-2044	BROWN 11-8 & 13-8	R6	Rod Pump
001-1623	NORTH QUEBEC 1-8, 12-8, 16-8	R7	Rod Pump
123-4332	FACILITY #8	R8	Rod Pump
123-1636	BAURER/EIBERGER	R8	Rod Pump
123-4328	FACILITY #4	R9	Rod Pump
005-1494	STATE #14	R9	Rod Pump
123-6072	FACILITY #2	R9	Rod Pump
123-4329	FACLITY #5	R9	Rod Pump
001-1837	MCELWAIN 5	R10	Rod Pump
123-6066	OWEN #12-1	R10	Rod Pump
001-1839	MCELWAIN 34-17 & 44-17A	R11	Rod Pump
123-9A75	FACILITY #7	R12	Rod Pump
001-1739	CHRISTENSEN 4-9	P1	Plunger
123-6304	MCCARTY #1	P2	Plunger
001-1836	MCELWAIN 4	P2	Plunger
123-6180	STROH BATTERY 1	P3	Plunger
123-9246	VAWTER 13-2 & 14-2	P3	Plunger
123-8153	CHALLENGER #1-32	P4	Plunger
123-8117	LEWIS #1-C	P5	Plunger
123-8110	GENESIS #3	P6	Plunger

001-1622	MORRISON 2, 9-1, 11-1, 15-1, 16-1	P7	Plunger
123-6295	VAWTER 9-2, 15-2, 16-2	P8	Plunger
123-7239	GRAY-HEPP / HEPP #31-32	P9	Plunger
123-9A8D	SRC PRATT NE/4 WELLS	P10	Plunger
123-9A8A	SRC PRATT SW/4 WELLS	P11	Plunger
123-9529	KOESTER #3-33-3	P12	Plunger
001-1838	MCELWAIN 32-17	P13	Plunger
123-9944	SRC PRATT SE/4 WELLS	P14	Plunger
123-7238	SUNMARKE BATTERY	P15	Plunger
123-9531	FRONT RANGE	P16	Plunger
123-7643	WALTERS PAD	P17	Plunger

APPENDIX B

Requirements for Closed Loop Vapor Control System Design Guideline, Field Survey, Engineering Evaluation, and Initial Verification

1. Development of a Closed Loop Vapor Control System Design Guideline.

a. KPK has developed a written design guideline for closed loop vapor control systems, entitled SpindleIO Tank Pressure/Flow Control System Guideline ("Closed Loop Design Guideline"). The purpose of the Closed Loop Design Guideline is to describe the steps necessary to properly design, install, and optimize a Closed Loop Vapor Control System. For each Vapor Control System in identified as "Closed" on Appendix A KPK will apply the Closed Loop Design Guideline to create a Closed Loop Vapor Control System.

b. The Closed Loop Design Guideline will address the following:

1) The creation of a site survey sheet to be used at each Closed Loop Vapor Control System, identifying the configuration of the Vapor Control System, pressure setting of thief hatches and PRVs, along with the make and model of thief hatches and PRVs, and inputs (both vapor and liquid) into the Vapor Control System;

2) Description of the Closed Loop Vapor Control System Installation Phase (*i.e.*, the installation of hardware and software);

3) Identification of the Control Points, Trigger Point, Leak Point, and Set Point, including the methods by which each point will be determined;

4) Description of the "optimization phase," *i.e.*, the phase following equipment installation and verification, during which the wells resume Normal Operations, and wherein calibration and tuning of the Closed

Loop Vapor Control System occurs, including the duration of the optimization phase and the process for responding to exceedances of the Trigger Point during the optimization phase; and

5) Description of a process of verification, which includes verification of installation of the Closed Loop Vapor Control System in the field, and verification that the Trigger Point is below the Leak Point via an IR Camera Inspection of the Vapor Control System pursuant to Appendix B, subparagraph 3(a)(2)(c), below.

c. On November 29, 2019, EPA and CDPHE sent KPK comments on KPK's draft Closed Loop Design Guideline. By Date of Lodging of this Decree, KPK must submit a Closed Loop Design Guideline to EPA for approval addressing comments received from EPA and CDPHE on KPK's draft. EPA, after consultation with CDPHE, will respond in writing to KPK within 14 Calendar Days either approving or disapproving the Closed Loop Design Guideline. If EPA disapproves the Closed Loop Design Guideline, the process will be completed with KPK having 14 Calendar Days from the date of disapproval to provide a revised Closed Loop Design Guideline to EPA and CDPHE. KPK may periodically update the Closed Loop Design Guideline as appropriate. Should the Closed Loop Design Guideline be updated, the use of the version current at the time of the Closed Loop Engineering Evaluation is acceptable. Updates to the Closed Loop Design Guideline do not in and of themselves require KPK to redo Closed Loop Engineering Evaluations.

2. Closed Loop Vapor Control System Field Survey, Engineering Evaluation, and Modification.

a. For each Closed Loop Vapor Control System, KPK must conduct a one-

time field survey. During the field survey, KPK will inventory tanks and equipment associated with each Closed Loop Vapor Control System and identify their configuration and operational status. KPK will then apply the Closed Loop Design Guideline to install a Closed Loop Vapor Control System.

b. During the field survey, KPK must conduct a one-time evaluation of the condition of all PRVs, thief hatches, blowdown valves, mountings, and gaskets at each tank in the Closed Loop Vapor Control System, and the possibility of repairing, replacing, or upgrading such equipment to reduce the likelihood of VOC emissions. This evaluation shall include the following actions:

1) KPK must ensure that, at the time of the survey, every thief hatch is mounted with a suitable gasket to the tank at the tank attachment point, in accordance with good engineering practices and manufacturer specifications;

2) If while evaluating the PRVs, thief hatches, mountings, and gaskets, KPK observes Compromised Equipment, Reliable Information, or evidence of significant staining emanating from PRVs, KPK must repair, replace, or upgrade such equipment, as appropriate; and

3) KPK will maintain records of the following information:

(a) The date each Tank System underwent this evaluation;

(b) The name of the employee who performed the evaluation;

(c) Whether Compromised Equipment, Reliable Information, or evidence of significant staining emanating from PRVs was observed; and

(d) What, if any, repair, replacement, upgrade, or other corrective action was performed, including a description of the existing

PRV, thief hatch, mounting, or gasket, and a description of how that equipment was repaired or with what it was replaced/upgraded. Descriptions of PRVs or thief hatches shall include pressure Set Points, and descriptions of PRVs, thief hatches, mountings, or gaskets shall include the manufacturer and model where such information is available.

c. Closed Loop Vapor Control System Engineering Evaluation. Using the results of the field survey activities described in Paragraph 2(a) of this Appendix B, and through application of the Closed Loop Design Guideline, KPK must install the necessary hardware and software to create and operate Closed Loop Vapor Control System ("Closed Loop Engineering Evaluation") consistently with the Closed Loop Design Guideline and the following:

1) Following creation of a Closed Loop Vapor Control System pursuant to Appendix B, subparagraph 2(c), KPK must:

(a) Operate a Closed Loop Vapor Control System as required by this Appendix B and in a manner consistent with the Closed Loop Design Guideline beginning the first date of Normal Operations that follows creation of the Closed Loop Vapor Control System until the Consent Decree is terminated with respect to the Tank System.

(b) Either:

(i) Operate the Closed Loop Vapor Control System to ensure that Tank System Operations will be shut-in at the Trigger Point, and operate the Closed Loop Vapor Control System to ensure that all Well Production

Operations associated with the Closed Loop Vapor Control System will shut-in at the Leak Point; or

(ii) If the Closed Loop Vapor Control System functionality does not have the functionality to shut-in the Tank System at Trigger Point as described in subparagraph 2(c)(1)(b)(i) above, then Well Production Operations will be shut-in at the Trigger Point.

(c) Operate the Closed Loop Vapor Control System to ensure that all Well Production Operations associated with the Closed Loop Vapor Control System will shut-in at the Low Pressure Point and at a Static Alarm. Prior to resuming Normal Operations following a Low Pressure Point or Static Alarm, KPK must repair or replace the pressure monitor.

(d) Equip all Closed Loop Vapor Control Systems with remote monitoring.

d. Closed Loop Vapor Control System Modification. If, at any time following installation of a Closed Loop Vapor Control System, KPK replaces a thief hatch or PRV at a Closed Loop Vapor Control System with a thief hatch or PRV of a lower Set Point or different make and model, or lowers the Set Point of an existing thief hatch or PRV, a new verification of the Leak Point pursuant to Appendix B, subparagraph 3(a)(2), below, will be performed (i) within seven Calendar Days after the modification is completed, or (ii) if the Tank System and/or Well Production Operations are shut-in as of

the deadline identified in subparagraph 2(d)(i), by the date Normal Operations resume.

3. Closed Loop Vapor Control System Verification of Engineering Evaluation. No later than the date that Normal Operations resume at a Vapor Control System following installation of the Closed Loop Vapor Control System, KPK must conduct the verification in subparagraph 3(a), identified below.

a. Verification of a Closed Loop Engineering Evaluation shall include the following:

1) A review to ensure that KPK or its consultant installing the Closed Loop Vapor Control System correctly identified the site configuration and equipment in accordance with the site survey, and installed the appropriate equipment to create the Closed Loop Vapor Control System;

2) Consistent with the Design Guideline, a verification:

(a) That associated Well Production Operations will be shut-in at the Trigger Point or Leak Point as specified in subparagraphs 2(c)(1)(b)(i) and (ii) above,

(b) That associated Tank System Operations will be shut-in at the Trigger Point as specified in subparagraph 2(c)(1)(b)(i), where applicable;

(c) Of the Leak Point via IR Camera Inspection, consistent with the Closed Loop Design Guideline. A video record of each IR Camera Inspection done to comply with this subparagraph shall be recorded and kept on file; and

(d) That the control valve(s) in the Closed Loop Vapor Control System actuate in response to the control logic.

b. No later than 60 Calendar Days after the applicable deadline in Paragraph 8(a) of the Consent Decree, KPK shall submit a written notification to EPA and CDPHE advising of any Tank Systems and associated Well Production Operations that are shut-in as of the applicable deadline in Paragraph 8(a) and where a Closed Loop Vapor Control System has not been installed.

c. Complete and submit to EPA and CDPHE with the next Semi-Annual Report or the Semi-Annual Report due at least 30 Calendar Days following the end of the optimization phase, the following information as a Certification of Completion Report, in a spreadsheet or database format for each Closed Loop Vapor Control System, except as identified in Paragraph 3(d)−(e), below:

1) The date when installation of all necessary hardware and software to create a Closed Loop Vapor Control System was completed;

2) The date a Tank System or tanks in any Tank System were first in Normal Operations following the installation of a Closed Loop Vapor Control System (*i.e.*, the date the optimization phase began);

3) The site survey sheet;

4) The Low Pressure Point, Control Point(s), Trigger Point, Leak Point, and Set Point, for each Closed Loop Vapor Control System, and the method by which each point was determined, and a description of the Static Alarm parameters; and

5) A summary of the results of the verification of the Closed Loop Engineering Evaluation for each applicable Closed Loop Vapor Control System, including a certification that the verification of the Closed Loop Engineering Evaluation was performed in accordance with Appendix B, subparagraph 3(a).

d. Optimization shall commence immediately upon resuming Normal Operations and will end 30 Calendar Days after first resuming Normal Operations. Following the optimization period for each Closed Loop Vapor Control System, KPK shall record the following data: tank pressure data, pressure alarms, and Well Production Operations shut-in events in an "Alarm and Shut-in Log". The Alarm and Shut-in Log will include records of the date and time of the alarms at, and duration of exceedances of, the Trigger Point and Leak Point; the date and time of the alarm indicating a pressure reading at or below the Low Pressure Point; the date and time of any Static Alarm; the cause and corrective action associated with any such alarms; and the date(s) and time operations of the Tank System and/or Well Production Operations were resumed after a Trigger or Leak Point (with the associated pressure reading). KPK will continue to maintain the Alarm and Shut-in Log for the life of the VCS or this Consent Decree, whichever is shorter, and will provide an updated Alarm and Shut-in Log with each Semi-Annual Report.

e. KPK will retain the data recorded by the pressure monitors associated with the Closed Loop Vapor Control System required pursuant to the Closed Loop Design Guideline, for two years from the date of recording. KPK shall provide this data to EPA and CDPHE upon request. KPK may store the data in compressed and/or less data intensive formats than the native upload as long as the required documentation is maintained.

APPENDIX C

Requirements for Open Loop Vapor Control Systems

1. Development of an Open Loop Modeling Guideline. KPK will develop a written modeling guideline ("Open Loop Modeling Guideline"). The purpose of this Open Loop Modeling Guideline is to determine Potential Peak Instantaneous Vapor Flow Rate for purposes of designing and adequately sizing Open Loop Vapor Control Systems and to provide procedures for achieving this objective.

a. The Open Loop Modeling Guideline must address the following, where relevant:

1) All vapor sources (e.g., atmospheric storage tanks, separator gases, transfer and loading systems, etc.) tied or to be tied into the Vapor Control System, including Bypass Gas. However, if KPK removes the Bypass Gas Line to the Tank System and designs the Vapor Control System such that Bypass Gas will either be routed to dedicated air pollution control equipment (i.e., not the air pollution control equipment that controls the Tank System) with sufficient capacity to handle the Bypass Gas Flow Rate or that Well Production Operations will automatically shut-in and cease all production of Bypass Gas, KPK does not need to account for Bypass Gas in the engineering evaluation. If KPK re-fractures a well that produces into an Open Loop Vapor Control System, adds a well that produces into an Open Loop Vapor Control System, adds an additional vapor source, or otherwise increases production to an Open Loop Vapor Control System, a new Engineering Analysis is required.

2) The maximum operating pressure from the last stage of separation prior to the Tank System to which the Vapor Control System is certified for

operation in accordance with Paragraph 4 of this Appendix C (Open Loop Vapor Control System Initial Verification).

3) The maximum design flow rate across the Separator liquid dump valve (reflective of valve size, trim, or presence of other restrictions);

4) Method(s) for estimation of flash gas flow rate that reflects the highest potential for flash gas emissions during a maximum design pressurized liquid flow rate event from the Separator, utilizing site-specific pressurized or site-specific atmospheric liquid sampling, lab analyses including flash gas to oil ratio, process simulation, correlations, or any combination thereof. KPK will use sampling and quality assurance methods found in CDPHE Permitting Section Memo 17-01, or another EPA and CDPHE approved method, for any site-specific sampling.

5) Method(s) for estimation of maximum potential Tank System working and breathing vapor flow rates during Normal Operations;

6) The potential for, and effects of simultaneous dump events to the same Tank System (unless all potential simultaneous dump events have been precluded through installation of timers, automation, or other measures);

7) The calculation methods or simulation tools for processing the data inputs;

8) The accuracy of the input data and resultant calculations (e.g., uncertainty of empirical correlations, representativeness of samples, ranges of operating conditions);

9) Any other inputs needed to estimate the Potential Peak Instantaneous Vapor Flow Rate (*e.g.*, process heating, blanket gas, purge gas if applicable); and

10) Method(s) to be applied to demonstrate design adequacy (i.e., to demonstrate that a Potential Peak Instantaneous Vapor Flow Rate event will not cause tank pressure to reach or exceed the lowest relief pressure of any thief hatch or PRV on the Tank System).

b. On May 10, 2019, KPK submitted the Open Loop Modeling Guideline to EPA and CDPHE for their review and comment. KPK may periodically update the Open Loop Modeling Guideline as appropriate. Should the Open Loop Modeling Guideline be updated, the use of the version current at the time of the Engineering Evaluation is acceptable. Updates to the Open Loop Modeling Guideline do not in and of themselves require KPK to redo Engineering Evaluations.

c. Where KPK performed site specific pressurized liquid sampling approved by CDPHE and EPA in August 2019 for relevant Tank Systems on Appendix A, KPK may utilize that sampling for that Tank System's Engineering Evaluation.

2. Open Loop Engineering Design Standards. KPK must complete Engineering Design Standards to assess whether Open Loop Vapor Control Systems are adequately sized and properly functioning. The Open Loop Engineering Design Standards may apply to Open Loop Vapor Control Systems at individual Tank Systems or to groupings of Tank Systems as KPK may determine appropriate.

a. These standards include, as appropriate:

1) A review of vapor control technologies applicable to the Tank System, including equipment-specific considerations and any associated pressure losses (*e.g.*, from Flame Arrestor);

2) Identification of site-specific construction constraints (*e.g.*, footprint limitations, setbacks, maximum equipment counts);

3) Size and design of the piping system between the tank(s) and the emissions control device, and the size and design of the emissions control device (including consideration of equivalent pipe length, back pressure valves, flame arrestors, or other restrictions on vapor flow);

4) Volume, frequency and duration of individual dump events; the nature of the flow of liquids to the Separator (i.e., steady flow, slug flow, intermittent flow (*e.g.*, due to discrete well cycling events)); the minimum time between dump events; and the maximum number of dump events associated with a single well cycle with slug or intermittent flow;

5) Minimum available headspace in the tank(s); and

6) Engineering design considerations applied to account for issues associated with the Open Loop Vapor Control System (*e.g.*, Fouling, potential for liquids accumulation in lines, winter operations) and variability of data.

b. KPK may rely on manufacturer specifications for individual components or pieces of equipment that are part of a Vapor Control System.

c. These Engineering Design Standards shall be completed in sufficient time for KPK to complete the Engineering Evaluations and any necessary modifications for all of the identified Open Loop Vapor Control Systems by no later than the deadlines set

forth in Paragraph 8 of the Decree (Deadlines for Requirements of Appendix B and C). KPK may, but is not required to, submit the Engineering Design Standards to EPA and CDPHE for review and comment. KPK must submit site-specific Engineering Design Standards if requested by EPA or CDPHE.

3. Open Loop Vapor Control System Field Survey, Engineering Evaluation, and Modification.

a. For each Open Loop Vapor Control System, KPK will conduct a one-time field survey. During the field survey, KPK must assess each Open Loop Vapor Control System, air pollution control equipment, and verify the associated equipment installed and operating. KPK will then apply the Open Loop Modeling Guideline to determine the Potential Peak Instantaneous Vapor Flow Rate to the associated Vapor Control System.

b. During the field survey, KPK must evaluate the condition of all pressure relief valves (PRVs), thief hatches, mountings, and gaskets at each tank in the Tank System, and the possibility of upgrading such equipment to reduce the likelihood of VOC emissions. This evaluation shall include the following actions:

1) KPK must ensure that every thief hatch is either welded or mounted with a suitable gasket to the tank in order to prevent emissions at the tank attachment point;

2) If, while evaluating the PRVs, thief hatches, mountings, and gaskets, KPK observes Compromised Equipment or evidence of VOC emissions attributable to such PRVs, thief hatches, mountings, or gaskets, KPK must replace, or upgrade such equipment, as appropriate; and

3) KPK must maintain records of the following:

a. The date each Tank System underwent this evaluation;

b. The name of the employee who performed the evaluation;

c. Whether Compromised Equipment or evidence of VOC emissions attributable to PRVs, thief hatches, mountings, or gaskets was observed (to include without limitation, hissing, olfactory observations, wave refractions, significant staining emanating from pressure relief devices); and

d. What, if any, repair, replacement, upgrade, or other corrective action was performed, including a description of the existing PRV, thief hatch, mounting, or gasket, and a description of how that equipment was repaired or with what it was replaced/upgraded. Descriptions of PRVs or thief hatches shall include pressure set points where such information is available, and descriptions of PRVs, thief hatches, mountings, or gaskets shall include the manufacturer and model where such information is available.

c. Open Loop Engineering Evaluation. Using the results of the field survey activities described in Paragraph 3(a) of this Appendix C and the Open Loop Vapor Control System Engineering Design Standard described in Paragraph 2 of this Appendix C, KPK must determine if the existing Open Loop Vapor Control System is adequately designed and sized to handle the Potential Peak Instantaneous Vapor Flow Rate that was calculated through the application of the Open Loop Modeling Guideline.

d. Open Loop Vapor Control System Modification. For those identified Open Loop Vapor Control Systems that are not adequately designed and sized based on the Engineering Evaluations, KPK must make all necessary modifications to reduce the Potential Peak Instantaneous Vapor Flow Rate (as recalculated accounting for modifications using the Open Loop Modeling Guideline) and/or increase the capacity of the Vapor Control System in accordance with the applicable Engineering Design Standard. KPK must ensure that each Open Loop Vapor Control System is adequately designed and sized to handle the Potential Peak Instantaneous Vapor Flow Rate as determined through application of the Engineering Design Standard. KPK may integrate site-specific data (such as site-specific pressurized liquid sampling analysis) into the calculation of Potential Peak Instantaneous Vapor Flow Rate and/or application of Engineering Design Standards for purposes of re-evaluating facility design.

4. Open Loop Vapor Control System Initial Verification. By no more than thirty (30) Calendar Days after completion of the Engineering Evaluation, KPK must complete the following requirements of this Paragraph and its subparagraphs for all Open Loop Vapor Control Systems. For Open Loop Vapor Control Systems that have completed the Open Loop Engineering Evaluation by the applicable deadline in Paragraph 8 of the Decree, but have associated Well Production Operations shut-in within 30 Calendar Days of the completion of the Engineering Evaluation, KPK must complete the requirements of Appendix C, subparagraph 4(a) by no more than 30 Days after first resuming Well Production Operations and must complete the requirements of Appendix C, subparagraph 4(b) by the deadline for the next Semi-Annual Report that is due at least 60 Days after first resuming Normal Operations. KPK must provide written

notification to the EPA and CDPHE no later than the second Semi-Annual Report advising of any Open Loop Vapor Control System shut-in by that date.

a. Conduct an IR Camera Inspection during Normal Operations, while and immediately after Condensate is being sent to the Tank System from the Separator. If there is more than one Separator, this inspection must be performed while all Separators are dumping unless simultaneous dumping is precluded. KPK may manually trigger the dump event to fulfill this inspection requirement.

1) If Well Production Operations are shut-in at the time of this IR Camera Inspection, KPK will perform an additional IR Camera Inspection(s) in accordance with this subparagraph within 30 days of resuming such Well Production Operations. This inspection must be conducted pursuant to a written Standard Operating Procedure (SOP) prepared by KPK and approved by EPA and CDPHE. A video record of each IR Camera Inspection done to comply with this Paragraph will be recorded and kept on file. Reliable Information obtained during this IR Camera Inspection must be addressed in accordance with the requirements of Paragraph 13 of the Decree.

2) If ten percent (10%) or more of the total number of Tank Systems in each design deadline group (or 1 Tank System, for groups with fewer than ten Tank Systems) undergoing an IR Camera Inspection under subparagraph 4(a) are found to be emitting VOCs, KPK shall complete within 10 Calendar Days a VCS Root Cause Analysis and identify appropriate response actions to be taken to address the cause(s) and adequately design and size such Vapor Control Systems to handle the Potential Peak Instantaneous Vapor Flow Rate, along with a

proposed schedule for the implementation of those response actions. In the next Semi-Annual Report, KPK shall submit the results of each VCS Root Cause Analysis, including the timeline for response actions if those are not already completed at the time of the submission of the VCS Root Cause Analysis.

b. Complete and submit to EPA and CDPHE a Certification of Completion Report that documents in a spreadsheet or database format:

1) the calculated volume of produced gas that can be sent through a vapor line directly to the Vapor Control System (i.e., volume of Bypass Gas);

2) the calculation to determine the air pollution control equipment (*e.g.*, number of combustors) necessary to combust Bypass Gas and to support removal of the vapor line(s) routing Bypass Gas to the Vapor Control System (i.e., "Bypass Gas lines");

3) the date(s) of removal of the Bypass Gas lines and commencement of operation of the dedicated air pollution control equipment;

4) calculated Potential Peak Instantaneous Vapor Flow Rate in standard cubic feet per hour;

5) the calculations, results, and assumptions made to demonstrate design adequacy;

6) the Engineering Design Standard that was used for each Open Loop Vapor Control System;

7) the result of the Engineering Evaluation, including identification of any changes made to equipment and/or operation as a result of the Engineering evaluation;

8) identification of site-specific or system-wide operational parameters or practices relied upon in the Engineering Evaluation (*e.g.*, maximum operating pressure for final stage of separation, measures to preclude simultaneous dump events, minimum available headspace in tanks);

9) the minimum Tank System thief hatch or PRV setting and the calculated maximum pressure modeled in the Tank System in ounces per square inch;

10) the operating pressure of maximum final stage of separation to which the Tank System is certified;

11) the Open Loop Leak Point for each Open Loop Vapor Control System that will be used, in Paragraph 6 of this Appendix C to verify the design of the Vapor Control System and how it was derived; and

12) the date an IR Camera Inspection was completed to comply with Paragraph 4(a) of this Appendix C; and

13) Whether the analysis performed in accordance with the Open Loop Modeling Guideline was transient or steady state.

5. Open Loop Vapor Control System Post-Certification of Completion Modifications. If, after KPK has submitted to EPA and CDPHE a Certification of Completion Report for a Tank System, KPK determines that the associated Vapor Control System needs to be modified to address Reliable Information or meet the Performance Standards in the Decree (Paragraph 14), KPK must evaluate whether similar modifications are necessary at other Open Loop Vapor Control Systems using the same Open Loop Modeling Guideline or Open Loop Engineering Design Standard. If, after KPK has submitted to EPA and CDPHE a Certification of

Completion Report for a Tank System, any site-specific or system-wide operational parameter or practice relied upon in the Engineering Evaluation changes (*e.g.*, throughput to the Tank System increases through refracturing a well or drilling a new well and sending production from it to the Tank System, maximum operating pressure for the final stage of separation increases through removal of a low pressure separator, minimum available headspace in tanks decreases through removal of one or more tanks), KPK must repeat all requirements of Paragraphs 3(c) and (d) of this Appendix C prior to the change, and must repeat all requirements of Paragraph 4(a) of this Appendix C within 60 Calendar Days of the change. KPK must submit in the next required Semi-Annual Report: (i) a summary of any evaluations of whether modifications were necessary at other Vapor Control Systems; (ii) the timing, results, locations, and description of any modifications of other Vapor Control Systems or a timeline for the completion of such modifications; and (iii) updated Certification of Completion Reports for any Tank Systems that underwent another Engineering Evaluation.

6. Verification of Open Loop Vapor Control System Engineering Evaluation. For each Open Loop Vapor Control System, KPK must perform the following:

a. Verification by Pressure Monitoring. After the Engineering Evaluation for each Open Loop Vapor Control System, KPK must continuously use its tank pressure monitoring data to verify that each Open Loop Vapor Control System is properly designed and has not reached or exceeded the Open Loop Leak Point. The Open Loop Leak Point must be established by KPK consistent with the subparagraph 7(c), and must exceed the Open Loop Trigger Point but must not exceed the lowest Set Point of any pressure relief device utilized in that Vapor Control System. If an Open Loop Vapor Control System reaches the Open Loop Leak Point, KPK must immediately shut-in

associated Well Production Operations where feasible (i.e. where automation exists, or where the equipment to shut-in all wells is at the well production facility) unless the Open Loop Leak Point exceedance is caused by active maintenance and/or active repairs. For wells where it is not technically feasible to immediately shut-in Well Production Operations, KPK must shut-in associated Well Production Operations as soon as possible, but no later than within twenty-four (24) hours. KPK may not resume Well Production Operations until such time as KPK undertakes such modifications necessary to lower the Potential Peak Instantaneous Vapor Flow Rate, increase the capacity of the Vapor Control System as prescribed by the Open Loop Modeling Guideline, or modifies its DI/PM to address an exceedance related to an operating and maintenance failure (*e.g.* clogged vapor lines), and to prevent a recurrence. Within 30 Calendar Days of resuming Well Production Operations, KPK must recomplete the requirements of Paragraph 4(a) of this Appendix C.

b. Third Party Verification.

1) Selection and Approval of Qualified Third-Party Consultant. KPK shall retain one or more independent auditor(s) not owned by KPK or any of its subsidiary or affiliated companies (hereinafter "Auditor") with the qualifications to conduct audits of Tank Systems in accordance with this Paragraph. Within 30 Calendar Days of Effective Date, KPK shall notify EPA and CDPHE in writing of KPK's recommended Auditors(s) in accordance with the notification requirements of Section XV of the Decree, provide statements of qualification for the Auditors(s), and provide a proposed work plan for conducting audits of Tank Systems in accordance with subparagraphs 6(b)(2) and (3). After consultation

with CDPHE, EPA shall either approve or disapprove the proposed Auditor(s) and the proposed audit work plan. If EPA and CDPHE have not responded within 14 Calendar Days of receipt, KPK's proposed Auditor(s) and the work plan shall be deemed approved. In the event EPA disapproves the proposed Auditor(s) and/or proposed work plan, EPA shall state the reasons for its disapproval of the Auditor(s) or proposed work plan in writing, and the process will be repeated with KPK having 7 Calendar Days from the date of the disapproval to propose alternate consultant(s), provide statements of qualification, and/or provide a revised work plan to EPA and CDPHE. If KPK determines it needs to select a new Auditor under this Consent Decree and the Auditor is not presently performing an Audit, KPK shall follow the steps in this subparagraph 6(b)(1).

2) Audit of Open Loop Vapor Control System. If Open Loop Leak Point is exceeded at a Tank System during Normal Operations after the Engineering Evaluation and after the optimization period set forth in subparagraph 7(a) below, KPK must, within 7 Calendar Days of the Open Loop Leak Point exceedance, notify EPA and CDPHE of the time, date, and location of the Open Loop Leak Point exceedance and must direct the approved Auditor to conduct an audit of the Tank System in accordance with the approved audit work plan and any Tank System in the same design audit group on Appendix A. In each Audit, the Auditor must independently verify that the Engineering Evaluations and any necessary modifications were completed in accordance with this Decree and Appendix C in accordance with subparagraph 6(b)(3).

3) As provided in subparagraph 6(b)(2), KPK will have the Auditor perform the following (the "Audit") for each Tank System in the design audit group in Appendix A:

a. Verify that the Vapor Control Systems are adequately designed and sized to handle the Potential Peak Instantaneous Vapor Flow Rate;

b. Conduct a review to verify that KPK: i) identified the correct equipment and configuration of the Vapor Control System; ii) applied the correct inputs and assumptions in calculating Vapor Control System capacity; iii) correctly performed the calculations to evaluate the existing capacity of the Vapor Control System by using an Engineering Design Standard in accordance with the requirements of this Decree and Appendix C;

c. Verify that any necessary modifications identified through the Engineering Evaluation performed by KPK have been completed in accordance with the requirements of this Decree; and

d. Conduct an IR Camera Inspection at each Tank System included in the Audit during Normal Operations, while and immediately after Condensate is being sent to the Tank System from the Separator. A video record of all IR

Camera Inspections done to comply with this Paragraph shall be recorded and kept on file.

4) If, based on its Audit of the Tank System in the design audit group, the approved Auditor concludes that the Open Loop Leak Point exceedance may have been caused by deficiencies identified pursuant to paragraph 6(b)(3)(a) – (c) above, KPK must make the modifications described in Paragraph 3(d) at the Tank Systems in the same design audit group in Appendix A as the Tank System for which the Leak Point exceedance occurred, and must update the DI/PM as necessary to account for the corrective actions.

5) The Audit must be completed no later than 35 Calendar Days from the date of the Open Loop Leak Point exceedance.

6) KPK must have the Auditor prepare a draft written report ("Draft Audit Report") marked as Confidential Business Information describing such work and conclusions within 30 Calendar Days after completing the Audit. This Draft Audit Report, and any drafts or other documentation prepared prior to such report, shall be shared by the Auditor with the Parties simultaneously in accordance with Section XV (Notices). The Draft Audit Report for each Audit will be subject to review and approval by EPA, after consultation with CDPHE; provided, however, that KPK shall have 15 Days to review and address any EPA or CDPHE comments on the Draft Audit Report before issuance of a Final Audit Report to the Parties.

7. Open Loop Pressure Monitoring. By no later than the implementation deadlines set in Paragraph 8 of the Consent Decree, at all Tank Systems classified as an Open Loop Vapor

Control System on Appendix A, KPK must install, calibrate (in accordance with manufacturer recommendations, if available), operate, and maintain one electronic pressure monitor per Condensate storage tank battery with head spaces manifolded together. KPK will install, operate, and maintain electronic pressure monitors linked to and continuously monitored by a central monitoring location in accordance with the requirements of this Paragraph. Pressure levels must be monitored every second, and the pressure must be reported and recorded every 15 seconds. When Trigger Point or Leak Point pressures are exceeded, that pressure exceedance must be recorded to the second and reported to the central monitoring location. Use of the tank pressure monitoring system must be continuous except during instances of active equipment maintenance and active repair, or during instances of Malfunction (of the tank pressure monitoring equipment only). In the instances a tank pressure monitoring system is identified as Malfunctioning, KPK will repair the tank pressure monitoring system within 5 Calendar Days. KPK will record all dates, durations, and causes of pressure monitor operation failures and will report this information as required by Section VIII, Periodic Reporting, of the Decree.

a. For the first 30 Calendar Days after the installation of pressure monitors, KPK shall have a performance optimization period to evaluate calibration and optimize pressure monitor performance and reliability. This period will allow KPK, and its contractors or pressure monitor vendors, an opportunity to ensure that the pressure monitors, to the greatest extent practicable, are producing quality data that may be used to identify the potential for over-pressurization of Tank Systems (*e.g.*, optimization of pressure monitor location on a Tank System, determination of pressure measurements and frequency indicative of potential for over-pressurization).

b. Following the performance optimization period, if a pressure monitor

measurement exceeds the Open Loop Trigger Point for a Tank System, KPK will test the pressure monitor and check and record the operating parameters of the associated Tank System ("site investigation"). During the site investigation, KPK will conduct an IR Camera Inspection. The site investigation will be completed no later than the end of the fourth Calendar Day following the measurement that exceeded the "Open Loop Trigger Point". If a Tank System requires three site investigations in a consecutive 30-Calendar Day period, KPK will conduct an in-depth investigation within 90 days and identify appropriate response actions to be taken to address any common operation, maintenance, or design cause(s) identified along with a proposed schedule for the implementation of appropriate response actions to be taken to address those issues. If KPK determines that the Open Loop Trigger Point exceedance is solely because of a Malfunction of the tank pressure monitoring system equipment, KPK is not required to treat that Open Loop Trigger Point exceedance as a site investigation for determining whether it needs to conduct an in-depth investigation required by this Paragraph 7(b).

c. Open Loop Trigger Point and Open Loop Leak Point Development. KPK must identify the Open Loop Trigger Point and Open Loop Leak Point for each Tank System in accordance with the following:

(1) The Open Loop Trigger Point must be at least two ounces per square inch below the lowest Set Point of any pressure relief device in the Tank System; (i.e., if a tank is equipped with a thief hatch with a set point of 16oz/in2 and a PRV with a set point of 14oz/in2, the Open Loop Trigger Point can be no greater than 12oz/in2);

(2) The Open Loop Leak Point must be greater than the Open Loop

Trigger Point and no greater than the lowest Set Point of any pressure relief device in the Tank System; and

(3) After KPK determines the Open Loop Leak Point for each Tank System, KPK must conduct an IR Camera Inspection during a pressure test to ensure that Tank System pressure relief devices are not emitting at or before the designated Open Loop Leak Point. During the pressure test, the Tank System shall be manually allowed to pressurize up to at least the designated Open Loop Leak Point. KPK may alternatively set the Open Loop Leak Point consistent with the Closed Loop Modeling Guideline (SpindleIO Tank Pressure/Flow Control System Guidelines).

d. KPK will maintain records of the following and this information shall be provided in a spreadsheet with each Semi-Annual Report: (i) the Open Loop Trigger Point, Open Loop Leak Point, and Set Points of each pressure relief device at each Tank System; (ii) the date and results of the Open Loop Leak Point verification in Paragraph 7(c)(3), above; (iii) the date and time, location, and numerical value of all pressure readings in excess of the Open Loop Trigger Point; (iv) the date and time, duration, location, and numerical value of all pressure readings in excess of the Open Loop Leak Point including a description as to whether the exceedance was believed by KPK to be caused by active maintenance or repair; and (v) the date and results of all corresponding site investigations and all corresponding in-depth investigations.