

**NM1 - \_\_\_\_50\_\_\_\_**

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

**June 2013 – Present**

**Hearing Application Review Comments  
Crowe Blanco Properties, LLC – Blanco Landfarm  
Commercial Surface Waste Management Facility  
June 26, 2013**

**Tab 19.15.36.8.C.4, Facility Description & Diagram:**

**Page 4.1:**

The first sentence identifies the requested permitted area as 206+- acres. Note 6 on Sheet 3 of 17 states “Total Permitted Acreage – 287.13 less waterways ( $54.8 + 23.3 + 2.76 = 80.86$  acres) = 206 acres.” This assessment conflicts with the total area surveyed (276.74 +- acres) demonstrated on Sheet 1 of 17 and the waterway acreage ( $63.0 + 23.6 + 0.35 = 86.95$ ) identified on Sheet 3 of 17. Please clarify.

**Page 4.1, Berms:**

Sheet 6 of 17, *10 Acre Cell Map*, is referenced as a demonstration for berms on Page 4.1. The illustrated berm locations do not represent compliance to the regulatory requirements. Pursuant to 19.15.36.13.M NMAC, “Each operator shall have a plan to control run-on water onto the site and run-off water from the site, such that: (1) the run-on and run-off control system shall prevent flow onto the surface waste management facility’s active portion during the peak discharge from a 25-year storm; and (2) run-off from the surface waste management facility’s active portion shall not be allowed to discharge a pollutant to the waters of the state or United States that violates state water quality standards.” Pursuant to 19.15.36.15.C.(1) NMAC, “The operator shall berm each landfarm cell to prevent rainwater run-on and run-off.” Please provide and/or identify the location of the berms that will be utilized for stormwater management for the proposed landfarm activity pursuant to Part 36. Since the maximum proposed number of active cells during operations and closure is four, please illustrate the first four cells.

The Cell Berm Profiles, Sheets 1 of 10 through 10 of 10, are referenced as demonstrations for berms on Page 4.1. The Cell Berm Profiles cannot be assessed based upon the limited information provided. Without a facility map that illustrates the berm locations and proper reference points, OCD is unable to determine the placement of the berms within the facility boundary from the cross-sections, Sheets 1 of 10 through 10 of 10.

**Page 4.3, Sheet 3 of 17, *On-Site Waterways and Setbacks*:**

Note 6 on Sheet 3 of 17 states “Total Permitted Acreage – 287.13 less waterways ( $54.8 + 23.3 + 2.76$ ) = 206 acres.” The legend/key on Sheet 3 of 17 identifies the red area as “200 ft Setback Area from Existing Waterways, Total Waterways Area On-Site = 80.84 Acres.” This assessment conflicts with the total area surveyed (276.74 +- acres) demonstrated on Sheet 1 of 17 and the waterway acreage ( $63.0 + 23.6 + 0.35 = 86.95$ ) identified on Sheet 3 of 17. Please clarify.

**Page 4.6, Sheet 6 of 17, *10 Acre Cell Map*:**

Sheet 6 of 17, *10 Acre Cell Map*, is referenced as a demonstration for berms on Page 4.1. The illustrated berm locations do not represent compliance to the regulatory requirements. Pursuant to 19.15.36.15.C.(1) NMAC, “The operator shall berm each landfarm cell to prevent

rainwater run-on and run-off.” Please provide and/or identify the location of the berms that will be utilized for stormwater management for the proposed landfarm activity pursuant to Part 36. Since the maximum proposed number of active cells during operations and closure is four, please illustrate the first four cells.

**Pages 4.13 – 4.22, *Cell Berm Profiles*, Sheets 1 of 10 through 10 of 10:**

The Cell Berm Profiles, Sheets 1 of 10 through 10 of 10, are referenced as demonstrations for berms on Page 4.1. The Cell Berm Profiles cannot be assessed based upon the limited information provided. Without a facility map that illustrates the berm locations and proper reference points, OCD is unable to determine the placement of the berms within the facility boundary from the cross-sections, Sheets 1 of 10 through 10 of 10.

**Tab 19.15.36.8.C.5, Engineering Design:**

**Page 5.6, Sheet C 103, *Existing Site Plan*:**

Sheet C 103 illustrates proposed stormwater features, such as the placement berms and v-ditches along the facility boundary and run-off containment features. Please reference Sheet C 103 under Berms on page 4.1 and provide a copy of Sheet C 103 under Tab 19.15.36.8.C.4 to demonstrate the facility berm(s). Also provide a facility map that illustrates the placement of cell berms and their associated stormwater containment features.

**Page 5.8, Sheet C 105, *Grading and Drainage Plan*:**

Please demonstrate compliance with Paragraphs (4) and (5) of 19.15.36.8.C NMAC regarding detailed construction/installation diagrams and engineering designs by illustrating the bottom slope at in which the liner of the processing area will have to be installed for the liquid collection system to allow for the collection and retrieval of collected liquids.

**Tab 19.15.36.8.C.6, Operational/Management Plan:**

**Page 6.1, Introduction:**

Please clarify and identify the proposed limitations of the landfarm operational activities. On Page 9.3 of the Closure/Post-Closure Plan, the first sentence of the third paragraph states “During the life of the facility, a maximum of four cells will be used for active treatment/remediation of contaminated soils.” Please identify this operational procedure.

**Page 6.4, 4.1 Flowchart for Waste Acceptance/Disposal:**

Please clarify if liquids (tank bottoms and/or drill cutting) will be tested for chlorides for acceptance at the gate prior to being processed and stabilized with treated and/or virgin soils in the processing area. If not, please make the appropriate modifications to the flow chart. Also, please modify the flow chart to demonstrate how stormwater (contaminated or not) will be handled for waste acceptance and disposal.

**Page 6.7, Hydrocarbon Impacted Drill Cuttings – Liquids:**

Step 1 suggests that an elevated ramp is needed for trucks to offload into the above ground shaker/slurry tanks. The ramps were not included in the design drawings for the processing area. Please include.

The second sentence in Step 3 indicates that only treated soils (not virgin soils) will be tested for chlorides and the paint filter test after stabilizing drill cutting liquids. This procedure conflicts with the waste acceptance/disposal flowchart provided on page 6.4 and the waste acceptance criteria of Subsection A of 19.15.36.15 NMAC. Please modify to procedure to coincide with the flow chart.

**Page 6.8, 5.3 Tank Bottoms:**

Step 1 suggests that an elevated ramp is needed for trucks to offload into the above ground shaker/slurry tanks. The ramps were not included in the design drawings for the processing area. Please include.

The second sentence in Step 2 indicates that only treated soils (not virgin soils) will be tested for chlorides after stabilizing tank bottoms. This procedure conflicts with the waste acceptance/disposal flowchart provided on page 6.4. Please modify to procedure to coincide with the flow chart.

**Page 6.9, 5.4 Centrate Water (Wastewater):**

The fourth paragraph indicates that “chloride titrator strips” will be used to ensure that the waste acceptance and closure standard for chlorides will not be exceeded if centrate water is added to a constructed biopile. Please identify how the strips will be used, which waste streams will be tested and when, how and where samples will be obtained, and the method and procedure for titration. Also, please address how the leachable/titrated concentration (mg/L) of the soils tested by the “chloride titrator strips” will demonstrate equivalency to the waste acceptance standard and closure standard of 500 mg/kg.

In the fourth paragraph (which includes the four bullets), please provide the sampling protocol and test methods that will utilized to determine the initial chloride concentrations in the biopiles and the centrate water prior to mixing. Also, please provide the sampling protocol and test methods that will used after centrate water has been added.

**Page 6.10, 7.1 Treatment Zone Monitoring:**

The semi-annual treatment zone monitoring discussed in the last paragraph is an operational activity that will begin as soon as a biopile is constructed in a landfarm cell. As presented in this section, this operational procedure follows the semi-annual treatment zone closure performance standards testing when a landfarm cell has reached full capacity. The testing parameters for each sampling event are different. Please relocate the fifth paragraph in between the second and third paragraphs to ensure the semi-annual sampling for TPH and chlorides are completed at the appropriate times. Also, pursuant to 19.15.36.15.D NMAC, EPA method 8015M can be used for testing TPH. EPA method 418.1 is not the only option recognized by rule.

**Page 6.12, 7.1 Treatment Zone Closure Performance Standards:**

This section does not recognize the semi-annual (two sampling events of 19.15.36.15.D NMAC) demonstrations “that the contaminated soil has been treated to the standards specified in

Subsection F of 19.15.36.15 NMAC.” Please clarify in this section when and how many times the treatment zone closure performance standards must be demonstrated for closure.

The first sentence of the second paragraph states “Once a biopile has met treatment zone closure performance standards (19.15.36.15.F NMAC) the treated /remediated soils will be moved to and spread in the other cells on the facility... These cells are referred to as the **final disposition “receiving”** cells.” As written, it could be mis-understood that the treatment zone closure performance standards demonstration is required “once.” Please clarify. OCD was unable to locate a map or drawing illustrating the location(s) of the **“final disposition “receiving”** cells” within the facility. Please provide and/or identify the location of a map or drawing illustrating the location(s) of the **“final disposition “receiving”** cells.” Also, please clarify how the cells will be constructed and what limitations, such as capacity (volume) or thickness, in which the treated /remediated soils will be spread within the proposed **“final disposition “receiving”** cells.”

The last sentence of the second paragraph states “The cells will be re-vegetated in accordance with 19.15.36.18.A.6 NMAC.” Please clarify when the re-vegetation will occur, such as each final disposition **“receiving”** cell is filled to a certain capacity or thickness or at final closure of the facility.

The first sentence of the fourth paragraph states “Once an active “treatment” cell has been filled to the maximum thickness of 2’ or approximately 3000 cubic yards per acre per landfarm cell (Landfarm Cell = 10 acre = 30,000 cy), treatment shall continue until the contaminated soil has been remediated to the higher of the background concentrations or the following closure performance standards.” The calculated assessment of “Landfarm Cell = 10 acre = 30,000 cy” is misleading in the volume of soils that can be placed in the proposed landfarm cells. The table titled *Useable Cell Areas*, on Sheet 6 of 17, demonstrates that that the largest useable area in the 30 10-acre cells is 7.92 acres, the smallest is 0.01 acres, and the average is approximately 3.43 acres. The expectation of 30,000 cubic yards of soil within any of the proposed 10 acre cells is not reasonable. Please omit the calculated assessment of “Landfarm Cell = 10 acre = 30,000 cy” since it cannot be achieved under the current proposal.

Pursuant to Paragraph (5) of 19.15.36.15.F NMAC, “The concentration of constituents listed in Subsections A and B of 20.6.2.3103 NMAC shall be determined by EPA SW-846 methods 6010B or 6020 or other methods approved by the division.” Based upon the specified test method, this means that only the metals identified in Subsections A and B of 20.6.2.3103 NMAC are required to be demonstrated. The sixth bullet in the last paragraph indicates that all of the constituents listed in Subsections A and B of 20.6.2.3103 NMAC will be demonstrated. Please modify appropriately to reflect the treatment zone closure performance standards testing requirements.

#### **Page 6.13, 9.0 Final Disposition of Treated Soils:**

OCD was unable to locate a map or drawing illustrating the location(s) of the **“final disposition “receiving”** cells” within the facility. Please provide and/or identify the location of a map or drawing illustrating the location(s) of the **“final disposition “receiving”** cells.” Also, please clarify how the cells will be constructed and what limitations, such as capacity (volume)

or thickness, in which the treated /remediated soils will be spread within the proposed “**final disposition “receiving”** cells.”

In the second paragraph, the only party identified is “NMOCD.” Based upon the written response it would be OCD that “shall require the removal of contaminated soils from the landfarm cell to be disposed of at a division-approved permitted landfill...” Pursuant to Paragraph (2) of 19.15.36.15.G NMAC, “If the operator cannot achieve the closure performance standards specified in Subsection F of 19.15.36.15 NMAC within five years or as extended by the division, then the operator shall remove contaminated soils from the landfarm cell and properly dispose of it at a division-permitted landfill, or reuse or recycle it in a manner approved by the division.” Please modify the response to recognize the operator’s responsibility.

**Page 6.13, 10.2 Facility Requirements:**

The note in the first bullet states “arroyos will be bermed using virgin soils.” Please clarify if these are the proposed berms to control stormwater run-off from the facility and are the berms and v-ditch/berm combinations, illustrated on Sheet C 103 and Sheet 16 of 17, along the facility boundary that are designed to direct stormwater to the run-off containment features. Also, please the source of the soils that will be used to construct landfarm cell berms and facility berms that are not along arroyos. This clarification is requested due to the special note which states “arroyos will be bermed using “virgin” soils.”

**Page 6.13, 10.3 Berms:**

The response states compliance to the regulatory provision and references Section 19.15.36.8.C.11 – Stormwater Run On/Off for the details. Pursuant to Subsection M of 19.15.36.13 NMAC, “Each operator shall have a plan to control run-on water onto the site and run-off water from the site, such that: (1) the run-on and run-off control system shall prevent flow onto the surface waste management facility’s active portion during the peak discharge from a 25-year storm; and (2) run-off from the surface waste management facility’s active portion shall not be allowed to discharge a pollutant to the waters of the state or United States that violates state water quality standards. Section 19.15.36.8.C.11 – Stormwater Run On/Off of the permit application only provides the 25-year storm outputs capacities for the design of stormwater collection feature(s) for large areas of the proposed facility without any landfarm cells present. There are no demonstrations for the bermed landfarm cells that will require a stormwater collection feature(s) designed to handle contaminated run-off from the active 10 acre cell. Please provide and reference the locations of the design drawings and maps.

**Page 6.14, 10.6 Spill Reporting & Corrective Actions Provisions:**

It is not recommended to summarize the regulatory language for other Parts of Chapter 15 of Title 19 of the New Mexico Administrative Code. The Introductory paragraph is an attempt to modify the regulatory language of the Objective of 19.15.29.6 NMAC to fit the proposed operations. In doing so, certain considerations were left out that should not have been, such as regulated NORM. This is one example why it is not recommended to summarize the regulatory language for other Parts. The other reason it that regulations are subject to change which could lead to improper notice and corrective action. Please state that “Crowe Blanco/IEI will comply with the spill reporting and corrective action provisions of 19.15.30 NMAC or 19.15.29 NMAC” as required of Subsection K of 19.15.36.13 NMAC and omit the summary.

**Page 6.15, 10.8 Run On/Off Water Control:**

OCD was unable to locate any detail stormwater management design plans for controlling run-off from the active portions, specifically in regards to the proposed landfarm operations. Section 19.15.36.8.C.11 – Stormwater Run On/Off of the permit application only provides the 25-year storm outputs capacities for the design of stormwater collection feature(s) for large areas of the proposed facility without any landfarm cells present. There are no demonstrations for the bermed landfarm cells that will require a stormwater collection feature(s) designed to handle contaminated run-off from the active 10 acre cell. Please provide.

The third bullet of the second paragraph proposes to test the non-contact stormwater with Chloride Titrator test strips to determine if the stormwater does not exceed 500 mg/kg. The waste acceptance standards Subsection A of 19.15.36.15 NMAC only apply to “soils and drill cuttings predominantly contaminated by petroleum hydrocarbons,” not liquids. The proposal continues and proposes off-site disposal for such water that exceeds 500 mg/kg. Please identify how the strips will be used, how and where samples will be obtained, and the method and procedure for titration. Based upon the “allowable Chloride in Water Calculation” the concentration of the water is calculated only after the chloride concentration of the biopile determined in which the water may be applied. Please clarify which method will be used. Also, please address the management of the contact stormwater.

**Page 6.25, Addendum G, Biopile Temperature & Maintenance Record:**

The form documents the date moisture is added to the biopile and the source (fresh, centrate, and/or stormwater) of the moisture, but does document the volume of moisture applied to the biopile. Please reference the location of a record keeping form that would provide such documentation or please modify the current form appropriately to document the volume of moisture applied to the biopile.

**Page 6.26, Addendum H, Allowable Chloride in Water Calculation:**

The calculated pounds of chloride determined for the biopile soils and the maximum allowed chloride in soil are identified as being based upon 750 cubic yards of soil. The modifications to the hearing application included changing the volume of soil per biopile from 750 cubic yards of material to 1000 cubic yards. Please verify the calculated values and modify the volume to be assessed based upon the current proposal.

The assessment for water is based upon the specific weight of fresh water, which is 8.33 lbs/gallon or 62.5 lbs/ft<sup>3</sup>. As illustrated in the demonstration, Addendum H, the calculated allowable concentration can easily exceed 21,000 ppm chloride. This would not be considered fresh water. Salt water has a specific weight of 64.3 lbs/ft<sup>3</sup> or 8.573 lbs/gallon (1 cubic foot water = 7.5 gallons). Please modify the spreadsheet to calculate the appropriate concentration of 80 barrels of chloride contaminated water that can be applied to a biopile without exceeding the waste acceptance and treatment zone performance closure standards of Part 36.

**Tab 19.15.36.8.C.8, H2S Contingency Plan:****Page 8.1, Designated Assembly Points:**

Assembly points/areas should be proposed upwind and crosswind from the prevailing wind direction. The prevailing wind direction was not identified. Please provide so that OCD determine if the proposed assembly points/areas are appropriate.

**Page 8.2, Section III: A. Responsibilities and Duties of Personnel:**

The fifth bullet, under Health and Environmental Officer, indicates that the contingency plan is activated “in the event of an unplanned H<sub>2</sub>S release at 15 ppm (Time Weighted Average).” Based upon the National Institute of Occupational Safety and Health, a hydrogen sulfide concentration of 15 ppm is the Short Term Exposure Limit and 10 ppm is the Time Weighted Average. On page 8.3, Steps 1 and 2 of D under the Immediate Action Plan describe how the alarm system will activate at a detection of 10 ppm or greater and how personnel will evacuate when the alarm system activates. Please modify the bullet to coincide with the written plan.

**Page 8.3, Section III: B. Responsibilities of Visitors & Disabled Occupants:**

Steps 1 and 2, of D of the Immediate Action Plan below, describe how the alarm system will activate at a detection of 10 ppm or greater and how personnel will evacuate when the alarm system activates. This section instructs visitors and disabled occupant(s), unable to exit without assistance, to evacuate when H<sub>2</sub>S concentrations reach 15 ppm and not with facility personnel at 10 ppm. Please modify or clarify why visitors and the disabled are not asked to evacuate with on-site personnel and how on-site personnel will assist if they are no longer on-site.

This section also proposes to leave disabled occupant(s) unable to exit without assistance behind with a 10 minute escape pack and the EC will notify facility personnel of the disabled occupant’s location. This situation, as proposed, ends without any further instruction to return within less than 10 minutes to assist the disabled or if there is enough equipment available for personnel to don a SCBA, return, and assist with another 10 minute escape pack. Please clarify.

**Page 8.3, Section III: C. Activation Levels:**

This section does not coincide with the rest of the proposed plan. If the alarms sound at 10 ppm or greater and personnel are evacuating, then the plan is activated at 10 ppm. Please modify appropriately. The proposed evacuation, “if H<sub>2</sub>S levels exceed 30 ppm,” contradict the proposal to evacuate at 10 ppm or greater. Please modify appropriately.

**Page 8.3, Section III: C. Immediate Action Plan:**

Pursuant to Paragraph (1) of 19.15.11.9.B NMAC, “The person shall develop the hydrogen sulfide contingency plan with due consideration of paragraph 7.6 of the guidelines in the API publication Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide, RP-55, most recent edition, or with due consideration to another division-approved standard.” The first 6 steps, under Alert and Account of RP-55, are as follows, 1) Move away from source or affected area; 2) Don PPE; 3) Alert others; 4) Assist personnel in distress; 5) Proceed to assembly points/areas; and 6) Account for personnel. The proposed sequence of tasks should be completed prior to locating and controlling the source.



As currently proposed, Step 1) the alarms will sound at 10 ppm; Step 2) facility personnel (not visitors or the disabled) will evacuate to assembly points; Step 3) EC will search for source without PPE; Step 4) any personnel in distress will be assisted somehow by personnel that evacuated in Step 2. The determination of 15 ppm and the evacuation of visitors is not mentioned, but another unexplained evacuation is proposed in Step 8 at 30 ppm. Please clarify and/or provide additional information to explain the purpose and function of the three proposed evacuations levels.

Please clarify if H<sub>2</sub>S will be monitored at the proposed assembly points/areas and if detected what actions are proposed.

Please clarify under what conditions and/or action level the use of road blocks will be implemented and please clarify if H<sub>2</sub>S will be monitored and if detected what actions are proposed.

**Page 8.4, Section III: C. Telephone Numbers and Communication Methods:**

Pursuant to Section 16 of 19.15.11 NMAC, “The person shall notify the division upon a release of hydrogen sulfide requiring activation of the hydrogen sulfide contingency plan as soon as possible, but no more than four hours after plan activation, recognizing that a prompt response should supersede notification.” The plan is activated at 10 ppm when the alarms sound and personnel begin evacuating. Please include OCD’s contact information for the required notice.

**Page 8.5, Section III: E.4. Emergency Communication Methods:**

In the last row, H<sub>2</sub>S Alarms, please modify the last column to clearly state what is written and proposed in the plan. Please state that alarm activates when the H<sub>2</sub>S levels reach “10 ppm or greater.”

**Page 8.5, Section III: F. Location of Public Roads & Nearby Residences:**

The title to this section mentions “nearby residences”, please comment on “public areas” as defined in Part 11.

**Page 8.6, Section V: A. Alarm System:**

The fourth bullet describes an audible alarm and a flashing yellow beacon if H<sub>2</sub>S is detected at 10 ppm. Please clarify if the audible alarm is continuous or intermittent at 10 ppm.

**Page 8.6, Section V: B. Wind Socks:**

Pursuant to Subsection C of 19.15.11.12 NMAC, “The person shall install wind direction equipment that is visible from all principal working areas at all times.” Please propose locations within the proposed facility in order for OCD to determine if the proposed location demonstrates compliance to the requirement.

**Page 8.6, Section V: C. Monitoring Equipment:**

The second sentence in the first bullet indicates that only a yellow beacon will activate if H<sub>2</sub>S is detected at 10 ppm or greater. Please clarify if an audible alarm (continuous or intermittent) will sound at a detection of 10 ppm or greater.

**Page 8.7, Section V: D. Emergency Equipment/Supplies:**

Pursuant to Subparagraph (2) of 19.15.11.9.B NMAC, the “plan shall include the availability and location of necessary safety equipment and supplies.” Only one 10 minute escape pack is identified. Under the current proposal, disabled occupant(s) unable to exit without assistance to evacuate when H<sub>2</sub>S concentrations reach 15 ppm will be given a 10 minute escape pack (that will have to be retrieved from the office first) then they will “wait for facility personnel to arrive and assist with evacuation from the area.” While this is occurring, the EC will be monitoring the H<sub>2</sub>S concentrations to determine the source. Based upon the proposed actions, all three parties would require appropriate PPE to complete their task. If it takes longer than 10 minutes for personnel to leave and return to the disabled occupant, then the disabled will become exposed while waiting for assistance and during the evacuation. Any personnel returning into the area of impact to assist the disabled will not have proper PPE to complete the task without exposure. Without proper PPE, the EC will be exposed to the concentrations detected while trying to determine the source. Please ensure that the appropriate equipment is proposed to support the expected actions and tasks to be completed. As it stands, the plan cannot be implemented with the proposed equipment.

Pursuant to Subparagraph (2) of 19.15.11.9.B NMAC, the “plan shall include the availability and location of necessary safety equipment and supplies.” Wind sock locations are described as “various areas.” Pursuant to Subsection C of 19.15.11.12 NMAC, “The person shall install wind direction equipment that is visible from all principal working areas at all times.” Please identify within the proposed facility where the wind socks will be positioned in order for OCD to determine if the proposed location demonstrates compliance to the requirement.

**Page 8.8, Section VII: Notification:**

Pursuant to Section 16 of 19.15.11 NMAC, “The person shall notify the division upon a release of hydrogen sulfide requiring activation of the hydrogen sulfide contingency plan as soon as possible, but no more than four hours after plan activation, recognizing that a prompt response should supersede notification.” The plan is activated at 10 ppm when the alarms sound and personnel begin evacuating. Please identify the concentration, 10 ppm, at which the plan is activated in the response and provide OCD’s contact information for the required notice in the plan. Also, OCD is not sure what is being stated in the last sentence of the paragraph. Please modify and complete.

**Page 8.9, Section IX: Rescue/Emergency Response/Medical:**

The second sentence in the second paragraph instructs everyone to “remain at the designated assembly point(s), unless such assembly point becomes unsafe, ...” Please explain how the EC will determine the assembly point(s) are unsafe. Please identify the method and concentration.

In the first sentence of the third paragraph, please explain how the EC will make the determination that a “threat to human health or the environment outside of the facility exists” in order to notify the San Juan County Emergency Dispatch Center through 911. Please identify the method and concentration. The “Reverse 911 Notification/Single Dispatch System” works for parties that have an activated land-based telephone line. Person(s) that only have cellphones

have to personally request to have their cell phone and associated address individually registered into the Reverse 911 Notification System to be contacted when activated. Parties without a land-based telephone line or have not registered their cellphone numbers will not receive any notification through the Reverse 911 Notification System. The plan proposes to notify such parties by “door-to-door contact by law enforcement” but the plan does not identify who these people may be or their addresses for the notice. Please propose a protocol that will resolve this issue.

**Page 8.18, Addendum A, Emergency Evacuation Routes:**

Based upon the proposed locations for the designated assembly points, the prevailing winds direction must be to the southeast. Assembly points/areas should be proposed upwind and crosswind from the prevailing wind direction. The prevailing wind direction was not identified. Please modify if the proposed assembly points/areas are proposed downwind of the prevailing wind direction.

**Tab 19.15.36.8.C.9, Closure/Post Closure Plan:**

**Page 9.3, 1 Introduction:**

The second paragraph states “IEI may choose to close specific cells/areas of the facility prior to final cessation of all operations and site closure.” IEI will have to close cells for OCD to consider the proposed closure plan that is based on the premise that “during the life of the facility, a maximum of four cells will be used for the active treatment/remediation of contaminated soils.” Please modify the sentence to clarify that IEI will have to close cells and explain what “close” represents in order to determine the additional closure activities (spreading of biopiles across cell, removal of cell berms, removal of facility berms, removal of roads, re-vegetation, etc., ...) that need to be addressed in the closure plan and financial assurance cost estimates.

Please clarify in the third paragraph that the treatment zone closure standards of 19.15.36.15.F NMAC must be demonstrated twice in one year period. Pursuant to 19.15.36.15.D NMAC, “When that thickness is reached, the operator shall not place additional oil field waste in the landfarm cell until it has demonstrated by monitoring the treatment zone at least semi-annually that the contaminated soil has been treated to the standards specified in Subsection F of 19.15.36.15 NMAC or the contaminated soils have been removed to a division-approved surface waste management facility.”

Please clarify in the fourth paragraph if the actions discussed are a description of the operational requirements prior to closure or are they actions to be performed at closure for the four remaining active landfarm cells. If the latter, why propose to move and relocate soils to a “final disposition receiving cell” at closure that can be spread and left in their current cell? Also, please review the protocol proposed in the sixth paragraph. Based upon the two responses, remediated soils will be “moved and spread in the other cells on the facility” and also “graded and left in place.” Please clarify which protocol will be implemented during closure.

In the first sentence of the sixth paragraph, please properly identify the title heading for 19.15.36.15.F NMAC as the “treatment zone closure performance standards.” The current title heading, “treatment zone monitoring,” in the sentence represents 19.15.36.15.D NMAC.

**Page 9.4, 2 General Surface Waste Management Facility Closure:**

The second bullet of the first paragraph describes the landfarm as encompassing “+/- 206 acres of the property.” Note 6 on Sheet 3 of 17 states “Total Permitted Acreage – 287.13 less waterways (54.8 + 23.3 + 2.76) = 206 acres.” The legend/key on Sheet 3 of 17 identifies the red area as “200 ft Setback Area from Existing Waterways, Total Waterways Area On-Site = 80.84 Acres.” This assessment conflicts with the total area surveyed (276.74 +/- acres) demonstrated on Sheet 1 of 17 and the waterway acreage (63.0 + 23.6 + 0.35 = 86.95) identified on Sheet 3 of 17. Please clarify.

Also in the second bullet of the first paragraph, the second sentence states “Four cells will be designated as active “treatment” of contaminated soils. The remaining cells will be used for final placement “spread” of treated/remediated soils (soils which meet the closure performance standards).” This concept of operation is not fully expressed in the Operational/Management Plan, under Tab 19.15.36.8.C.6. Please clarify in the Operational/Management Plan. Please reference the location of and/or provide a map that identifies the location of the four dedicated active “treatment” cells within the proposed facility.

The first sentence of the seventh paragraph states “Post-closure activities will include re-vegetation of the site, as discussed in Section 7 & 8 of this plan.” Pursuant to Subsection F of 19.15.36.18 NMAC, *Landfarm and pond and pit post closure*, “During that period the operator or other responsible entity shall regularly inspect and maintain required re-vegetation.” This would indicate that the re-vegetation requirements of Paragraph (6) of 19.15.36.18.A NMAC are implemented prior post-closure. Section 7, *Facility Post Closure*, of this plan properly recognizes the requirements of Paragraph (6) of 19.15.36.18.A NMAC. Section 8, *Other Closure Procedures & Re-Vegetation*, proposes to complete the re-vegetation requirements during closure. Please modify the sentence appropriately.

**Page 9.5, 5 Processing Area Closure:**

In the first paragraph the demolition of the building and the removal of the concrete floor and foundations may results in the removal of contaminated concrete due to the proposed centrifuge operations within the building and the collection of fluids in the liquid collection system. If such waste is proposed for disposal in a local landfill (as identified in the fourth sentence), Crowe Blanco would be required to obtain approval from OCD pursuant to 19.15.35 NMAC. Please recognize the required procedure based upon the proposed closure activity.

The second paragraph proposes to haul all remaining fluids to a “division-approved surface waste management facility.” The liquid oil field waste will have to be transported by an approved C-133 hauler and the surface waste management facility cannot accept any waste unless it is properly documented on a form C-138. Please incorporate the procedures into the closure protocol.

The first sentence of the third paragraph proposes to obtain samples from 6-inches below the surface of the 6 feet (approx. 291,600 ft<sup>3</sup> or 10,800 yds<sup>3</sup>) of soil covering the liner. Based upon the design and function of the processing area, the bottom liquid collection system will be installed approximately 6 to 12 inches above the liner (Sheet C105). This will mean that the soils closer to the liner may more than likely be saturated from accumulation of contaminated stormwater. OCD recommends sampling in lifts, with the anticipation of less contaminated soils at the surface (unless there are signs of a release). Other than the proposed sampling at 6-inches below the surface of the soils over the liner, only visual inspection for hydrocarbon contamination is proposed. If hydrocarbon contamination is observed, as proposed, soils will be placed into an active treatment cell for remediation without the implementation of the waste acceptance protocols for chloride and paint filter testing. Please incorporate protocols for the handling of soils from the processing area that fail the chloride and/or paint filter test. Cost estimates should be updated.

The second sentence in the third paragraph indicates that samples will be tested for “the constituents listed in Subsections A and B of 20.6.2.3103 NMAC (Appendix A).” The protocol continues by proposing to compare the results to the treatment zone closure performance standards of 19.15.36.15.F NMAC. Appendix A identifies all 43 of the constituents in Subsections A and B. The treatment zone closure performance standards of 19.15.36.15.F NMAC only require that the metals, as determined by EPA SW-846 methods 6010B or 6020, listed in Subsections A and B of 20.6.2.3103 NMAC be tested. Please modify the response to reflect the appropriate testing.

In the fourth paragraph, please incorporate the waste acceptance protocols (chloride and paint filter testing) for the contaminated soils discovered beneath the processing area liner prior to placement into an active cell and properly identify the metals, as determined by EPA SW-846 methods 6010B or 6020, listed in Subsections A and B of 20.6.2.3103 NMAC be tested. Please include the proper documentation, form C-138, of soils proposed for off-site disposal at a surface waste management facility. Adjust the cost estimates appropriately. If a release is discovered beneath the liner of the processing area, please recognize that Crowe Blanco shall comply with the spill reporting and corrective action provisions of 19.15.29 NMAC and/or 19.15.30 NMAC, as applicable.

**Page 9.6, 6 Landfarm Closure:**

Pursuant to Subsection D of 19.15.36.15 NMAC, “When that thickness is reached, the operator shall not place additional oil field waste in the landfarm cell until it has demonstrated by monitoring the treatment zone at least semi-annually that the contaminated soil has been treated to the standards specified in Subsection F of 19.15.36.15 NMAC or the contaminated soils have been removed to a division-approved surface waste management facility.” This operational requirement is recognized on page 6.10 of the Operational/Management Plan, under Tab 19.15.36.8.C.6, but is not proposed for closure. The proposed treatment zone monitoring of testing for TPH and Chloride do not satisfy the regulatory requirement. Please modify.

The third paragraph seems to out of sequence for the closure activities. The third paragraph goes directly into “the active “treatment cells” have reached treatment zone closure standards and are approved by the Division...” without proposing or implementing a sampling

protocol to obtain the results. Please insert the sampling protocol, located in the fifth paragraph on page 6.12 of the Operational/Management Plan, under Tab 19.15.36.8.C.6, in front of this paragraph.

The last sentence of the fourth paragraph proposes to leave the perimeter fence in place until “re-vegetation is 70 percent of the native perennial vegetative cover.” Please clarify if the fence will remain in place while Crowe Blanco maintains the vegetative cover through two successive growing seasons.

The proposed sampling in the fifth paragraph does not seem to coincide with the rest of the permit application. It proposes to spread the biopiles out within the landfarm cell and sample. It proposes 40 samples, which seems to be based upon the previous operations of four 750 cubic yard biopiles per acre. Please omit. See comment above pertaining to the third paragraph.

**Page 9.7, 7 Facility Post Closure:**

The post-closure requirements are proposed out of sequence for the closure activities. They are presented before the “Other Closure Procedures & Re-Vegetation,” Section 8 of this page. Please switch the information in Section 7 and 8.

**Page 9.7, 8 Other Closure Procedures & Re-Vegetation:**

In the first sentence of the first paragraph, states “Other final closure activities will consist of dismantling/removal of the facility and cell berms...” On page 9.4, the last sentence of the sixth paragraph of Section 2, it states “The facility’s Storm Water Pollution Prevention Plan and Contingency Plans will remain active until closure and post closure activities have been completed.” The facility berms and cell berms are identified as part of the stormwater management system. Without them stormwater cannot be directed to the stormwater impoundments. Please clarify when the berms will be removed and make the appropriate modifications in the closure plan for consistency. Also, please clarify if the “buildings” include the proposed office at entrance and the shop within the processing area. Please address the removal and closure of the proposed fueling tank and containment area and the proposed manure stockpile and containment feature.

**Page 9.9, Table 1: Facility Closure Testing Requirements:**

The first row of the Table, titled *Treatment Zone Monitoring*, proposes the semi-annual sampling protocol for general operations. It does recognize the semi-annual demonstration of 19.15.36.15.F NMAC. Pursuant to Subsection D of 19.15.36.15 NMAC, “When that thickness is reached, the operator shall not place additional oil field waste in the landfarm cell until it has demonstrated by monitoring the treatment zone at least semi-annually that the contaminated soil has been treated to the standards specified in Subsection F of 19.15.36.15 NMAC or the contaminated soils have been removed to a division-approved surface waste management facility.” Please modify the table appropriately.

In the second column of the four row, under *Soils above liner*, please update this section based upon the comments regarding the sampling protocol for the processing area provide for Page 9.5, 5 Processing Area Closure.

The first sentence in the second box of the last row states “Must meet Treatment Zone & Vadose Zone requirements...” This statement is not accurate in regards to the vadose zone. If a release to the vadose zone is discovered during the closure activities, Part 36 allows for it to be addressed during post-closure. Pursuant to Subsection F of 19.15.36.18 NMAC, “If there has been a release to the vadose zone or to ground water, then the operator shall comply with the applicable requirements of 19.15.30 NMAC and 19.15.29 NMAC.” Please modify.

**Page 9.10, Table 2 – Processing Area Closure:**

In the second half/section of Table 2, under the heading *Labor costs for soils sampling*, please modify the proposed number of samples to coincide with the written protocol so that the written protocol, Table 1, and Table 2 match. The cost estimate in Table 2 proposes 3 surface samples and 1 vadose sample. All other sampling protocols propose two of each. Please modify appropriately.

The proposed cost per unit for EPA method 6010B or 6020 look to be excessive. Please verify cost estimate and modify the table appropriately.

**Page 9.11, Table 3 – Landfarm Closure:**

In the second section of Table 3, under the heading Laboratory costs, the proposed analytical methods demonstrate that it represents the semi-annual treatment zone sampling protocol for general operations. Pursuant to Subsection D of 19.15.36.15 NMAC, “When that thickness is reached, the operator shall not place additional oil field waste in the landfarm cell until it has demonstrated by monitoring the treatment zone at least semi-annually that the contaminated soil has been treated to the standards specified in Subsection F of 19.15.36.15 NMAC or the contaminated soils have been removed to a division-approved surface waste management facility.” Please modify the table appropriately.

**Post Closure Costs:**

Based upon the written plan, OCD is uncertain when the facility and cells berms will be graded and removed. On page 9.4, the last sentence of the sixth paragraph of Section 2, states “The facility’s Storm Water Pollution Prevention Plan and Contingency Plans will remain active until closure and post closure activities have been completed.” The facility and cell berms are part of the stormwater management system. Without them stormwater cannot be directed to the stormwater impoundments. On page 9.7, the first sentence of the first paragraph of Section 8, *Other Closure Procedures & Re-Vegetation*, states “Other final closure activities will consist of the dismantling/removal of facility and cell berms...” Please clarify in the written plan when the berms will be dismantled and removed and modify the cost estimates appropriately.

Also, please include the removal and closure of the proposed fueling tank and containment area and the proposed manure stockpile and containment feature in the written plan and provide and modify the costs estimates for the closure activities appropriately.

**Tab 19.15.36.8.C.10, Contingency Plan:**

**Page 10.6, Section VI: Implementation:**

The first sentence of the second paragraph states “The Contingency Plan will be implemented whenever there is an imminent or actual incident such as a fire, explosion or release of contaminants which could threaten human health or the environment.” Pursuant to Subsection N of 19.15.36.13 NMAC “The contingency plan shall be designed to minimize hazards to fresh water, public health, safety or the environment from fires, explosions or an unplanned sudden or non-sudden release of contaminants or oil field waste to air, soil, surface water or ground water. The operator shall carry out the plan’s provisions immediately whenever there is a fire, explosion or release of contaminants or oil field waste constituents that could threaten fresh water, public health, safety or the environment; provided that the emergency coordinator may deviate from the plan as necessary in an emergency situation.” The contingency plan is a reactive plan to “to minimize hazards” and should be implemented to prevent or avoid an imminent threat; not in response to, as proposed. Please modify.

**Page 10.6, Section VII: Evacuation Plan:**

The first sentence of the first paragraph indicates that the evacuation plan will be implemented “in the event of a major emergency.” The only place that OCD could determine what qualifies as a “major emergency” is on page 10.11. A major fire is identified as a “major emergency.” Based upon the written plan, the evacuation plan would not be implemented unless there was a major fire. This conflicts with other evacuation procedures proposed in the plan. Please modify for consistency.

**Page 10.8, Section X: Notification:**

The second sentence under this section states “If the event is classified as a *minor emergency* it will be handled by facility personnel.” This proposal conflicts with the eleventh bullet of the last paragraph on page 10.5, where notice has been identified as the responsibility of the Emergency Coordinator. Please clarify and modify appropriately for consistency. Also, a “*minor emergency*” is only defined on page 10.11; as a small fire. The third sentence indicates that the Emergency Coordinator will provide notice “if the event is classified as a *major emergency*.” A “*major emergency*” is only defined on page 10.11; as a major fire. Please modify to identify how notice will be provided for an explosion and/or an unplanned sudden or non-sudden release of contaminants or oil field waste to air, soil, surface water or ground water.

**Page 10.9, Table A-2: Outside Notification of Major Emergencies:**

As proposed and written, the parties identified in the table would only be notified if there was a major fire. A “*major emergency*” is only defined on page 10.11; as a major fire. Please see the comments above and modify appropriately.

**Page 10.10, Section XI, Control & Response Actions:**

A demonstration of compliance with Subsection K of 19.15.13 NMAC and 19.15.29 NMAC is not requested under Subsection N of 19.15.36.13 NMAC. Pursuant to Subsection K of 19.15.36.13 NMAC, “The operators shall comply with the spill reporting and corrective action provisions of 19.15.30 NMAC or 19.15.29 NMAC.” These are separate regulations that are to be pursued outside of the requirements of Part 36 and are not requested to be the basis or incorporated into the contingency plan. Please propose a contingency plan that demonstrates compliance and is based upon to the requirements Subsection N of 19.15.36.13 NMAC.



**Page 10.10**, Section XI, Control & Response Actions, Spill (19.15.36.13.K):

Please remove the regulatory reference “(19.15.36.13.K).” The requirements of Subsection N of 19.15.36.13 NMAC do not request or recognize a demonstration of compliance to Subsection K of 19.15.13 NMAC. Please omit the referenced regulatory citation.

**Page 10.10**, Section XI, Control & Response Actions, Releases (19.15.29 NMAC):

Please remove the regulatory reference “(19.15.29 NMAC).” The requirements of Subsection N of 19.15.36.13 NMAC do not request or recognize a demonstration of compliance to 19.15.29 NMAC. Please omit the referenced regulatory citation.

For the second paragraph, please implement the recommended changes, modifications, and additions based upon the comments regarding the Immediate Action Plan for Page 8.3, Section III: C. Immediate Action Plan.

**Page 10.11**, Section XI, Control & Response Actions, Fires:

The heading of the second paragraph is titled *Small Fires (Minor Emergency)*. This is the only place in the permit application that defines a “minor emergency.” This also creates problems within the plan based upon the use of the term “minor emergency” with the contingency plan. Please see the comments above and determine if the plan can be written without the use of the term “minor emergency.”

The fifth bullet in the third paragraph proposes to “utilize water from freshwater tank to extinguish the fire.” Please provide an additional comment to express that water used to extinguish the fire shall be contained to prevent further contamination.

The heading of the sixth paragraph is titled *Major Fires (Major Emergency)*. This is the only place in the permit application that defines a “major emergency.” This also creates problems within the plan based upon the use of the term “major emergency” with the contingency plan. Please see the comments above and determine if the plan can be written without the use of the term “major emergency.”

**Page 10.13**, Section XIII, Correction and/or Remediation Procedures:

The containment procedures, under the heading Containment and Corrective/ Remediation, provide the details of the actions that are lacking under #3 Control release of Spill (19.15.36.13.K), Section XI: Control & Response on page 10.10. Please provide.

The second and third bullets, under the heading Containment and Corrective/ Remediation, do not consider that the oil field waste collected by the vacuum truck and/or sorbent material may now be RCRA exempt waste that must be handled, stored, transported, and disposed of as such. Please address this consideration that applies the proposed operations. Also, any recovered waste must pass the waste acceptance criteria of Subsection A of 19.15.36.15 NMAC prior to being placed within the landfarm cell. Please modify the protocols to demonstrate compliance to Subsection A of 19.15.36.15 NMAC. Another issue not considered, is the determination of the status or classification of the recovered material regarding the RCRA exemption. Please include a protocol to demonstrate compliance.

The second bullet, under the heading Remediation, does not consider that any recovered waste must pass the waste acceptance criteria of Subsection A of 19.15.36.15 NMAC prior to being placed within the landfarm cell. Please modify the protocols to demonstrate compliance to Subsection A of 19.15.36.15 NMAC. Another issue not considered, is the determination of the status or classification of the recovered material regarding the RCRA exemption. Please include a protocol to demonstrate compliance.

**Page 10.13, Section XIV, Incompatible Waste(s):**

The third bullet indicates that “incompatible waste with spilled or released material will be Treated, Stored, and Handled according to manufacturer’s recommendations.” Please identify where one can obtain “manufacturer’s recommendations” for incompatible material mixed with oil field waste. Material Safety Data Sheets (MSDSs) do not provide cleanup procedures for a mixture of product and incompatible material or waste. It uses general descriptive terms, such as strong oxidizers or dehydrating agents, to identify incompatible materials. The accidental release measures provided in a MSDS only present pure product clean up procedures, not for mixed waste streams. Also, there is not a consideration expressed in this section of the contingency plan for characterizing the mixture of the released incompatible material and a RCRA exempt waste (the only waste stream identified for acceptance at the facility) to determine if the RCRA exemption remains or if the mixed material requires characteristic testing to determine if it is now hazardous waste for further consideration regarding treatment, storage, handling, transportation, and disposal. Please address.

The “incompatible waste” proposed in the fourth bullet to be “placed in a secondary containment for temporary storage” includes the RCRA exempt waste that is proposed for acceptance at the facility. The oil field waste should be managed as proposed in the permit application and as by regulation. So if the incompatible released material was near an incompatible biopile, then it would be advisable to contain the release and relocate the biopile upgradient from the release. Based upon the proposal of three biopiles per acre, this would be a reasonable action. In regards to the processing area, if the incompatible released material is a liquid then it would mix with other waste streams captured by the liquid collection system. Please address how this will be managed?

The fifth bullet states “All recovered incompatible waste will be disposed at a appropriate off-site facility.” Any “waste” discussed in this section would include the RCRA exempt waste that is proposed for acceptance. Please reassess the procedure to determine if Crowe Blanco wishes the haul incompatible RCRA exempt waste, accepted at the facility for remediation, off-site for disposal if there is a release of material that is incompatible with RCRA exempt waste. OCD recommends focusing the response on the released material.

**Page 10.13, Section XV, Expected Contaminants & Expected Media Contaminated**

The vadose monitoring and treatment zone closure performance standards sampling criteria for the proposed landfarm operations is a good source to assist in the determination of expected contaminants. Please clarify and include Benzene, BTEX, Gas Range Organics (GRO), Diesel Range Organics (DRO), Total Petroleum Hydrocarbons (TPH), and metals.

**Page 10.14, Section XVII, Post-Emergency Waste Treatment, Storage, & Disposal:**

The first bullet states “Immediately after an emergency, the EC must provide for treating, storing or disposing of recovered waste, contaminated soil or surface water, or other material that results from a release, fire or explosion at a surface waste management facility.” This response has been provided to demonstrate compliance to Paragraph 12 of 19.15.36.13.N NMAC. Pursuant to Paragraph 12 of 19.15.36.13.N NMAC, “The contingency plan for emergencies shall describe how the emergency coordinator, immediately after an emergency, will provide for treating, storing or disposing of recovered oil field waste, or other material that results from a release, fire or explosion at a surface waste management facility.” The response states that the actions will be completed, but does describe how the actions will be accomplished. Please provide the required information.

The second bullet indicates that “waste with spilled or released material will be Treated, Stored, and Handled according to manufacturer’s recommendations.” Please identify where one can obtain “manufacturer’s recommendations” for material mixed with oil field waste. Material Safety Data Sheets (MSDSs) do not provide cleanup procedures for a mixture of product and oil field waste. The accidental release measures provided in a MSDS only present pure product clean up procedures, not for mixed waste streams. Also, there is not a consideration expressed in this section of the contingency plan for characterizing the mixture of the released material and a RCRA exempt waste (the only waste stream identified for acceptance at the facility) to determine if the RCRA exemption remains or if the mixed material requires characteristic testing to determine if it is now hazardous waste for further consideration regarding treatment, storage, handling, transportation, and disposal. Please address.

The “waste” proposed in the third bullet to be “placed in a secondary containment for temporary storage” includes the RCRA exempt waste that is proposed for acceptance at the facility. The oil field waste should be managed as proposed in the permit application and as by regulation. So if the released material occurred near a biopile, then it would be advisable to contain the release and relocate the biopile upstream from the release. Based upon the proposal of three biopiles per acre, this would be a reasonable action. In regards to the processing area, if the released material is a liquid then it would mix with other waste streams captured by the liquid collection system. Please address how this will be managed?

The fourth bullet states “All recovered waste will be disposed at a appropriate off-site facility.” Any “waste” discussed in this section would include the RCRA exempt waste that is proposed for acceptance. Please reassess the procedure to determine if Crowe Blanco wishes the haul RCRA exempt waste, accepted at the facility for remediation, off-site for disposal if there is a release of material. OCD recommends focusing the response on the released material.

**Page 10.15, Section XVIII, Emergency Equipment, Table A-3:**

In the last column of the last row, please identify the capabilities or type(s) of gas that the proposed “OSHA/ANSA Approved Gas Monitors” are capable of detecting. The “Capabilities/Description” box indicates that monitors will be used for “monitoring the air with appropriate direct reading test equipment for IDLH and other conditions that may cause death or serious harm (combustible or explosive atmospheres, oxygen deficiency, toxic substances).” Based upon the plan, the two types of gas monitors are the fixed hydrogen sulfide gas sensors located within the processing area that activate the alarm system at a detection of 10 ppm and the

portable gas monitors that facility personnel will use evaluate the area for a safe return at 10 ppm, as described on page 10.10. The Immediate Danger to Life and Health (IDLH) exposure limit for hydrogen sulfide gas is 100 ppm. As presented, the proposed “OSHA/ANSA Approved Gas Monitors” are not capable of completing the proposed task due to its capability or limitation to first detect hydrogen sulfide gas at 100 ppm. Please identify the fixed hydrogen sulfide gas sensors located within the processing area that activate the “H2S Alarms” as a piece of equipment and describe the (capabilities) different levels of activation and how they are recognized. Also, please indicate which gases can be detected by the portable gas monitors and if such devices are capable to notifying or alerting the user if they are about to or have exceeded a Time Weighted Average (TWA) exposure limit, Short Term Exposure Limit (STEL), and/or other exposure limits or ceiling concentration limits that will prevent risk of overexposure.

**Page 10.16, Section XIX, Coordination Arrangements:**

In the third paragraph, only three parties are identified to have a copy of the contingency sent to them. The proposed list does not represent the list of parties identified in Table A-2 of page 10.9 of the plan. Parties that have been assigned tasks to be completed within the proposed contingency can only be expected to complete the assigned tasks if they have been provided a copy of the plan and arrangements have been established. Please identify all parties that have been recognized with the responsibility within the proposed plan and include the OCD. Please consider the second sentence in the first paragraph of Section XX as an example.

**Tab 19.15.36.8.C.11, Run On/Off Control Plan:**

**Page 11.1**

Please demonstrate how contaminated run-off from the surface waste management facility’s active portion (landfarm) will not be allowed to discharge a pollutant to the waters of the state or United States that violates state water quality standards, as required by Paragraph (2) of 19.15.36.13 NMAC. Please provide and/or identify the designs and locations of the proposed stormwater features for the four active landfarm cells.

In the first bullet of the first paragraph, Sheet 5 of 17 is referenced to demonstrate the design of the proposed stormwater features with cross-sections of the earthen berms and v-ditches. Please provide and/or identify the location of a drawing that illustrates where the stormwater features will be installed within the facility boundary in order to demonstrate the ability to prevent run-on flow onto the surface waste management facility’s active portion during the peak discharge from a 25-year storm.

The second bullet of the first paragraph states “Run-off waters shall be diverted into the designated retention ponds/dikes” and reference Sheet 4 of 17 as the demonstration. Sheet 4 of 17, Drainage Basins, only illustrates the proposed footprint in which the stormwater retention ponds will be installed within the facility. Please demonstrate and illustrate how run-off will be “diverted into the designated retention ponds/dikes.” Please demonstrate and illustrate all of the proposed stormwater run on/off features to demonstrate that the proposed features are capable of satisfying the regulatory requirements of Subsection M of 19.15.36.13 NMAC.

The third bullet of the second paragraph proposes to test the non-contact stormwater with Chloride Titrator test strips to determine if the stormwater does not exceed 500 mg/kg. The waste acceptance standards Subsection A of 19.15.36.15 NMAC only apply to “soils and drill cuttings predominantly contaminated by petroleum hydrocarbons,” not liquids. The proposal continues and proposes off-site disposal for such water that exceeds 500 mg/kg. Based upon the “allowable Chloride in Water Calculation” the concentration of the water is calculated only after the chloride concentration of the biopile determined in which the water may be applied. Please clarify which method will be used. Also, currently only the run-on and run-off control system to “prevent flow onto the surface waste management facility’s active portion during the peak discharge from a 25-year storm” have been presented and illustrated. Please demonstrate “a plan to control run-on water onto the site and run-off water from the site, such that run-off from the surface waste management facility’s active portion shall not be allowed to discharge a pollutant to the waters of the state or United States that violates state water quality standards.” OCD could not locate any stormwater features proposed for the four active landfarm cells. Please provide.

**Page 11.2, Allowable Chloride in Water Calculation:**

Please see the comments for Page 6.26 of Addendum H, *Allowable Chloride in Water Calculation* and make the appropriate changes.

**Page 11.3, Sheet 4 of 17, Drainage Basins:**

Please provide the calculations that support the proposed stormwater pond capacities provided in the table on Sheet 4 of 17.

**Tab 19.15.36.8.C.14, Best Management Practices:**

**Page 14.7, 5, Stormwater:**

The third bullet of the second paragraph proposes to test the non-contact stormwater with Chloride Titrator test strips to determine if the stormwater does not exceed 500 mg/kg. The waste acceptance standards Subsection A of 19.15.36.15 NMAC only apply to “soils and drill cuttings predominantly contaminated by petroleum hydrocarbons,” not liquids. The proposal continues and proposes off-site disposal for such water that exceeds 500 mg/kg. Based upon the “allowable Chloride in Water Calculation” the concentration of the water is calculated only after the chloride concentration of the biopile determined in which the water may be applied. Please clarify which method will be used. Also, currently only the run-on and run-off control system to “prevent flow onto the surface waste management facility’s active portion during the peak discharge from a 25-year storm” have been presented and illustrated. Please demonstrate “a plan to control run-on water onto the site and run-off water from the site, such that run-off from the surface waste management facility’s active portion shall not be allowed to discharge a pollutant to the waters of the state or United States that violates state water quality standards.” OCD could not locate any stormwater features proposed for the four active landfarm cells. Please provide.

**Page 14.7, 6, Handling and Disposal of RCRA Exempt, Non- Hazardous Wastes:**

The second bullet states that “Waste must conform with the chloride content prior to being accepted for disposal.” Please clarify the statement to coincide with the waste acceptance requirements of Subsection A of 19.15.36.15 NMAC. Chlorides should be confirmed prior to

being “placed in the landfarm” or in this case the biopile. This is important due to the proposed stabilization process for liquids.

**Page 14.9, 8, Storage Areas:**

The bullets below the heading provide general concepts and proposals for the storage of “waste.” The items identified are not addressed under Tab 19.15.36.8.C.5, *Engineering Design* or Tab 19.15.36.8.C.6, *Operational/Management Plan*. Please address the proposed storage of oil field waste under the appropriate sections of the permit application.

**Page 14.10, Allowable Chloride in Water Calculation:**

Please see the comments for Page 6.26 of Addendum H, *Allowable Chloride in Water Calculation* and make the appropriate changes.

**Tab 19.15.36.8.C.15, Geological/Hydrological Data:**

**Page 15.8, General Location of Confining Layer:**

Due to the aerial image being provided in black and white, OCD is unable to observe colored, “blue-gray,” geologic formations described on page 15.4. The second complete paragraph (or third from the top of the page) describe the features that should be observed on the aerial photo. Please provide a color version to coincide with the written description.

**Pages 15.13 through 15.17, August 29, 2011 Summary Report, Monitor Well Installation and Potentiometric Surface Mapping:**

The August 29, 2011 summary report needs to be replaced. The 2013 modified and replaced diagrams and figures no longer coincide with the comments provided in the 2011 summary. Please combine the 2013 revisions (pages 15.1 through 15.9) and the 2011 summary into one comprehensive complete report.

**Page 15.65, Interpretation of Groundwater Elevation:**

This illustration was never updated. Based upon the key/legend the elevations provided on the map are those recording when water was encountered during drilling, which would include confined and unconfined ground water. This is confirmed by the revised information in the top Table, Static Water Levels, on page 15.60. Please replace.

**Page 15.91, Underground Water Surface Map:**

Please identify on the map which data set is being illustrated.