Air Pollution Control
Title V Permit to Operate
Statement of Basis for Permit No. V-SU-00049-2008.03
Minor Modification

Red Cedar Gathering Company
Sambrito Compressor Station
Southern Ute Indian Reservation
La Plata County, CO

Description of Permit Amendment

On May 12, 2011, EPA received a request to include the ASTM Method D6348-03 Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy and ASTM Method D6522-00 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers as performance test method options for measuring carbon monoxide (CO) emissions in the permit.

The following modification has been made to this permit:

Section IV.D.1. – Testing Requirements

Revised condition IV.D.1 to:

1. Remove the requirements for test methods for CO;

2. Allow the use of alternative test methods that have been approved by EPA;

and

3. Correct the language to require the approved performance test method be applied to all performance tests, not just the initial performance test.

EPA is making this revision as a minor modification in accordance with 40 CFR 71.7(d). The permit will be reissued as permit number V-SU-00049-2008.03.

For specific applicability information regarding the Part 71 permit for this facility, please see the Statement of Basis for permit number V-SU-00049.2008.02.

Air Pollution Control
Title V Permit to Operate
Statement of Basis for Title V Permit, No. V-SU-00049-2008.02
February 2011

Red Cedar Gathering Company
Sambrito Compressor Station
Southern Ute Reservation
La Plata County, Colorado

1. Description of Significant Permit Modification

The Sambrito Compressor Station is a natural gas production field facility owned and operated by Red Cedar Gathering Company (Red Cedar). The facility is located within the exterior boundaries of the Southern Ute Indian Reservation in Southwestern Colorado.

The Sambrito Compressor Station is currently permitted as a major source of nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOCs), and hazardous air pollutants (HAPs) with respect to the Clean Air Act (CAA) title V operating permit requirements found at 40 CFR part 71 (part 71). The compressor station is also a synthetic minor source with respect to Prevention of Significant Deterioration (PSD) rules at 40 CFR 52.21, due to federally enforceable limitations on the emissions of CO from the compressor engines, whose uncontrolled emissions would otherwise have caused the facility-wide potential to emit (PTE) to exceed the 250 tpy "major source" emission threshold for CO, as defined at 40 CFR 52.21(b)(1). The facility has no PSD permits for any of its past construction projects, as explained in more detail later in this Statement of Basis.

Current permitted emission units at the facility include five natural gas-fired reciprocating internal combustion engines (RICE) for gas compression, one natural gas-fired electric generator RICE, two triethylene glycol (TEG) dehydration units, and various heaters and liquid storage tanks that qualify as insignificant emission units (IEUs).

a. Requested Permit Modifications

On June 15, 2010, EPA received a request from Red Cedar for a modification to the current 40 CFR part 71 title V operating permit (#V-SU-0049-08.01) to add two additional compressor engines (units CE-2400 and CE-2500), one TEG dehydration unit (unit ZZZ-3500), and ancillary equipment at the Sambrito Compressor Station. Red Cedar requested that EPA provide enforceable requirements for CO reduction for units CE-2400 and CE-2500 to account for the beneficial reductions that will occur when using an oxidation catalyst on each engine, such that the facility-wide PTE does not exceed the currently permitted enforceable limit of 230 tpy of CO emissions. Red Cedar expressed the understanding that construction of the new proposed units could not commence until the significant permit modification is issued final and is effective.

Because the previously permitted enforceable CO emission limits for the existing three compressor engines and one electric generator engine were developed based on what was necessary to keep facility-wide PTE under 230 tpy, in order to include the two proposed new compressor engines under the facility-wide CO cap, the currently permitted engine-specific emission limits had to be tightened. Red Cedar provided recommended revised emission limits for the existing engines and emission limits for the new engines in their significant modification application.

Applicability of 40 CFR part 63 (NESHAP) for the Proposed Project

According to information Red Cedar provided in the significant permit modification application, the two new compressor engines at the Sambrito Compressor Station, units CE-2400 and CE-2500, will be subject to the National Emission Standards for HAPs (NESHAP) for Source Categories, also known as the Maximum Available Control Technology (MACT), for RICE, found at 40 CFR part 63, subpart ZZZZ (RICE MACT). Red Cedar will be installing oxidation catalyst emission controls on units CE-2400 and CE-2500 to achieve compliance with the RICE MACT requirements. RICE MACT requirements for these engines are included in this significant permit modification.

Applicability of 40 CFR part 60 (NSPS) for the Proposed Project

According to information Red Cedar provided in the significant modification application, one of the two new compressor engines, unit CE-2400, will also be subject to the New Source Performance Standards (NSPS) for Spark Ignition Internal Combustion Engines (SI ICE), found at 40 CFR part 60, subpart JJJJ. NSPS subpart JJJJ requirements for this engine are included in this significant permit modification.

PSD Applicability Analysis for the Proposed Project in Relation to Past Construction Projects

Relevant EPA Policy and Guidance

Note: The terms PSD and major NSR are meant to be synonymous for the purpose of this discussion.

In the absence of any current authority for EPA to issue minor NSR permits in Indian country, as a temporary gap-filling measure, EPA has issued synthetic minor emission limitations (i.e., limits on potential to emit to avoid major PSD source status) for modifications at sources that are already subject to the 40 CFR part 71 title V operating permits program. The authority for this is explained in detail later in this Statement of Basis. Essentially, the current permitted emission limitations for the Sambrito Compressor Station in the initial part 71 operating permit serve the purpose of a synthetic minor NSR permit.

All construction projects at the Sambrito Compressor Station, including the proposed construction project, have been completed or will commence within a five year timeframe. According to a June 28, 1989 Federal Register notice on the definition of federally enforceable (52 FR 27274) and in its June 13, 1989 guidance on "Limiting Potential to Emit in New Source Permitting," (herein referred to as the June 13, 1989 guidance) EPA concluded that it is not only improper but also in violation of the Clean Air Act to construct a source or major modification with a minor source permit when there is intent to operate as a major source or major modification. Permits with conditions that do not reflect a source's planned mode of operation are sham permits, are void from the beginning, and cannot shield a source from the requirement to undergo major NSR preconstruction review.

Generally, in "sham" permitting, a source attempts to expedite construction by securing minor source status through permits containing operational restrictions from which the source intends to free itself shortly after completing construction and commencement of operation. Such attempts are treated as unlawful circumvention of the preconstruction review requirements. Similarly, attempts to expedite construction by securing several minor source permits and avoiding major modification permitting requirements should be treated as circumvention (this position was stated in a memorandum dated September 18, 1989 from John Calcagni to William Hathaway).

EPA stated in the 1989 Federal Register notice that it is not possible to set forth, in detail, the circumstances in which EPA considers an owner or operator to have evaded preconstruction review through minor permits, and thus subject itself to enforcement sanctions under §§113 and 167 of the CAA from the beginning of construction. Rather EPA would look to objective criteria to identify circumvention situations. The national guidance for determining whether a source is circumventing major NSR through the minor modification process is an EPA memorandum dated June 17, 1993, from John B. Rasnic, Director, Stationary Source Compliance Division, Office of Air Quality Planning and Standards, to George T. Czerniak, Chief, Air Enforcement Branch, EPA Region V, titled "Applicability of New Source Review Circumvention Guidance to 3M – Maplewood, Minnesota" (herein referred to as 1993 3M – Maplewood). The memorandum is available on EPA's NSR Policy and Guidance Database, at http://www.epa.gov/region07/air/policy/search.htm. The specific criteria outlined in the guidance for evaluating whether circumvention have occurred are:

1. Filing of more than one minor source or minor modification application associated with emission increases at a single plant within a short period of time – authorities should scrutinize applications that relate to the same process or units that the source files either before initial operation of the unit or after less than a year of operation;

2. Application of funding – if the project would not be funded or if it would not be economically viable if operated on an extended basis (at least a year) without the other projects, this should be considered evidence of circumvention;

3. Reports of consumer demand and projected production levels – If reported levels are necessary to meet projected consumer demand but are higher than permitted levels, this is additional evidence of circumvention;

4. Statements of authorized representatives of the source regarding plans for operation – Statements by representatives of the source to EPA about the source's plans for operation can be evidence to show intent to circumvent preconstruction review requirements; and

5. EPA's own analysis of the economic realities of the projects considered together.

Permitting and Construction History

The summary below outlines the construction and permitting history of the facility as it relates to the information Red Cedar had provided to EPA at each given point in time.

- 2006 - Initial construction of the Sambrito Compressor Station
    - Consisted of compressor engine units CE-2100 and CE-2200, emergency generator engine unit ZAN-5500, and IEUs.
    - Total uncontrolled PTE for CO was 229.8 tpy, which was below the PSD major source threshold of 250 tpy (uncontrolled PTE for all other criteria pollutants were below 100 tpy).
    - Therefore, PSD review and permitting were not carried out.

- July 2007 - Operations commenced

- May 2008 - within 12 months after commencing operations, Red Cedar submitted an initial part 71 title V operating permit application.
    - Red Cedar requested enforceable pounds per hour (lbs/hr) CO emission limitations, to recognize CO emission reductions being achieved from operating oxidation catalysts on compressor engine units CE-2100 and CE-2200 to achieve compliance with the applicable RICE MACT requirements.
    - Red Cedar also requested a facility-wide CO emission cap of 249 tpy.
    - 249 tpy CO cap was not necessary to avoid PSD major source status as uncontrolled PTE of construction of the operating facility was only 229.8 tpy.

- October 2008 - Before initial permit was issued, Red Cedar submitted an addendum to the initial application to install a third compressor engine, unit CE-2300.
    - Increase in uncontrolled PTE from constructing unit CE-2300 alone would be less than PSD major source thresholds of 250 tpy for all criteria pollutants; however, when aggregated with initial facility construction, facility-wide uncontrolled PTE of CO would exceed PSD major source threshold of 250 tpy, at 345.4 tpy of CO.
    - Because unit CE-2300 would be subject to RICE MACT requirements and would be equipped with oxidation catalyst controls, Red Cedar requested that the

previously requested lbs/hr CO limits for CE-2100 and CE-2200 also apply to unit CE-2300.
    - Red Cedar proposed to delay construction and installation of CE-2300 until the initial part 71 permit was issued final and effective with the enforceable CO emission limits.
    - Red Cedar requested that the proposed facility-wide CO cap remain at 249 tpy. At this time the cap was now intended to be used as a synthetic minor limit to avoid PSD review and permitting requirements.

- May 2009 - Initial permit had still not been issued when Red Cedar submitted a second addendum to the initial part 71 permit application to change operation of generator engine unit ZAN-5500 from emergency to full time operation.
    - Increase in uncontrolled PTE from modifying operation of unit ZAN-5500 alone would also be less than 250 tpy for all criteria pollutants; however, when aggregated with construction of compressor engine CE-2300, and initial facility construction, it would cause facility-wide uncontrolled PTE of CO to exceed PSD major source threshold of 250 tpy, at 359.5 tpy of CO.
    - Because modified ZAN-5500 would be subject to RICE MACT requirements and would be equipped with oxidation catalysts, Red Cedar requested additional enforceable CO emission limitations for ZAN-5500.
    - Red Cedar proposed to delay change to full time operation of ZAN-5500 in addition to delaying installation of CE-2300 until the initial part 71 permit was issued final and effective with the enforceable CO limits.
    - Again, Red Cedar requested that the proposed facility-wide CO cap remain at 249 tpy, and again, it was now intended to be used as a synthetic minor limit to avoid PSD review and permitting requirements.

- September 2009 – EPA issued the final initial part 71 operating permit.
    - Based on criteria expressed in EPA national guidance previously discussed above (1993 3M – Maplewood), and on reliance on information provided by Red Cedar at the time, EPA considered all three construction projects (initial construction, construction of CE-2300, and change to full-time operation for ZAN-5500) to be one single construction project.
    - Since enforceable permit emission limits would be in effect prior to construction of CE-2300 and modification in operation of ZAN-5500, the enforceable PTE of the entire project would remain less than 250 tpy and EPA determined the requirements for PSD review and permitting would not be triggered.
    - Permit was issued with short-term lbs/hr and grams per horsepower-hour (g/hp-hr) CO emission limits for CE-2100, CE-2200, CE-2300, and ZAN-5500, and operational restrictions, as required by the June 13, 1989 guidance.
    - **Permit was issued with facility-wide CO cap of 230 tpy**, rather than the 249 tpy cap Red Cedar Requested. A facility-wide cap must be sufficiently below PSD major source threshold of 250 tpy to account for uncertainties in emission estimation for both controlled and uncontrolled emitting units. Past precedence in

EPA Region 8 for facility-wide CO emission caps is 8% below the 250 tpy threshold, or 230 tpy. The cap is expressed on a rolling 12-month basis.

- The emission limitations are all legally and practically enforceable, because they were issued with necessary monitoring, testing, recordkeeping, and reporting requirements to assure compliance with the CO emission limits, and the public was afforded the required period of time to comment on the draft permit, as specified in 40 CFR part 71, and any comments were addressed. Therefore, the current enforceable PTE of CO for the facility is 230 tpy.

- Red Cedar notified EPA that CE-2300 commenced operation in April 2010 and ZAN-5500 began full time operation in July 2010.

- June 2010 - Red Cedar submitted a part 71 significant permit modification application to add two additional compressor engines (CE-2400 and CE-2500), one TEG dehydration unit, and associated ancillary equipment.

    - Red Cedar requested that EPA provide enforceable lbs/hr and g/hp-hr CO emission limitations for the two proposed new compressor engines to recognize the beneficial reductions of CO from installing and operating oxidation catalysts on the engines, as required by the RICE MACT, such that the facility-wide PTE continues to remain under the currently permitted CO emission cap of 230 tpy.

Analysis of Proposed Project

Upon preliminary evaluation of the application, EPA calculated that for the four construction projects at the facility, the uncontrolled PTE would be 588.6 tpy of CO. In accordance with the same reasoning behind the project aggregation discussion above, based on the information provided in the significant modification application, EPA found there was cause to request additional information from Red Cedar related to their business development plans, to evaluate whether or not the proposed addition of compressor engine units CE-2400 and CE-2500, the TEG dehydration unit, and associated ancillary equipment, should be considered part of the same project as initial construction, construction of compressor engine unit CE-2300, and the change in operation of generator engine ZAN-5500.

EPA reviewed all records of correspondence with Red Cedar regarding the Sambrito Compressor Station and found that in December 2008, Red Cedar had discussions with EPA[1] regarding their tentative natural gas compression plans through 2015. Based on those discussions, Red Cedar's plans in December 2008 for the Sambrito Compressor Station included installing two compressor engines CE-2400 and CE-2500 in the 2014 to 2015 timeframe. The planned 2014 to 2015 timeframe for installation of two additional compressor engines at the time fell outside of the

[1] December 11, 2008, E-mail correspondence between Claudia Smith, Permit Engineer, EPA Region 8 Air Program, and Ethan Hinkley, Air Resources Specialist, Red Cedar, documenting information discussed via telephone conference on November 25, 2008, regarding Red Cedar's Compression Plans through 2014 and associated air permitting questions from Red Cedar, and subsequent response by EPA Region 8 staff.

timeframe that EPA would consider "contemporaneous" with the three previous construction projects at Sambrito Compressor Station. The definition of contemporaneous emissions increase, as found in the PSD regulations at 40 CFR 52.21(b)(3)(ii), specifies that the contemporaneous period begins 5 years prior to commencement of construction and ends when the increase from the particular change occurs (i.e., when the proposed project begins emitting). Because construction of compressor engines CE-2400, CE-2500, and associated ancillary equipment were now being proposed much earlier than originally planned, EPA requested that Red Cedar provide information documenting their justification for the change in business development plans, as far as why the latest proposed construction should not be aggregated with the three earlier construction projects.

On September 27, 2010, EPA received from Red Cedar documentation summarizing their business development plans for the Sambrito Compressor Station at various moments in time since proposal of the initial facility[2]. According to the submittal, Red Cedar's development plans for Sambrito Compressor Station have been dynamic since the 2005/2006 timeframe, due to various unpredictable factors, including: increased production volumes from the amounts originally contracted with producers in the field; newly permitted wells that existing contracted producers request contracts for, which were not anticipated based on previous planning by the producers; and new volumes from previously uncontracted producers that were not expected in Red Cedar's previous planning until many years later. Red Cedar supplied the following specific information and backup documentation related to their changing development plans at the Sambrito Compressor Station:

2005/2006 Sambrito Development Plan

On November 18, 2005, Red Cedar staff submitted an internal approval request to Red Cedar's President, Albert J Brown for the proposed construction of the Sambrito Compressor Station, which consisted of two Caterpillar G3616 compressor engines to move 37 MMcfd of gas. Mr. Brown approved the Authorization for Expenditure on March 17, 2006. According to the information submitted in late 2005/early 2006, Red Cedar's initial development plans did not consist of more than the proposed 37 MMcfd throughput capacity.

2008 Sambrito Development Plan

In late 2008, Red Cedar completed a new development plan for the Sambrito Compressor Station based on a re-evaluation of the gas production and compression needs of the area producers. The new plan identified a need to have a third compressor engine, CE-2300, in service by the first or second quarter of 2010, a fourth compressor engine, CE-2400 in service by early 2014, and a fifth compressor engine in service by early 2015, based primarily on a new contract with an area producer dated December 16, 2008.

[2] September 27, 2010, Sambrito Compressor Station PSD Avoidance Summary with Documentation, Letter to Carl Daly, Chief – Air Permitting, Monitoring and Modeling Unit EPA Region 8, from Albert J. Brown, President – Red Cedar Gathering Company, dated September 22, 2010.

Current Sambrito Development Plan

The most current development plan for Sambrito Compressor Station indicates a need to have compressor engine CE-2400 in service by mid 2011 and compressor engine CE-2500 in service by mid 2012. The primary reasons for moving forward the timing of the fourth and fifth compressor engines from the development plan work done in the fourth quarter of 2008 are:

1. Increased production volume from existing wells west of Navajo Lake from all of the producers (forecast volume from the producers continues to grow and the largest producer is currently exceeding their volume from the contract signed on March 25, 2010).

2. Newly permitted wells west of Navajo Lake to be drilled under Navajo Lake (discussed with the producer on May 26, 2010).

3. New volumes currently at Sambrito from a producer that was not expected in the 2008 plan until mid-2014 (flow started in March 2010 and has increased).

Conclusion Expressed by Red Cedar Regarding Project Aggregation

The peak volume of gas in the original contract of the largest producer Red Cedar gathers gas for, dated May 24, 2004, was 19.5 MMscfd and that producer is currently producing approximately 40 MMscfd. A new contract will be added in 2011 increasing the peak volume to +55 MMscfd. One Caterpillar G3616 compressor engine at the Sambrito Compressor Station moves approximately 20 MMscfd with a cycle time from ordering the compressor to the compressor placed in service of approximately 1 year. Red Cedar claimed that the documentation provided on their changing development plans demonstrates that the original development plan in 2005 was for two Caterpillar G3616 compressor engines and not a multi-year development plan. Red Cedar also claims that the documentation indicates that they did not schedule expansions of the Sambrito Compressor Station with the purpose of avoiding PSD permitting, but were rather responding to unpredictable customer demand by trying to schedule compression to be available to producers as new volumes of gas came on line.

Conclusion by EPA Regarding Project Aggregation

As outlined below, based on the criteria expressed in EPA national guidance on project aggregation (1993 3M – Maplewood), and in reliance on information provided by Red Cedar in their 2008 development plan, EPA does not consider the additional compression plans, originally for 2014 to 2015, but re-evaluated as necessary for 2011 to 2012, to be part of the initial combined project which included the initial construction of two compressor engines (CE-2100 and CE-2200), additional construction of a third compressor engine (CE-2300), and the increase in operation of the emergency generator (ZAN-5500) to full capacity.

With regard to the specific criteria outlined in the 1993 3M-Maplewood guidance:

1. Filing of more than one minor source or minor modification application associated with emission increases at a single plant within a short period of time: EPA recognizes that the 13 months that separate the most current June 2010 permit modification application and the next previous May 2009 addendum to the initial part 71 permit application (to convert unit ZAN-5500 from emergency operation to full time operation) could be viewed as occurring within a short period of time. Therefore, EPA evaluated further the subsequent criteria outlined in the 1993 3M - Maplewood guidance.

2. Application of funding: The Sambrito Compressor Station as currently permitted, supported by the documentation Red Cedar provided on September 21, 2010 under certification of truth, accuracy and completeness by the Responsible Official, is economically viable with or without the proposed project, given that it is currently and has been operating successfully to process the demanded capacity identified in the 2005 – 2008 development plans. EPA finds no evidence of PSD circumvention under this criterion of the 3M-Maplewood guidance.

3. Reports of consumer demand and projected production levels: Due to the dynamic and unpredictable nature of gas development and production rates in this particular area, it became necessary well after the initial permit was issued to re-evaluate the capacity needed at the station to meet the changing customer demand based on revised contracts requested by the producers Red Cedar contracts with. EPA finds no evidence of PSD circumvention under this criterion of the 3M-Maplewood guidance.

4. Statements of authorized representatives of the source regarding plans for operation: As explained above, Red Cedar claimed that the documentation provided on their changing development plans demonstrates that the original development plan in 2005 was for two Caterpillar G3616 compressor engines and not a multi-year development plan. Red Cedar also claims that the documentation indicates that they did not schedule expansions of the Sambrito Compressor Station with the purpose of avoiding PSD permitting, but were rather responding to unpredictable customer demand by trying to schedule compression to be available to producers as new volumes of gas came on line. EPA finds no evidence of PSD circumvention under this criterion of the 3M-Maplewood guidance.

5. EPA's own analysis of the economic realities of the projects considered together: Due to the dynamic and unpredictable nature of gas development and production rates in this particular area, it became necessary well after the initial permit was issued to re-evaluate the capacity needed at the station to meet the changing customer demand based on revised contracts requested by the producers Red Cedar contracts with.

   An enforceable CO emission cap for the entire initial combined project was established prior to construction of the third compressor engine (CE-2300) and the change in operation of the generator engine (ZAN-5500) in September 2009, thus providing an enforceable restriction that allowed Red Cedar to avoid PSD major source status. It should be noted that the initial permit was issued prior to the new 2010 development plan to move up the construction date of the fourth and fifth compressor engines (CE-2400 and CE-2500). Due to the unpredictable

nature of gas development and customer demand in this particular situation as described by Red Cedar, and based on the criteria laid out in the 1993 3M-Maplewood guidance, EPA finds no evidence of PSD circumvention for the four construction projects discussed above. This finding is based on facts specific to the particular construction circumstances of this facility.

Therefore, EPA is approving the request to maintain the enforceable facility-wide CO emission cap at 230 tpy, ratchet down the short-term CO emission limits for the engines already operating, and add the two new engines with short-term CO emission limits and associated operational restrictions. Since the facility's PTE does not exceed PSD major source thresholds, the requirements for PSD review and permitting will not be triggered unless a future physical or operational change would, by itself, be a major stationary source as defined in PSD rules at 40 CFR 52.21.

Permit Conditions to Restrict PTE of the Project

Red Cedar's request to continue to restrict facility-wide PTE to 230 tpy requires that the existing permitted short-term CO emission limits for compressor engines CE-2100, CE-2200, CE-2300 be tightened to accommodate new compressor engines CE-2400 and CE-2500. In its significant modification application, Red Cedar proposed revised CO emission limits for CE-2100, CE-2200, and CE-2300, and emission limits for CE-2400 and CE-2500. Red Cedar proposed that the existing permitted emission limits for generator engine ZAN-5500 remain unchanged. In developing the emission limitations in the initial part 71 permit for the Sambrito Compressor Station, EPA based the calculations on the limits that would be required to keep facility-wide emissions under 230 tpy, rather than on the percent reduction guaranteed by the manufacturer of the control equipment. Actual emissions are significantly lower than the current enforceable PTE of the existing permitted engines. Based on evaluation of the percent CO reduction guaranteed by the manufacturer of the control equipment, EPA has determined that the existing engines and proposed engines will be able to comply with Red Cedar's proposed revised emission limitations, which will be more stringent than the currently permitted limitations. Therefore, EPA has modified the permit with the short-term emission limits proposed by Red Cedar. Development of the emission limitations is explained in detail in Section 2.e. of this Statement of Basis.

b. <u>EPA-Initiated Permit Modifications</u>

On March 3, 2010 (75 FR 9648) and August 20, 2010 (75 FR 51570), EPA published revisions to the RICE MACT. While the primary purpose of the final March 3, 2010 rule revisions was to include the regulation of emissions of HAPs from certain existing compression ignition RICE, the revisions also included changes to the startup, shutdown, and malfunction (SSM) provisions for all RICE as a result of a December 18, 2008 D.C. Circuit Court of Appeals order.

Additionally, the primary purpose of the final August 20, 2010 rule revisions was to include the regulation of emissions of HAPs from certain existing spark ignition engines, but also changed the allowed performance test methods and included Continuous Parameter Monitoring Systems

(CPMS) specifications for new engines greater than 500 hp at major sources of HAPs, which affected the language in the permit. Therefore, EPA is taking this opportunity to revise the current permit language for RICE MACT requirements to account for these rule revisions and avoid having to initiate a separate permit re-opening for cause under 40 CFR 71.7(g). Rather than specifically referencing the test methods appropriate for the emission units in the permit, we are revising the language to provide greater flexibility by referencing the table of requirements for performance test in the regulation. This does not change any of the applicable requirements of the RICE MACT.

EPA also discovered that language pertaining to the protocol required for portable analyzer monitoring for the existing permitted CO emission limitations was inadvertently left out of the initial permit for the Sambrito Compressor Station and has added the necessary language to the significantly modified permit for compliance with the revised CO emission limitations.

EPA revised a condition in Section III.A Recordkeeping Requirements, to clarify the requirement pursuant to 40 CFR 63.774(d)(1) that Red Cedar retains records of their determination that TEG dehydrators at the facility meet the exemption from emission control requirements in 40 CFR part 63, subpart HH, the MACT for Oil and Gas Production Facilities.

Lastly, EPA determined that restructuring of the permit was necessary to improve flow and readability. EPA has separated the requirements for engines into three distinct sections of the permit. One section contains the applicable requirements from NSPS JJJJ, one section contains the applicable requirements from the RICE MACT, and the third section contains the applicant's requested emission limitations and associated work practice, operational, testing, monitoring, recordkeeping, and reporting requirements. As a result of the new sections, the section numbers for the Facility-Wide Requirements, Part 71 Administrative Requirements, and Appendix were renumbered accordingly.

c. Specific Permit Modifications

The following modifications have been made to this permit:

- **Section I.B. Source Emission Points**
  1. Table 1 – Emissions Units – Emission units and descriptions updated to include 2 additional compressor engines, CE-2400 and CE-2500.
  2. Table 2 – Insignificant Emission Units – Insignificant Emission Units and descriptions updated based on Red Cedar's significant modification application.

- **Section II – Requirements of New Source Performance Standards at 40 CFR Part 60 for Engines**
  1. Added new section containing only NSPS JJJJ Requirements for Engines (formerly contained in Section II. Specific Requirements for Engines).
  2. Added compressor engine CE-2400 as subject to NSPS JJJJ requirements.

- **Section III – Requirements of National Emission Standards for Hazardous Air Pollutants for Source Categories at 40 CFR Part 63 for Engines**
  1. Added new section containing only RICE MACT Requirements for Engines (formerly contained in Section II. Specific Requirements for Engines).
  2. Revised RICE MACT language to account for rule revisions promulgated in March and August 2010.
  3. Added compressor engines CE-2400 and CE-2500 as subject to RICE MACT requirements.

- **Section IV – Requested Emission Limits for Engines**
  1. Added new section containing only applicant-requested requirements for engines (formerly contained in Section II. Specific Requirements for Engines).
  2. Revised existing CO emission limitations for compressor engines CE-2100, CE-2200, and CE-2300 and added compressor engines CE-2400 and CE-2500 as subject to the revised CO emission limitations.
  3. Enhanced existing work practice, operational, testing, monitoring, recordkeeping, and reporting requirements to improve compliance assurance.

- **Section V - Facility-Wide Requirements**
  1. Renumbered to Section V. from Section III. to account for the addition of 2 new sections.
  2. Pursuant to 40 CFR 63.774(d)(1) the language for the recordkeeping requirement at Section V.A.2 (formerly Section III.A.2.), to demonstrate exemption to the MACT HH requirements for TEG dehydrators, was revised for clarification.
  3. Revised Section V.D. (formerly Section III.D.) Alternative Operating Scenarios to reference compressor engines CE-2400 and CE-2500.

- **Section VI – Part 71 Administrative Requirements**
  1. Renumbered to Section VI. from Section IV. to account for the addition of 2 new sections.

- **Section VII – Appendix**
  1. Renumbered to Section VII. from Section V. to account for the addition of 2 new sections.

EPA has made these permit modifications pursuant to 40 CFR 71.7(e)(3) and in accordance with the Significant Permit Modification requirements in Section IV.K. of the draft permit. The remainder of this draft Statement of Basis outlines general information about the Sambrito Compressor Station and the basis for the terms and conditions of the final modified permit.

2. Facility Information

a. Location

The Sambrito Compressor Station, owned and operated by Red Cedar Gathering Company ("Red Cedar"), is located within the exterior boundaries of the Southern Ute Indian Reservation, in the southwestern part of the State of Colorado. The exact location is the Southwest ¼ Section 3, Township 32 North, Range 6 West, in La Plata County, Colorado, at:

37° 02' 37.57" North latitude and -107° 29' 35.41" West longitude.

The mailing address is: Red Cedar Gathering Company
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Durango, CO 81301

b. Contacts

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Air Program Manager - Southern Ute Indian Tribe
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c. Description of Operations

The Sambrito Compressor Station is a natural gas production field facility prior to the point of custody transfer. Natural gas is provided to the Sambrito Compressor Station from several upstream wells and compressor stations. The process consists of compressing gas from the field and treating the gas using triethylene glycol (TEG) dehydration to remove entrained water vapor from the gas stream.

The facility's primary pollutant-emitting sources are five natural gas-fired 4-stroke lean burn (4SLB) spark ignition (SI) reciprocating internal combustion engines (RICE), equipped with air to fuel ratio controllers (AFRCs), used to compress the gas entering the facility. The facility also operates a 4SLB SI RICE which serves as a driver for a generator for electricity to power the facility's various operations. All six of these engines are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAPs), also known as the Maximum Achievable Control Technologies (MACT), for stationary RICE (RICE MACT), found at 40 CFR part 63, subpart ZZZZ (see Section 3.0 Analysis of Applicable Requirements for specific details). Red Cedar has selected oxidation catalysts as the means to satisfy the regulatory requirements to reduce the concentration of formaldehyde (CH_2O) and carbon monoxide (CO) exhausted from the stacks. Two of the compressor engines are also subject to the New Source Performance Standards (NSPS) for SI Internal Combustion Engines (ICE), found at 40 CFR part 60, subpart JJJJ (NSPS JJJJ).

Other pollutant-emitting sources at the facility include two TEG dehydrators and several heaters and tanks, which all qualify as insignificant emission units (IEUs). The facility does not extract natural gas liquids (NGLs) from field gas nor does it fractionate mixed NGLs to natural gas products. The facility has storage vessels, but none with the potential for flash emissions. The Sambrito Compressor Station does engage in pigging operations; however, all pipeline gas is treated through the facility's equipment during these operations. Insignificant emissions occur only during launch and retrieval operations.

d. List of All Units and Emission-Generating Activities

In the part 71 operating permit significant modification application for the Sambrito Compressor Station, Red Cedar provided the information shown in Tables 1 and 2 below.
Table 1 lists emission units and emission generating activities, including any air pollution control devices. Emission units identified as "insignificant" emitting units (IEUs) are listed separately in Table 2.

Table 1 - Emission Units
Red Cedar Gathering Company, Sambrito Compressor Station

Emission Unit ID	Description	Control Equipment
	Caterpillar G3616LE 4SLB Compressor Engines with AFRCs, 4,735 site rated bhp, natural gas fired:	
CE-2100	Serial No. BLB00315 Installed 12/2006*	Oxidation Catalyst
CE-2200	Serial No. BLB00314 Installed 12/2006*	
CE-2300	Serial No. BLB00425 Installed 12/2009*	
CE-2400	Serial No. BLB00651 Installed TBD*	
CE-2500	Serial No. BLB00303 Installed TBD*	
	Waukesha P48GL 4SLB Electric Generator Driver, 959 site rated bhp, natural gas fired:	Oxidation Catalyst
ZAN-5500	Serial No. C-17113/1 Installed 12/2006*	

* NSPS JJJJ and RICE MACT applicability determinations are included in Section 3.a. of this Statement of Basis

Part 71 allows sources to separately list in the permit application units or activities that qualify as "insignificant" based on potential emissions below 2 tons/year for all regulated pollutants that are not listed as hazardous air pollutants (HAPs) under section 112(b) and below 1,000 lbs/year or the de minimis level established under section 112(g), whichever is lower, for HAPs. However, the application may not omit information needed to determine the applicability of, or to impose, any applicable requirement. Units that qualify as "insignificant" for the purposes of the part 71 application are in no way exempt from applicable requirements or any requirements of the part 71 permit.

Red Cedar stated in the part 71 permit application that the emission units in Table 2, below, are IEUs. The application provided emission calculations for the tanks using TANKS 4.0, for the glycol dehydrators using GRI-GLYCalc Version 3.0, and for the heaters using AP-42 emission factors. This supporting data justifies the source's claim that these units qualify as insignificant emission units (IEUs).

Table 2 - Insignificant Emission Units
Red Cedar Gathering Company, Sambrito Compressor Station

Emission Unit ID	Description
EAP-4300 EAP-4310 EAP-4320 EAP-4330 EAP-4340 EAP-4350 EAP-4360 EAP-4370 EAP-4380 EAP-4390	10 - compressor building catalytic heaters – 40,000 Btu/hr each
EAP-4400 EAP-4410 EAP-4420 EAP-4430	4 – compressor building catalytic heaters – 60,000 Btu/hr each
EAP-4500A EAP-4500B	2 – fuel gas package enclosure catalytic heaters – 18,000 Btu/hr each
NA	4 – fuel gas package enclosure catalytic heaters – 18,000 Btu/hr each
ZZZ-3300	1 – TEG Dehydrator – 40.0 MMscfd; 500,000 Btu/hr reboiler
ZZZ-3400	1 – TEG Dehydrator – 50.0 MMscfd; 500,000 Btu/hr reboiler
ZZZ-3500	1 – TEG Dehydrator – 40.0 MMscfd; 500,000 Btu/hr reboiler
ABH-5125 ABH-5225 ABH-5325	3 – dehydrator still vent tanks – 37 bbl each
ABJ-3000	1 – coolant storage tank – 150 bbl
ABJ-3100	1 – coolant maintenance tank – 85 bbl
ABJ-3400	1 – produced water tank – 800 bbl
ABJ-3500	1 – produced water tank – 750 bbl
ABJ-3600	1 – TEG storage tank – 150 bbl

Table 2 - Insignificant Emission Units (continued…)
Red Cedar Gathering Company, Sambrito Compressor Station

ABJ-3700	1 – compressor lube oil tank, 500 bbl
ABJ-3800	1 – waste oil drain tank – 500 bbl
ABJ-3900	1 – engine lube oil tank – 500 bbl
ABJ-9301	1 – compressor lube oil make-up tank – 2,000 gal
ABJ-9302	1 – engine lube oil make-up tank – 2,000 gal
KAQ-9500	1 – pigging receiver
KAH-9000 KAH-9300 KAH-9400	3 – pigging launchers
NA	1 – generator lube oil tank – 500 gal
NA	1 – generator coolant storage tank – 500 gal
NA	1 – generator waste oil drain tank – 500 gal

e. Potential to Emit

Under 40 CFR 52.21, PTE is defined as the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation, or the effect it would have on emissions, is federally enforceable. Independently enforceable applicable requirements are considered enforceable to the extent that the source is in compliance with the standard. In addition, beneficial reductions in non-targeted pollutants resulting from compliance with an independently enforceable applicable requirement may be counted as restrictions on PTE provided the emission reduction of the non-targeted pollutant is enforceable as a practical matter. See the 1995 guidance memo signed by John Seitz, Director of OAQPS titled, "Options for Limiting Potential to Emit of a Stationary Source Under Section 112 and Title V of the Clean Air Act."

Red Cedar reported controlled and uncontrolled emission unit-specific PTE, in forms "GIS", "EMISS," and "PTE" of the significant part 71 modification application. Red Cedar's reported controlled PTE accounted for 93% CO reduction from units CE-2100, CE-2200, CE-2300, CE-2400, and CE-2500, and 96% CO reduction from unit ZAN-5500, both guaranteed by the oxidation converter manufacturer Miratech. As explained later in this Statement of Basis, the CO emission limitations EPA developed are based on limits necessary to keep facility-wide CO emissions below 230 tpy. Actual emissions will be lower than the enforceable emission limits

based on Miratech's manufacturer guarantees. The controlled PTE reported in Table 3 below for CO accounts for the emission limits EPA developed.

Table 3 - Potential to Emit
Red Cedar Gathering Company, Sambrito Compressor Station

Emission Unit ID	Regulated Air Pollutants in tpy (controlled)							
	NO_X	VOC	SO_2	PM_{10}	CO	Lead	HAP	CH_2O
CE-2100	32.0	41.9	0.0	0.0	114.3 (36.6)	0.0	17.2	13.3
CE-2200	32.0	41.9	0.0	0.0	114.3 (36.6)	0.0	17.2	13.3
CE-2300	32.0	41.9	0.0	0.0	114.3 (36.6)	0.0	17.2	13.3
CE-2400	32.0	41.9	0.0	0.0	114.3 (36.6)	0.0	17.2	13.3
CE-2500	32.0	41.9	0.0	0.0	114.3 (36.6)	0.0	17.2	13.3
ZAN-5500	24.1	7.0	0.0	0.0	16.2 (10.5)	0.0	2.6	1.8
IEUs	1.1	0.2	0.0	0.0	0.9	0.0	0.1	0.0
TOTAL	185.2	216.5	0.0	0.0	588.6 (194.4)	0.0	88.7	68.3

The PTE for the Sambrito Compressor Station with practically and federally enforceable controls are:

nitrogen oxides (NO_x) – 185.2 tpy
volatile organic compounds (VOC) – 216.5 tpy
lead – 0.0 tpy
total hazardous air pollutants (HAPs) – 88.7 tpy
largest single HAP (formaldehyde, CH_2O) – 68.3 tpy
carbon monoxide (CO) – 194.4* tpy
small particulates (PM_{10}) – 0.0 tpy
sulfur dioxide (SO_2) – 0.0 tpy

*Based on lbs/hr limits for individual engines; enforceable facility-wide cap is 230 tpy.

Establishment of Synthetic Minor CO Emission Limitations

EPA Authority to Create PTE Restrictions in Part 71 Permits

In consultation with Office of General Counsel at EPA Headquarters, as well as with EPA Regions 9 and 10, the EPA Region 8 office determined that authority exists under the CAA and 40 CFR 71 to create a restriction on potential to emit through issuance of a part 71 permit. The specific citations of authority are:

CAA Section 304(f)(4): provides that the term "emission limitation, standard of performance or emission standard" includes any other standard, limitation, or schedule established under any permit issued pursuant to title V ... , any permit term or condition, and any requirement to obtain a permit as a condition of operations.

40 CFR 71.6(b): provides that all terms and conditions in a part 71 permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act.

40 CFR 71.7(e)(1)(i)(A)(4)(i): provides that a permit modification that seeks to establish a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of title I of the CAA (which includes PSD), and for which there is no underlying applicable requirement, does not qualify as a minor permit modification. Under 40 CFR 71.7(e)(3)(i), it is therefore a significant permit modification, which, according to 40 CFR 71.7(e)(3)(ii), must meet all the requirements that would apply to initial permit issuance or permit renewal.

Applicable PTE Guidance

National EPA guidance on PTE states that air pollution control equipment (in this case, the oxidation catalysts for CE-2100, CE-2200, CE-2300, CE-2400, CE-2500, and ZAN-5500) can be credited as restricting PTE only if federally enforceable requirements are in place requiring the use of such air pollution control equipment. The primary applicable guidance for establishing PTE limits is a memo titled, "Guidance on Limiting Potential to Emit in New Source Permitting," (NSR) dated June 13, 1989, to EPA Regional Offices, from Terrell F. Hunt, Associate Enforcement Counsel, Air Enforcement Division, Office of Enforcement and Compliance Monitoring (OECA), and from John Seitz, Director, Stationary Source Compliance Division, Office of Air Quality Planning & Standards (OAQPS). The 1989 guidance identifies the following as essential components of a restriction on PTE:

(1) An emission limitation, in terms of mass of emissions allowed per unit of time, and

(2) A production or operational limitation (which can include requirements for the use of in-place air pollution control equipment).

The 1989 guidance explains that restrictions on PTE must be enforceable as a practical matter. This means there must also be adequate monitoring, reporting, and recordkeeping requirements. The 1989 memo also explains that an emission limitation alone, expressed as a long-term rolling average (e.g., a rolling 12-month total) should not be relied upon as the basis for a PTE limit, with the exception of sources that are VOC surface coating operations, and where no add-on emission control equipment is employed at those sources, and where operating and production parameters are not readily limited due to the wide variety of coatings and products and due to the unpredictable nature of the operation.

A later memo to the EPA Regional Offices, dated January 25, 1995, from Kathie Stein, Director, Air Enforcement Division, OECA, titled "Guidance on Enforceability Requirements for Limiting Potential to Emit through SIP and Section 112 Rules and General Permits," says the averaging time for the emission limitation must readily allow for determination of compliance: "EPA policy expresses a preference toward short term limits, generally daily but not to exceed one month."

The use of the part 71 permit as a means to create these limits, however, is limited to those instances where an operating source is already required to obtain a part 71 permit by virtue of its PTE or due to other triggers as outlined in §71.3; or where the operating source already holds a part 71 permit. EPA Region 8 does not have the authority to issue part 71 permits to minor sources, unless it is a minor operating source that is required to obtain a permit pursuant to §71.3.

The part 71 program is not a preconstruction permitting program to be used in place of New Source Review (NSR) permitting. The part 71 permit is an operating permit and an application is due within twelve (12) months of starting up a title V facility.

EPA does not knowingly issue synthetic minor limits (i.e., limits on potential to emit to avoid major source status) to sources who wish to avoid applicable requirements that have already been triggered (such as NSR or the Once-In-Always-In MACT standards). EPA also will not knowingly issue synthetic minor limits to sources who wish to avoid applicable requirements for which there are non-compliance concerns.

Creation of synthetic minor limits in part 71 permits is a temporary, gap-filling measure for those sources operating in Indian country that do not have the ability to obtain these synthetic minor limits through other programs, such as exists in state jurisdictions. Upon promulgation of a Minor NSR rule for sources operating in Indian country, it is expected that this gap-filling measure will no longer be needed.

In response to Red Cedar's application request to restrict emissions of CO to below the PSD threshold level, EPA has established federally enforceable CO emission limitations in the significantly modified permit for the Sambrito Compressor Station. The requirements will establish a facility-wide CO emission cap per rolling 12-month period, and short-term pounds per hour (lbs/hr) and grams per brake horsepower hour (g/bhp-hr) unit-specific CO emission limits, for the three compressor engines (CE-2100, CE-2200, CE-2300, CE-2400, and CE-2500) and the electric generator (ZAN-5500).

Components of PTE Restrictions in the Initial Operating Permit

(1) Emission Limit Requirements: Can be a pollutant specific facility-wide emission limit of a unit specific emission limit;

(2) Work Practice and Operational Requirements, such as:

(i) A requirement to equip specific emission unit controls, and specifying the emission reduction efficiency;

(ii) A fuel restriction requirement;

(iii) Operating parameter restriction to ensure proper control equipment operations (temperature, pressure, flow rates, etc…);

(3) Stack Testing Requirements (reference method);

(4) Monitoring Requirements;

(5) Record Keeping Requirements;

(6) Reporting Requirements.

Development of PTE Restrictions and Associated Requirements in the Significantly Modified Operating Permit

EPA considers the PTE restriction to conform with all relevant PTE guidance. The PTE restriction includes the following components:

(1) Emission limits

The facility-wide CO cap must be sufficiently below the PSD major stationary source threshold of 250 tpy to account for all the uncertainties in emission estimation, for both the controlled and uncontrolled emitting units. Past precedence in EPA Region 8 for facility-wide emission caps is 5 to 8 % below the 250 tpy threshold. Past precedence in Region 8 specifically for facility-wide CO emission caps is 8% below the 250 tpy threshold, or 230 tpy.

Consistent with the 1989 and 1995 guidance on limiting PTE, when developing the emission limitations for CE-2100, CE-2200, CE-2300, and ZAN-5500 in the initial part 71 permit for the Sambrito Compressor Station, EPA calculated the lbs/hr and g/bhp-hr short-term emission limits that would be necessary to keep the facility-wide PTE below 230 tpy CO. The figures were back-calculated from the facility-wide PTE 'target' of 230 tpy, based proportionately on the uncontrolled PTE reported for each engine in the initial application. The calculated figures are substantially higher than actual controlled CO emissions measured during initial and subsequent performance testing.

In its application for a significant permit modification, Red Cedar requested revised enforceable CO emission limits for units CE-2100, CE-2200, and CE-2300, which would also apply to new units CE-2400 and CE-2500, to account for the beneficial reductions that would occur from

using oxidation catalyst controls to comply with the RICE MACT requirements, such that the facility-wide CO emissions could still be restricted to 230 tpy. Red Cedar requested that the existing permitted CO emission limits for generator engine ZAN-5500 remain unchanged.

Miratech, the manufacturer of all six oxidation catalyst controls, has guaranteed the following CO % reduction (based on supporting documentation provided in significant modification application):

(i) CE-2100, CE-2200, CE-2300, CE-2400, and CE-2500 – 93% CO reduction

(ii) ZAN-5500 – 96% CO reduction

EPA has established the following CO emission limits in the initial permit:

(i) A facility-wide CO emission limit of 230 tons per any consecutive 12-month period (also known as a rolling annual limit); and

(ii) Specific short-term (lbs/hr and g/hp-hr) CO emission limits for each of the engines equipped with a control device (oxidation converter), as follows:

Unit	**Short-Term CO Emission Limits**	
	g/hp-hr	lbs/hr
CE-2100	0.8	8.35
CE-2200	0.8	8.35
CE-2300	0.8	8.35
CE-2400	0.8	8.35
CE-2500	0.8	8.35
ZAN-5500	1.1	2.4

The Appendix to this Statement of Basis contains detailed calculations of how the CO emission limits were developed and shows that the engines will be able to meet the emission limitations.

It is important to note that this approach to taking credit for beneficial reductions must necessarily be determined on a case-by-case basis as the circumstances for applicable requirements, control technology options, compliance options, targeted pollutants, degree of reductions, etc., can vary widely. An evaluation of the amount of beneficial reductions, the practical enforceability of those reductions, and the applicability of pre-construction permitting requirements, such as PSD, should be made before construction is commenced. Typically, the beneficial reduction must be incorporated into a valid permit with enhanced monitoring and reporting to make it practically enforceable.

The RICE MACT has a selection of control technology and compliance options a source may choose for controlling and determining compliance with formaldehyde reductions. Some of these options may not provide the practical enforceability needed to provide credit for CO reductions. Therefore, in addition to the RICE MACT requirements, this permit must specify any additional requirements necessary to establish enforceability of the CO emission limits.

(2) Operational requirements

(i) The Caterpillar G3616LE compressor engines and Waukesha P48GL generator must be equipped with oxidation converters capable of reducing uncontrolled emissions of CO by at least 68% and 35.8%, respectively, at maximum operating rate, or 90% - 100% of engine capacity at site elevation (see detailed calculations in the Appendix to this Statement of Basis);

(ii) The permittee must install temperature sensing devices before the oxidation catalysts of the Caterpillar G3616LE compressor engines and Waukesha P48GL generator to monitor the inlet temperature of the engine exhaust to the catalyst. The devices must be accurate to within plus or minus 0.75% of span.

(iii) The permittee must install pressure sensing devices before and after the oxidation catalysts of the Caterpillar G3616LE compressor engines and Waukesha P48GL generator to monitor the pressure drop across the catalyst. The devices must be accurate to within two (2) inches of water from the baseline pressure drop reading taken during the initial performance test.

(iv) If the catalyst inlet temperature or the pressure drop across the catalyst deviate from the specified optimal ranges, the permittee must take immediate corrective actions specified in the permit.

(v) The G3616LE compressor engines and Waukesha P48GL generator must be fired only with pipeline quality natural gas (with the exception that CO_2 concentration is not required to be pipeline quality), to ensure that there are no contaminants in the fuel that might foul the oxidation catalyst.

(vi) Lastly, the permittee shall follow, for each engine and their respective oxidation catalyst, the manufacturer's recommended maintenance schedule and procedures to ensure optimum performance of each engine and the respective oxidation catalyst.

(3) Emission testing and monitoring

EPA determined that initial and subsequent annual performance testing is required for the enforceability of the CO limits. The inlet temperature to the oxidation catalyst and the pressure drop across the catalyst must be measured during the initial and subsequent performance tests.

All performance tests must meet certain requirements, including: conduct the test within 10 percent of 100 percent of peak load; collect data on all parameters necessary to document how CO emissions in g/hp-hr and lbs/hr were measured or calculated; each source test shall consist of at least three 1-hour or longer valid test runs and emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of the emission limits (g/hp-hr and lbs/hr); and a source test plan for each performance test must be submitted to EPA for approval. Additional CO performance testing requirements have been incorporated into the permit for each time the catalyst is changed out.

The monitoring requirements outlined in the RICE MACT for the CO reduction compliance option are adequate for the enforceability of the CO limits. However, the CH_2O reduction compliance option does not provide enforceability of the CO limit. As explained for work practice and operational requirements, in order for the oxidation catalyst to effectively reduce CO emissions the catalyst must be maintained at no less than 550° F and no more than 1,250° F and the pressure drop across the catalyst must be maintained to within two inches of water from the baseline pressure drop reading taken during the initial performance test. In order to monitor compliance with this requirement, the temperature at the inlet to the catalyst and the pressure drop across the catalyst must be measured daily. Additional CO monitoring requirements using a portable analyzer have been incorporated into the permit. The permittee must monitor CO emissions at least quarterly and each time the catalyst is changed out, using a portable analyzer and monitoring protocol approved by EPA.

(4) Recordkeeping requirements

In addition to the standard recordkeeping requirements of part 71 and the RICE MACT, for purposes of the PTE restriction, EPA has incorporated the following recordkeeping requirements into the permit:

(i) Records shall be kept of monthly and rolling 12-month facility-wide CO emissions totals. The calculation methodology is specified in detail in the operating permit. The emissions shall be calculated and recorded at the end of each month;

(ii) Records shall be kept of all measurements of temperature to the inlet of the catalyst and pressure drop across the catalyst.

(iii) Records shall be kept of all CO measurements using a portable analyzer at the oxidation converters each time the catalyst is changed out.

(5) Reporting requirements

In addition to the standard reporting requirements of part 71 and the RICE MACT, for purposes of the PTE restriction, EPA has incorporated the following reporting requirements into the permit:

(i) Semi-annual monitoring reports required by 40 CFR 71 are to include the calculations of monthly and rolling 12-month facility-wide CO emissions totals for that reporting period.

(ii) Semi-annual reports required by 40 CFR 71 shall also include any instances where the short-term engine-specific CO limits were exceeded, as well as a description of corrective action taken.

f. Construction, Permitting, and Compliance History

The construction and permitting history for the Sambrito Compressor Station was discussed previously in Section 1.a. of this Statement of Basis. Table 4 illustrates the history and description of the regulations that potentially apply to this facility, the construction and permitting history of the facility itself (not including the project subject to this significant permit modification), including the changes in the unit-specific and facility-wide PTE and emission status with each completed facility modification, and the compliance history since operation of the facility commenced in 2007.

Table 4 – Construction, Permitting, and Compliance History
Red Cedar Gathering Company, Sambrito Compressor Station

August 7, 1980 Prevention of Significant Deterioration Pre-Construction Permitting Program Promulgated **(the 8/7/80 rules form the basis of the current regulations)**
Applicability: PSD is a preconstruction review requirement that applies to proposed projects that are sufficiently large (in terms of emissions) to be a "major" stationary source or "major" modification. Source size is defined in terms of "potential to emit," which is its capability at maximum design capacity to emit a pollutant, except as constrained by federally and practically enforceable conditions. A new source or a modification to an existing minor source is major if the proposed project has the potential to emit any pollutant regulated under the CAA in amounts equal to or exceeding specified major source thresholds [100 tpy for the 28 listed industrial source categories and 250 tpy for all other sources]. PSD also applies to modifications at existing major sources that cause a significant "net emissions increase" at that source. A modification is a physical change or change in the method of operation. Significance levels for each pollutant are defined in the PSD regulations at 40 CFR 52.21. Compliance: No new source or modification of a source subject to PSD review may be constructed without a permit.
February 19, 1999 - Part 71 (Title V) Operating Permit Program Promulgated **(the 2/19/99 rules form the basis of the current regulations).**
Applicability: Any major source (criteria pollutants > 100 tpy, or any single HAP > 10 tpy, or aggregated HAPS > 25 tpy); Any source, including an area source, subject to a standard, limitations, or other requirements under 111 or 112 of the CAA promulgated on or before July 21, 1992. Non-major sources subject to 111 or 112 regulation promulgated after July 21, 1992 are subject unless the rule specifies otherwise; Any Acid Rain source; Any Solid Waste Incineration Unit. Application Due Date: Within 12 months after commencing operation.

Table 4 – Construction, Permitting, and Compliance History (continued…)
Red Cedar Gathering Company, Sambrito Compressor Station

June 17, 1999 – MACT HH for Major HH HAP Oil and Gas Production Sources Promulgated (HAP > 10/25 tpy)

HAP PTE determined by emissions from dehydrators and storage vessels with a potential for flash emissions only, unless the facility is oil and gas plant.

Affected Sources:
- Glycol dehydration units
- Storage vessels with the potential for flash emissions
- Group of ancillary equipment (pumps valves, flanges, etc…)
- Compressors intended to operate in volatile hazardous air pollutant service, located at natural gas processing plants

Final Compliance Dates:
- Construction or reconstruction commenced before February 6, 1998 – June 17, 2002
- Construction or reconstruction commenced after February 6, 1998 – Upon startup or June 17, 2002, whichever date is later

Area → Major
- Construction or reconstruction of affected unit commenced before February 6, 1998, causing source to become major – 3 years after becoming major
- Construction or reconstruction of affected unit commenced after February 6, 1998, causing source to become major – Upon startup

June 15, 2004 – NESHAP for Reciprocating Internal Combustion Engines (RICE) Promulgated

Affected Sources:
- Existing RICE ≥ 500 bhp, located at major sources of HAP emissions, constructed or reconstructed on or before 12/19/2002
- New/Reconstructed RICE ≥ 500 bhp, located at major sources of HAP emissions, constructed or reconstructed after 12/19/2002

Final Compliance Dates
- Existing lean burn RICE – Exempt
- Existing rich burn RICE – June 15, 2007

New or reconstructed rich or lean burn RICE constructed on or before August 16, 2004
- New or reconstructed rich or lean burn RICE constructed after August 16, 2004 – upon startup

January 3, 2007 – MACT HH for Area Sources of Oil & Gas Production Facilities Promulgated (HAP < 10/25 tpy)

Affected Sources:
- Triethylene Glycol (TEG) dehydration units

Final Compliance Dates:
- Construction or reconstruction of the affected unit located in an Urban-1 county commenced before February 6, 1998:
  - Located w/in Urban Area (UA) Plus Offset and Urban Cluster (UC) boundary – January 4, 2010
  - Not Located w/i UA Plus Offset and UC boundary – January 5, 2009
- Construction or reconstruction of the affected unit located in an Urban-1 county commenced on or after February 6, 1998 – Upon startup or January 3, 2007, whichever date is later.
- Construction or reconstruction of the affected unit not located in an Urban-1 county commenced before July 8, 2005:
  - Located w/i UA Plus Offset and UC boundary – January 4, 2010
  - Not Located w/i UA Plus Offset and UC boundary – January 5, 2009

Table 4 – Construction, Permitting, and Compliance History (continued…)
Red Cedar Gathering Company, Sambrito Compressor Station

July 3, 2007 Operation Commenced After Initial Construction

Unit	Description	Potential to Emit				
		NO_x (tpy)	CO (tpy)	VOC (tpy)	CH_2O (tpy)	Total HAPs (tpy)
		controlled/uncontrolled*				
CE-2100	Caterpillar G3616 LE Compressor Engine	32.0	73.2 / 114.3	41.1	18.3	21.0
CE-2200	Caterpillar G3616 LE Compressor Engine	32.0	73.2 / 114.3	41.1	18.3	21.0
ZAN-5500	Waukesha P48GL Emergency Generator	1.4	0.9	0.4	0.0	0.1
IEUs		0.5	0.3	0.0	0.0	0.0
	July 2007 Facility-Wide PTE Totals	65.9	147.6 / 229.8	82.6	36.6	42.1

Non-PSD Source. Area source for MACT HH. Major source for HAPs. Major source for title V permitting (initial app. Due 7/3/08, Rec'd. 5/29/08 – requested enforceable synthetic minor CO limits). Draft Permit #V-SU-0049-08.00.

* Red Cedar cannot take credit for the reductions in CO emissions until the initial permit is issued final.

January 18, 2008 – NSPS for SI ICE and Amendments to RICE MACT Promulgated

Affected Sources:

- As per 2004 RICE MACT promulgation for RICE >500 bhp at major sources (unchanged by the amendments)
- New/reconstructed SI ICE at area HAP sources that commenced construction, modification, or reconstruction after 6/12/2006.
- Existing RICE < 500 bhp, located at major sources of HAP emissions, constructed or reconstructed before 6/12/2006
- New/Reconstructed RICE < 500 bhp, located at major sources of HAP emissions, constructed or reconstructed on or after 6/12/2006

Final Compliance Dates

- As above for 2004 RICE NESHAP Promulgation for >500 bhp at major sources
- Existing lean burn RICE at area HAP source or ≤ 500 bhp at major source - No requirements
- Existing rich burn RICE at area HAP source or ≤ 500 bhp at major source - No requirements
- (NSPS for SI ICE) New/Reconstructed lean burn RICE >500 bhp manufactured before January 1, 2008 – No requirements
- New/Reconstructed RICE at area HAP source or ≤ 500 bhp at major HAP source started up before January 18, 2008 → January 18, 2008
- New/Reconstructed RICE at area HAP source or ≤ 500 bhp at major source started up after January 18, 2008 → upon startup

Applicability to Sambrito Compressor Station

CE-2100 and CE-2200 remain subject to major source RICE MACT requirements; not subject to NSPS for SI ICE because they were manufactured prior to January 1, 2008.

September 18, 2008 – First Ever Facility Inspection by EPA

No change in PTE or facility operation.

Table 4 – Construction, Permitting, and Compliance History (continued…)
Red Cedar Gathering Company, Sambrito Compressor Station

October 15, 2008 Proposed Modification (Updated Initial Part 71 Application) – Add 1 lean burn compressor engine (subject to NSPS JJJJ and RICE MACT); Previously requested enforceable CO limits for CE-2100 and CE-2200 also requested for new engine; Updated emission factors for ZAN-5500 and IEUs; Delay construction of new engine until issuance of final initial permit with enforceable CO limits to avoid major PSD status.

Unit	Description	Potential to Emit				
		NO_x (tpy)	CO (tpy)	VOC (tpy)	CH_2O (tpy)	Total HAPs (tpy)
		controlled / uncontrolled**				
CE-2300	Caterpillar G3616 LE	32.0	73.2 / 114.3	41.1	18.3	21.0
ZAN-5500	Waukesha P48GL Emergency Generator	3.3	2.2	1.0	0.2	0.3
IEUs		0.5	0.3	0.1	-	-
Total Proposed Emissions Increase for Project		*+33.9*	*+74.5 / +115.6*	*+41.7*	*+18.5*	*+21.2*
Minor modification of a non-PSD source.						
Proposed Facility-Wide PTE Totals		99.8	222.1 / 345.4	124.4	55.1	63.3

Synthetic Minor PSD* source. Area source for MACT HH. Major source for HAPs and title V permitting. Draft Permit #V-SU-0049-08.00.

***** Synthetic minor status contingent on delaying construction of CE-2300 until after initial permit issuance.

** Red Cedar cannot take credit for the reductions in CO emissions until the initial permit is issued final.

May 19-June 16, 2009 – Proposed Modification (Updated Initial Part 71 Application) – Change hours of operation of unit ZAN-5500 from emergency to full time operation (becomes subject to RICE MACT); Enforceable CO Limits Requested for ZAN-5500; Add IEUs (including 1 TEG dehydration unit and 4 catalytic building heaters); Continued delay of construction of unit CE-2300 and delay modification of ZAN-5500 until issuance of final initial permit with enforceable CO limits to avoid major PSD status.

Unit	Description	Potential to Emit				
		NO_x (tpy)	CO (tpy)	VOC (tpy)	CH_2O (tpy)	Total HAPs (tpy)
		controlled / uncontrolled**				
ZAN-5500	Waukesha P48GL Generator	24.1	10.4 / 16.2	6.9	1.8	2.4
IEUs		0.5	0.4	0.7	-	-
Total Proposed Emissions Increase for Project		*+20.8*	*+8.3 /+14.1*	*+6.5*	*+1.6*	*+2.1*
Minor modification of a synthetic minor* PSD source.						
Proposed Facility-Wide PTE Totals		120.6	230.4 /359.5	130.9	56.7	65.4

Synthetic Minor PSD* source. Area source for MACT HH. Major source for HAPs and title V permitting. Draft Permit #V-SU-0049-08.00.

***** Synthetic minor status contingent on delaying construction of CE-2300 and modification of ZAN-5500 until after initial permit issuance.

** Red Cedar cannot take credit for the reductions in CO emissions until the initial permit is issued final.

Table 4 – Construction, Permitting, and Compliance History (continued…)
Red Cedar Gathering Company, Sambrito Compressor Station

September 11, 2009 – Initial Part 71 Permit Issued - Synthetic Non-PSD Source for CO Emissions with Enforceable Emission Limitations.						
Unit	Description	Potential to Emit				
		NO_x (tpy)	CO (tpy)	VOC (tpy)	CH_2O (tpy)	Total HAPs (tpy)
		controlled/uncontrolled				
CE-2100	Caterpillar G3616 LE Compressor Engine	32.0	73.2 / 114.3	41.1	18.3	21.0
CE-2200	Caterpillar G3616 LE Compressor Engine	32.0	73.2 / 114.3	41.1	18.3	21.0
CE-2300	Caterpillar G3616 LE Compressor Engine	32.0	73.2 / 114.3	41.1	18.3	21.0
ZAN-5500	Waukesha P48GL Emergency Generator	24.1	10.4 / 16.2	6.9	1.8	2.4
IEUs		0.5	0.4	0.7	0.0	0.0
	September 2009 Facility-Wide PTE Totals	120.6	230.4 / 359.5	130.9	56.7	65.4
Synthetic Minor PSD source. Area source for MACT HH. Major source for HAPs. Major source for title V permitting. Permit #V-SU-0049-08.00.						
November 17, 2009 – Administrative Amendment – Correct citations for origin of authority and remove a condition that had been removed from the applicable regulation (both RICE MACT).						
No change in PTE or facility operation.						

3. Analysis of Federal Requirements

a. Federal Regulatory Review

The following discussion addresses some of the regulations from the Code of Federal Regulations (CFR) at title 40. Note, that this discussion does not include the full spectrum potentially applicable regulations and is not intended to represent official applicability determinations. These discussions are based on the information provided by Red Cedar in the most recent part 71 application and are only intended to present the information certified to be true and accurate by the Responsible official of this facility.

Prevention of Significant Deterioration (PSD)

New major stationary sources of air pollution or significant modifications to existing major stationary sources are required by the CAA to obtain an air pollution permit before commencing construction. A major stationary source is any source type belonging to a list of 28 source categories which emits or has the potential to emit 100 tpy or more of any pollutant regulated under the CAA or any other source type which emits or has the potential to emit such pollutants in amounts equal to or greater than 250 tpy.

The Sambrito Compressor Station does not belong to any of the 28 source categories. Therefore, the potential to emit threshold for determining PSD applicability for this source is 250 tpy. As explained previously in this Statement of Basis, review of the Sambrito Compressor Station's construction and permitting record indicates that the potential emission increases of any pollutant regulated under the CAA (not including pollutants listed under section 112) associated with the already completed and proposed construction or modification projects at the facility since May 2007, including following final issuance of this permit were or will be all individually below the PSD major source levels.

Without the permitted synthetic minor CO emission limitations in the initial part 71 permit, installation of units CE-2300 and ZAN-5500 would have pushed the uncontrolled facility-wide PTE over the PSD major source level for CO emissions; however, the potential emission increase of that project alone was below the PSD major source level, and Red Cedar delayed construction until the federally enforceable emission limitations were enforceable in the final initial part 71 permit; therefore, the facility was not required to obtain a PSD permit.

Similarly, without the synthetic minor CO emission limitations in this significant permit modification, installation of units CE-2400, CE-2500, and associated ancillary equipment would again push the uncontrolled facility-wide PTE over the PSD major source level for CO emissions; however, the potential emission increase of the proposed project alone is below the PSD major source level, and Red Cedar has again committed to delay construction until the emission limitations are enforceable in the final significantly modified part 71 permit; therefore, the facility will not be required to obtain a PSD permit for the proposed project.

At this time the facility is a minor source of CO emissions with respect to PSD review and permitting requirements. Upon issuance of the final significantly modified part 71 permit with enforceable limits on CO emissions, and subsequent construction of units CE-2400, CE-2500, and ancillary equipment, the facility will remain a synthetic minor source with respect to PSD review and permitting requirements.

New Source Performance Standards (NSPS)

40 CFR Part 60, Subpart A: General Provisions. This subpart applies to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication of any standard in part 60. The general provisions under subpart A apply to sources that are subject to the specific subparts of part 60.

As explained below, the Sambrito Compressor Station operates two engines subject to NSPS JJJJ, therefore the General Provisions of part 60 do apply.

40 CFR Part 60, Subpart Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This rule applies to steam generating units with a maximum design heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr.

According to Red Cedar, there are no steam generating units with a maximum design heat input capacity greater than or equal to 10 MMBtu/hr at the facility; therefore, the Sambrito Compressor Station is not subject to subpart Dc.

40 CFR Part 60, Subpart K: Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978. This rule applies to storage vessels for petroleum liquids with a storage capacity greater than 40,000 gallons. 40 CFR part 60, subpart K does not apply to storage vessels for petroleum or condensate stored, processed, and/or treated at a drilling and production facility prior to custody transfer.

This subpart does not apply to the storage vessels at the Sambrito Compressor Station because, according to Red Cedar, there are no tanks at this site that were constructed, reconstructed, or modified after June 11, 1973, and prior to May 19, 1978.

40 CFR Part 60, Subpart Ka: Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to June 23, 1984. This rule applies to storage vessels for petroleum liquids with a storage capacity greater than 40,000 gallons. Subpart Ka does not apply to petroleum storage vessels with a capacity of less than 420,000 gallons used for petroleum or condensate stored, processed, or treated prior to custody transfer.

The subpart does not apply to the storage vessels at the Sambrito Compressor Station because, according to Red Cedar, there are no tanks at this site with a storage capacity greater than 40,000 gallons that were constructed, reconstructed, or modified after May 18, 1978, and prior to June 23, 1984.

40 CFR Part 60, Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984. This rule applies to storage vessels with a capacity greater than or equal to 75 cubic meters (~19,813 gallons).

The facility has 5 tanks that qualify as affected sources under this rule. Tanks ABJ-3340 and ABJ-3500 contain produced water with trace amounts of condensate and are exempted from this rule according to 40 CFR 60.110b(d)(4). Tanks ABJ-3800, ABJ-3900, and ABJ-3700 contain engine oil with a true vapor pressure of 0.013kPa and are also exempted from this rule according to 40 CFR 60.110b(b). Therefore, this subpart does not apply to the storage vessels at the Sambrito Compressor Station.

40 CFR Part 60, Subpart GG: Standards of Performance for Stationary Gas Turbines. This rule applies to stationary gas turbines, with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hr), that commenced construction, modification, or reconstruction after October 3, 1977.

According to Red Cedar, there are no stationary gas turbines located at the Sambrito Compressor Station; therefore, this rule does not apply.

40 CFR Part 60, Subpart KKK: Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. This subpart establishes requirements for controlling fugitive VOC emissions from onshore natural gas processing plants.

Subpart KKK requires a source to comply with several requirements of 40 CFR 60, subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981 and on or Before November 7, 2006. Both subpart VV and subpart KKK regulate fugitive emissions of VOCs at onshore natural gas processing plants. The regulations for subpart VV are found at 40 CFR 60 §§60.480 through 60.489.

Natural Gas Processing Plant

Pursuant to the definitions at 40 CFR 60.631, a *natural gas processing plant* "means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both."

Natural Gas Liquids

Pursuant to the definitions at 40 CFR 60.631, *natural gas liquids* "means the hydrocarbons, such as ethane, propane, butane, and pentane that are extracted from field gas." The use of "such as" in this definition indicates that this definition is inclusive of the listed hydrocarbons liquids but does not exclude all others. In fact, the definition of *natural gas liquids* found in Frick's Petroleum Production Handbook, Vol. II states that NGLs are divided into more specific categories, including: (1) condensate; (2) natural gasoline; and (3) liquefied petroleum gases.

Process Unit

Process units are defined as equipment assembled for the extraction of natural gas liquids (NGLs) from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.

According to an April 7, 2009 memo from Cynthia J. Reynolds, Director of the Region 8 Technical Enforcement Program to Callie A. Videtich, Director of the Region 8 Air Program, titled Clarification of Applicability of 40 CFR 60, Subpart KKK to Dew Point and Joules Thompson Skids at Natural Gas Processing Operations, the use of dew point or Joules Thompson (JT) skids meet the definition of "Natural Gas Processing Plant." As such, while compressor stations are typically not considered natural gas processing plants, the use of either a dew point or

JT skid causes these facilities to meet the definition of natural gas processing plants and would thus be subject to the requirements of this rule.

Applicability and Designation of Affected Facilities

The provisions of this subpart apply to the following components at onshore natural gas processing plants that commenced construction, reconstruction, or modification after January 20, 1984:

1) Compressors in VOC service or wet gas service are subject to this rule. A compressor is in VOC service if it contains or contacts a process fluid that is at least 10% VOC by weight. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process.

2) All equipment except compressors within a process unit.

A compressor station, dehydration unit, sweetening unit, underground storage tank, field gas gathering system, or liquefied natural gas unit is covered by this subpart if it is located at an onshore natural gas processing plant. If the unit is not located at the plant site, then it is exempt from the provisions of this subpart.

Equipment

Equipment means each pump, pressure relief device, open-ended valve or line, valve, compressor, and flange or other connector that is in VOC service or in wet gas service, and any device or system required by this subpart.

Subpart KKK establishes monitoring/testing requirements, recordkeeping requirements and reporting requirements for the following components that may be located at an onshore natural gas processing plant:

- Pumps in light liquid service
- Compressors in VOC service or wet gas service
- Pressure relief devices in gas vapor service
- Sampling connection systems
- Open-ended valves or lines
- Valves in gas / vapor or light liquid service
- Pumps and valves in heavy liquid service, pressure relieve devices in light or heavy liquid service, and flanges and other connectors
- Closed vent systems and control devices
- Vapor recovery systems
- Enclosed combustion devices
- Flares

In addition, the rule establishes separate requirements for the following:

- Delay of repair of equipment for which leaks have been detected.
- Alternative means of emissions limitation for components subject to the rule
- Determining components that are not in VOC or wet gas service

Applicability to the Sambrito Compressor Station

According to Red Cedar, the Sambrito Compressor Station does not extract NGLs from field gas, nor does it fractionate mixed NGLs to natural gas products, and thus does not meet the definition of a natural gas processing plant under this subpart. Therefore, this rule does not apply.

40 CFR Part 60, Subpart LLL: Standards of Performance for Onshore Natural Gas Processing; SO_2 Emissions. This rule applies to sweetening units and sulfur recovery units at onshore natural gas processing facilities. As defined in this subpart, sweetening units are process devices that separate hydrogen sulfide (H_2S) and carbon dioxide (CO_2) from a sour natural gas stream. Sulfur recovery units are defined as process devices that recover sulfur from the acid gas (consisting of H_2S and CO_2) removed by a sweetening unit.

According to Red Cedar, there are no sweetening or sulfur recovery units at the Sambrito Compressor Station; therefore, this rule does not apply.

40 CFR Part 60, Subpart JJJJ: New Source Performance Standards (NSPS) Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. This subpart establishes emission standards and compliance requirements for the control of emissions from stationary spark ignition (SI) internal combustion engines (ICE) that commenced construction, modification or reconstruction after June 12, 2006, where the SI ICE are manufactured on or after specified manufacture trigger dates. The manufacture trigger dates are based on the engine type, fuel used, and maximum engine horsepower.

For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator (See 40 CFR 60.4230(a)).

Red Cedar provided the following information:

Table 5 –NSPS Subpart JJJJ Applicability
Red Cedar Sambrito Compressor Station

Unit	Serial Number	Unit Description	Fuel	BHP	Commenced Construction Date / Manufacture Date	Installation Date / Startup Date	Trigger Date – Manufactured on or after	Requirements
CE-2100	BLB00314	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4,735	Before 6/12/2006	12-2006 / 7-3-2007	7/1/2007	Not Subject
CE-2200	BLB00315	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4,735	Before 6/12/2006	12-2006 / 7-3-2007	7/1/2007	Not Subject
CE-2300	BLB00425	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4,735	After 6-12-2006 / 3-10-2008	12-2009 / 4-14-2010	7/1/2007	Subject
CE-2400	BLB00651	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4,735	After 6-12-2006 / After 7-1-2007	TBD / TBD	7/1/2007	Subject
CE-2500	BLB00303	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4,735	After 6-12-2006 / Before 7-1-2007	TBD / TBD	7/1/2007	Not Subject
ZAN-5500	C-17113/1	Waukesha P48GL / 4SLB >500 bhp, <1,350 bhp	Natural Gas	959	Before 6/12/2006	Dec. 2006 / 7-3-2007	1/1/2008	Not Subject

According Red Cedar, emission units CE-2100, CE-2200, and ZAN-5500 commenced construction prior to June 12, 2006; therefore, subpart JJJJ does not apply to those engines. Although Unit CE-2500 was ordered after June 12, 2006, it was manufactured on April 26, 2006, which is before the trigger date of July 1, 2007, for applicability to the requirements. Although the hours of operation on engine ZAN-5500 were increased to full time operation after June 12, 2006, such a change is exempted from consideration as a modification, according to 40 CFR 60.14(e)(3). Therefore, units CE-2100, CE-2200, CE-2500, and ZAN-5500 are not subject to the requirements in subpart JJJJ. Should Red Cedar decide to install replacement engines for CE-2100, CE-2200, CE-2500, or ZAN-5500 that are subject to subpart JJJJ, Red Cedar will not be allowed to use the off permit changes provisions, and will be required to submit a permit modification application to incorporate that engine as subject to the subpart JJJJ requirements in the permit.

Emission unit CE-2300 commenced construction (was ordered) after September 1, 2009, and was installed and started up in December 2009, both dates of which are after the construction trigger date of June 12, 2006, and the manufactured trigger date of January 1, 2007; therefore, unit CE-2300 is subject to the requirements in subpart JJJJ. Emission unit CE-2400 will commence

construction after June 12, 2006, and be manufactured after January 1, 2007; therefore, it will be subject to the requirements in subpart JJJJ.

National Emissions Standards for Hazardous Air Pollutants (NESHAP)

40 CFR Part 63, Subpart A: General Provisions. This subpart contains national emissions standards for HAPs that regulate specific categories of sources that emit one or more HAP regulated pollutants under the Clean Air Act. The general provisions under subpart A apply to sources that are subject to the specific subparts of part 63.

As explained below, the Sambrito Compressor Station emits at least one HAP regulated under the CAA, and has equipment subject to standards established under part 63 (engines CE-2100, CE-2200, CE-2300, CE-2400, CE-2500, and ZAN-5500, which are stationary RICE regulated by 40 CFR part 63, subpart ZZZZ) (see 63.1(b)(3)). These units are subject to the requirements of subpart A as outlined in §63.6665.

The facility also has equipment in relevant source categories (TEG dehydrators ZZZ-3300 and ZZZ-3400, and ZZZ-3500, and tank ABH-5125 (subpart HH)), which are not subject to the relevant standards. A record of an applicability determination demonstrating that these sources are not subject to the relevant part 63 standards must be kept (per §63.10(b)(3)) on site for five (5) years after the determinations or until a source changes its operations to become an affected source. EPA approved a request from Red Cedar for a waiver of the onsite recordkeeping requirement in a letter dated August 6, 2008. These applicability determinations will be kept at the corporate headquarters office in Durango, Colorado.

40 CFR Part 63, Subpart HH: National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities. This subpart applies to the owners and operators of affected units located at natural gas production facilities that are major sources of HAPs, and that process, upgrade, or store natural gas prior to the point of custody transfer, or that process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. The affected units are glycol dehydration units, storage vessels with the potential for flash emissions and the group of ancillary equipment, and compressors intended to operate in volatile hazardous air pollutant service, which are located at natural gas processing plants.

Throughput Exemption

Those sources whose maximum natural gas throughput, as appropriately calculated in §63.760(a)(1)(i) through (a)(1)(iii), is less than 18,400 standard cubic meters per day are exempt from the requirements of this subpart.

Source Aggregation

Major source, as used in this subpart, has the same meaning as in §63.2, except that:

1) Emissions from any oil and gas production well with its associated equipment and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units.

2) Emissions from processes, operations, or equipment that are not part of the same facility shall not be aggregated.

3) For facilities that are production field facilities, only HAP emissions from glycol dehydration units and storage tanks with flash emission potential shall be aggregated for a major source determination.

Facility

For the purpose of a major source determination, facility means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in subpart HH. Examples of facilities in the oil and natural gas production category include, but are not limited to: well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Production Field Facility

Production field facilities are those located prior to the point of custody transfer. The definition of custody transfer (40 CFR 63.761) means the point of transfer after the processing/treating in the producing operation, except for the case of a natural gas processing plant, in which case the point of custody transfer is the inlet to the plant.

Natural Gas Processing Plant

A natural gas processing plant is defined in 40 CFR 63.761 as any processing site engaged in the extraction of NGLs from field gas, or the fractionation of mixed NGLs to natural gas products, or a combination of both. A treating plant or gas plant that does not engage in these activities is considered to be a production field facility.

Major Source Determination for Production Field Facilities

The definition of major source in this subpart (at 40 CFR 63.761) states, in part, that only emissions from the dehydration units and storage vessels with a potential for flash emissions at production field facilities are to be aggregated when comparing to the major source thresholds.

For facilities that are not production field facilities, HAP emissions from all HAP emission units shall be aggregated.

Area Source Applicability

40 CFR part 63, subpart HH also applies to area sources of HAPs. An area source is a HAP source whose total HAP emissions are less than 10 tpy of any single HAP or 25 tpy for all HAPs in aggregate. This subpart requires different emission reduction requirements for glycol dehydration units found at oil and gas production facilities based on their geographical location. Units located in densely populated areas (determined by the Bureau of Census) and known as urbanized areas with an added 2-mile offset and urban clusters of 10,000 people or more, are required to have emission controls. Units located outside these areas will be required to have the glycol recirculation pump rate optimized or operators can document that PTE of benzene is less than 1 tpy.

Applicability of Subpart HH to the Sambrito Compressor Station

According to Red Cedar, the Sambrito Compressor Station is a production field facility prior to the point of custody transfer. For production field facilities, only emissions from the dehydration units and storage vessels with a potential for flash emissions are to be aggregated to determine major source status. The facility has two glycol dehydrators, with associated flash tanks. The total HAP emissions from those units alone are below the major source thresholds of 10 tpy of a single HAP and 25 tpy of aggregated HAPs. Therefore, the Sambrito Compressor Station is an area source of HAP emissions.

With respect to the area source requirements of this subpart, the facility is located outside both an urban area and an urban cluster. Furthermore, uncontrolled benzene emissions from the TEG glycol dehydrator unit at the facility have been determined to be less than 1 tpy using GRI-GLYCalc Version 4.0, as presented in the supporting documentation in the application. **As a result, the dehydration units (ZZZ-3300, ZZZ-3400, and ZZZ-3500) at the facility are exempt from the §63.764(d) general requirements for area sources. However, the following general recordkeeping requirement will continue to apply to this facility:**

- §63.774(d)(1) – retain each determination used to demonstrate that actual flowrate of natural gas throughput is less than 85,000 scm/day (3,000,000 scf/day) or the actual average benzene emissions are below 1 tpy.

Should the actual flowrate of natural gas throughput ever exceed 85,000 scm/day or uncontrolled emissions of benzene from the dehydrators ever exceed 1 tpy, then the facility will become subject to the requirements for area sources.

40 CFR Part 63, Subpart HHH: National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. This rule applies to natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local

distribution company or to a final end user, and that are a major source of HAP emissions. A compressor station that transports natural gas prior to the point of custody transfer or to a natural gas processing plant (if present) is not considered a part of the natural gas transmission and storage source category.

This subpart does not apply to the Sambrito Compressor Station as the facility is a natural gas production facility and not a natural gas transmission or storage facility.

40 CFR Part 63, Subpart ZZZZ (MACT ZZZZ): National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This rule establishes national emission limitations and operating limitations for HAPs emitted from stationary spark ignition internal combustion engines (SI ICE) and stationary compression ignition internal combustion engines (CI ICE).

For the purposes of this standard, construction or reconstruction is as defined in §63.2.

Rule History

June 15, 2004: SI and CI ICE > 500 bhp at Major HAP Source

This rule was originally promulgated in June 15, 2004 (69FR 33474). The original rule regulated all new and reconstructed lean burn and rich burn stationary SI ICE and CI ICE greater than 500 bhp located at major HAP sources. Only one category of existing ICE was subject to the rule at that time: Existing 4SRB SI ICE with a horse power rating equal to or greater than 500 bhp.

For this version of the rule,

> Existing means: Construction or reconstruction commenced on or before 12/19/2002.
> New means: Construction or reconstruction commenced after 12/19/2002.

January 18, 2008: New SI & CI ICE at Area HAP Sources & New SI & CI ICE with Horse Power Rating ≤ 500 bhp at Major HAP Sources

The first round of amendments to MACT ZZZZ was promulgated on January 18, 2008 (73FR 3568). Requirements were established for new SI & CI ICE of any horse power rating located at area sources of HAPs and new SI & CI ICE with a horsepower rating less than or equal to 500 bhp at major sources of HAPs.

For this version of the rule:

> Existing means: Construction or reconstruction commenced before 6/12/2006.
> New means: Construction or reconstruction commenced on or after 6/12/2006.

March 3, 2010: Existing CI ICE at Area & Major HAP Sources

The second round of amendments to MACT ZZZZ was promulgated on March 3, 2010. New requirements were established for existing CI ICE of any horse power rating located at area sources of HAPs, existing CI RICE with a horsepower rating less than or equal to 500 bhp at major sources of HAPs, and existing non-emergency CI ICE with a horsepower rating greater than 500 bhp at major sources of HAPs.

For this version of the rule:

> Existing CI at Area Source, any bhp = Construction or reconstruction commenced before 6/12/2006.
>
> Existing CI at Major Source, bhp ≤ 500 = Construction or reconstruction commenced before 6/12/2006.
>
> Existing Non-Emergency CI at Major Source, bhp > 500 = Construction or reconstruction commenced on or before 12/19/2002.

August 20, 2010: Existing SI ICE at Area Sources & Existing SI ICE ≤ 500 bhp at Major HAP Sources

The third round of amendments to MACT ZZZZ was promulgated on August 20, 2010. New requirements were established for existing SI ICE of any horsepower rating at area sources of HAPs and existing SI ICE with a horsepower rating less than or equal to 500 bhp at major sources of HAPs.

For this version of the rule:

> Existing SI ICE at Area Source, any bhp = Construction or reconstruction commenced before 6/12/2006.
> Existing SI ICE at Major Source, bhp ≤ 500 bhp = Construction or reconstruction commenced before 6/12/2006

While engines identified above are subject to the final rule and its amendments (August 20, 2010, March 3, 2010, January 18, 2008, June 15, 2004), there are distinct requirements for each engine depending on their design, use, horsepower rating, fuel, and major or area HAP emission status.

Summary of Applicability to Engines at Major HAP Sources

Major HAP Sources			
Engine Type	**Horse Power Rating**	**New or Existing?**	**Trigger Date**
SI ICE – All[1]	≥ 500 hp	New	On or After 12/19/2002
SI ICE – 4SRB	> 500 hp	Existing	Before 12/19/2002
SI ICE – All[1]	≤ 500 hp	New	On or After 6/12/2006
SI ICE - All[1]	≤ 500 hp	Existing	Before 6/12/2006
CI ICE - All[2]	≥ 500 hp	New	On or After 12/19/2002
CI ICE – Non Emergency	> 500 hp	Existing	Before 12/19/2002
CI ICE – All[2]	≤ 500 hp	New	On or After 6/12/2006
CI ICE – All[2]	≤ 500 hp	Existing	Before 6/12/2006

1. All includes emergency ICE, limited use ICE, ICE that burn land fill gas, 4SLB, 2SLB, and 4SRB.
2. All includes emergency ICE and limited use ICE

Summary of Applicability to Engines at Area HAP Sources

Area HAP Sources			
Engine Type	**Horse Power Rating**	**New or Existing?**	**Trigger Date**
SI ICE - All[1]	All hp	New	On or After 6/12/2006
SI ICE - All[1]	All hp	Existing	Before 6/12/2006
CI ICE - All[2]	All hp	New	On or After 6/12/2006
CI ICE - All[2]	All hp	Existing	Before 6/12/2006

1. All includes emergency ICE, limited use ICE, ICE that burn land fill or digester gas, 4SLB, 2SLB, and 4SRB.
2. All includes emergency ICE and limited use ICE

Applicability of 40 CFR 63, Subpart ZZZZ to the Sambrito Compressor Station

Red Cedar provided the following information:

Table 6- NESHAP Subpart ZZZZ Applicability

Unit	Serial Number	Unit Description	Fuel	BHP	Commenced Construction, Reconstruction, or Modification Date	Startup Date	Compliance Date
CE-2100	BLB00314	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4735	12/2006	7/3/2007	Upon Startup
CE-2200	BLB00315	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4735	12/2006	7/3/2007	Upon Startup
CE-2300	BLB00425	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4735	12/2009	4/14/2010	Upon Startup
CE-2400	BLB00651	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4735	TBD After 12/19/2002	TBD	Upon Startup
CE-2500	BLB00303	Caterpillar G3616LE / 4SLB >500 bhp	Natural Gas	4735	TBD After 12/19/2002	TBD	Upon Startup
ZAN-5500	C-17113/1	Waukesha P48GL / 4SLB >500 bhp	Natural Gas	959	12/2006	7/3/2007	7/30/2009*

*Unit ZAN-5500 was previously not subject to the requirements, other than initial notification, because its emergency operation status exempted it, per 40 CFR 63.6590(b)(i). The date that the modification in hours of operation commenced, therefore, is the date the unit became subject and had to comply.

The Sambrito Compressor Station is a major source of HAP emissions. According to the information Red Cedar provided in its application, all six engines are new 4SLB RICE greater than 500 bhp, and are, therefore, subject to the major source requirements of subpart ZZZZ.

Compliance Assurance Monitoring (CAM) Rule

40 CFR Part 64: Compliance Assurance Monitoring Provisions. According to 40 CFR 64.2(a), the CAM rule applies to each Pollutant Specific Emission Unit (PSEU) at a major source that is required to obtain a part 70 or part 71 permit if the unit satisfies all of the following criteria:

1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant other than an emissions limitation or standard that is exempt under §64.2(b)(1);

"§64.2(b)(1): Exempt emission limitations or standards. The requirements of this part shall not apply to any of the following emission limitations or standards:

(i) Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to Section 111 or 112 of the Act;
(ii) Stratospheric ozone protection requirements under title VI of the Act;
(iii) Acid Rain Program requirements pursuant to Sections 404, 405, 406, 407(a), 407(b) or 410 of the Act;
(iv) Emissions limitations or standards or other applicable requirements that apply solely under an emissions trading program approved or promulgated by the Administrator under the Act that allows for trading emissions with a source or between sources;

(v) An emissions cap that meets the requirements specified in §70.4(b)(12) or §71.6(a)(13)(iii) of this chapter;

(vi) Emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination method, as defined in §64.1."

"§64.1: Continuous compliance method means a method, specified by the applicable standard or an applicable permit condition, which:

(1) Is used to determine compliance with an emission limitation or standard on a continuous basis, consistent with the averaging period established for the emission limitation or standard; and
(2) Provides data either in units of the standard or correlated directly with the compliance limit."

2) The unit uses a control device to achieve compliance with any such limit or standard; and

3) The unit has pre-control device emissions of the applicable regulated pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

The Sambrito Compressor Station has PSEUs (CE-2100, CE-2200, CE-2300, CE-2400, and CE-2500) that are subject to an emission limitation or standard, use add-on control devices to achieve compliance, and have pre-control emissions that equal or exceed 100 percent of major title V thresholds (greater than 100 tpy CO and 10 tpy CH_2O). The RICE MACT emission limitations for all five compressor engines and the NSPS JJJJ emission limitations for CE-2300 and CE-2400 are not subject to CAM requirements, because the CAM Rule exempts emission limitations required by NSPS and NESHAPs proposed after November 15, 1990.

EPA has determined that the short-term lbs/hr and g/hp-hr CO emission limits requested by the applicant for each of the five compressor engines are subject to the CAM rule. However, the work practice, operational, testing, monitoring, recordkeeping, and reporting requirements already in the permit associated with those limits satisfy the requirements of the CAM rule at 40 CFR 64.6(c) and EPA determined that no additional monitoring requirements were necessary to assure compliance. Specifically, Section IV of the permit requires the temperature of the gas at the inlet to the oxidation catalyst and the pressure drop across the oxidation catalyst, both indicators of the oxidation catalyst's proper operation, to be maintained within an optimum range specified by the manufacturer of the control equipment. The permit requires initial and quarterly performance testing of the compressor engines to demonstrate compliance with the requested emission limits, as well as performance testing of the engines each time the catalyst is changed out. Additionally, the permit requires daily monitoring of the temperature and pressure drop parametric indicators. The permit requires immediate corrective action to be taken if the parametric measurements deviate from the optimum ranges specified in the permit. The permit also requires monitoring of the CO emissions from the engines using a portable analyzer and EPA-approved portable monitoring protocol at least quarterly and each time the catalyst is

changed out. The permittee must record and report to EPA quarterly the results of all the required work practice, operational, testing, and monitoring.

Chemical Accident Prevention Program

40 CFR Part 68: Chemical Accident Prevention Provisions. This rule applies to stationary sources that manufacture, process, use, store, or otherwise handle more than the threshold quantity of a regulated substance in a process. Regulated substances include 77 toxic and 63 flammable substances which are potentially present in the natural gas stream entering the facility and in the storage vessels located at the facility. The quantity of a regulated substance in a process is determined according to the procedures presented under §68.115. §68.115(b)(l) and (2)(i) indicate that toxic and flammable substances in a mixture do not need to be considered when determining whether more than a threshold quantity is present at a stationary source if the concentration of the substance is below one percent by weight of the mixture. §68.115(b)(2)(iii) indicates that prior to entry into a natural gas processing plant, regulated substances in naturally occurring hydrocarbon mixtures need not be considered when determining whether more than a threshold quantity is present at a stationary source. Naturally occurring hydrocarbon mixtures include condensate, field gas, and produced water.

According to Red Cedar, the Sambrito Compressor Station currently has no regulated substances above the threshold quantities in this rule and therefore is not subject to the requirement to develop and submit a risk management plan. However, Red Cedar has an ongoing responsibility to submit this plan IF a substance is listed that the total source has in quantities over the threshold amount or IF the total source ever increases the amount of any regulated substance above the threshold quantity.

Stratospheric Ozone and Climate Protection

40 CFR Part 82, Subpart F: Air Conditioning Units. Based on information provided in the application, Red Cedar does not currently operate air conditioning units containing chlorofluorocarbons (CFCs) at the Sambrito Compressor Station. However, should Red Cedar perform any maintenance, service, repair, or disposal of any equipment containing CFCs, or contracts with someone to do this work, Red Cedar would be required to comply with title VI of the CAA and submit an application for a modification to this title V permit.

40 CFR Part 82, Subpart H: Halon Fire Extinguishers. Based on information provided by Red Cedar, there are no halon fire extinguishers at the Sambrito Compressor Station. However, should Red Cedar obtain any halon fire extinguishers, then it must comply with the standards of 40 CFR part 82, subpart H for halon emissions reduction, if it services, maintains, tests, repairs, or disposes of equipment that contains halons or uses such equipment during technician training. Specifically, Red Cedar would be required to comply with 40 CFR part 82 and submit an application for a modification to this title V permit.

Mandatory Greenhouse Gas Reporting

40 CFR Part 98: Mandatory Greenhouse Gas Reporting. This rule requires sources above certain emission thresholds to calculate, monitor, and report greenhouse gas emissions. According to the definition of "applicable requirement" in 40 CFR 71.2, neither 40 CFR part 98, nor CAA §§ 114(a)(1) and 208, the CAA authority under which 40 CFR part 98 was promulgated, are listed as applicable requirements for the purpose of title V permitting. Although the rule is not an applicable requirement under 40 CFR part 71, the source is not relieved from the requirement to comply with the rule separately from compliance with their part 71 operating permit. It is the responsibility of each source to determine applicability to part 98 and to comply, if necessary.

Off Permit Changes and Alternative Operating Scenarios

In response to a blanket request by Red Cedar, EPA has included language in the permit to allow for off permit replacement of individual compressor engines with new or overhauled engines, provided that each replacement engine is the same make, model, horsepower rating, configuration, has equivalent air emission controls and meets the same applicable requirements, as the engine it replaces, and provided that the provisions in the off permit changes section of the permit, specific to engine replacement, are satisfied. The primary purpose of the special provisions is to ensure the PSD, NSPS, and MACT permitting requirements are not circumvented by off permit changes. Related language is also included in the section on Alternative Operating Scenarios.

Periodic Monitoring

The *Appalachian Power* court decision held that 40 CFR 71.6(a)(3)(i) authorizes a sufficiency review of monitoring and testing in an existing emissions standard, and enhancement of that monitoring or testing through the permit, when the standard requires no periodic testing or instrumental or non-instrumental monitoring, specifies no frequency, or requires only a one-time test. Thus, EPA has authority in the federal operating permit regulation to specify additional testing or monitoring for a source to assure compliance, when existing applicable regulations do not require periodic monitoring or only require a one-time emissions test.

Because 40 CFR part 63, subpart ZZZZ requires continuous emissions monitoring and frequent testing of the subject engines, EPA determined that enhancement of the monitoring and testing was not necessary.

b. Conclusion

Since the Sambrito Compressor Station is located in Indian country, the State of Colorado's implementation plan does not apply to this source. In addition, no tribal implementation plan (TIP) has been submitted and approved for the Southern Ute Tribe, and EPA has not promulgated a federal implementation plan (FIP) for the area of jurisdiction governing the

Southern Ute Indian Reservation. Therefore, the Sambrito Compressor Station is not subject to any implementation plan.

EPA recognizes that, in some cases, sources of air pollution located in Indian country are subject to fewer requirements than similar sources located on land under the jurisdiction of a state or local air pollution control agency. To address this regulatory gap, EPA is in the process of developing national regulatory programs for preconstruction review of major sources in nonattainment areas and of minor sources in both attainment and nonattainment areas. These programs will establish, where appropriate, control requirements for sources that would be incorporated into part 71 permits. To establish additional applicable, federally-enforceable emission limits, EPA Regional Offices will, as necessary and appropriate, promulgate FIPs that will establish federal requirements for sources in specific areas. EPA will establish priorities for its direct federal implementation activities by addressing as its highest priority the most serious threats to public health and the environment in Indian country that are not otherwise being adequately addressed. Further, EPA encourages and will work closely with all tribes wishing to develop TIPs for approval under the Tribal Authority Rule. EPA intends that its federal regulations created through a FIP will apply only in those situations in which a tribe does not have an approved TIP.

4. EPA Authority

a. General Authority to Issue Part 71 Permits

Title V of the CAA requires that EPA promulgate, administer, and enforce a federal operating permits program when a state does not submit an approvable program within the time frame set by title V or does not adequately administer and enforce its EPA-approved program. On July 1, 1996 (61 FR 34202), EPA adopted regulations codified at 40 CFR 71 setting forth the procedures and terms under which the Agency would administer a federal operating permits program. These regulations were updated on February 19, 1999 (64 FR 8247) to incorporate EPA's approach for issuing federal operating permits to stationary sources in Indian country.

As described in 40 CFR 71.4(a), EPA will implement a part 71 program in areas where a state, local, or tribal agency has not developed an approved part 70 program. Unlike states, Indian tribes are not required to develop operating permits programs, though EPA encourages tribes to do so. See, e.g., Indian Tribes: Air Quality Planning and Management (63 FR 7253, February 12, 1998) (also known as the "Tribal Authority Rule"). Therefore, within Indian country, EPA will administer and enforce a part 71 federal operating permits program for stationary sources until a tribe receives approval to administer their own operating permits programs.

5. Use of All Credible Evidence

Determinations of deviations, continuous or intermittent compliance status, or violations of the permit are not limited to the testing or monitoring methods required by the underlying regulations

or this permit; other credible evidence (including any evidence admissible under the Federal Rules of Evidence) must be considered by the source and EPA in such determinations.

6. Public Participation

a. Public Notice

As described in 40 CFR 71.11(a)(5), all part 71 draft operating permits shall be publicly noticed and made available for public comment. The public notice of permit actions and public comment period is described in 40 CFR 71(d).

Public notice is given for the draft permit by mailing a copy of the notice to the permit applicant, the affected state, tribal and local air pollution control agencies, the city and county executives, the state and federal land managers and the local emergency planning authorities that have jurisdiction over the area where the source is located. A copy of the notice is provided to all persons who submitted a written request to be included on the mailing list. If you would like to be added to our mailing list to be informed of future actions on these or other CAA permits issued in Indian country, please send your name and address to the contact listed below:

Claudia Smith, Part 71 Permit Contact
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street (8P-AR)
Denver, Colorado 80202-1129

Public notice was published in the Durango Herald on December 30, 2010, giving opportunity for public comment on the draft permit and the opportunity to request a public hearing.

b. Opportunity for Comment

Members of the public were given the opportunity to review a copy of the draft permit prepared by EPA, the application, the statement of basis for the draft permit, and all supporting materials for the draft permit. Copies of these documents were available at:

La Plata County Clerk's Office
1060 East 2nd Avenue
Durango, Colorado 81302

and

Southern Ute Indian Tribe
Environmental Programs Office
205 Ouray Drive, Building #293
Ignacio, Colorado 81137

and

US EPA Region 8
Air Program Office
1595 Wynkoop Street (8P-AR)
Denver, Colorado 80202-1129

All documents were available for review at the U.S. EPA Region 8 office Monday through Friday from 8:00 a.m. to 4:00 p.m. (excluding federal holidays).

Any interested person could submit written comments on the draft part 71 operating permit during the public comment period to the Part 71 Permit Contact at the address listed above. EPA keeps a record of the commenters and of the issues raised during the public participation process.

Anyone, including the applicant, who believed any condition of the draft permit was inappropriate could raise all reasonable ascertainable issues and submit all arguments supporting their position by the close of the public comment period. Any supporting materials submitted must have been included in full and may not have been incorporated by reference, unless the material was already submitted as part of the administrative record in the same proceeding or consisted of state or federal statutes and regulations, EPA documents of general applicability, or other generally available reference material.

The 30-day public comment period ended on January 29, 2011. EPA did not receive any comments on the draft permit or Statement of Basis.

c. Opportunity to Request a Hearing

A person could submit a written request for a public hearing to the Part 71 Permit Contact, at the address listed in section 8.a above, by stating the nature of the issues to be raised at the public hearing. EPA did not receive any requests for a public hearing during the public comment period.

d. Appeal of Permits

Within 30 days after the issuance of a final permit decision, any person who filed comments on the draft permit or participated in the public hearing may petition to the Environmental Appeals Board to review any condition of the permit decision. Any person who failed to file comments or participate in the public hearing may petition for administrative review, only if the changes from the draft to the final permit decision or other new grounds were not reasonably foreseeable during the public comment period. The 30-day period to appeal a permit begins with EPA's service of the notice of the final permit decision.

The petition to appeal a permit must include a statement of the reasons supporting the review, a demonstration that any issues were raised during the public comment period, a demonstration that it was impracticable to raise the objections within the public comment period, or that the grounds for such objections arose after such a period. When appropriate, the petition may include a showing that the condition in question is based on a finding of fact or conclusion of law which is clearly erroneous; or, an exercise of discretion, or an important policy consideration which the Environmental Appeals Board should review.

The Environmental Appeals Board will issue an order either granting or denying the petition for review, within a reasonable time following the filing of the petition. Public notice of the grant of review will establish a briefing schedule for the appeal and state that any interested person may file an amicus brief. Notice of denial of review will be sent only to the permit applicant and to the person requesting the review. To the extent review is denied, the conditions of the final permit decision become final agency action.

A motion to reconsider a final order shall be filed within 10 days after the service of the final order. Every motion must set forth the matters claimed to have been erroneously decided and the nature of the alleged errors. Motions for reconsideration shall be directed to the Administrator rather than the Environmental Appeals Board. A motion for reconsideration shall not stay the effective date of the final order unless it is specifically ordered by the Board.

e. Petition to Reopen a Permit for Cause

Any interested person may petition EPA to reopen a permit for cause, and EPA may commence a permit reopening on its own initiative. EPA will only revise, revoke and reissue, or terminate a permit for the reasons specified in 40 CFR 71.7(f) or 71.6(a)(6)(i). All requests must be in writing and must contain facts or reasons supporting the request. If EPA decides the request is not justified, it will send the requester a brief written response giving a reason for the decision. Denial of these requests is not subject to public notice, comment, or hearings. Denials can be informally appealed to the Environmental Appeals Board by a letter briefly setting forth the relevant facts.

f. Notice to Affected States/Tribes

As described in 40 CFR 71.11(d)(3)(i), public notice was given by mailing a copy of the notice to the air pollution control agencies of affected states, tribal and local air pollution control agencies which have jurisdiction over the area in which the source is located, the chief executives of the city and county where the source is located, any comprehensive regional land use planning agency and any state or federal land manager whose lands may be affected by emissions from the source. The following entities were notified:

State of Colorado, Department of Public Health and Environment
State of New Mexico, Environment Department
Southern Ute Indian Tribe, Environmental Programs Office

Ute Mountain Ute Tribe, Environmental Programs
Navajo Tribe, Navajo Nation EPA
Jicarilla Tribe, Environmental Protection Office
La Plata County, County Clerk
Town of Ignacio, Mayor
National Park Service, Air, Denver, CO
U.S. Department of Agriculture, Forest Service, Rocky Mountain Region
San Juan Citizen Alliance
Carl Weston
WildEarth Guardians
La Plata County Assessor

Appendix

Calculations for Development of CO Emission Limits

Appendix

Calculations for Development of Synthetic Minor CO Limits

Red Cedar Gathering Company, Sambrito Compressor Station
Part 71 Operating Permit Significant Modification

1. Development of Annual Facility-Wide CO Emission Cap

The facility-wide CO cap must be sufficiently below the PSD major stationary source threshold of 250 tpy to account for all the uncertainties in emission estimation, for both the controlled and uncontrolled emitting units. Past precedence in Region 8 for facility-wide emission caps is 5 to 8 % below the 250 tpy threshold. Past precedence in Region 8 specifically for facility-wide CO emission caps is 8% below the 250 tpy threshold, or 230 tpy.

250 tpy * 0.08 = 20 tpy
250 tpy – 20 tpy = 230 tpy

Restrict CO to Below 230 tpy

2. Development of Revised Short-Term CO Emission Limits to Include 2 New Engines

(to ensure compliance with facility-wide CO emission cap of 230 tpy)

Because the 230 tpy facility-wide CO cap cannot be raised any in order to keep with past precedence of 8% below the 250 tpy threshold, in order to accommodate requested synthetic minor CO limits for two new engines, the short-term synthetic minor CO limits currently permitted for the existing engines must be tightened.

Red Cedar specifically requested in the part 71 significant modification application the following revised CO emission limitations to account for addition of the two new compressor engines:

CE-2100, CE-2200, CE-2300, CE-2400, CE-2500

0.8 g/bhp-hr

8.35 lbs/hr

Which calculates to:

0.8 g/bhp-hr / 2.5 g/bhp-hr = 0.32, or 32% = 100% - 32% = **68% CO reduction**

$$\frac{0.8\ g}{bhp\text{-}hr} * 4735\ bhp * \frac{1\ ton}{908{,}000\ g} * \frac{8760\ hrs}{1\ yr} = \mathbf{36.6\ tpy}$$

Appendix

8.35 lbs/hr / 26.1 lbs/hr = 0.32, or 32% = 100% - 32% = **68% CO reduction**

$$\frac{8.35\ \text{lbs}}{\text{hr}} * \frac{1\ \text{ton}}{2000\ \text{lbs}} * \frac{8760\ \text{hrs}}{1\ \text{yr}} = \textbf{36.6 tpy}$$

ZAN-2300

No change from limits developed by EPA for initial part 71 permit (#V-SU-0049-08.00)

5.8 tpy reduction

16.2 tpy – 5.8 tpy = 10.4 tpy

Percent reduction: 5.8/16.2 = 0.358, or **35.8%**

$$\frac{10.4\ \text{tons}}{1\ \text{yr}} * \frac{1\ \text{yr}}{365\ \text{days}} * \frac{1\ \text{day}}{24\ \text{hrs}} * \frac{2{,}000\ \text{lbs}}{1\ \text{ton}} = \textbf{2.4 lbs/hr}$$

$$\frac{2.4\ \text{lbs}}{1\ \text{hr}} * \frac{453.6\ \text{g}}{1\ \text{lb}} * \frac{1}{959\ \text{bhp}} = \textbf{1.1 g/bhp-hr}$$

Will Requested Revised CO Emission Limits Keep Facility Wide CO Below 230 tpy?

CO Uncontrolled PTE:

CE-2100 – 114.3 tpy
CE-2200 – 114.3 tpy
CE-2300 – 114.3 tpy
CE-2400 – 114.3 tpy
CE-2500 – 114.3 tpy
ZAN-2300 – 16.2 tpy
IEUs – 0.89 tpy
Facility Total – 588.6 tpy
Engines Only Total – 571.5 tpy

Facility-Wide CO Control (tpy) needed to be below 230 tpy if only control is emissions from the engines:

571.5 tpy – 230 tpy = 341.5 tpy, so at least 341.6 tpy control needed to stay below 230 tpy.

Individual engine CO control proposed:

ZAN-2300

5.8 tpy CO reduction

Appendix

CE-2100, CE-2200, CE-2300, CE-2400, CE-2500

Uncontrolled PTE is 114.3 tpy each. 0.8 g/bhp-hr calculates to 36.6 tpy controlled CO emissions and 8.35 lbs/hr calculates to 36.6 tpy controlled CO emissions.

g/bhp-hr limit

114.3 tpy – 36.6 tpy = 77.7 tpy CO reduction each compressor engine

77.7 tpy * 5 = 388.5 tpy reduction total for 5 compressor engines

5.8 tpy + 388.5 tpy = **394.3 tpy total reduction from engines with requested g/bhp-hr limit**

lbs/hr limit

114.3 tpy – 36.6 tpy = 77.7 tpy CO reduction each compressor engine

77.7 tpy * 5 = 388.5 tpy reduction total for 5 compressor engines

5.8 tpy + 388.5 tpy = **394.3 tpy total reduction from engines with requested lbs/ hr emission limit**

Therefore, since only 341.5 tpy CO reduction is needed to stay below 230 tpy, both short-term emission limits requested by Red Cedar are adequate to ensure compliance with the 230 tpy facility-wide CO cap and EPA has drafted the significantly modified permit with those proposed short-term emission limits.