



CONSTRUCTION PERMIT

Permit number: **04PB0822** Issuance: **5**

Date issued: May 20, 2019

Issued to: **Bechtel National, Inc.**

Facility Name: Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP)
Plant AIRS ID: 101/0004
Physical Location: 45825 Highway 96 East
County: Pueblo
General Description: The intent of the operations of this facility is to reduce "mustard agent", HD (bis(2-chloroethyl) sulfide), to inconsequential volumes and to destroy the main volumes of this toxic material either by the use of high pressure water wash or thermal treatment. The wash water is then put through the Agent Neutralization System and reduced to components which are less hazardous. A portion of the munitions will be thermally treated in one of three (3) closed detonation chambers. In all cases where the CDPHE Hazardous Materials Division (HazMat) has developed a limit on Air Pollution Control Division (APCD) Criteria or Hazardous Air Pollutants which is lower than those referenced in the APCD permit the HazMat permit limit shall supersede the APCD limit

Equipment or activity subject to this permit:

Facility Equipment ID	AIRS Point	Description
Agent Draining and neutralization	073	Agent Draining and Neutralization - drain chemical agent from munition bodies, store and treat agent in assorted tanks.
Munitions Treatment Units	075	Munitions Treatment Units - heat treat munition bodies for off-site release.
Steam Boilers	082	Two (2) English, Model: DS Industrial, DS-200-50 steam boilers, Serial Numbers: 26.068-1 and 26-068-2, Each design rated at 60.4 MMbtu/hour to provide hot water for processes.
Three (3) Static Detonation Chambers	090	Three static detonation chambers (SDC) units 1, 2 and 3 Manufacturer: Dynasafe, Model number PKP SDC 1200 Destruction by indirect heating of conventional munitions, energetic components, and chemical agent filled munitions. The SDC units will be built and brought on line in sequence.

Facility Equipment ID	AIRS Point	Description
This is a facility-wide permit covering the equipment and activities outlined in Attachment A for the PCAPP permit. For purposes of facility classification PCAAP and the Pueblo Chemical Depot (PCD) are a single source facility.		
The engines described in this permit may be replaced with another engine in accordance with the temporary engine replacement provision or with another engine of the same make and model as described in this permit in accordance with the permanent replacement provision of the Alternate Operating Scenario (AOS), included in this permit as Attachment B.		

THIS PERMIT IS GRANTED SUBJECT TO ALL RULES AND REGULATIONS OF THE COLORADO AIR QUALITY CONTROL COMMISSION AND THE COLORADO AIR POLLUTION PREVENTION AND CONTROL ACT C.R.S. (25-7-101 et seq), TO THOSE GENERAL TERMS AND CONDITIONS INCLUDED IN THIS DOCUMENT AND THE FOLLOWING SPECIFIC TERMS AND CONDITIONS:

REQUIREMENTS TO SELF-CERTIFY FOR FINAL APPROVAL

1. **Point 090: YOU MUST** notify the Air Pollution Control Division (Division) no later than fifteen days after commencement of operation of each Static Detonation Chamber (Units 1, 2 and 3) under this permit by submitting a Notice of Startup (NOS) form to the Division. The Notice of Startup (NOS) form may be downloaded online at <https://www.colorado.gov/pacific/cdphe/other-air-permitting-notice>. Failure to notify the Division of startup of the permitted source is a violation of AQCC Regulation Number 3, Part B, III.G.1 and can result in the revocation of the permit.
2. Within one hundred and eighty days (180) after commencement of operation of each SDC unit listed under AIRS point 090, compliance with the conditions contained on this permit must be demonstrated to the Division. It is the permittee's responsibility to self certify compliance with the conditions. Failure to demonstrate compliance within 180 days may result in revocation of the permit or enforcement action by the Division. Information on how to certify compliance was mailed with the permit or can be obtained from the Division's website at <https://www.colorado.gov/pacific/cdphe/air-permit-self-certification>. (Reference: Regulation Number 3, Part B, III.G.2).
3. This permission to construct and operate the Static Detonation Chambers (units 1, 2, and 3) under AIRS point 090 will expire if the owner or operator of the source for which this permit was issued: (i) does not commence construction/modification or operation of one or more of the Static Detonation Chambers (AIRS point 090) within 18 months after either, the date of issuance of this construction permit or the date on which such construction or activity was scheduled to commence as set forth in the permit application associated with this permit; (ii) discontinues construction for a period of eighteen months or more; (iii) does not complete construction within a reasonable time of the estimated completion date. The Division may grant extensions of the deadline per Regulation Number 3, Part B, III.F.4.b. (Reference: Regulation Number 3, Part B, III.F.4.)
4. Point 090: Within one hundred and eighty days (180) after commencement of operation of each SDC unit under AIRS point 090, the operator must complete all initial compliance testing and sampling as required in this permit and submit the results to the Division as part of the self-certification process. (Reference: Regulation Number 3, Part B, III.G.2.)

5. The owner or operator must modify the current operating and maintenance (O&M) plan to include the new equipment added in this permit modification (AIRS ID 090). The O&M plan must include a recordkeeping format that outlines how the applicant will maintain compliance on an ongoing basis with the requirements of this permit. Compliance with the O&M plan must commence at startup. Within ninety days (90) after commencement of operation or issuance of this permit, whichever is later, the owner or operator must submit the O&M plan to the Division. Failure to submit an acceptable operating and maintenance plan could result in revocation of the permit. Note that the Division may modify the monitoring requirements as part of the Title V Operating Permit if this facility is subject to Title V permitting (Reference: Regulation Number 3, Part B, III.G.7.).
6. Within thirty (30) days after commencement of operation of each SDC unit, the AIRS ID number must be marked on the subject equipment for ease of identification. (Reference: Regulation Number 3, Part B, III.E.) (State only enforceable).
7. Point 090: The serial number(s) of the subject equipment must be provided to the Division within one hundred and eighty days (180) after commencement of operation of each SDC unit. (Reference: Regulation Number 3, Part B, III.G.2.)

EMISSION LIMITATIONS AND RECORDS

8. In all cases where the CDPHE - Hazardous Materials Division has developed a limit on Air Pollution Control Division Criteria or Hazardous Air Pollutants which is lower than those referenced in the APCD Permit, the Hazardous Materials limit shall supersede the APCD limit.
9. Emissions of Criteria Pollutants and HAPs from all insignificant activities together with the permit limits for the Pueblo Chemical Depot (PCD), covered by permit 95PB901, and the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP), shall be combined for determination of major source thresholds for Operating Permit purposes. The applicant must track all emissions of Criteria Pollutants and HAPs from all insignificant activities on a yearly basis. This information must be made available to the Division for inspection upon request. For the purposes of this condition, insignificant activities shall be defined as any activity or equipment that emits any amount but does not require an Air Pollutant Emission Notice (APEN). Tracking of insignificant sources is required to contain the emissions from both the PCD and PCAAP as additive emissions.
10. Emissions of air pollutants must not exceed the following limitations. Monthly records of the actual emission rates must be maintained by the applicant and made available to the Division for inspection upon request. (Reference: Regulation Number 3, Part B, II.A.4.)

Annual Limits:

Facility Equipment ID	AIRS Point	Tons per Year							Emission Type
		PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	VOC	CO	
Agent Draining and neutralization	073	--	--	--	--	--	0.2	--	Point
Munitions Treatment Units	075	--	--	--	--	1.3	0.5	--	Point
Steam Boilers	082	2.6	2.6	2.6	9.6	1.7	1.3	10.6	Point

Three (3) Static Detonation Chambers	090	0.3	0.3	0.3	4.5	0.6	0.3	1.2	Point
TOTAL	Point	2.9	2.9	2.9	14.1	3.6	2.3	11.8	

See “Notes to Permit Holder” for information on emission factors and methods used to calculate limits.

Compliance with the annual limits, for both criteria and hazardous air pollutants, must be determined on a rolling twelve (12) month total. By the end of each month a new twelve month total is calculated based on the previous twelve months’ data. The permit holder must calculate actual emissions each month and keep a compliance record on site or at a local field office with site responsibility for Division review.

The owner or operator must use the emission factors found in “Notes to Permit Holder and/or Attachment A” to calculate emissions and show compliance with the limits. The owner or operator must submit an Air Pollutant Emission Notice (APEN) and receive a modified permit prior to the use of any other method of calculating emissions.

- The following control equipment must be maintained and operated to ensure satisfactory performance. The owner or operator must monitor compliance with this condition through the results of approved compliance tests (when required), compliance with the Operating and Maintenance Plan, compliance records, and other methods as approved by the Division. (Reference: Regulation Number 3, Part B, III.E.)

Facility Equipment ID	AIRS Point	Control Device	Controlled Pollutants
Agent Draining and neutralization	073	Main plant OTS (off-gas treatment system) and AFA (Agent Filter Area)	VOC
Munitions Treatment Units	075	Main plant OTS (off-gas treatment system) and AFA (Agent Filter Area)	PM, VOC, HAPs
Steam Boilers	082	Lo NOx burner and Flue Gas Recirculation	NOx
Static Detonation Chambers	090	SDC OTS (off-gas treatment system)	PM, VOC, HAPs

Note:

All exhaust gases from the agent draining, neutralization (AIRS 073), and thermal treatment processes (AIRS 075) associated with the main plant are collected in one common exhaust stream and pass through one Off-Gas Treatment System (OTS) which is located in the Agent Processing Building (APB). This first step in this OTS consists of an electric preheater followed by a bulk oxidizer which is designed to destroy agent by oxidation. The second step of the OTS consists of a venturi/scrubber tower. A solution of sodium hydroxide and water is used in the scrubber tower. This caustic solution will hydrolyze agent vapor, neutralize acid gases, and remove particulate matter and sulfur oxides. The exhaust gases from the scrubber tower pass through blowers that discharge to the Agent Filter Area (AFA). The AFA is located outside the APB and is the final treatment step before the exhaust stream is discharged to the atmosphere.

The AFA serves as a pollution control device filtering agent, VOCs and particulate matter that is mixed with the tempered air being exhausted from the Enhanced Reconfiguration Building (ERB) and the Agent Processing Building (APB). Each of the AFA's ten filter units consists of nine filters. The first filter is a particulate matter pre-filter for removal of large particulates from the exhaust stream. The second filter is a High-Efficiency Particulate Air (HEPA) filter for removal of fine particles for protection of the activated charcoal filters that follow. The third filter is a charcoal filter for the removal of the agent vapor and VOCs. The next five filters are charcoal filters that function as backup in the event of saturation or a breakthrough of the first charcoal filter. The final filter is another HEPA filter for the purpose of collecting any fine particles that may erode from the charcoal filters.

The SDC Off Gas Treatment System (AIRS 090) consists of all of the following 1) thermal oxidizer, 2) spray dryer, 3) bag house, 4) acid and neutral scrubbers, 5) moisture condenser, 6) reheater and 7) lonex filter with HEPA and GAC filters.

PROCESS LIMITATIONS AND RECORDS

12. This source must be limited to the following maximum consumption, processing and/or operational rates as listed below. Monthly records of the actual process rate must be maintained by the applicant and made available to the Division for inspection upon request. (Reference: Regulation Number 3, Part B, II.A.4)

Process/Consumption Limits

Facility Equipment ID	AIRS Point	Process Parameter	Annual Limit
Agent Draining and neutralization	073	Chemical Agent drained and neutralized	3,281 tons
		Munitions Bodies	25,776 tons
		MWS Wash Water	5,256,000 gallons
Munitions Treatment Units	075	Munitions bodies	22,659 tons
		Treated Munition	22,495 tons
Steam Boilers	082	Natural Gas consumption	530,734,800 scf
		#2 Diesel fuel	40,637 gallons
Static Detonation Chambers (SDC) (3 Units)	090	Chemical Agent destroyed by pyrolysis	315 tons per SDC (945 tons total)
		Natural Gas (based on 1020 BTU/scf)	37MM scf per SDC (111 MM scf total)

Compliance with the yearly process limits must be determined on a rolling twelve (12) month total. By the end of each month a new twelve-month total is calculated based on the previous twelve months' data. The permit holder must calculate monthly process rates and keep a compliance record on site or at a local field office with site responsibility, for Division review.

STATE AND FEDERAL REGULATORY REQUIREMENTS

13. Visible emissions must not exceed twenty percent (20%) opacity during normal operation of the source. During periods of startup, process modification, or adjustment of control equipment visible emissions must not exceed 30% opacity for more than six minutes in any sixty consecutive minutes. Opacity must be determined using EPA Method 9. (Reference: Regulation Number 1, II.A.1. & 4.)
14. This source is subject to the odor requirements of Regulation Number 2. (State only enforceable)
15. This source is subject to the provisions of Regulation No. 3, Part C, Operating Permits (Title V of the 1990 Federal Clean Air Act Amendments). The application for the Operating Permit is

due within one year of the earliest commencing operation of any piece of equipment covered by AIRS point 090 (Reference: 63.1200(a)(2)).

16. AIRS ID 082 is subject to the New Source Performance Standards requirements of Regulation Number 6, Part A , Subpart Dc , Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units including, but not limited to, the following:
[The requirements below reflect the rule language of 40 CFR Part 60 Subpart Dc published in the Federal Register on 2/16/12. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart Dc.]
- a. Reporting and record keeping requirements. (Reference: §60.48c)
 - b. No owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. (Reference: §60.42c(d))
 - c. No owner or operator of an affected facility that combusts distillate oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. (Reference: §60.43c(c))
 - d. Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, diesel fuel oil numbers 1 or 2, kerosene, biodiesel, or biodiesel blends. (Reference: §60.41c)
 - e. Fuel supplier certification records shall be kept for each delivery of distillate fuel oil to be used in the boiler. Fuel supplier certification shall include the name of the oil supplier, the type of oil, and maximum sulfur content of the oil. (Reference: §60.42c(h), §60.48c(f))
 - f. After the initial opacity compliance tests, the owner or operator shall conduct subsequent Method 9 performance tests using the one of the following procedures of this section, as determined by the most recent Method 9 performance test results. (Reference: §60.47c)
 - (1) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard (distillate oil) is combusted, whichever is later; (Reference: §60.47c(a)(1)(i))
 - i) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted (distillate oil), whichever is later; (Reference: §60.47c(a)(1)(ii))
 - ii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel

with an opacity standard is combusted, whichever is later; or (Reference: §60.47c(a)(1)(iii))

iii) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted. (Reference: §60.47c(a)(1)(iv))

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the owner or operator may, as an alternative to performing subsequent Method 9 performance tests, elect to perform subsequent monitoring using Method 22 according to the procedures specified in paragraphs (i) and (ii) of this section.

i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard (distillate oil) is applicable using Method 22 and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.*, 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.*, 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.*, 90 seconds) or conduct a new Method 9 performance test using the procedures in section (f) within 45 calendar days according to the requirements in §60.45c(a)(8). (Reference: §60.47c(a)(2)(i))

ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed. (Reference: §60.47c(a)(2)(ii))

(3) If the affected facility that burns only gaseous fuels and/or distillate fuel that contain no greater than 0.5 weight percent sulfur, then the owner or operator can operate the unit according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under §60.48c(c). (Reference: §60.47c(f)(3))

g. The owner or operator of each affected facility subject to the SO₂ emission limits and fuel oil sulfur limits under §60.42c shall submit reports to the Division. The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Division, shall be postmarked by the 30th day following the end of the reporting period, and shall include: (Reference: §60.48c(d), §60.48c(j))

(1) Calendar dates covered in the reporting period;

- (2) Records of fuel supplier certifications; and
- (3) A certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

17. The Static Detonation Chambers (AIRS ID 090) are subject to the requirements of National Emission Standards for Hazardous Wastes requirements of Regulation Number 8, Part E, Subpart EEE, National Emission Standards for Hazardous Air Pollutants for Source Category: Hazardous Waste Combustors, 40 C.F.R. Part 63, Subpart EEE (July 1, 2017) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 63 Subpart EEE published in the Federal Register on 9/30/1999 and numerous updates. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 63, Subpart EEE.]

Notification Requirements

- A. The owner or operator must meet all applicable notification requirements as listed in MACT Subpart EEE. (Reference: 63.1200 - 63.1221)

Emission limitations

- B. AIRS ID 090 must not discharge or cause combustion gases to be emitted into the atmosphere that contain: (Reference: 63.1219 (b))

- (1) Dioxins and furans in excess of 0.11 ng TEQ/dscm corrected to 7 percent oxygen for incinerators equipped with either a waste heat boiler or dry air pollution control system;
- (2) Mercury in excess of 8.1 µgm/dscm, corrected to 7 percent oxygen;
- (3) Cadmium and lead in excess of 10 µgm/dscm, combined emissions, corrected to 7 percent oxygen;
- (4) Arsenic, beryllium, and chromium in excess of 23 µgm/dscm, combined emissions, corrected to 7 percent oxygen;

- (5) For carbon monoxide and hydrocarbons, either:

- (i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen.

(If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard below, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane) OR

- (ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrogen chloride and chlorine gas in excess of 21 parts per million by volume, combined emissions, expressed as a chloride (Cl⁻) equivalent, dry basis and corrected to 7 percent oxygen.

(7) Particulate matter emissions in excess of 0.0016 gr/dscf corrected to 7 percent oxygen.

Destruction and Removal Efficiency

C. Destruction and removal efficiency (DRE) standard must be at least 99.99% for each principle organic hazardous constituent (POHC). DRE for each POHC must be calculated from the following equation: (Reference: 63.1219 (c))

$$\text{DRE} = [1 - (\text{Wout} / \text{Win})] \times 100\%$$

Where:

Win = mass feedrate of one POHC in a waste feedstream; and

Wout = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

Monitoring Requirements

D. For each SDC unit:

- (1) Install, maintain, and operate, continuous emission monitors (CEMs) for the following:
(Reference: 63.1209)(a)
 - (i) Either Carbon monoxide or Hydrocarbons;
 - (ii) Oxygen - this unit must be used to correct the carbon monoxide or hydrocarbon level to 7 percent oxygen
 - (iii) Particulate Matter
- (2) Install, maintain, and operate continuous monitoring systems (thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits (Reference: 63.1209)(b))

OPERATING & MAINTENANCE REQUIREMENTS

18. The owner or operator must modify the current operating and maintenance (O&M) plan to include the new equipment added in this permit modification (AIRS ID 090). The O&M plan must include a recordkeeping format that outlines how the applicant will maintain compliance on an ongoing basis with the requirements of this permit. Compliance with the O&M plan must commence at startup. Within ninety days (90) after commencement of operation or issuance of this permit, whichever is later, the owner or operator must submit the O&M plan to the Division. Failure to submit an acceptable operating and maintenance plan could result in revocation of the permit. Note that the Division may modify the monitoring requirements as part of the Title V Operating Permit if this facility is subject to Title V permitting (Reference: Regulation Number 3, Part B, III.G.7.).

COMPLIANCE TESTING AND SAMPLING

Initial Testing Requirements

19. Within 180 days of startup of each SDC unit (AIRS point 090), the owner or operator must demonstrate compliance with Condition 13, using EPA Method 9 to measure opacity from the SDC/OTS (for SDC Units 1, 2, and 3). This measurement must consist of a minimum

twenty-four consecutive readings taken at fifteen second intervals over a six minute period. (Reference: Regulation Number 1, II.A.1 & 4)

20. A source initial compliance test must be conducted as listed below, on each static detonation chamber (AIRS ID 090), to show compliance with the requirements of Regulation Number 8, Part E, Subpart EEE National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Combustors and the emission limits as listed in condition 17.

The test protocol must be in accordance with the requirements of the Air Pollution Control Division Compliance Test Manual and must be submitted to the Division for review and approval at least thirty (30) days prior to testing. No compliance test must be conducted without prior approval from the Division. Any compliance test conducted to show compliance with a monthly or annual emission limitation must have the results projected up to the monthly or annual averaging time by multiplying the test results by the allowable number of operating hours for that averaging time (Reference: Regulation Number 3, Part B., III.G.3)

Each comprehensive performance test must be performed within six months of the commencement of operations for the corresponding SDC unit. (Reference: 63.1207(c)(1))

- To demonstrate compliance with each emission limits in condition 17B.1-7
- Establish limits for the operating parameters provided by §63.1209
- Demonstrate compliance with the performance specifications for continuous monitoring systems. 63.1207(b)(1)
- Destruction and Removal Efficiency (DRE) to demonstrate compliance with condition 17.C
- Using EPA approved methods as listed below (63.1208(b)).

Comprehensive testing required methods

Pollutant	Required Method(s)	Reference
Dioxins and Furans (D/F)	0023 A (OR) Method 23 (with approval)	EPA SW 846 Part 60 Appendix A-7
Hg	Method 29	Part 60 Appendix A-8
Cd and Pb		
As, Be, Cr		
HCl and Cl	26/26A	Part 60 Appendix A-8
	320/321	Part 63 Appendix A
	ASTM D6735-01 and 26/26A	ASTM

Periodic Testing Requirements

21. Point 090 The Static Detonation Chamber units are subject to the periodic testing requirements of 40 C.F.R Part 63, Subpart EEE as referenced in Condition 17. Comprehensive performance tests -must be performed within 61 months after the date of commencing the previous comprehensive performance test (§63.1207(d)(1))
- To demonstrate compliance with each emission limits in condition 17B. 1 - 7
 - Establish limits for the operating parameters provided by §63.1209

- Demonstrate compliance with the performance specifications for continuous monitoring systems. 63.1207(b)(1)

22. Confirmatory testing is required to

- Demonstrate compliance with the D/F emission standard when the source operates under normal operating conditions
- Conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the D/F emission standard under section §63.1209:

Confirmatory performance testing must commence no later than 31 months after the date of commencing the previous comprehensive performance testing. Testing must be completed within 60 days after the date of commencement. (Reference: 63.1207(d)(2 and 3))

23. Replacements of any diesel engine completed as Alternative Operating Scenarios may be subject to additional testing requirements as specified in Attachment B.

24. No other periodic testing is required by the Air Pollution Control Division.

ADDITIONAL REQUIREMENTS

25. All previous versions of this permit are cancelled upon issuance of this permit.

26. The AIRS ID number must be marked on the subject equipment for ease of identification. (Reference: Regulation Number 3, Part B, III.E.) (State only enforceable)

27. The terms, conditions and information contained in Attachments A and B are hereby incorporated into this permit and are enforceable as if fully set forth herein including, but not limited to, emission point description, emission factor summary, emission limits or other limitations, controls, and specific requirements. (Reference: Regulation Number 3, Part B III.E.)

28. A Revised Air Pollutant Emission Notice (APEN) must be filed: (Reference: Regulation Number 3, Part A, II.C.)

- a. By April 30 of the year following a significant increase in emissions. A significant increase in emissions is defined as follows:

For any criteria pollutant:

For sources emitting **less than 100 tons per year**, a change in actual emissions of five tons per year or more, above the level reported on the last APEN submitted; or

For volatile organic compounds (VOC) and nitrogen oxide (NOx) sources in an ozone non-attainment area emitting **less than 100 tons of VOC or nitrogen oxide per year**, a change in actual emissions of one ton per year or more or five percent, whichever is greater, above the level reported on the last APEN submitted; or

For sources emitting **100 tons per year or more of a criteria pollutant**, a change in actual emissions of five percent or 50 tons per year or more, whichever is less, above the level reported on the last APEN submitted; or

For sources emitting **any amount of lead**, a change in actual emissions, above the level reported on the last APEN submitted, of fifty (50) pounds of lead

For any non-criteria reportable pollutant:

If the emissions increase by 50% or five (5) tons per year, whichever is less, above the level reported on the last APEN submitted to the Division.

- b. Whenever there is a change in the owner or operator of any facility, process, or activity; or
 - c. Whenever new control equipment is installed, or whenever a different type of control equipment replaces an existing type of control equipment; or
 - d. Whenever a permit limitation must be modified; or
 - e. No later than 30 days before the existing APEN expires.
29. This permit and any attachments must be retained and made available for inspection upon request. The permit may be reissued to a new owner by the Division as provided in Regulation Number 3, Part B, II.B upon a request for transfer of ownership and the submittal of a revised APEN and the required fee.

GENERAL TERMS AND CONDITIONS:

30. If this permit specifically states that final approval has been granted, then the remainder of this condition is not applicable. Otherwise, the issuance of this construction permit is considered initial approval and does not provide "final" approval for this activity or operation of this source. Final approval of the permit must be secured from the APCD in writing in accordance with the provisions of 25-7-114.5(12)(a) C.R.S. and AQCC Regulation Number 3, Part B, III.G. Final approval cannot be granted until the operation or activity commences and has been verified by the APCD as conforming in all respects with the conditions of the permit. Once self-certification of all points has been reviewed and approved by the Division, it will provide written documentation of such final approval. **Details for obtaining final approval to operate are located in the Requirements to Self-Certify for Final Approval section of this permit.** The operator must retain the permit final approval letter issued by the Division after completion of self-certification with the most current construction permit.
31. This permit is issued in reliance upon the accuracy and completeness of information supplied by the applicant and is conditioned upon conduct of the activity, or construction, installation and operation of the source, in accordance with this information and with representations made by the applicant or applicant's agents. It is valid only for the equipment and operations or activity(ies) specifically identified in this permit. If subsequent operations or testing at the source indicate the information supplied to obtain this permit and relied upon in the creation and issuance of this permit is inaccurate, the source must submit an application to modify the permit to address the inaccuracy(ies). (Reference: Regulation Number 3, Part B III.E.)

By: 

Michael Harris, P. E.
Permit Engineer

By: 

R K Hancock III, P.E.
Construction Permits Unit Supervisor

Permit History

Issuance	Date	Description
Issuance #5	This Issuance	Issued to Bechtel National, Inc. Addition of three (3) Static Detonation Chambers (SDCs) for destruction of ordnance and chemical agents (AIRS point 090). Add Title V requirement from MACT subpart EEE. Update permit to current format.
Issuance 4	June 25, 2018	Issued to Bechtel National, Inc. Corrections to tables and emission values per PCAPP review. Issued as Final Approval
Issuance 3	January 19, 2017	Issued to Bechtel National, Inc. Issued to correct emissions of NCRPs to incorporate the most recent APEN values. Issued as Final Approval
Issuance 2	December 8, 2016	Issued to Bechtel National, Inc. This issuance incorporates the equipment and conditions from permit 10PB1075 to create a facility wide permit. Changes in throughputs have reduced emissions and allowed some of the equipment to be defined as Exempt (see exemption list). Issued as Final Approval
Issuance 1	May 18, 2005	Issued to Bechtel National, Inc.

Notes to Permit Holder (as of date of permit issuance):

- 1) The production or raw material processing limits and emission limits contained in this permit are based on the production/processing rates requested in the permit application. These limits may be revised upon request of the permittee providing there is no exceedence of any specific emission control regulation or any ambient air quality standard. A revised air pollutant emission notice (APEN) and application form must be submitted with a request for a permit revision. (Reference: Regulation Number 3, Part B II.A.4.)
- 2) This source is subject to the Common Provisions Regulation Part II, Subpart E, Affirmative Defense Provision for Excess Emissions During Malfunctions. The permittee must notify the Division of any malfunction condition which causes a violation of any emission limit or limits stated in this permit as soon as possible, but no later than noon of the next working day, followed by written notice to the Division addressing all of the criteria set forth in Part II.E.1. of the Common Provisions Regulation. See: <https://www.colorado.gov/pacific/cdphe/aqcc-regs>.
- 3) The following emissions of non-criteria reportable air pollutants are estimated based upon the process limits as indicated in this permit. This information is listed to inform the operator of the Division's analysis of the specific compounds emitted if the source(s) operate at the permitted limitations.

AIRS Point	Pollutant	CAS #	Uncontrolled Emission Rate (lb/yr)	Are the emissions reportable?	Controlled Emission Rate (lb/yr)
073	1, 2, dichloroethane	107-06-2	365	YES	365
	HD (bis(2-chloroethyl) sulfide	505-60-2	237	NO	0.07
	Vinyl Chloride	75-01-4	3,700	YES	1,800

075	HD (bis(2-chloroethyl) sulfide	505-60-2	328,500	YES	92
079	ammonia	7664-41-7	8,030	YES	8,030
090	HD (bis(2-chloroethyl) sulfide	505-60-2	240	NO	240

4) The emission levels contained in this permit are based on the following emission factors:

Point 073: Agent draining and neutralization

CAS	Pollutant	Emission Factors - Uncontrolled		Control Efficiency (%)
		lb/day	Source	
	VOC	1.1000	Mass Balance	0.0
107-06-2	1, 2, dichloroethane	1.0000	ABCDF (1)	0.0
505-60-2	HD (bis(2-chloroethyl) sulfide	0.6500	Mass Balance	99.972
75-01-4	Vinyl Chloride	0.0079	ABCDF	0.0

(1) Aberdeen Chemical Agent Destruction Facility (ABCDF)

Point 075: Munitions Treatment Units

CAS	Pollutant	Emission Factors - Uncontrolled		Control Efficiency (%)
		lb/day	Source	
	PM	62.0000	Mass Balance	99.9
	PM10	62.0000	Mass Balance	99.9
	PM2.5	62.0000	Mass Balance	99.9
	SO ₂	360.0000	Mass Balance	99.9
	VOC	2.8000	Mass Balance	0
505-60-2	HD (bis(2-chloroethyl) sulfide	900.0000	Mass Balance	99.972

Point 082, Natural Gas: Boilers

Pollutant	Emission Factors - Uncontrolled	
	lb/MMbtu	Source
PM	0.0100	Vendor Data
NO _x	0.0360	Vendor Data
SO ₂	0.00059	AP-42
CO	0.0400	Vendor Data
VOC	0.0050	Vendor Data

Point 082, Diesel: Boilers

Pollutant	Emission Factors - Uncontrolled	
	lb/MMbtu	Source
PM	0.0250	Mfr
NO _x	0.1860	Mfr
SO ₂	0.6000	Vendor Data
CO	0.0700	Mfr
VOC	0.0050	Mfr

Point 090: Static Detonation Chambers (3)

CAS	Pollutant	Emission Factors - Uncontrolled		Control Efficiency (%)
		lb/day	Source	
	PM10	1.6438	Eng. Estimate (1)	99.9
	PM2.5	1.6438	Eng. Estimate (1)	99.9
	NOx	24.6575	Eng. Estimate (1)	
	SOx	3.2877	Eng. Estimate (1)	99.9
	CO	6.5753	Eng. Estimate (1)	99
	VOC	1.6438	Eng. Estimate (1)	99.9
505-60-2	HD (bis(2-chloroethyl) sulfide)	5,180 (2)	Pueblo	99.99

(1) includes safety factor

(2) 5,180 lb/day = 72 lb per hour * 24 hours * 3 units

- 5) The following equipment is currently exempt from construction permitting requirements and/or APEN reporting requirements based on information provided by the operator for the Division's analysis:

AIRS ID	Facility ID	Description	Notes	
101/0004/078	Refuse System	Biotreatment Process - biotreatment of agent hydrolysate	APEN Exempt, Permit Exempt	This unit is exempt from reporting requirements as emissions of criteria and non-criteria pollutants are below APEN reporting thresholds. (Reference: Regulation Number 3, Part A, II.D.1.a)
101/0004/079	Refuse System	Brine Reduction System - treat effluent from the biotreatment process.	APEN Required, Permit Exempt	This unit is exempt from construction permitting requirements as emissions of criteria and non-criteria pollutants are below permit required thresholds. APEN reporting is required as NCRP is above the reporting threshold. (Reference: Regulation Number 3, Part A, II.A.1)
101/0004/081	Emergency Generators	Two (2) Caterpillar, Model C280-12, Serial numbers: TSJ00118 and TSJ00119 diesel fueled, turbocharged,	APEN Required, Permit Exempt based on operation of less than 100 hours per year each engine. Permit Required at 208.7	This unit is exempt from construction permitting requirements as emissions of criteria and non-criteria pollutants are below permit required

		reciprocating internal combustion engines, site rated at 4,369 HP each providing power to two (2) 3,258 kW generators for emergency electrical power. (Facility ID: MG-E02-0001 A and B)	hours per year each engine.	thresholds. APEN reporting is required as NCRP is above the reporting threshold. (Reference: Regulation Number 3, Part A, II.A.1)
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AIRS ID	Facility ID	Description	Notes	
101/0004/085	Refuse System	Bulk Oxidizer and venturi/scrubber	APEN Required, Permit Exempt for Chlorine and Hydrochloric Acid	This unit is exempt from construction permitting requirements as emissions of criteria and non-criteria pollutants are below permit required thresholds. APEN reporting is required as NCRP is above the reporting threshold. (Reference: Regulation Number 3, Part A, II.A)
101/0004/086	Emergency Generator	One (1) Caterpillar, Model: C9, Serial Number: C9E01546 (Engine S9L02535), diesel fueled, turbocharged, reciprocating internal combustion engine, site rated at 319 HP, providing power to a 235 kW generator for emergency electrical power. (MG-E40-0001)	APEN Exempt, Permit Exempt based on operation of less than 250 hours per year.	This unit is exempt from reporting requirements as emissions of criteria and non-criteria pollutants are below APEN reporting thresholds. (Reference: Regulation Number 3, Part A, II.D.1.a)

AIRS ID	Facility ID	Description	Notes	
101/0004/088 (application 14PB0332.XA)	Emergency backup generator.	One (1) Iveco/FTP, Model: F4GE9685A , Serial Number: 8629381, diesel fueled, compression ignition, reciprocating, internal combustion engine site- rated at 159 hp (manufacturer sea level rated at 198 hp), supplying power to an emergency electrical generator.	APEN Exempt, Permit Exempt based on operation of less than 250 hours per year.	This unit is exempt from reporting requirements as emissions of criteria and non-criteria pollutants are below APEN reporting thresholds. (Reference: Regulation Number 3, Part A, II.D.1.a)

6) In accordance with C.R.S. 25-7-114.1, each Air Pollutant Emission Notice (APEN) associated with this permit is valid for a term of five years from the date it was received by the Division. A revised APEN must be submitted no later than 30 days before the five-year term expires. Please refer to the most recent annual fee invoice to determine the APEN expiration date for each emissions point associated with this permit. For any questions regarding a specific expiration date call the Division at (303)-692-3150.

7) This facility is classified as follows:

Applicable Requirement	Status
Operating Permit	Minor Source CO, VOC. Title V permit required by MACT subpart EEE
PSD	Minor Source CO, VOC

8) The engines described under AIRS ID 101/0004/081 are subject to 40 CFR, Part 63, Subpart ZZZZ - **National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (Federally enforceable only)**. A copy of the complete subpart is available on the EPA website at: <http://www.ecfr.gov/cgi-bin/text-idx?node=sp40.14.63.zzzz>. All initial notifications, compliance demonstrations, and required documentation should be submitted directly to U.S. EPA Region 8 and copies sent to the Colorado Air Pollution Control Division.

9) Full text of the Title 40, Protection of Environment Electronic Code of Federal Regulations can be found at the website listed below:

http://www.ecfr.gov/cgi-bin/text-idx?gp=&SID=2a3f8be8f5c2f47006ad49ae4b4c080&mc=true&tpl=/ecfrbrowse/Title40/40tab_02.tpl

Part 60: Standards of Performance for New Stationary Sources		
NSPS	60.40c-60.48c	Subpart Dc
NSPS	60.4200-60.4219	Subpart IIII
Part 63: National Emission Standards for Hazardous Air Pollutants for Source Categories		
MACT	63.1200-63.1221	Subpart EEE
MACT	63.6580-63.6675	Subpart ZZZZ

- 10) The engines described under AIRS ID 101/0004/081 must be used for emergency purposes only. If either of these engines is to be used for any non-emergency purpose (demand response, peak shaving, base power, etc.), the source must submit a new Air Pollutant Emission Notice (APEN) and must meet the NSPS IIII Interim Tier 4 Standards. (Reference: NSPS IIII, § 60.4211 (f) and Regulation Number 3, Part A II.A.)
- 11) The permit holder is required to pay fees for the processing time for this permit. An invoice for these fees will be issued after the permit is issued. Failure to pay the invoice will result in revocation of this permit. The permit holder must pay the invoice within 30 days of receipt of the invoice (Reference: Regulation Number 3, Part A, VI.B.).
- 12) Unless specifically stated otherwise, the general and specific conditions contained in this permit have been determined by the Division to be necessary to assure compliance with the provisions of Section 25-7-114.5(7)(a), C.R.S.
- 13) Each and every condition of this permit is a material part hereof and is not severable. Any challenge to or appeal of a condition hereof must constitute a rejection of the entire permit and upon such occurrence, this permit must be deemed denied *ab initio*. This permit may be revoked at any time prior to self-certification and final authorization by the Division on grounds set forth in the Colorado Air Pollution Prevention and Control Act and regulations of the AQCC including failure to meet any express term or condition of the permit. If the Division denies a permit, conditions imposed upon a permit are contested by the applicant, or the Division revokes a permit, the applicant or owner or operator of a source may request a hearing before the AQCC for review of the Division's action. (Reference: Regulation Number 3, Part B III.F.)
- 14) Section 25-7-114.7(2)(a), C.R.S. requires that all sources required to file an Air Pollutant Emission Notice (APEN) must **pay an annual emission fee**. If a source or activity is to be discontinued, the owner must notify the Division in writing requesting a cancellation of the permit. Upon notification, annual fee billing will terminate.
- 15) Violation of the terms of a permit or of the provisions of the Colorado Air Pollution Prevention and Control Act or the regulations of the AQCC may result in administrative, civil or criminal enforcement actions under Sections 25-7-115 (enforcement), -121 (injunctions), -122 (civil penalties), -122.1 (criminal penalties), C.R.S.

ATTACHMENT A

Point #	Process	Process or description (as on permit)	Pollutant or CAS #	Emission Factor	Units	Annual Throughput (units/yr)		Control Type/Efficiency	
073	Refuse Systems	Agent Draining and neutralization - drain chemical agent from munition bodies, store and treat agent in assorted tanks.	VOC	1.1000	lbs/ day	3,281	tons per year	OTS (off-gas treatment system) and AFA (Agent Filter Area)	0.00%
		Parsons 155MM: MZ-BO2-0101/0102/0103/0104 and MZ-BO-200201/0202/0203/0204, Two (2) munition wash station lines. Each with five (5) cavity access machines. MWS Room, APB.	107-06-2 (1, 2, dichloroethane)	1.0000	lbs/ day	3,281	tons per year	Bulk Oxidizer and venturi scrubber (formerly AIRS ID 085)	0.00%
		Titanium LTD/LTEE; MV-BO2-0101 and MV-BO2-0202. Two Wash Agent and Water Surge Drum, MWS room, APB.	505-60-2 (HD (bis(2-chloroethyl) sulfide)	0.6500	lbs/ day	3,281	tons per year	See above	0.00%
		Titanium LTD/LTEE: MV-BO4-0001 and MV-BO4-0002. Two Agent Wash Separators, Toxic Room, APB.	75-01-4 (Vinyl Chloride)	0.0079	lbs/ day	3,281	tons per year	See above	0.00%
		ARS Enterprises, Inc.: MZ-B24-0004. One Autoclave, Toxic Maintenance Area, APB.							
		Parsons 105MM: MZ-BO2-0106/0107/0108/0109.0110 and MZ-BO2-0206/0207/0208/0209/0210. Two Munition Wash Station Lines. Each with Five cavity access Machines. MWS Room, APB.							
		Titanium LTD/LTEE: MV-BO2-0104 and MV-BO2-0204. Two MWS Wash Water Collection Tanks, Toxic Room, APB.							
		Titanium LTD/LTEE: MV-BO4-0101 and MV-BO4-0201. Two Agent Hydrolyzers, Toxic Room, APB							
		Parsons 4.2 IN: MZ-BO2-0111/0112/0113/0114/0115 and MZ-BO2-0211/01212/0213/0214/0215. Two Munition Wash Station Lines. Each with Five cavity access Machines. MWS Room, APB.							
		Premier Technologies, Inc.: MZ-BO4-0103 and MZ-BO4-0203. Two Agent Hydrolysate Hold Tanks, Toxic Room, APB.							
		EPCO Industrial Systems: MZ-B24-0003A and MZ-B24-0003B. Two Agent Hydrolysate Hold Tanks, Toxic Room, APB.							

Point #	Process	Process or description (as on permit)	Pollutant or CAS #	Emission Factor	Units	Annual Throughput (units/yr)	Control Type /Efficiency
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075	Refuse Systems	Munitions Treatment Units - heat treat munition bodies for off-site release. Munition Bodies Limit - 22,659 tpy at 5,885 lbs/hr. Drained and washed munition bodies with 5% heel remaining.	PM	62.0000	lbs/day	22,659	tons/year	OTS (off-gas treatment system) and AFA (Agent Filter Area)	99.00%
		Agent portion = 3,281 tons/year, MWS Wash Water = 5,256,000 gal/year, Treated Munition = 22,495 tons/year.	PM10	62.0000	lbs/day	22,659	tons/year	OTS and AFA	99.00%
			PM2.5	62.0000	lbs/day	22,659	tons/year	OTS and AFA	99.00%
			SOx	360.0000	lbs/day	22,659	tons/year	OTS and AFA	98.00%
			505-60-2 (HD (bis(2-chloroethyl) sulfide)	900.0000	lbs/day	22,659	tons/year	OTS and AFA	99.972%

Attachment A (Continued)

Point #	Process	Process or description (as on permit)	Pollutant or CAS #	Emission Factor	Units	Annual Throughput (units/yr)		Control Type/Efficiency	
082	Natural Gas	Two (2) English, Model: DS Industrial, DS-200-50 steam boilers, Serial Numbers: 26.068-1 and 26-068-2, each design rated at 60.4 MMbtu/hour to provide hot water for processes. (Facility ID: MB-M20-0001A and B)	PM	0.0100	lbs/MMbtu	530,735	MMbtu/year	None	0.00%
			PM10	0.0100	lbs/MMbtu	530,735	MMbtu/year	None	0.00%
			NOx	0.0360	lbs/MMbtu	530,735	MMbtu/year	LoNoxFGR	65.43%
			CO	0.0400	lbs/MMbtu	530,735	MMbtu/year	None	0.00%
Point #	Process	Process or description (as on permit)	Pollutant or CAS #	Emission Factor	Units	Annual Throughput (units/yr)		Control Type/Efficiency	
090	Static Detonation Chambers	Agent and munition thermal treatment	PM	1.65	lbs/day	0.3	tons	OTS (off-gas treatment system)	
			PM10	1.65	lbs/day	0.3	tons	OTS (off-gas treatment system)	
			PM2.5	1.65	lbs/day	0.3	tons	OTS (off-gas treatment system)	
			NOx	24.7	lbs/day	4.5	tons	OTS (off-gas treatment system)	
			CO	6.58	lbs/day	1.2	tons	OTS (off-gas treatment system)	
			SO2	3.29	lbs/day	0.6	tons	OTS (off-gas treatment system)	
			505-60-2 (HD bis(2-chloroethyl) sulfide)	5180	lbs/day	1,890,000	lbs	OTS (off-gas treatment system)	
End of Attachment A									

ATTACHMENT B:
ALTERNATIVE OPERATING SCENARIOS
STATIONARY (CI) ENGINE

October 1, 2011

The current AOS requirements have been included as per below. AOS requirements can change based on new/modified regulations or changes to the facility status. The permittee must comply with the appropriate AOS requirements contained in the most recently issued version of PS-Memo 98-06, available on the division's website, which may be different than the requirements below.

2. Alternative Operating Scenarios

The following Alternative Operating Scenario (AOS) for the temporary and permanent replacement of Stationary (CI) engines has been reviewed in accordance with the requirements of Regulation Number 3., Part A, IV.A, Operational Flexibility- Alternative Operating Scenarios, Regulation Number 3, Part B, Construction Permits, and Regulation Number 3, Part D, Major Stationary Source New Source Review and Prevention of Significant Deterioration, and it has been found to meet all applicable substantive and procedural requirements. This permit incorporates and shall be considered a Construction Permit for any engine replacement performed in accordance with this AOS, and the owner or operator shall be allowed to perform such engine replacement without applying for a revision to this permit or obtaining a new Construction Permit.

2.1 Engine Replacement

The following AOS is incorporated into this permit in order to deal with an engine breakdown or periodic routine maintenance and repair of an existing onsite engine that requires the use of either a temporary or permanent replacement engine. "Temporary" is defined as in the same service for 90 operating days or less in any 12 month period. "Permanent" is defined as in the same service for more than 90 operating days in any 12 month period. The 90 days is the total number of days that the engine is in operation. If the engine operates only part of a day, that day shall count as a single day towards the 90-day total. The compliance demonstrations and any periodic monitoring required by this AOS are in addition to any compliance demonstrations or periodic monitoring required by this permit.

All replacement engines are subject to all federally applicable and state-only requirements set forth in this permit (including monitoring and record keeping).

The results of any all tests and the associated calculations required by this AOS shall be submitted to the Division within 60 days. Results of all tests shall be kept on site for five (5) years and made available to the Division upon request.

The owner or operator shall maintain a log on-site and contemporaneously record the start and stop date of any engine replacement, the manufacturer, date of manufacture, model number, horsepower, and serial number of the engine(s) that are replaced during the term of this permit, and the manufacturer, model number, horsepower, and serial number of the replacement engine.

2.1.1 The owner or operator may **temporarily** replace an existing engine that is covered by this

permit with a different engine without modifying this permit, so long as the temporary replacement engine complies with all permit limitations and other requirements applicable to the existing engine. Calculation of emissions from the temporary replacement engine shall be made as set forth in section 2.1.3.

2.1.2 An Air Pollutant Emissions Notice (APEN) that includes the specific manufacturer, model and serial number and horsepower of the permanent replacement engine shall be filed with the Division for the permanent replacement engine within 14 calendar days of commencing operation of the replacement engine. The APEN shall be accompanied by the appropriate APEN filing fee, a cover letter explaining that the owner or operator is exercising an alternative operating scenario and is installing a permanent replacement engine and an analysis of any new applicable requirements for the replacement engine as required by Condition 2.2. This submittal shall be accompanied by a certification from the Responsible Official indicating that "based on the information and belief formed after reasonable inquiry, the statements and information included in the submittal are true, accurate and complete".

This AOS cannot be used for permanent engine replacement of a grandfathered or permit exempt engine or an engine that is not subject to emission limits.

The owner or operator shall agree to pay fees based on the normal permit processing rate for review of information submitted to the Division in regard to any permanent engine replacement.

2.1.3 Compliance of the replacement engine with the applicable emission limitations of the original engine shall be monitored by one of the following methods:

- 1) Manufacturer certified emission factors showing compliance.
- 2) Stack tests of same make and model showing compliance. This would only be considered if the test was done under similar conditions to Colorado (i.e. at altitude).
- 3) Stack tests on the engine.

2.2 Applicable Regulations for Permanent Engine Replacements

2.2.1 NSPS for stationary compression ignition internal combustion engines: 40 CFR Part 60, Subpart IIII.

A permanent replacement engine that is ordered after July 11, 2005 and manufactured after April 1, 2006 **or** is modified or reconstructed after July 11, 2005 is subject to the requirements of 40 CFR Part 60, Subpart IIII. An analysis of applicable monitoring, recordkeeping, and reporting requirements for the permanent engine replacement shall be included in any request for a permanent engine replacement.

Note that under the provisions of Regulation Number 6. Part B, I.B. that Relocation of a source from outside of the State of Colorado into the State of Colorado is considered to be a new source, subject to the requirements of Regulation Number 6 (i.e., the date that the source is first relocated to Colorado

becomes equivalent to the date of manufacture for purposes of determining the applicability of NSPS IIII requirements).

2.2.2. MACT for Stationary Reciprocating Internal Combustion Engines:40 CFR Part 63, Subpart ZZZZ.

Any permanent replacement engine located at either an area or major source is subject to the requirements of 40 CFR Part 63, Subpart ZZZZ. An analysis of applicable monitoring, recordkeeping, and reporting requirements for the permanent engine replacement shall be included in any request for a permanent engine replacement.

2.3 Additional Sources

The replacement of an existing engine with a new engine is viewed by the Division as the installation of a new emissions unit, not "routine replacement" of an existing unit. The AOS is therefore essentially an advanced construction permit review. The AOS cannot be used for additional new emission points for any site; an engine that is being installed as an entirely new emission point and not as part of an AOS-approved replacement of an existing onsite engine has to go through the appropriate Construction/Operating permitting process prior to installation.