

**STATE OF NEW MEXICO  
SECRETARY OF ENVIRONMENT**

**IN THE MATTER OF ENTERPRISE  
PRODUCTS OPERATING, LLC**

**No. AQCA 11 - 12(CO)  
ENT-1038-1101-R1 (NOV)  
ENT-0971-1001 (NOV)**

**SETTLEMENT AGREEMENT AND STIPULATED FINAL COMPLIANCE ORDER**

This Settlement Agreement and Stipulated Final Compliance Order (“Final Order”) is entered into between the Environmental Protection Division (“Division”) of the New Mexico Environment Department (the “Department”) and Enterprise Products Operating, LLC (collectively, the “Parties”) to resolve alleged violations of the New Mexico Air Quality Control Act (“AQCA”), NMSA 1978, § 74-2-1 to 74-2-17, and the Air Quality Control Regulations (“AQCR”), 20.2. NMAC (“Regulations”).

**I. BACKGROUND**

**A. PARTIES**

1. The Department is an agency of the executive branch of the State of New Mexico, created pursuant to NMSA 1978, § 9-7A-4. The Division is an organizational unit of the Department. The Secretary of the Department has delegated to the Director of the Division the authority to seek administrative enforcement of the AQCA and the AQCR, including assessing civil penalties for violations thereof. NMSA 1978, § 74-2-12. The Air Quality Bureau is an organizational unit of the Division.

2. Enterprise Products Operating, LLC is a Texas limited liability company with offices in Houston that operates natural gas processing facilities in New Mexico through

Enterprise Products Field Services, LLC, and formerly through Val Verde Gas Gathering, L.P. (collectively “Enterprise Products”).

## **B. HISTORY AND ALLEGED VIOLATIONS**

### **Startup, Shutdown, and Maintenance Reporting**

3. On June 24, 2010, an inspector from the Air Quality Bureau (“Bureau”) within the Division inspected the Val Verde Gas Treatment facility located in Bloomfield, New Mexico and operated by Val Verde Gas Gathering Company, L.P.

4. 20.2.7.110 NMAC requires an owner or operator to file an initial report including all available information within certain specified categories no later than the end of the next regular business day after the time of discovery of an excess emission, and a final report containing certain specified information no later than ten (10) days after the end of the excess emission.

5. During the inspection of June 24, 2010, the inspector learned that the Val Verde Gas Treatment Facility had failed since August 8, 2008 to report excess emissions from startup, shutdown, and maintenance as required by 20.2.7.110 NMAC.

6. The inspector was informed by a representative of Val Verde that several natural gas processing facilities operated by Val Verde Gas Gathering and Enterprise Products Field Services had also failed to submit excess emission reports for startup, shutdown, and maintenance for the same period.

7. On June 24, 2010 the Bureau provided Val Verde Gas Gathering Company with a Post Inspection Notification which documented the Bureau’s request that all startup, shutdown and maintenance excess emission events from August 1, 2008 be compiled and submitted to the Bureau.

8. By letter dated August 16, 2010, Enterprise Products provided the Bureau with a “listing of facilities for Enterprise Products Field Services, LLC and Val Verde Gas Gathering, LP that may be applicable to the SSM requirements of 20.2.7 NMAC.”

9. In additional submissions between August 2010 and April 12, 2011, Enterprise Products provided the Department with detailed information on excess volatile organic compound emissions from thirty-one (31) facilities under its control.

10. Enterprise Products’ submissions for the 31 facilities show 2,373 instances of excess volatile organic compound emissions in 2008; 5,039 incidents in 2009; and 3,602 in 2010.

11. Enterprise Products’ submissions show that the mass of volatile organic compounds emitted during excess emissions events was 39.70 tons in 2008; 89.14 tons in 2009, and 79.38 tons in 2010, for a total of 208.22 tons.

12. On June 23, 2011, the Division issued Administrative Compliance Order No. AQCA 11-12 (CO), alleging that Enterprise Products’ failure to submit initial and final reports with respect to each excess emission event described above comprised up to 11,014 violations of 20.2.7 NMAC, as summarized in Exhibit A, and as fully documented in Exhibit B, to that Compliance Order. Exhibit A is attached hereto, and Exhibit B, which comprises 362 pages, is incorporated herein by reference.

13. On July 11, 2011, Enterprise Products timely filed a request for hearing and motion for extension of time to file an Answer. On July 13, 2011, a Notice of Docketing and Hearing Officer Assignment was issued. On July 12, the Hearing Officer granted the unopposed motion to extend time to file an answer, and set the deadline for the Answer as August 29, 2011. On August 25, 2011, the Hearing Officer granted the second unopposed motion for extension of

time to file an Answer, and set the deadline for the Answer as October 31, 2011. On October 13, 2011, upon a stipulated motion by the parties, the Hearing Officer issued an Order staying the case indefinitely, and providing that either party could dissolve the stay by requesting a hearing, which would be held at least 120 days after the filing of a request for a hearing.

**Frances Mesa Compressor Station**

14. Enterprise Products owns and operates the Frances Mesa Compressor Station, which is a natural gas compressor station located in Rio Arriba County, New Mexico. The Frances Mesa Compressor Station is subject to the terms and conditions of Air Quality Permit P170-R2 and subsequent revisions.

15. Air Quality Permit P170-R2, Condition, A202.B states in relevant part: "Glycol pump circulation rate (Unit 7) Requirement: To demonstrate compliance with the allowable emission limits, the glycol pump circulation rate for the unit shall not exceed 260.0 gallons per hour (4.33 gallons per minute). Monitoring: The permittee shall monitor the circulation rate quarterly..."

16. Air Quality Permit P170-R2, General Condition B108H states in relevant part: "Monitoring shall become effective 120 days after the date of permit issuance if the monitoring is new or in addition to monitoring imposed by an existing applicable requirement..."

17. On September 1, 2011, the Bureau received an Annual Compliance Certification Report (ACC) from Enterprise Products pertaining to operations at the Frances Mesa Compressor Station. The portion of the ACC that addressed Permit P170-R2 covered the time period from November 24, 2010 to July 31, 2011. In the ACC, Enterprise Products reported as a deviation that it had failed to conduct quarterly monitoring of the circulation rate for the glycol pump for Unit 7. The requirement to perform quarterly monitoring of the glycol pump circulation rate is a

new monitoring condition of Air Quality Permit P170-R2. As such, in accordance with General Condition B108H of the Air Quality Permit P170-R2, the first monitoring event was required to be conducted 120 days after the date of permit issuance. Based on the Air Quality Permit P170-R2 issuance date of November 24, 2010, the first monitoring event was due by March 31, 2011, which was the first calendar quarter of 2011. The second quarterly monitoring event was due by June 30, 2011. Enterprise Products did not conduct monitoring of the glycol pump circulation rate until August 30, 2011. Therefore, monitoring for the first and second quarters of 2011 was not conducted as required by Air Quality Permit P170-R2, Condition A202B.

18. Air Quality Permit P170-R2M1, General Condition B110A states: "Reports of all required monitoring activities for this facility shall be submitted to the Department on the schedule in section A109."

19. Air Quality Permit P170-R2M1, Section A109, states in relevant part: "Facility Reporting Schedules: A. A Semi-Annual Report of monitoring activities is due within 45 days following the end of every 6-month period starting on 8/01/2000..."

20. On March 12, 2012, the Bureau received a Semi-Annual Monitoring Report (SAR) from Enterprise Products pertaining to the Frances Mesa Compressor Station. The SAR covered the reporting period of August 1, 2011 to January 31, 2012. The quarterly monitoring report pertaining to the glycol pump circulation rate for Unit 7 for the 4th quarter of 2011 (October 1 to December 31) was not included in the SAR.

21. On August 14, 2012, the Bureau issued to Enterprise Products Notice of Violation ENT-1038-1101-R1 ("NOV"), alleging violations of the AQCA, the AQCR, and Air Quality Permits P170-R2 and P170-R2M1. The alleged violations were: 1) failure to demonstrate compliance by monitoring the glycol pump circulation rate on a quarterly basis; and 2) failure to

include the quarterly monitoring report on the glycol pump circulation rate for the 4th quarter of 2011 in the Semi-Annual Monitoring Report.

22. The NOV included a Corrective Action Verification (“CAV”) requiring Enterprise Products to submit to the Bureau measures taken to ensure future compliance with Air Quality Permit P10-R2M1 conditions.

23. On September 14, 2012, the Bureau received the CAV from Enterprise Products. The CAV was determined to be satisfactory by the Bureau on September 28, 2012.

### **Largo Compressor Station**

24. Enterprise Products acquired the Largo Compressor Station, which is located in Rio Arriba County, New Mexico, in 2003. At the time of acquisition, the Largo Compressor Station was subject to the terms and conditions of Air Quality Permit 1591-M1.

25. Air Quality Permit 1591-M1, Condition 1.k states in relevant part, “Each of the six tanks shall be equipped with a vapor recovery unit with a manufacturer’s guaranteed control efficiency of...100% to control VOC emissions.”

26. In a letter dated May 24, 2010, Enterprise Products disclosed that it discovered in 2006 that the tanks were not equipped with vapor recovery units (VRU), a violation of Air Quality Permit 1591-M1, Condition 1.k. Enterprise equipped the tanks with a VRU shortly thereafter, but discovered that the design was insufficient to control VOC emissions as required by Air Quality Permit 1591-M1, Condition 1.k.

27. Air Quality Permit 1591-M2, issued by the Bureau on February 21, 2011, replaced the requirement to control the VOC emissions from the tanks by the VRU with a requirement to control the VOC emissions from the tanks by a flare. Therefore, the violation of Air Quality Permit 1591-M1, Condition 1.k continued at the minimum from September 1, 2006, when

Enterprise Products discovered that the VRU was not installed, and February 21, 2011, the date that Air Quality Permit 1591-M2 was issued, which removed the condition requiring the tanks to be equipped with a VRU, for a total of 1,635 days.

28. On June 19, 2012, the Department issued to Enterprise Products a draft Notice of Violation pertaining to the Largo Compressor Station. The alleged violation was the failure by Enterprise Products to equip each of the tanks with a vapor recovery unit with a manufacturer's guaranteed control efficiency of 100% to control VOC emissions.

29. On July 23, 2012, the Bureau received a response from Enterprise Products to the draft Notice of Violation. The response included documentation that the flare was installed and functioning, in accordance with Air Quality Permit 1591-M2.

#### **Violations Meeting Environmental Audit Criteria**

30. On May 26, 2010, June 14, 2010, October 18, 2010, March 2, 2011, August 10, 2011, and August 29, 2011, the Bureau received written notices ("Notices") from Enterprise Products of the existence of violations or potential violations at certain facilities that are subject to the AQCA, AQCR, Regulations, and Air Quality Permits. The affected facilities and air quality permit numbers are set forth in Exhibit C. The alleged violations and the associated corrective actions are set forth in Exhibit D.

31. Review of the Notices confirmed that the systematic procedures which led to the discovery of the alleged violations, the subsequent reporting to the Bureau, and the corrective actions taken by Enterprise Products meet the environmental audit criteria established in the Air Quality Bureau's Civil Penalty Policy.

#### **II. COMPROMISE AND SETTLEMENT OF ALLEGED VIOLATIONS**

32. To avoid litigation, the Division and Enterprise Products propose the settlement in this Final Order to resolve the alleged violations in the Compliance Order No. AQCA 11-12(CO), NOV ENT-1038-1101 (Frances Mesa Compressor Station), NOV ENT-0971-1001 (Largo Compressor Station), and the Violations Meeting Environmental Audit Criteria, hereinafter collectively referred to as “Enforcement Actions.” Under 20.1.5.600.B NMAC, the Division and Enterprise Products agree to this Final Order for the sole purpose of resolving the alleged violations in the Enforcement Actions. Enterprise Products does not admit any of the allegations in the Enforcement Actions. The Division does not concede the validity of any of affirmative defenses raised.

33. For purposes of this proceeding only, the parties waive any jurisdictional objections and consent to the relief specified herein, including the assessment of the stated civil penalty.

34. In compromise and settlement of the alleged violations set forth in the Enforcement Actions, the Parties agree to this settlement for a total amount of \$838,413, comprising \$186,180 in a cash payment and the balance discharged by Enterprise Products’ performance of the Supplemental Environmental Project (SEP) involving Lean Burn Engine Upgrades and Replacement of Instrument Gas Controls, as provided in Exhibit E attached hereto, which has an estimated cost of \$931,761. The SEP costs will be credited against the total settlement amount at a rate of 70%, as provided in Paragraph 39 below.

35. Enterprise Products shall pay the civil penalty \$186,180 to the State of New Mexico within 30 calendar days after the effective date of this Final Order.

36. Payment shall be made to the *State of New Mexico* by certified or corporate check and sent to the following address:

New Mexico Environment Department  
Air Quality Bureau  
c/o Compliance and Enforcement Manager  
1301 Siler Rd., Building B  
Santa Fe, New Mexico 87507-3541

37. If Enterprise Products fails to make timely and complete payment of the civil penalty, Enterprise Products shall pay interest on the outstanding balance at the rate established for judgments and decrees under NMSA 1978, § 56-8-4.

38. Installation of all control devices as specified in the SEP shall be completed within 240 days of the effective date of this order. Enterprise Products shall submit a letter verifying completion of installation within 30 days of such completion, and shall submit a certified statement of all costs associated with the SEP within 360 days of the effective date of this order.

39. Within 30 days of submission the certified statement of SEP costs, if the total of all SEP costs multiplied by 0.70 is less than \$652,233 (i.e., \$931,761 x 0.70), then Enterprise Products shall submit a supplemental cash penalty equal to the difference between \$652,233 and the total SEP costs times 0.70.

40. If Enterprise Products fails to complete the SEP within 240 days of the effective date of this order, Enterprise Products stipulates to pay a civil penalty of \$500.00 for each day thereafter until the SEP is completed.

41. If Enterprise Products fails to submit a certified statement of all costs associated with the SEP in accordance with paragraph 38, Enterprise Products stipulates to pay a civil penalty of \$250.00 for each day following the due date of the certified statement until the certified statement of all costs associated with the SEP is submitted.

42. Within 10 days following its receipt of a written demand by the Department, Enterprise Products shall make payment of any stipulated penalty. Enterprise Products shall make a cash payment, by certified or corporate check, of any stipulated penalty to the State of New Mexico General Fund, and sent to the address specified in Paragraph 36.

### **III. OTHER TERMS AND CONDITIONS**

#### **A. RESERVATION OF RIGHTS AND DEFENSES**

43. This Final Order shall not be construed to prohibit or limit in any way the Department from requiring Enterprise Products to comply with any applicable state or federal requirement. This Final Order shall not be construed to prohibit or limit in any way the Department from seeking any relief authorized by the AQCA for violation of any state or federal requirement applicable to Enterprise Products not resolved herein. This Final Order shall not be construed to prohibit or limit in any way Enterprise Products from raising any defense to a Department action seeking such relief.

#### **B. MUTUAL RELEASE**

44. The Parties mutually release each other from all claims that each Party raised or could have raised against the other regarding the facts and violations alleged in the Enforcement Actions. Such release applies only to civil liability.

#### **C. WAIVER OF STATE LIABILITY**

45. Enterprise Products shall assume all costs and liabilities incurred in performing all obligations under this Final Order. The Department, on its own behalf and on behalf of the State of New Mexico, does not assume any liability for Enterprise Products' performance of any obligation under this Final Order.

**D. EFFECTIVE DATE AND TERMINATION DATES**

46. This Final Order shall become effective on the date it has been signed by the Department Secretary.

47. Except as otherwise provided in this Paragraph, the terms of this Final Order shall terminate when Enterprise Products has fulfilled the requirements of this Final Order. The reservations of rights and defenses, the mutual release, and the binding effect described in Paragraphs 43, 44, and 49 shall not terminate, and shall remain in effect as an agreement between the Parties.

**E. INTEGRATION**

48. This Final Order merges all prior written and oral communications between the Parties concerning the subject matter of this Final Order, contains the entire agreement between the Parties, and shall not be modified without the express written agreement of the Parties.

**F. BINDING EFFECT**

49. This Final Order shall be binding on the Parties and their officers, directors, employees, agents, subsidiaries, affiliates, successors, assigns, trustees, or receivers.

**G. AUTHORITY OF SIGNATORIES**

50. The person executing this Final Order on behalf of Enterprise Products represents that he or she has the authority to execute this Final Order on behalf of Enterprise Products.

**ENVIRONMENTAL PROTECTION DIVISION  
NEW MEXICO ENVIRONMENT DEPARTMENT:**

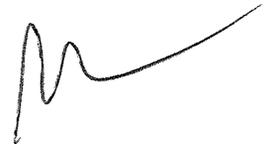
By: Mary Rose  
MARY ROSE  
ACTING DIRECTOR

Date: 3/25/13

**ENTERPRISE PRODUCTS OPERATING, LLC**

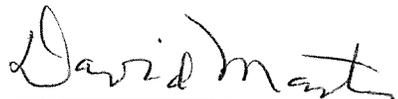
By: Key L. Huchet

Date: 3/20/13

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**STIPULATED FINAL COMPLIANCE ORDER**

Pursuant to section 20.1.5.600.B(2) NMAC, this Settlement Agreement and Stipulated Final Compliance Order, agreed to by the Division and the Respondent Enterprise Products Operating, LLC is hereby incorporated herein and **APPROVED AS A FINAL COMPLIANCE ORDER** issued pursuant to NMSA 1978, §74-2-12.

  
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**DAVID MARTIN**  
**SECRETARY OF ENVIRONMENT**

Date: 3-28-13

STATE OF NEW MEXICO  
SECRETARY OF ENVIRONMENT

IN THE MATTER OF ENTERPRISE  
PRODUCTS OPERATING, LLC

No. AQCA 11 - 12(CO)  
ENT-1038-1101-R1 (NOV)  
ENT-0971-1001 (NOV)

SETTLEMENT AGREEMENT AND STIPULATED FINAL COMPLIANCE ORDER

EXHIBIT A

EXHIBIT A FROM COMPLIANCE ORDER No. AQCA 11-12(CO)  
DATED JUNE 23, 2011

Facility	Company	AI #	Source Class	(8/1/08-12/31/08) # Events for 2008	# Events for 2009	# Events for 2010	total # of Events	lbs VOCs 2008	lbs VOCs 2009	lbs VOCs 2010	Total lbs VOCs	Total Tons VOCs	Total lbs NOx	Total Tons NOx	Total lbs CO	Total Tons CO	
3B-1/Turley	Enterprise	1153	SM-80	52	68	41	161	3,289.18	4,301.23	2,846.40	10,436.81	5.22	NA	NA	NA	NA	
Angel Peak 3	Enterprise	1145	Minor	32	114	64	210	1,442.54	5,015.66	3,437.20	9,895.40	4.95	NA	NA	NA	NA	
Arch Rock	Val Verde	1289	Major	96	240	97	433	55.74	134.89	60.12	250.75	0.13	NA	NA	NA	NA	
Ballard	Enterprise	1146	Minor	114	248	160	522	4,329.22	9,932.85	8,605.19	22,867.26	11.43	NA	NA	NA	NA	
Blanco C&D	Enterprise	3552	Major	25	93	100	218	9,862.75	37,561.42	39,823.23	87,247.40	43.62	NA	NA	NA	NA	
Buena Vista	Val Verde	1315	Minor	43	130	74	247	27.70	85.11	140.25	253.06	0.13	NA	NA	NA	NA	
Carson	Enterprise	20136	SM-80	27	91	70	188	576.12	1,631.58	2,256.38	4,464.08	2.23	NA	NA	NA	NA	
Cedar Hill	Val Verde	1331	Major	100	259	138	497	107.38	267.27	232.84	607.49	0.30	NA	NA	NA	NA	
Chaco Plant	Enterprise	1148	Major	162	346	185	693	14,490.88	25,920.31	17,646.27	58,057.46	29.03	349.77	0.17	698.28	0.35	
Frances Mesa	Val Verde	1038	Major	122	180	100	402	45.61	69.71	59.65	174.97	0.09	NA	NA	NA	NA	
Gobernador-Manzanares	Val Verde	989	Major	165	218	142	525	2,300.67	3,451.25	5,244.20	10,996.12	5.50	NA	NA	NA	NA	
Hart Canyon	Val Verde	1181	Major	74	150	118	342	126.92	299.11	353.77	779.80	0.39	NA	NA	NA	NA	
Hart Canyon 1	Enterprise	1319	SM-80	72	191	85	348	127.03	332.58	158.99	618.60	0.31	NA	NA	NA	NA	
Hart Canyon 2	Enterprise	1325	SM-80	159	413	289	861	115.35	329.11	409.52	853.98	0.43	NA	NA	NA	NA	
Hilltop	Enterprise	20138	NOI	7	98	35	140	159.42	2,231.91	889.76	3,281.09	1.64	NA	NA	NA	NA	
Kutz	Enterprise	1154	SM-80	114	216	152	482	1,766.12	3,449.95	3,726.23	8,942.30	4.47	NA	NA	NA	NA	
Largo	Enterprise	971	SM-80	166	284	290	740	12,202.42	22,920.55	25,706.28	60,829.25	30.41	NA	NA	NA	NA	
Manzanares	Enterprise	1369	Minor	88	286	247	621	1,728.52	5,617.69	5,931.97	13,278.18	6.64	NA	NA	NA	NA	
Martinez Canyon	Enterprise	1053	Streamlined	61	185	120	366	6,682.89	16,403.04	13,307.18	36,393.11	18.20	NA	NA	NA	NA	
Middle Mesa	Val Verde	1193	Major	91	81	127	299	446.48	558.34	1,614.40	2,619.22	1.31	NA	NA	NA	NA	
Navajo City	Enterprise	1052	Streamlined	55	74	0	129	5,211.74	7,059.50	0.00	12,271.24	6.14	NA	NA	NA	NA	
Pine River	Enterprise	1412	NOI	26	34	45	105	48.00	71.31	121.56	240.87	0.12	NA	NA	NA	NA	
Potter Canyon	Enterprise	1348	GCP-1	122	294	195	611	10,798.82	26,023.39	19,207.74	56,029.95	28.01	NA	NA	NA	NA	
Pump Canyon	Val Verde	1183	Major	157	266	179	602	214.65	549.63	668.26	1,432.54	0.72	NA	NA	NA	NA	
Pump Mesa/Negro Canyon	Val Verde	1250	Major	42	80	100	222	26.82	52.33	148.53	227.68	0.11	NA	NA	NA	NA	
Rattlesnake Canyon	Enterprise	1423	Major	25	72	115	212	3.13	11.82	20.53	35.48	0.02	NA	NA	NA	NA	
Sandstone	Val Verde	1307	Minor	57	153	128	338	165.26	419.06	959.01	1,543.33	0.77	NA	NA	NA	NA	
Sims Mesa	Val Verde	1012	SM-80	39	73	50	162	249.79	407.89	531.90	1,189.58	0.59	NA	NA	NA	NA	
Val Verde	Val Verde	1182	Major	0	19	11	30	462.41	878.59	508.66	1,849.66	0.92	NA	NA	NA	NA	
Wright	Enterprise	20139	NOI	80	83	145	308	2,331.20	2,299.69	4,150.59	8,781.48	4.39	NA	NA	NA	NA	
<b>TOTALS</b>				<b>2,373</b>	<b>5,039</b>	<b>3,602</b>	<b>11,014</b>	<b>79,394.76</b>	<b>178,286.77</b>	<b>158,766.61</b>	<b>416,448.14</b>						
								<b>TONS</b>	<b>39.70</b>	<b>89.14</b>	<b>79.38</b>	<b>208.22</b>					

STATE OF NEW MEXICO  
SECRETARY OF ENVIRONMENT

IN THE MATTER OF ENTERPRISE  
PRODUCTS OPERATING, LLC

No. AQCA 11 - 12(CO)  
ENT-1038-1101-R1 (NOV)  
ENT-0971-1001 (NOV)

**SETTLEMENT AGREEMENT AND STIPULATED FINAL COMPLIANCE ORDER**

**EXHIBIT B**

EXHIBIT B TO COMPLIANCE ORDER NO. AQCA 11-12(CO)  
DATED JUNE 23, 2011  
IS INCORPORATED HERIN BY REFERENCE

**STATE OF NEW MEXICO  
SECRETARY OF ENVIRONMENT**

**IN THE MATTER OF ENTERPRISE  
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**SETTLEMENT AGREEMENT AND STIPULATED FINAL COMPLIANCE ORDER**

**EXHIBIT C**

**AFFECTED FACILITIES AND AIR QUALITY PERMIT NUMBERS FOR  
VIOLATIONS MEETING ENVIRONMENTAL AUDIT CRITERIA**

Exhibit C  
to  
Settlement Agreement and Stipulated Final Order  
New Mexico Environment Department and Enterprise Products Operating LLC

AI	Facility Name	TV Permit	NSR Permit
1153	3B-1 Turley Compressor Station		1569-M1R1
1280	Angel Peak 2 Compressor Station		NOI 1312
1145	Angel Peak 3 Compressor Station		1567R3
1289	Arch Rock	P216	1506M2
1146	Ballard Compressor Station		1585-R2
3552	Blanco C&D Compressor Station	P218R1	613
1315	Buena Vista Compressor Station		1629-M3R2
1331	Cedar Hill Compressor Station	P173R2	1710-M2
1038	Frances Mesa Compressor Station		1579-M1R2
1319	Hart Canyon 1 Compressor Station		1680-R3
1325	Hart Canyon 2 Compressor Station		1679-M1
1201	Huerfano Pump Station	P201R1	888M5
1154	Kutz Compressor Station		1575R3
971	Largo Compressor Station		1591-M1R1
1275	Manzanares Compressor Station		87M2R4
1053	Martinez Canyon Compressor Station		1985-M1
1193	Middle Mesa Compressor Station	P204R1	918-M5R2
1052	Navajo City Compressor Station		1983-R1
1412	Pine River Compressor Station		NOI 2600R3
20139	Potter Canyon Compressor Station		1984-M1R1
1183	Pump Canyon Compressor Station		773-M4
1250	Pump Mesa Compressor Station		1129-M2
1310	Quinn Compressor Station		1635-M2
1423	Rattlesnake Canyon Compressor	P232	2232-M5R1
1307	Sandstone Compressor Station		1037-M1
1012	Sims Mesa Compressor Station		1088-M1R3
1182	Val Verde Treating Plant	P118R1	728-M7R3
1348	Wright Compressor Station		1984M1R2

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SETTLEMENT AGREEMENT AND STIPULATED FINAL COMPLIANCE ORDER

EXHIBIT D

ALLEGED VIOLATIONS AND THE ASSOCIATED CORRECTIVE ACTIONS FOR  
VIOLATIONS MEETING ENVIRONMENTAL AUDIT CRITERIA

Exhibit D  
to  
Settlement Agreement and Stipulated Final Order  
New Mexico Environment Department and Enterprise Products Operating LLC

AI	Facility Name	TV Permit	NSR Permit	Disclosure Date	Alleged Violations	Date Corrected
1153	3B-1 Turley Compressor Station		1569-M1R1	6/7/2010	unpermitted tanks, blowdown vent	3/29/2011
1280	Angel Peak 2 Compressor Station		NOI 1312	6/7/2010	unpermitted tanks	8/11/2011
1145	Angel Peak 3 Compressor Station		1567R3	6/7/2010	unpermitted tanks	12/9/2010
1289	Arch Rock	P216	1506M2	5/24/2010	missing test reports	*
1146	Ballard Compressor Station		1585-R2	6/7/2010	unpermitted tanks, blowdown vent	12/9/2010
3552	Blanco C&D Compressor Station	P218R1	613	5/24/10; 10/14/10	missing monitoring reports; tanks not adequately tied to VOC control system	6/17/2011
1315	Buena Vista Compressor Station		1629-M3R2	10/14/2010	unpermitted dryer	2/16/2011
1331	Cedar Hill Compressor Station	P173R2	1710-M2	10/14/2010	unpermitted dryer	2/16/2011
1038	Frances Mesa Compressor Station		1579-M1R2	10/14/2010	unpermitted dryer	2/16/2011
1319	Hart Canyon 1 Compressor Station		1680-R3	6/7/2010	unpermitted tanks; blowdown vent	12/8/2010
1325	Hart Canyon 2 Compressor Station		1679-M1	10/14/2010	unpermitted dryer	4/18/2011
1201	Huerfano Pump Station	P201R1	888M5	5/24/2010	missing test reports	*
1154	Kutz Compressor Station		1575R3	5/24/2010	unpermitted tanks; missing test reports; engine name plate capacity greater than permitted	12/8/2010
971	Largo Compressor Station		1591-M1R1	5/24/2010	engine name plate capacity greater than permitted	6/23/2011
1275	Manzanares Compressor Station		87M2R4	6/7/2010; 2/25/11	unpermitted tanks, blowdown vent; VOC control system not meeting 20.2.38.112	4/26/2011
1053	Martinez Canyon Compressor Station		1985-M1	5/24/2010	unpermitted tanks	12/16/2010
1193	Middle Mesa Compressor Station	P204R1	918-M5R2		dehy vent emission limits exceeded	2/1/2011
1052	Navajo City Compressor Station		1983-R1	6/7/2010	unpermitted tanks	5/13/2011
1412	Pine River Compressor Station		NOI 2600R3	5/24/2010	engine may not comply with operating representations	12/16/2010
20139	Potter Canyon Compressor Station		1984-M1R1	6/7/2010; 2/25/11	unpermitted tanks; VOC control system not meeting 20.2.38.112	3/24/2011
1183	Pump Canyon Compressor Station		773-M4	10/14/2010	unpermitted dryer	2/16/2011
1250	Pump Mesa Compressor Station		1129-M2	6/7/2010	unpermitted tanks	6/14/2011
1310	Quinn Compressor Station		1635-M2	6/7/2010	unpermitted tanks	1/11/2011
1423	Rattlesnake Canyon Compressor	P232	2232-M5R1	10/14/2010	unpermitted amine vents emitting CO2	6/13/2011
1307	Sandstone Compressor Station		1037-M1	10/14/2010	unpermitted dryer	3/9/2011
1012	Sims Mesa Compressor Station		1088-M1R3	10/14/2010	unpermitted dryer	6/15/2011
1182	Val Verde Treating Plant	P118R1	728-M7R3	10/14/2010	VOC emission limits exceeded	1/28/2011
1348	Wright Compressor Station		1984M1R2	6/7/2010	unpermitted tanks	12/14/2010

\* past test and monitoring requirements are not correctable.

**STATE OF NEW MEXICO  
SECRETARY OF ENVIRONMENT**

**IN THE MATTER OF ENTERPRISE  
PRODUCTS OPERATING, LLC**

**No. AQCA 11 - 12(CO)  
ENT-1038-1101-R1 (NOV)  
ENT-0971-1001 (NOV)**

**SETTLEMENT AGREEMENT AND STIPULATED FINAL COMPLIANCE ORDER**

**EXHIBIT E**

**SUPPLEMENTAL ENVIRONMENTAL PROJECT PROPOSAL, JANUARY 22, 2013**



Enterprise  
Products

ENTERPRISE PRODUCTS PARTNERS L.P.  
ENTERPRISE PRODUCTS HOLDINGS LLC  
(General Partner)

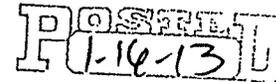
ENTERPRISE PRODUCTS OPERATING LLC

January 15, 2013



7012 2210 0001 2251 2965  
Return Receipt Requested

Ms. Sandra Ely  
Section Chief, Compliance and Enforcement  
New Mexico Environment Department  
Air Quality Bureau  
1301 Siler Road, Bldg B  
Santa Fe, NM 87507



**RE: Notice of Violation: ENT-I038-1101**  
**Notice of Violation: AGCA-11-12 (CO)**  
**Notice of Violation: ENT-0971-1001**  
**Updated Supplemental Environmental Project (SEP) Proposal**

Dear Ms. Ely:

In follow-up to our meeting with the Bureau on August 28, 2012, Enterprise Products Operating, LLC (Enterprise) agreed to submit a proposal for supplemental environmental projects (SEP) for the Bureau's consideration. Subject to final management approval, Enterprise herein proposes five potential SEP as summarized in the attached Table 1. Based upon review and comments by the Bureau, this updated proposal includes a change in one of the project locations and refined project cost estimates. Additional information regarding permits and schedules in Table 2.

The first two projects involve installation of an electronic controlled pre-combustion chamber injection system and an air fuel ratio (AFR) controller on two engines at Enterprise's Cedar Hill Compressor Station. This technology is usually not marketed as emission reducing; however, there is empirical support for it being employed in that manner and we anticipate about a thirty percent reduction in NO<sub>x</sub> emissions from each engine. Table 1 summarizes the emission reductions in NO<sub>x</sub> based on a 30 percent reduction in the PTE for each engine. Also enclosed is a brochure from Hoerbiger, the company proposing the engine upgrade, which explains the modifications and expected results.

Three remaining projects will replace gas instrument control with air instrument control at the separate compressor stations. As indicated in Table 1, total cost for all the projects will be \$931,761 and will result in expected annual emission reductions of 25.6 tpy, 96.77 tpy and 505.59 tpy of NO<sub>x</sub>, VOC, and methane respectively.

Enterprise appreciates the Bureau's consideration of these potential SEP's and looks forward to Bureau's input on the proposed projects.

If you have any questions, please contact our area Field Environmental Manager, Don Anderson, at (303) 820-5635 or me directly at (713) 381-6684.

Sincerely yours,

Matthew E. Marra  
Sr. Director – Environmental

Enclosures

**Table 1**

Project	Cost	Current Permitted Amount (TPY)	Proposed NOx Permit Reduction (TPY)	Proposed VOC Reduction (TPY)	Proposed Methane Reduction (TPY)	Notes
1. Lean Burn Engine Upgrade at Cedar Hill #2	\$141,161	38.4 NOx	12.8			Propose to reduce NOx to 1 g/bHp-hr. Superior spec of current engine is 1.5 g/hp-hr. Add electronic controlled pre chamber injection (ePCC) and an Air Fuel Ratio (AFR) controller.
2. Lean Burn Engine Upgrade at Cedar Hill #3	\$141,161	38.4 NOx	12.8			Propose to reduce NOx to 1 g/bHp-hr. Superior spec of current engine is 1.5 g/hp-hr. Add electronic controlled pre chamber injection (ePCC) and an Air Fuel Ratio (AFR) controller.
3. Replace gas instrument controls with air at Hart Canyon 2 Station	\$250,594	54.1 VOCs		49.9	210.18	
4. Replace gas instrument controls with air at Martinez Station	\$189,000			16.57	69.41	
5. Replace gas instrument controls with air at Kutz Station	\$209,845	30.3 VOCs		30.3	226	
<b>Totals</b>	<b>\$931,761</b>		<b>25.6</b>	<b>96.77</b>	<b>505.59</b>	

<b>Lean Burn Engine Upgrades (2)</b>		
Permits	Cedar Hill: Title V P173-R2, NSR Permit 1710M3, Units 2 and 3	Subparts JJJ and ZZZ not applicable
Project Timeline	<ul style="list-style-type: none"> <li>• AFE preparation, approval and PO generation expect completion at 2/28/13</li> <li>• Delivery time for components is 12 weeks ARO so expect components 5/1/13</li> <li>• Installation time to be completed 6/1/13</li> <li>• Invoicing and project closure to be completed by 8/15/13</li> <li>• Expect final submittals of actual costs 10/15/2013</li> </ul>	
<b>Instrument Air Upgrades (3)</b>		
Permits	Martinez Station: No Title V, General Permit GCP -1-1985M2 Hart Canyon 2: No Title V, NSR Permit 1679-M2 Kutz: No Title V, General Permit GCP -1-1575-M1R1	
Project Timeline	<ul style="list-style-type: none"> <li>• AFE preparation, approval and PO generation expect completion at 2/28/13</li> <li>• Delivery time for components is 16 weeks ARO so expect components by 6/1/13</li> <li>• Installation time to be completed by 8/1/13</li> <li>• Invoicing and project closure to be completed by 9/15/13</li> <li>• Expect final submittals of actual costs 12/1/13</li> </ul>	

Table 2: Permits and Timelines

# CleenCOM

Compliant lean-burn engine upgrades with computerized controls





## CleenCOM ePCC

# Reliability and Maintenance Upgrade for Pre Chamber Engines

Combustion stability is key for reliable engine performance. From a lean burn engine perspective, igniting the lean mixture is the main concern.

Pre combustion chambers are a viable approach since the flame propagation into the main combustion chamber provides an order of magnitude higher energy than a spark ignition alone. However, if the mixture in the pre chamber is not adjusted correctly or if it is inconsistent cycle-to-cycle, the result could be

- poor combustion stability
- misfires or even
- detonation

These are common problems associated with mechanical check valves.

An electronically controlled check valve that precisely controls fuel injection avoids these problems. It allows the engine to run consistently smoother and cleaner. Maintenance is significantly reduced and engine uptime is increased when electronically controlled check valves are used.



### The Need

Most lean burn engines require pre combustion chambers for igniting the lean mixture. The fueling is controlled via check valves, which perform poorly:

- Frequent clogging / quit working
- Inconsistent fueling; varying Air/Fuel ratio
- Too rich Air/Fuel ratio during startup; fuel slip
- #1 root cause of combustion issues

### The Solution

Electronic controlled pre chamber injection - ePCC

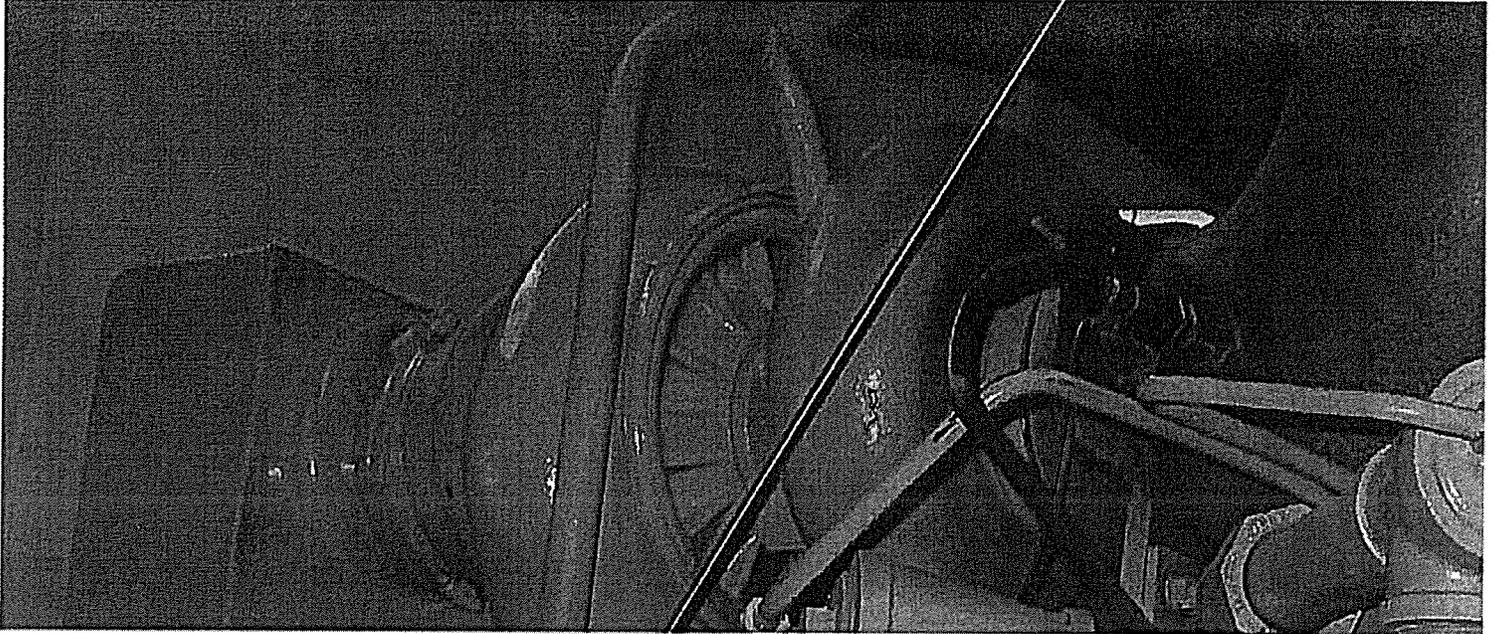
- No maintenance issues
- Precise and consistent fueling (cycle-to-cycle)
- Stable combustion—even at very lean mixtures
- Improved startup—smooth and efficient idling

### Waukesha 7042GL Results

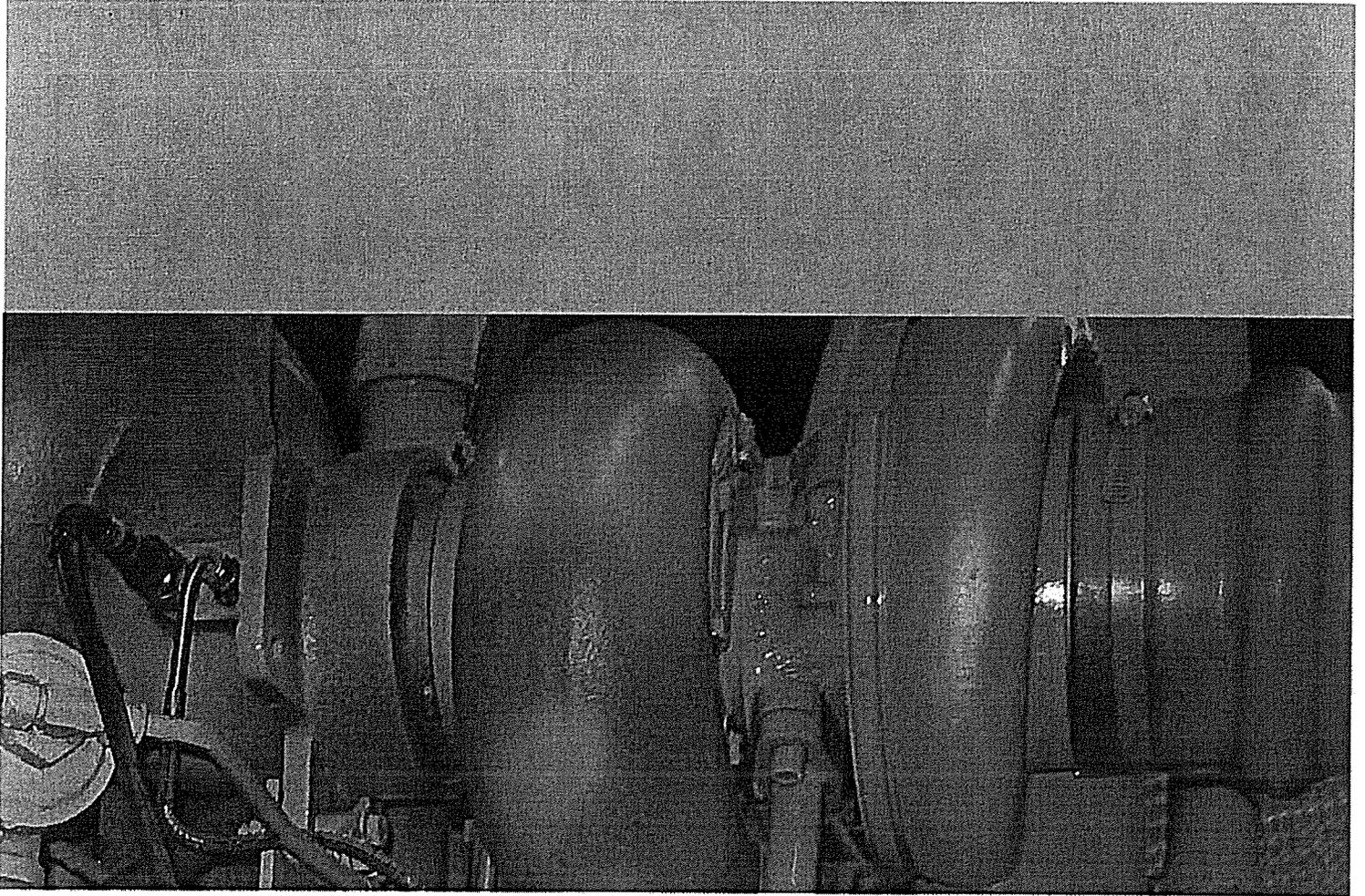
- Improved combustion stability at rated operating conditions as well as reduced hydrocarbon emissions and slightly improved fuel consumption
- Achieved stable combustion far below 1 g/bHp-hr NO<sub>x</sub>
- Smooth startup and idling
- Easy "Plug & Play" installation

**CleenCOM ePCC with Air/Fuel Ratio Control (AFR)**

## **Emissions Upgrade for Lean-burn Pre Chamber Engines**



Most of the installed lean burn engine fleet is designed and rated for an emission level above current or future regulation. The lean burn concept combines the benefits of increased efficiency and reduced emissions. Combustion stability is the limit. Comprehensive research and testing have proven that lean burn engines with pre chambers can run reliably and smoothly meeting future emission requirements – if the pre chamber mixture and the engine air/fuel-ratio (AFR) is controlled correctly. The combination of ePCC technology and advanced AFR concepts provides the ideal solution – clean and efficient performance.



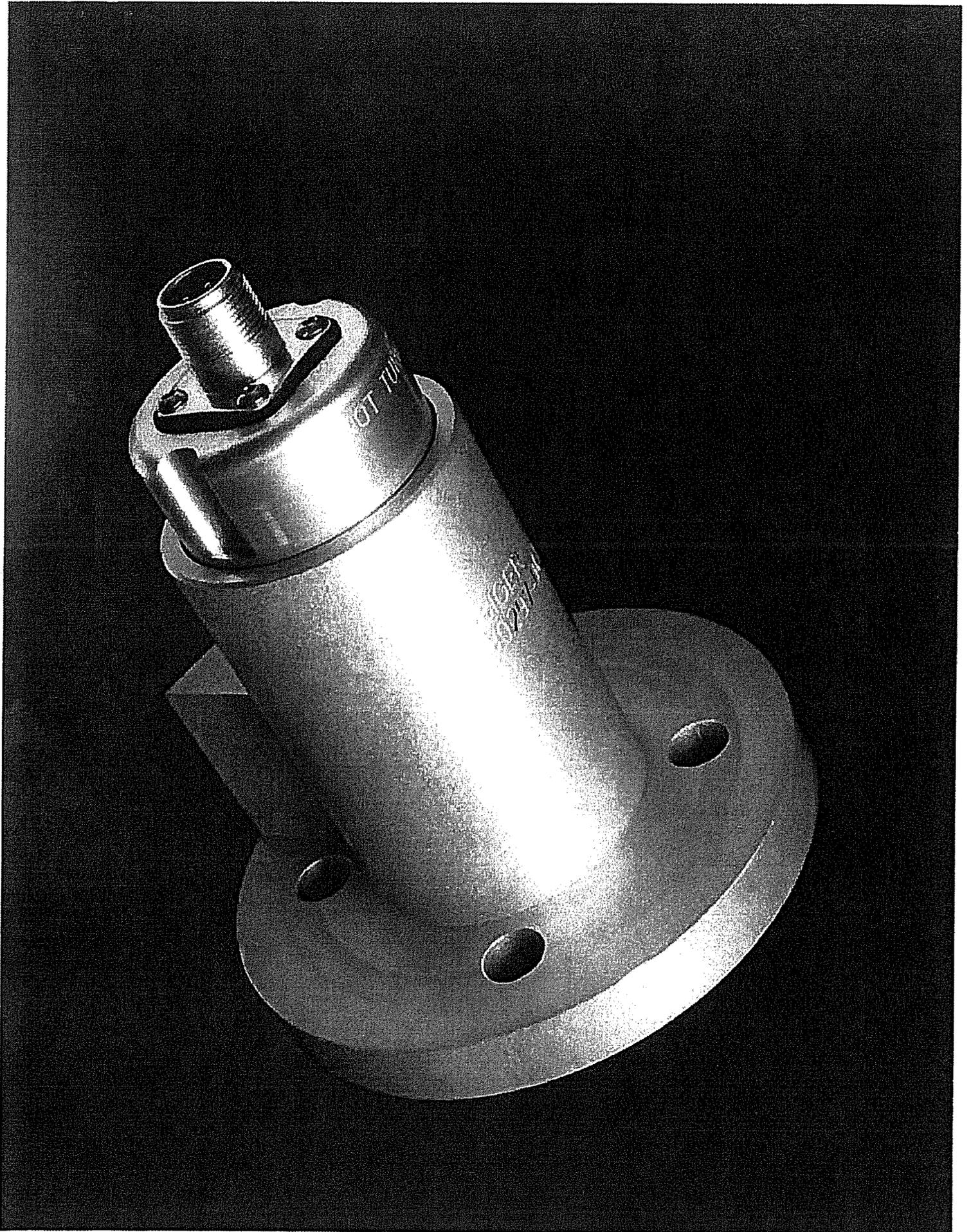
### **The Need**

- Reduce lean burn engine emissions to below 1 g/bHp-hr NOx
- Most engines are rated between 2 to 5 g/bHp-hr NOx, but can supply more air to further reduce NOx
- However, running this lean results in very poor combustion stability with mechanical pre chamber fueling (check valve)

### **The Solution**

ePCC ensures stable pre chamber and main chamber combustion

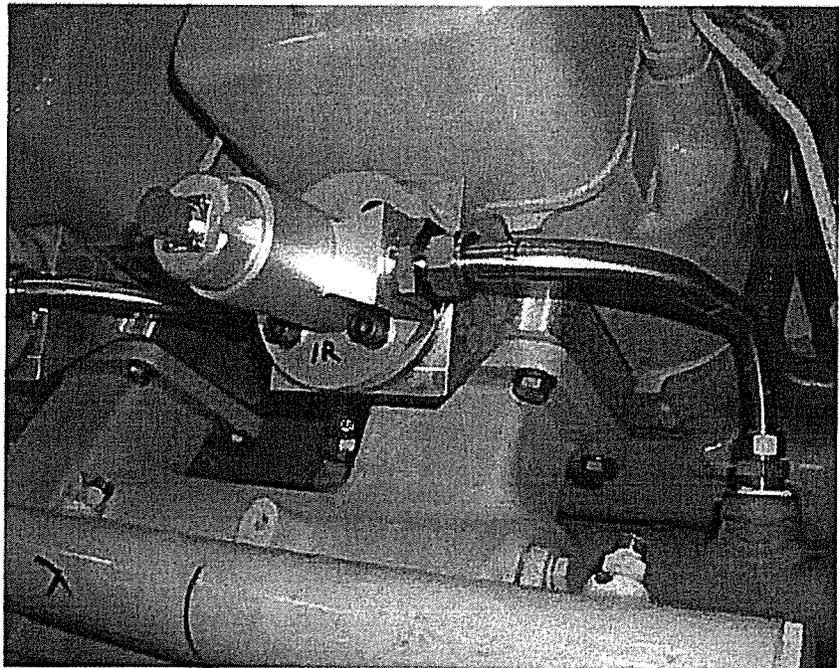
- Advanced Air/Fuel Ratio Controller runs the engine at the targeted emission level



**CleenCOM PFI**

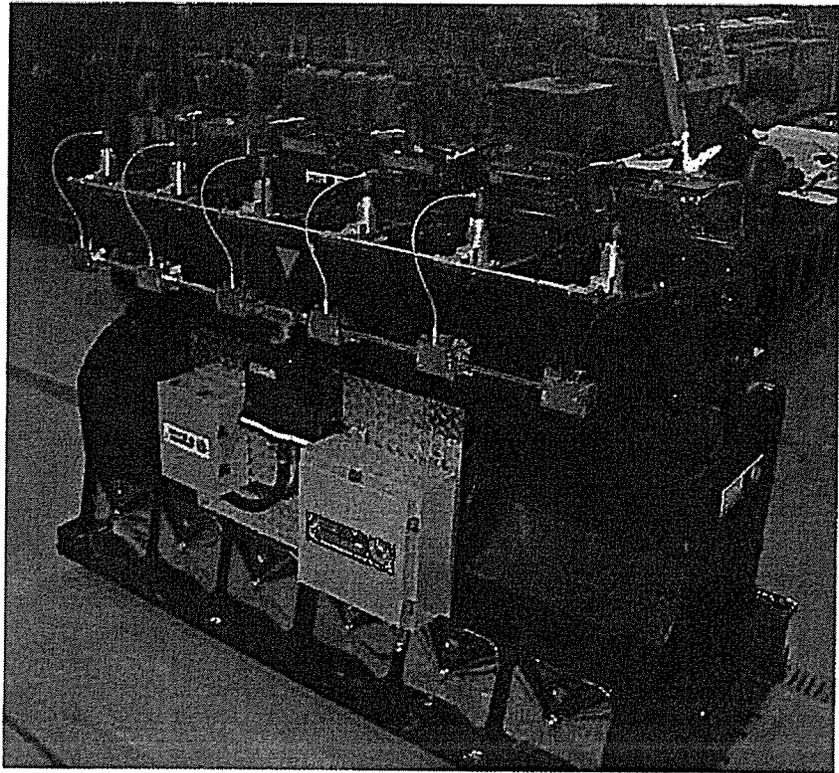
## **Port Fuel Injection Upgrade for Lean-burn Engines**

Lean-burn engines have a high efficiency potential which is limited by using a carburetor for mixing. Electronic fuel injection allows precise speed governing by eliminating throttle losses. These improvements in combination with cylinder skipping in part load operation result in significant fuel savings. Modern digital control and fuel injection ensure a high level of reliability and reduced maintenance efforts.



### **CleenCOM PFI at a glance:**

- Multiport fuel injection with PFI
- Fast response speed governing
- Precise control of engine fueling rate throughout start-up and load ranges
- Reduced fuel consumption up to 9% in part load
- Better combustion stability
- Significantly reduced maintenance requirements  
(no carburetor, no governor, no throttle)
- Advanced air-fuel-ratio controller



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