

Introduction

The Williams Four Corners LLC (WFC) Pump Mesa Central Delivery Point (CDP) currently operates under a construction permit, 0867-M5, dated April 9, 2010 and a Title V operating permit, P037-R2, dated December 20, 2010.

The station is currently permitted to operate the following equipment/sources:

- Fourteen Waukesha L7042GL natural gas-fired compressor engines (Units 1-14);
- One P&A 10 million standard cubic feet per day (MMSCFD) triethylene glycol (TEG) dehydrator (Unit 15);
- Four Enertek 20 MMSCFD TEG dehydrators (Units 16-19);
- One Enertek 10 MMSCFD TEG dehydrator (Unit 20);
- Startup, shutdown and maintenance emissions (SSM) emissions (Units 1a-14a); and
- Malfunction emissions (Unit M1).

The station is also equipped with miscellaneous liquid storage tanks.

This application is being submitted to renew the Title V operating permit. It is also being submitted to make the following modifications. Note that a construction permit application is being submitted to make these same changes.

- Update dehydrator still vent (Units 15a-20a) emissions to address the evolving gas composition;
- Update SSM emissions from the compressors and piping associated with the station (Units 1a-14a) to address the evolving gas composition;
- Add three tank heaters (Units 21-23). These are exempt units with combined emissions less than 0.5 tons per year per pollutant; and
- Update the miscellaneous liquid storage tank listing (exempt sources).

Table 2-A: Regulated Emission Sources

Unit and stack numbering must correspond throughout the application package. If applying for a NOI under 20.2.73 NMAC, equipment exemptions under 2.72.202 NMAC do not apply.

Unit Number ¹	Source Description	Manufacturer	Model #	Serial #	Maximum or Rated Capacity ³ (Specify Units)	Requested Permitted Capacity ³ (Specify Units)	Date of Manufacture or Reconstruction ²	Controlled by Unit #	Source Classification Code (SCC)	For Each Piece of Equipment, Check One	Applicable State & Federal Regulation(s) (i.e. 20.2.X, JJJJ, ...)	Replacing Unit No.
							Date of Installation /Construction ²	Emissions vented to Stack #				
1	Reciprocating Engine (Compressor)	Waukesha	L7042GL	338549 (Package # X00074)	1,478 hp	1,363 hp	1/18/1980	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							1/18/1980	1				
2	Reciprocating Engine (Compressor)	Waukesha	L7042GL	C-12671/1 (Package # 76368)	1,478 hp	1,363 hp	8/31/1998	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							8/31/1998	2				
3	Reciprocating Engine (Compressor)	Waukesha	L7042GL	C-10887/2 (Package # X00039)	1,478 hp	1,363 hp	5/14/1993	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							5/14/1993	3				
4	Reciprocating Engine (Compressor)	Waukesha	L7042GL	C-12595/1 (Package # X00040)	1,478 hp	1,363 hp	3/25/1998	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							3/25/1998	4				
5	Reciprocating Engine (Compressor)	Waukesha	L7042GL	TBD - not installed	1,478 hp	1,363 hp	TBD - not installed	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							TBD - not installed	5				
6	Reciprocating Engine (Compressor)	Waukesha	L7042GL	TBD - not installed	1,478 hp	1,363 hp	TBD - not installed	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							TBD - not installed	6				
7	Reciprocating Engine (Compressor)	Waukesha	L7042GL	TBD - not installed	1,478 hp	1,363 hp	TBD - not installed	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							TBD - not installed	7				
8	Reciprocating Engine (Compressor)	Waukesha	L7042GL	C-10985/10 (Package # X00021)	1,478 hp	1,363 hp	7/17/1988	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							7/17/1988	8				
9	Reciprocating Engine (Compressor)	Waukesha	L7042GL	C-12588/5 (Package # X00078)	1,478 hp	1,363 hp	8/7/1998	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							8/7/1998	9				
10	Reciprocating Engine (Compressor)	Waukesha	L7042GL	TBD - not installed	1,478 hp	1,363 hp	TBD - not installed	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							TBD - not installed	10				
11	Reciprocating Engine (Compressor)	Waukesha	L7042GL	TBD - not installed	1,478 hp	1,363 hp	TBD - not installed	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							TBD - not installed	11				
12	Reciprocating Engine (Compressor)	Waukesha	L7042GL	TBD - not installed	1,478 hp	1,363 hp	TBD - not installed	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							TBD - not installed	12				
13	Reciprocating Engine (Compressor)	Waukesha	L7042GL	TBD - not installed	1,478 hp	1,363 hp	TBD - not installed	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							TBD - not installed	13				
14	Reciprocating Engine (Compressor)	Waukesha	L7042GL	TBD - not installed	1,478 hp	1,363 hp	TBD - not installed	N/A	20200254	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP ZZZZ	NA
							TBD - not installed	14				
15a	Dehydrator Still Vent	P&A	M10MM1 10012P	4576	10 MMSCFD	10 MMSCFD	04/01/91	N/A	31000227	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP HH	NA
							04/01/91	15a				

Table 2-A: Regulated Emission Sources

Unit and stack numbering must correspond throughout the application package. If applying for a NOI under 20.2.73 NMAC, equipment exemptions under 2.72.202 NMAC do not apply.

Unit Number ¹	Source Description	Manufacturer	Model #	Serial #	Maximum or Rated Capacity ³ (Specify Units)	Requested Permitted Capacity ³ (Specify Units)	Date of Manufacture or Reconstruction ²	Controlled by Unit #	Source Classification Code (SCC)	For Each Piece of Equipment, Check One	Applicable State & Federal Regulation(s) (i.e. 20.2.X, JJJJ, ...)	Replacing Unit No.
							Date of Installation /Construction ²	Emissions vented to Stack #				
15b	Dehydrator Reboiler	P&A	M10MM110012P	4576	0.39 MMBtu/hr	0.39 MMBtu/hr	04/01/91	N/A	31000228	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72	NA
16a	Dehydrator Still Vent	Enertek	J2P20M11109	TBD - not installed	20 MMSCFD	20 MMSCFD	TBD - not installed	N/A	31000227	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP HH	NA
16b	Dehydrator Reboiler	Enertek	J2P20M11109	TBD - not installed	0.39 MMBtu/hr	0.39 MMBtu/hr	TBD - not installed	N/A	31000228	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72	NA
17a	Dehydrator Still Vent	Enertek	J2P20M11109	42669	20 MMSCFD	20 MMSCFD	10/01/95	N/A	31000227	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP HH	NA
17b	Dehydrator Reboiler	Enertek	J2P20M11109	42669	0.39 MMBtu/hr	0.39 MMBtu/hr	10/01/95	N/A	31000228	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72	NA
18a	Dehydrator Still Vent	Enertek	J2P20M11109	TBD - not installed	20 MMSCFD	20 MMSCFD	TBD - not installed	N/A	31000227	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP HH	NA
18b	Dehydrator Reboiler	Enertek	J2P20M11109	TBD - not installed	0.39 MMBtu/hr	0.39 MMBtu/hr	TBD - not installed	N/A	31000228	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72	NA
19a	Dehydrator Still Vent	Enertek	J2P20M11109	42668	20 MMSCFD	20 MMSCFD	1993	N/A	31000227	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP HH	NA
19b	Dehydrator Reboiler	Enertek	J2P20M11109	42668	0.39 MMBtu/hr	0.39 MMBtu/hr	1993	N/A	31000228	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72	NA
20a	Dehydrator Still Vent	Enertek	J2P10M11109	41904	10 MMSCFD	10 MMSCFD	09/01/92	N/A	31000227	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72, NESHAP HH	NA
20b	Dehydrator Reboiler	Enertek	J2P10M11109	41904	0.39 MMBtu/hr	0.39 MMBtu/hr	09/01/92	N/A	31000228	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72	NA
1a-14a	Startup, Shutdown & Maintenance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31000299	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72	NA
F1	Equipment Leaks	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31000299	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72	NA
M1	Malfunctions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31000299	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	20.2.72	NA

¹ Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provided.

² Specify dates required to determine regulatory applicability.

³ To properly account for power conversion efficiencies, generator set rated capacity shall be reported as the rated capacity of the engine in horsepower, not the kilowatt capacity of the generator set.

Section 3

Application Summary

The **Application Summary** shall include a brief description of the facility and its process, the type of permit application, the applicable regulation (i.e. 20.2.72.200.A.X, or 20.2.73 NMAC) under which the application is being submitted, and any air quality permit numbers associated with this site. If this facility is to be collocated with another facility, provide details of the other facility including permit number(s). In case of a revision or modification to a facility, provide the lowest level regulatory citation (i.e. 20.2.72.219.B.1.d NMAC) under which the revision or modification is being requested. Also describe the proposed changes from the original permit, how the proposed modification will effect the facility's operations and emissions, de-bottlenecking impacts, and changes to the facility's major/minor status (both PSD & Title V).

Routine or predictable emissions during Startup, Shutdown, and Maintenance (SSM): Provide an overview of how SSM emissions are accounted for in this application. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.nmenv.state.nm.us/aqb/permit/app_form.html) for more detailed instructions on SSM emissions.

Summary

The WFC Pump Mesa CDP currently operates under a construction permit, 0867-M5, dated April 9, 2010 and a Title V operating permit, P037-R2, dated December 20, 2010. The applicable regulation is 20.2.70 New Mexico Administrative Code (NMAC). The lowest level regulatory citation is 20.2.70.300.B(2) NMAC.

The station is currently permitted to operate the following equipment/sources:

- Fourteen Waukesha L7042GL natural gas-fired compressor engines (Units 1-14);
- One P&A 10 MMSCFD TEG dehydrator (Unit 15);
- Four Enertek 20 MMSCFD TEG dehydrators (Units 16-19);
- One Enertek 10 MMSCFD TEG dehydrator (Unit 20);
- SSM emissions (Units 1a-14a); and
- Malfunction emissions (Unit M1).

The station is also equipped with miscellaneous liquid storage tanks.

This application is being submitted to renew the Title V operating permit. It is also being submitted to make the following modifications. Note that a construction permit application is being submitted to make these same changes.

- Update dehydrator still vent (Units 15a-20a) emissions to address the evolving gas composition;
- Update SSM emissions from the compressors and piping associated with the station (Units 1a-14a) to address the evolving gas composition;
- Add three tank heaters (Units 21-23). These are exempt units with combined emissions less than 0.5 tons per year per pollutant; and

- Update the miscellaneous liquid storage tank listing (exempt sources).

There are no modifications to de-bottleneck impacts or change the facility's major/minor status (both prevention of significant deterioration [PSD] & Title V).

Startup, Shutdown and Maintenance Emissions

For the engines, dehydrators (still vent and reboiler), equipment leaks (valves, connectors, seals, etc.), malfunctions, and storage tanks, it is concluded there are no SSM emissions in excess of those identified for steady-state operation as seen in Section 2 (Table 2-E). Discussions justifying this conclusion are provided in Section 6.

SSM emissions from blowdowns of the compressors and piping associated with the plant are calculated from the quantity of gas vented during each event, the composition of the gas, and the number of events. The number of blowdowns events are estimated based on historical operations. A safety factor is included.