

**Air Pollution Control  
Title V Permit to Operate  
Statement of Basis for Final Title V Permit, No. V-SU-0051-10.00  
October 2010**

**Samson Resources Company  
Howard Salt Water Disposal Facility  
Southern Ute Reservation  
La Plata County, Colorado**

**1. Facility Information**

a. Location

The Howard Salt Water Disposal Facility, owned and operated by Samson Resources Company (“Samson”), is located within the exterior boundaries of the Southern Ute Indian Reservation, in the southwestern part of the State of Colorado. The exact location is Section 19, Township 34 North, Range 6 West, in La Plata County, Colorado, at latitude N 37.173272 and longitude W 107.54037. The mailing address is:

Samson Resources Company  
Howard Salt Water Disposal Facility  
Two West Second Street  
Tulsa, OK 74103

b. Contacts

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**Tribal Contact:**

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the part 71 application are in no way exempt from applicable requirements or any requirements of the part 71 permit.

Samson stated in the part 71 permit application that the emission units in Table 2, below, are IEUs. The application provided emission calculations for the tanks using TANKS 4.0. This supporting data justifies the source’s claim that these units qualify as insignificant emission units (IEUs).

**Table 2 - Insignificant Emission Units  
Samson Resources Company, Howard Salt Water Disposal Facility**

Emission Unit ID	Description
IE-1	1 - 500 gallon lubricating oil storage tank
IE-2	1 - 300 gallon lubricating oil storage tank
IE-3	1 - 500 ethylene glycol storage tank
IE-4 IE-5 IE-6 IE-7	4 – 1,000 bbl produced water storage tanks
IE-8	1 - 300 bbl slop tank
IE-9	1 - 100 bbl buried, open top sump/slop tank

e. Construction, Permitting, and Compliance History

The Howard Salt Water Disposal Facility was initially constructed on December 15, 2008. The Caterpillar 3412TA 691 bhp engine drives a generator to provide electrical power for the site. The facility became a major part 71 source for NOx emissions (PTE > 100 tpy) as a result of the initial construction, which triggered the requirement for Samson to submit a part 71 title V operating permit application within 12 months.

EPA Region 8 received Samson’s part 71 initial permit application on November 30, 2009, and determined it administratively complete as of November 30, 2009. EPA requested additional facility information on April 2, 2010.

Table 3 illustrates the history and description of the regulations that potentially apply to this facility, the permitting history, the changes in the unit-specific and facility-wide PTE and emission status with each source modification, and the compliance history since operation of the facility commenced in December 2008.

**Table 3 – Construction, Permitting, and Compliance History  
Samson Resources Company, Howard Salt Water Disposal Facility**

<b>August 7, 1980 Prevention of Significant Deterioration Pre-Construction Permitting Program Promulgated (the 8/7/80 rules form the basis of the current regulations)</b>
<p>Applicability:</p> <p>PSD is a preconstruction review requirement that applies to proposed projects that are sufficiently large (in terms of emissions) to be a “major” stationary source or “major” modification. Source size is defined in terms of “potential to emit,” which is its capability at maximum design capacity to emit a pollutant, except as constrained by federally and practically enforceable conditions. A new source or a modification to an existing minor source is major if the proposed project has the potential to emit any pollutant regulated under the CAA in amounts equal to or exceeding specified major source thresholds [100 tpy for the 28 listed industrial source categories and 250 tpy for all other sources].</p> <p>PSD also applies to modifications at existing major sources that cause a significant “net emissions increase” at that source. A modification is a physical change or change in the method of operation. Significance levels for each pollutant are defined in the PSD regulations at 40 CFR 52.21.</p> <p>Compliance: No new source or modification of a source subject to PSD review may be constructed without a permit.</p>

<b>January 18, 2008 – MACT ZZZZ Amendments Promulgated to Include: New RICE at Area Sources (HAP &lt; 10/25 tpy &amp; for any size engine) New RICE at Major Sources (HAP &gt; 10/25 tpy &amp; for engines ≤ 500 HP)</b>
<p>Affected Sources (Additional to 2004 MACT ZZZZ Promulgation):</p> <p>New or reconstructed Stationary RICE of any hp at area sources of HAP emissions, constructed or reconstructed on or after 6/12/06</p> <p>New or reconstructed Stationary RICE ≤ 500 hp at major sources of HAP emissions, constructed or reconstructed on or after 6/12/06</p> <p>Comply by complying with NSPS for Stationary Spark Ignition Internal Combustion Engines (SIICE) or NSPS for Compression Ignition ICE (CIICE), as appropriate.</p> <p>Final Compliance Dates</p> <p>Major HAP source</p> <p>Start up a new or reconstructed RICE ≤ 500 hp before January 18, 2008 – January 18, 2008</p> <p>Start up a new or reconstructed RICE ≤ 500 hp after January 18, 2008 – upon startup</p> <p>Area HAP source</p> <p>Start up a new or reconstructed RICE of any hp before January 18, 2008 – January 18, 2008</p> <p>Start up a new or reconstructed RICE of any hp after January 18, 2008 – upon startup</p> <p>Applicability to Howard Salt Water Disposal Facility:</p> <p><i>Not applicable. Stationary RICE at the facility has not been constructed or reconstructed on or after 6/12/06.</i></p>

<b>December 15, 2008 – Operation Commenced After Initial Construction</b>						
Unit	Description	Potential to Emit				
		NOx (tpy)	CO (tpy)	VOC (tpy)	CH <sub>2</sub> O (tpy)	Total HAPs (tpy)
Uncontrolled						
E1	Caterpillar 3412TA, 691 bhp, rich-burn, natural gas-fired RICE, manufactured 03/17/2000	141.9	20.1	13.1	2.2	2.2
IEUs		0.0	0.0	0.0	0.0	0.0
December 2008 Facility-Wide PTE Totals		141.9	20.1	13.1	2.2	2.2
<p><b>Non-PSD source. Area source for HAPs. Major source for title V permitting – NOx</b> Initial application due 12/15/2009. Received 11/30/2009. Draft Permit #V-SU-0051-10.00</p>						

**Table 3 – Construction, Permitting, and Compliance History (continued...)  
Samson Resources Company, Howard Salt Water Disposal Facility**

<b>February 17, 2010 – MACT ZZZZ Amendments Promulgated to Include:</b> <b>Existing CI ICE at Area Sources (HAP &lt; 10/25 tpy &amp; for any size engine)</b> <b>Existing CI ICE at Major Sources (HAP &gt; 10/25 tpy &amp; for engines ≤ 500 HP)</b> <b>Revisions to Startup, Shutdown, &amp; Malfunction Requirements for All RICE</b>	
Affected Sources (Additional to 2004 MACT ZZZZ Promulgation): Existing Stationary CI ICE of any hp at area sources of HAP emissions, constructed or reconstructed before June 12, 2006 Existing Stationary CI ICE ≤ 500 hp at major sources of HAP emissions, constructed or reconstructed before June 12, 2006 Existing Non-Emergency CI ICE > 500 hp at major sources of HAP emissions, constructed or reconstructed before December 19, 2002	
Final Compliance Dates Existing Stationary CI ICE of any hp at area sources of HAP emissions – May 3, 2013 Existing Stationary CI ICE ≤ 500 hp at major sources of HAP emissions – May 3, 2013 Existing Non-Emergency CI ICE > 500 hp at major sources of HAP emissions – May 3, 2013	
Applicability to Howard Salt Water Disposal Facility: <i>Not applicable. The facility is an area source for HAP emissions and there is no Stationary CI ICE at the facility.</i>	

<b>Part 71 Application received 11/30/2009. Additional Information Requested and Received April 5, 2010.</b>						
Unit	Description	Potential to Emit				
		NOx (tpy)	CO (tpy)	VOC (tpy)	CH <sub>2</sub> O (tpy)	Total HAPs (tpy)
E1	Caterpillar 3412TA, 691 bhp, rich-burn, natural gas-fired RICE, manufactured 03/17/2000	141.9	20.1	13.1	2.2	2.2
IEUs		0.0	0.0	0.0	0.0	0.0
December 2008 Facility-Wide PTE Totals		141.9	20.1	13.1	2.2	2.2
<b>Non-PSD source. Area source for HAPs. Major source for title V permitting – NOx</b> Initial application due 12/15/2009. Received 11/30/2009. Draft Permit #V-SU-0051-10.00						

f. Potential to Emit

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

The PTE for the Howard Salt Water Disposal Facility, are proposed as follows:

Nitrogen Oxides (NO<sub>x</sub>) – 141.9 tpy  
Carbon Monoxide (CO) – 20.1 tpy  
Volatile Organic Compounds (VOC) – 13.1 tpy  
Small Particulates (PM<sub>10</sub>) - negligible  
Lead - negligible  
Sulfur Dioxide (SO<sub>2</sub>) - negligible  
Total Allowable Hazardous Air Pollutants (HAPs) – 2.2 tpy  
Largest single HAP (Formaldehyde, CH<sub>2</sub>O) – 2.2 tpy

## **2. Tribe Information - Southern Ute Tribe**

### **a. Indian Country**

Samson's Howard Salt Water Disposal Facility is located within the exterior boundaries of the Southern Ute Indian Reservation and is thus within Indian country as defined at 18 U.S.C. §1151. The Southern Ute Tribe does not have a federally-approved CAA title V operating permits program nor does EPA's approval of the State of Colorado's title V program extend to Indian country. Thus, EPA is the appropriate governmental entity to issue the title V permit to this facility.

### **b. The Reservation**

The Southern Ute Indian Reservation is located in southwestern Colorado adjacent to the New Mexico boundary. Ignacio is the headquarters of the Southern Ute Tribe, and Durango is the closest major city, just 5 miles outside of the north boundary of the Reservation. Current information indicates that the population of the Tribe is about 1,450 people with approximately 410 Tribal members living off the Reservation. In addition to Tribal members, there are over 30,000 non-Indians living within the exterior boundaries of the Southern Ute Reservation.

### **c. Tribal Government**

The Southern Ute Indian Tribe is governed by the Constitution of the Southern Ute Indian Tribe of the Southern Ute Indian Reservation, Colorado adopted on November 4, 1936 and subsequently amended and approved on October 1, 1975. The Southern Ute Indian Tribe is a federally recognized Tribe pursuant to Section 16 of the Indian Reorganization Act of June 18, 1934 (48 Stat.984), as amended by the Act of June 15, 1935 (49 Stat. 378). The governing body of the Southern Ute Indian Tribe is a seven member Tribal Council, with its members elected from the general membership of the Tribe through a yearly election process. Terms of the Tribal Council are three (3) years and are staggered so in any given year 2 members are up for reelection. The Tribal Council officers consist of a Chairman, Vice-Chairman, and Treasurer.

#### d. Local Air Quality

The Tribe maintains an air monitoring network consisting of two stations equipped to measure ambient concentrations of oxides of nitrogen (NO, NO<sub>2</sub>, and NO<sub>x</sub>), ozone (O<sub>3</sub>), and carbon monoxide (CO), and to collect meteorological data. The Tribe has collected NO<sub>2</sub> and O<sub>3</sub> data at the Ignacio, Colorado station (also known as the Ute 1 station, with AQS identification number 08-067-7001) and the Bondad, Colorado station (also known as Ute 3, with AQS identification number 08-067-7003) since June 1, 1982, and April 1, 1997, respectively. The CO channel at the Ignacio station has been reporting to AQS since January 1, 2000, and both stations began reporting NO and NO<sub>x</sub> data to AQS on the same day. Also in 2000, both stations initiated meteorological monitors measuring wind speed, wind direction, vertical wind speed, outdoor temperature, relative humidity, solar radiation, and rain/snowmelt precipitation. Reporting of vertical wind speed data from both stations terminated on July 1, 2007. Particulate data (PM<sub>10</sub>) was collected from December 1, 1981 to September 30, 2006 at the Ignacio station and from April 1, 1997 to September 30, 2006 at the Bondad station. The Tribe reports hourly data to AQS for the criteria pollutants being monitored (NO<sub>2</sub>, O<sub>3</sub>, and CO), allowing AQS users to retrieve data that can be compared to any of the National Ambient Air Quality Standards for these pollutants.

### **3. Analysis of Federal Requirements**

#### a. Review of Federal Regulations

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

#### **Prevention of Significant Deterioration (PSD)**

PSD is a preconstruction review requirement of the CAA that applies to proposed projects that are sufficiently large (in terms of emissions) to be a “major” stationary source or “major” modification of an existing stationary source. The PSD regulations are found at 40 CFR 52.21. Source size is defined in terms of “potential to emit,” which is its capability at maximum design capacity to emit a pollutant, except as constrained by existing federally and practically enforceable conditions applicable to the source.

A new stationary source or a modification to an existing minor stationary source is major if the proposed project has the potential to emit any pollutant regulated under the CAA in amounts equal to or exceeding specified major source thresholds, which are 100 tpy for 28 listed industrial source categories and 250 tpy for all other sources.

PSD also applies to modifications at existing major sources that cause a “significant net emissions increase” at that source. Significance levels for each pollutant are defined in the PSD

regulations at 40 CFR 52.21. A modification is a physical change or change in the method of operation.

The Howard Salt Water Disposal Facility does not belong to any of the 28 source categories. Therefore, the potential to emit threshold for determining PSD applicability for this source is 250 tpy. In its initial part 71 application, Samson indicated that the potential emissions of any pollutant regulated under the CAA [not including pollutants listed under section 112] were below the major source PSD thresholds; therefore, this facility was not required to obtain a PSD permit for initial construction.

### **New Source Performance Standards (NSPS)**

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

According to Samson, the Howard Salt Water Disposal Facility is not subject to any specific subparts of part 60; therefore, the General Provisions of part 60 do not apply.

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

According to Samson, the Howard Salt Water Disposal Facility does not operate any heaters with a maximum design heat input capacity greater than or equal to 10 MMBtu/hr; therefore, subpart Dc does not apply.

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

According to Samson, this subpart does not apply to the storage vessels at the Howard Salt Water Disposal Facility because there are no tanks at this site that were constructed, reconstructed, or modified after June 11, 1973, and prior to May 19, 1978.

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

According to Samson, this subpart does not apply to the storage vessels at the Howard Salt Water Disposal Facility because there are no tanks at this site with a storage capacity greater than 40,000 gallons that were constructed, reconstructed, or modified after May 18, 1978, and prior to June 23, 1984.

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

According to Samson, the facility does not have any tanks that qualify as affected sources under this rule. Therefore, this subpart does not apply to the storage vessels at the Howard Salt Water Disposal Facility.

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

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

Samson provided the following information:

**Table 4 – NSPS Subpart JJJJ Applicability Determination  
Samson Resources Company – Howard Salt Water Disposal Facility**

Unit	Serial Number	Unit Description	Fuel	BHP	Manufacture/ Commence Construction, Modification, or Reconstruction Date	Install/ Startup Date	Trigger Date for Applicability - Manufactured on or after
E1	7DB01604	Caterpillar 3412TA Rich-Burn Reciprocating Engine	Natural gas	691	Manufactured: Prior to June 12, 2006 <sup>a</sup>	December 15, 2008	7/1/2007

a. Per Samson, this engine was manufactured on March 17, 2000. This engine has not been modified or reconstructed (as defined in part 60) since installation.

Samson provided information in the regulatory applicability assessment of the initial application verifying that the manufacture date for emission unit E1 is March 17, 2000 which is before the trigger date (for rich burn engines with a maximum engine horsepower greater than or equal to 500 hp) of July 1, 2007. The engine has not been modified or reconstructed since June 12, 2006. Therefore, according to Samson, NSPS JJJJ does not apply.

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

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

### *Natural Gas Processing Plant*

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

### *Natural Gas Liquids*

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

### *Process Unit*

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

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

### *Applicability and Designation of Affected Facilities*

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

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

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

### *Equipment*

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

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

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

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

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

#### *Applicability to Howard Salt Water Disposal Facility*

According to Samson, the Howard Salt Water Disposal Facility does not extract NGLs from field gas, nor does it fractionate mixed NGLs to natural gas products; thus, it does not meet the definition of a natural gas processing plant under this subpart. Therefore, subpart KKK does not apply.

40 CFR Part 60, Subpart LLL: Standards of Performance for Onshore Natural Gas Processing; SO<sub>2</sub> Emissions. This rule applies to sweetening units and sulfur recovery units at onshore natural gas processing facilities. As defined in this subpart, sweetening units are process devices that separate hydrogen sulfide (H<sub>2</sub>S) and carbon dioxide (CO<sub>2</sub>) from a sour natural gas stream. Sulfur recovery units are defined as process devices that recover sulfur from the acid gas (consisting of H<sub>2</sub>S and CO<sub>2</sub>) removed by a sweetening unit.

According to Samson, the Howard Salt Water Disposal Facility has no sweetening or sulfur recovery units. Therefore, subpart LLL does not apply.

#### **National Emissions Standards for Hazardous Air Pollutants (NESHAP)**

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

#### *Applicability of Subpart A to the Howard Salt Water Disposal Facility*

According to Samson, the facility is not subject to any of the specific standards of 40 CFR part 63. A record of an applicability determination demonstrating that the facility is not subject to the relevant part 63 standards must be kept (per §63.10(b)(3)) on site for five (5) years after the determinations or until a source changes its operations to become an affected source.

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

### *Throughput Exemption*

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

### *Source Aggregation*

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

- 1) Emissions from any oil and gas production well with its associated equipment and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units.
- 2) Emissions from processes, operations, or equipment that are not part of the same facility shall not be aggregated.
- 3) For facilities that are production field facilities, only HAP emissions from glycol dehydration units and storage tanks with flash emission potential shall be aggregated for a major source determination.

### *Facility*

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

### *Production Field Facility*

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

### *Natural Gas Processing Plant*

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

### *Major Source Determination for Production Field Facilities*

The definition of major source in this subpart (at 40 CFR 63.761) states, in part, that only emissions from the dehydration units and storage vessels with a potential for flash emissions at production field facilities shall be aggregated when comparing to the major source thresholds. For facilities that are not production field facilities, HAP emissions from all HAP emission units shall be aggregated.

### *Area Source Applicability*

40 CFR part 63, subpart HH applies also to area sources of HAPs. An area source is a HAP source whose total HAP emissions are less than 10 tpy of any single HAP or 25 tpy for all HAPs in aggregate. This subpart requires different emission reduction requirements for glycol dehydration units found at oil and gas production facilities based on their geographical location.

Units located in densely populated areas (determined by the Bureau of Census) and known as urbanized areas with an added 2-mile offset and urban clusters of 10,000 people or more, are required to have emission controls. Units located outside these areas will be required to have the glycol recirculation pump rate optimized or operators can document that PTE of benzene is less than 1 tpy.

### *Applicability of Subpart HH to the Howard Salt Water Disposal Facility*

According to Samson, the Howard Salt Water Disposal Facility is not subject to this subpart because there are no affected units at the facility.

40 CFR Part 63, Subpart HHH: National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. This rule applies to natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user, and that are a major source of HAP emissions. A compressor station that transports natural gas prior to the point of custody transfer or to a natural gas processing plant (if present) is not considered a part of the natural gas transmission and storage source category.

### *Applicability of Subpart HHH to the Howard Salt Water Disposal Facility*

According to Samson, this subpart does not apply to the Howard Salt Water Disposal Facility, as the facility is not a natural gas transmission or storage facility.

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

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

## *Rule History*

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

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

For this version of the rule,

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

New means: Construction or reconstruction commenced after 12/19/2002.

### **January 18, 2008: New SI & CI ICE at Area HAP Sources & New SI & CI ICE with Horse Power Rating $\leq$ 500 bhp at Major HAP Sources**

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

For this version of the rule:

Existing means: Construction or reconstruction commenced before 6/12/2006.

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

### **February 17, 2010: Existing CI ICE at Area & Major HAP Sources**

The second round of amendments to MACT ZZZZ was promulgated on February 17, 2010. New requirements were established for existing CI ICE of any horse power rating located at area sources of HAPs, existing CI RICE with a horse power rating less than or equal to 500 bhp at major sources of HAPs, and existing non-emergency CI ICE with a horse power rating greater than 500 bhp at major sources of HAPs.

For this version of the rule

Existing CI at Area Source any HP = Construction or reconstruction commenced before 6/12/2006.

Existing CI at Major Source, bhp  $\leq$  500 = Construction or reconstruction commenced before 6/12/2006.

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

While engines identified above are subject to the final rule and its amendments (February 17, 2010, January 18, 2008, June 15, 2004), there are distinct requirements for each engine depending on their design, use, horsepower rating, fuel, and major or area HAP emission status.

*Summary of Applicability to Engines at Major HAP Sources*

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

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

*Summary of Applicability to Engines at Area HAP Sources*

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

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

*Applicability of 40 CFR 63, Subpart ZZZZ to the Howard Salt Water Disposal Facility*

According to Samson, the Howard Salt Water Disposal Facility is an area source of HAP emissions. According to the information Samson provided its application, the only engine at the facility is an SI RICE greater than 500 bhp but manufactured prior to the trigger date of June 12, 2006. Therefore, it is not subject to the major source requirements of subpart ZZZZ.

**Compliance Assurance Monitoring (CAM) Rule**

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

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

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

- (i) Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to Section 111 or 112 of the Act;*
- (ii) Stratospheric ozone protection requirements under title VI of the Act;*
- (iii) Acid Rain Program requirements pursuant to Sections 404, 405, 406, 407(a), 407(b) or 410 of the Act;*
- (iv) Emissions limitations or standards or other applicable requirements that apply solely under an emissions trading program approved or promulgated by the Administrator under the Act that allows for trading emissions with a source or between sources;*
- (v) An emissions cap that meets the requirements specified in §70.4(b)(12) or §71.6(a)(13)(iii) of this chapter;*
- (vi) Emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination method, as defined in §64.1.”*

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

*(1) Is used to determine compliance with an emission limitation or standard on a continuous basis, consistent with the averaging period established for the emission limitation or standard; and*

*(2) Provides data either in units of the standard or correlated directly with the compliance limit.”*

- 2) The unit uses a control device to achieve compliance with any such limit or standard; and
- 3) The unit has pre-control device emissions of the applicable regulated pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

According to Samson, the Howard Salt Water Disposal Facility does not operate any PSEUs that are subject to an emission limitation or standard, use add-on control devices to achieve compliance, and have pre-control emissions that equal or exceed 100 tpy; therefore, they are not subject to CAM requirements.

### **Chemical Accident Prevention Program**

40 CFR Part 68: Chemical Accident Prevention Provisions. Based on Samson’s application, the Howard Salt Water Disposal Facility currently has no regulated substances above the threshold quantities in this rule, and therefore, is not subject to the requirement to develop and submit a risk management plan. However, Samson has an ongoing responsibility to submit this plan IF a

substance is listed that the total source has in quantities over the threshold amount or IF the total source ever increases the amount of any regulated substance above the threshold quantity.

### **Stratospheric Ozone and Climate Protection**

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

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

### **Mandatory Greenhouse Gas Reporting**

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

#### **b. Conclusion**

Since the Howard Salt Water Disposal Facility is located in Indian country, the State of Colorado's implementation plan does not apply to this source. In addition, no tribal implementation plan (TIP) has been submitted and approved for the Southern Ute Tribe, and EPA has not promulgated a federal implementation plan (FIP) for the area of jurisdiction governing the Southern Ute Indian Reservation. Therefore, the Howard Salt Water Disposal Facility is not subject to any implementation plan.

Based on the information provided in Samson's application, EPA has determined that the facility is subject only to those applicable federal CAA programs discussed above.

EPA recognizes that, in some cases, sources of air pollution located in Indian country are subject to fewer requirements than similar sources located on land under the jurisdiction of a state or

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

#### **4. EPA Authority**

##### **a. General Authority to Issue Part 71 Permits**

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

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

#### **5. Use of All Credible Evidence**

Determinations of deviations, continuous or intermittent compliance status, or violations of the permit are not limited to the testing or monitoring methods required by the underlying regulations or this permit; other credible evidence (including any evidence admissible under the Federal Rules of Evidence) must be considered by the source and EPA in such determinations.

## 6. Public Participation

### a. Public Notice

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

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

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

Public notice was published in the Durango Herald on September 15, 2010, giving opportunity for public comment on the draft permit and the opportunity to request a public hearing.

### b. Opportunity for Comment

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

La Plata County Clerk's Office  
98 Everett Street, Suite C  
Durango, Colorado 81303

and

Southern Ute Indian Tribe  
Environmental Programs Office  
116 Mouache Drive  
Ignacio, Colorado 81137

and

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

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

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

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

The 30-day public comment period ended on October 15, 2010. EPA did not receive any comments on the draft permit or Statement of Basis.

c. Opportunity to Request a Hearing

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

d. Appeal of Permits

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

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

The Environmental Appeals Board will issue an order either granting or denying the petition for review, within a reasonable time following the filing of the petition. Public notice of the grant

of review will establish a briefing schedule for the appeal and state that any interested person may file an amicus brief. Notice of denial of review will be sent only to the permit applicant and to the person requesting the review. To the extent review is denied, the conditions of the final permit decision become final agency action.

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

e. Petition to Reopen a Permit for Cause

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

f. Notice to Affected States/Tribes

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

State of Colorado, Department of Public Health and Environment  
State of New Mexico, Environment Department  
Southern Ute Indian Tribe, Environmental Programs Office  
Ute Mountain Ute Tribe, Environmental Programs  
Navajo Tribe, Navajo Nation EPA  
Jicarilla Tribe, Environmental Protection Office  
La Plata County, County Clerk  
Town of Ignacio, Mayor  
National Park Service, Air, Denver, CO  
U.S. Department of Agriculture, Forest Service, Rocky Mountain Region  
San Juan Citizen Alliance  
Carl Weston  
WildEarth Guardians