

**CDPHE – Air Pollution Control Division**  
**Construction Permit Application**  
**Preliminary Analysis: Colorado Energy Nations Company, LLC Applicant Information**

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<b>Company Name</b>	Colorado Energy Nations Company, LLC
<b>Permit Number</b>	02JE0595.CP2
<b>Source Location</b>	Golden Facility 1003 Vasquez Street, Golden CO 80401
<b>AIRS ID</b>	059/0820 Points 004 & 006
<b>Date</b>	September 13, 2016
<b>Review Engineer</b>	Rachel Frisz

**I. Facility Description & Description of Project**

Colorado Energy Nations Company, LLC (CENC) operates a steam and power generation facility consisting of five (5) boilers, the associated equipment for coal and ash handling and an emergency diesel engine. The boilers provide steam for one (1) 20 MW generator, two (2) 10 MW generators, and for industrial use. The electricity and steam is used by the nearby MillerCoors brewery. The following facilities are associated with this facility for purposes of determining applicability of Prevention of Significant Deterioration (PSD) and/or Nonattainment New Source Review (NANSR) requirements: MillerCoors Brewery, Golden Business Unit (Operating Permit No. 96OPJE140, Rocky Mountain Metal Container (Operating Permit No. 96OPJE139), and MMI/ETOH, Inc. (Operating Permit No. 09OPJE334). The CENC facility is currently permitted under Title V Operating Permit (96OPJE143).

CENC requested a Construction Permit modification on August 2, 2016 to incorporate a facility wide sulfur dioxide (SO<sub>2</sub>) emission limitation required by 40 CFR Part 51, Subpart BB, Data Requirements Rule (DRR) for the 2010 1-hour Sulfur Dioxide (SO<sub>2</sub>) Primary National Ambient Air Quality Standard (NAAQS).

The requested changes are being made to construction permit 02JE0595, which covers both boilers 4 and 5. Permit 02JE0595 was first created in the late 1990's and was intended to supersede the two individual construction permits for Boilers 4 & 5 (10JE660 and 11JE305-1, respectively) and establish the combined reductions across both boilers required by the PM10 SIP and a 1994 Settlement Agreement. The requirements were instead established directly in the initial issuance of Operating Permit 96OPJE143 and 02JE0595 was never issued.

This facility is currently operating under Title V Operating Permit 96OPJE143 which was last renewed on February 1, 2003.

## II. Application Completeness Review

The application for this modification was received on August 2, 2016. The Division worked with the applicant following the submittal to develop appropriate SO<sub>2</sub> emission limitations. The initial application is determined complete on the date it was received.

## III. Emissions Summary

The Potential to Emit and actual emissions of SO<sub>2</sub> at the facility **before** this modification, are as follows:

Unit	SO <sub>2</sub> Emissions (tpy)	
	PTE	2015 Actual Emissions
B004	6,913.0	1174.9
B005		

The Potential to Emit (PTE) values in the table above are based on permit limits including the combined limits for Boilers 4 and 5 (resulting from PM10 SIP and 1994 Settlement Agreement). The 2015 actual emissions are from the Division's Inspection Report for the year 2015.

The emission limits of SO<sub>2</sub> **after** the Construction Permit modification are as follows:

Unit	SO <sub>2</sub> Emissions (tpy)
	2017 PTE
Facility-Wide	1,785

The emission limitation of 1,785 tons of SO<sub>2</sub> per year requested in the modification is a facility wide SO<sub>2</sub> limit and applies to B004 and B005 as well as all other SO<sub>2</sub> emission sources at the CENC facility. This limit was determined using the facility's actual emissions from September 2013 to March 2014 for Boiler 5 running on coal and Boiler 4 running on natural gas. This number was then adjusted by CENC so they could comply with their Regional Haze limitation and to allow for sulfur variability in the coal burned.

As discussed in the following "New Requirements" section, air agencies were required to identify applicable sources based on the most recently available annual SO<sub>2</sub> emissions data for each source and identified specifically the CENC facility as a source that warrants further air quality characterization. However, it should be noted that the CENC facility is considered a single source with three other facilities for PSD and Title V purposes: the MillerCoors Brewery, MMI/EtOH, Inc. Fuel Grade Ethanol Plant, and Rocky Mountain Metal Container. The requested 1785 tpy SO<sub>2</sub> emission limitation will only apply to the emission units at the CENC facility. The MillerCoors complex has an existing SO<sub>2</sub> emission limitation of 15.3 tons per year that originates from a biogas flare. The other listed facilities do not have permitted sources that emit SO<sub>2</sub>. Emissions from all permitted points at these facilities will total below 2000 tpy when considered with the 1785 tpy limit at the CENC

facility. The Division's Planning and Policy group established this approach through consultation with EPA Region 8.

#### **IV. Applicable Requirements**

##### HAP Emissions

This facility is a major source of Hazardous Air Pollutants (HAP). This facility is a major source of HAP emissions for the purpose of 40 CFR Part 63, Subpart DDDDD.

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

This facility is co-located with three other facilities as described above, and is considered to be a major stationary source for all criteria pollutants (including NO<sub>x</sub> and VOC in an ozone nonattainment area). All modifications need to be evaluated using the applicability test of Regulation No. 3, Part D, Section I.B to determine if the modification is a major modification for purposes of PSD and/or NANSR.

Note that this modification results in a decrease of SO<sub>2</sub> emissions and is not subject to PSD review requirements.

#### **V. New Requirements**

The Division has included the following new requirements in the Construction Permit. The following requirements were not previously included in the Title V Operating Permit for the CENC facility.

##### 40 CFR Part 51, Subpart BB – Data Requirements for Characterizing Air Quality for the Primary SO<sub>2</sub> NAAQS

The Data Requirements Rule (DRR) was published in the Federal Register on August 21, 2015. The DRR was established for air agencies to characterize the air quality around large SO<sub>2</sub> sources that emit 2,000 tons per year or greater. Air agencies were required to identify applicable sources based on the most recently available annual SO<sub>2</sub> emissions data for each source. Under the DRR, states have three options to characterize the current air quality in areas with large SO<sub>2</sub> sources: (1) establish a federally enforceable requirement to limit SO<sub>2</sub> to under 2,000 tons per year by January 13, 2017, (2) conduct air quality modeling by January 13, 2017, (3) begin operating an appropriate monitoring network by January 1, 2017.

The DRR required the Division to submit a list of sources to EPA by January 15, 2016 that identifies all the applicable SO<sub>2</sub> sources. Colorado Energy Nations Company, LLC was included in the January 15, 2016 submittal to EPA because of the Golden Facility's variable emissions along with geographic and population concerns. To demonstrate compliance with the DRR, the Division is establishing a facility wide, federally enforceable limitation less than 2,000 tons per year of SO<sub>2</sub> applicable to all emissions sources associated with the CENC facility which will be federally enforceable starting January 13, 2017 and thereafter.

Under Colorado Regulation No. 3, Part B, Section II.A.7 it states: "A source that is voluntarily applying for a permit to create state-only or federally enforceable permit conditions, as appropriate, to limit the potential to emit criteria, pollutants, GHG or

hazardous air pollutants may request to obtain such limits in a construction permit.” CENC voluntarily requested a facility wide SO<sub>2</sub> emission limit for the Golden Facility below 2,000 tons per year on August 2<sup>nd</sup>, 2016. The Division is establishing the federally enforceable limitation through issuance of this Construction Permit 02JE0595.

By July 1, 2016, the Division was required to submit to EPA “a description of the planned emission limitation, including identification of the level of the limitation being planned”. This submittal included the SO<sub>2</sub> emission limitation for the CENC-Golden Facility.

CENC will be taking a federally enforceable emission limitation for SO<sub>2</sub> of 1,785 tons per year. This limitation will be effective starting January 13, 2017 and thereafter. This limitation is included as Condition 3 in the Construction Permit.

To ensure compliance with the emission limitations, annual records for the emission rates shall be maintained by the applicant and made available to the Division review upon request. Compliance with the annual emissions of SO<sub>2</sub> shall be determined by recording the facilities annual emissions for SO<sub>2</sub> on a rolling twelve (12) month total that will begin on January 1, 2017. By the end of each month a new twelve month total shall be calculated based on the previous twelve month’s data.

Compliance with the SO<sub>2</sub> emission limitation will be monitored using the Continuous Emission Monitoring System (CEMS) as required by Condition 18 of this Construction Permit and Section II, Conditions 1.3, 1.4, 2.3, 2.4 and 12.2 as required by the Operating Permit for this source (96OPJE143).

#### Industrial, Commercial and Institutional Boilers and Process Heaters MACT (40 CFR Part 63 Subpart DDDDD)

The final rule for industrial, commercial and institutional boilers and process heaters (referred to as the Boiler MACT) was initially published in the federal register on September 13, 2004 and was last published in the Federal Register on November 20, 2015. Due to the vacatur of the 2004 rule, EPA was required to re-promulgate requirements for this source category. EPA re-promulgated the Boiler MACT on March 21, 2011. These requirements apply to boilers and process heaters that are located at major sources of HAPs and as such these requirements apply.

Boilers 4 and 5 are subject to the requirements in the Boiler MACT and those requirements are referenced in this construction permit in Condition 18. A boiler or process heater is new if construction is commenced after June 4, 2010 and a boiler or process heater is classified as existing if it is not defined as new or reconstructed. The boilers at CENC commenced construction prior to June 4, 2010 and are considered an existing source. Existing sources are required to be in compliance with this subpart by January 31, 2016.

On July 29, 2016, the U.S. Court of Appeals for the District of Columbia Circuit stated that EPA improperly excluded certain high-performing sources in setting hazardous air pollutant (HAP) emission limits for boilers, and it vacated portions of the Maximum Achievable Control Technology (MACT) standards affected by the error. The court also agreed with environmental petitioners on several other issues and remanded, without vacatur, to EPA with instructions to 1) adequately explain how carbon monoxide acts as a reasonable surrogate for nondioxin/furan organic HAPs; 2) set emission standards for cyclonic burn barrels; 3) determine whether burn-off ovens, soil treatment units and space heaters are

CISWI units, and if so, to set standards for those types of units; 4) adequately explain the exclusion of synthetic boilers from Clean Air Act Title V permitting requirements; and 5) adequately explain the choice of Generally Available Control Technology standards over MACT standards for non-mercury metals.

#### 40 CFR Part 63, Subpart A – General Provisions

Since CENC is subject to 40 CFR Part 63, Subpart DDDDD, it is subject to the 40 CFR Part 63 Subpart A General Provisions. The applicable general provisions are discussed in detail in Table 10 to 40 CFR Part 63, Subpart DDDDD.

#### Incorporation into Operating Permit

CENC is required to incorporate the requirements of this construction permit into the existing operating permit for the facility. The application to modify the operating permit is due within one year of the issuance date of the of this modified construction permit. Additional information on application due dates can be found on the Division's PS Memo 09-01 "Title V Operating Permit Application Due Dates".

### **VI. Modeling/Public Notice Requirements**

When determining modeling applicability for the incorporation of the facility wide federally enforceable SO<sub>2</sub> emission limitation, the net emission increase in facility wide emissions of SO<sub>2</sub> is analyzed. Incorporation of the SO<sub>2</sub> emission limitation results in a decrease of SO<sub>2</sub> emissions from the facility and does not exceed the SO<sub>2</sub> or any other pollutant's modeling threshold.

This facility is voluntarily asking for a federally-enforceable SO<sub>2</sub> emission limitation. As per Colorado Regulation No. 3, Part B, Section III.C public notice is required for this permit action. This Public Notice is specific to the portions of the construction permit affected by the modification.