

## **Four Corners Air Quality Group Update on Recent Agency Activities –October 15, 2014**

### **EPA's Activities:**

#### **Tribal Minor NSR Permit Rule**

- Allows EPA Region 8 to review applications for and issue minor NSR permits to industrial facilities within the federally-recognized external boundaries of Reservations such as those of the Southern Ute and Ute Mountain Ute in the Region (Colorado, Utah, Montana, Wyoming, North Dakota, and South Dakota).
- Applies to new industrial facilities or modifications at existing industrial facilities with projected emissions that are more than the minor NSR thresholds but less than the major NSR thresholds, which are generally 100 to 250 tons per year (tpy).
- EPA can delegate or approve permit authority to tribes in the Region that request it and are able to demonstrate appropriate capability to implement a minor NSR permit program. Within Region 8, for example, the Southern Ute Indian Tribe has expressed an interest in developing a minor NSR air permit program.

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#### **Regional Haze**

- UT is preparing a SIP revision that EPA expects to receive early in 2015 to address NOx and PM controls at PacifiCorp's Hunter and Huntington power plants in response to EPA's partial disapproval action.
- Air emission controls for NOx and SOx from large stationary sources (power plants) from recently implemented regional haze plans will help improve visibility at Class I areas in the Four Corners *such as Mesa Verde NP and the Weminuche Wilderness Area*
- *Final* approval of Colorado's regional haze SIP was reached on Dec 31, 2012.
- Final partial approval and partial disapproval of Utah's regional haze SIP was reached on Dec. 14, 2012.
- EPA Regions 6 & 9 are implementing Regional Haze efforts in New Mexico and on the Navajo Reservation.

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#### **Ozone Advance**

- The Utah DEQ and the Ute Indian Tribe of the Uintah and Ouray Indian Reservation have enrolled in the Ozone Advance program for the Uintah Basin area and the Wyoming DEQ for the Upper Green River Basin area. Ozone Advance program is a collaborative effort to encourage ozone attainment areas to take near-term steps to reduce emissions so they can continue to meet the NAAQS; air quality improvements can ensure continued health protection and provide a buffer against future violations of the standard.
- Utah DAQ's General Approval Order for Oil and Gas was finalized on June 5, 2014. It covers facilities that process up to 50,000 barrels of crude oil and condensate combined over a rolling 12-month period. Emission controls and equipment specifications limit criteria pollutant and hazardous air pollutant emissions. If a source cannot meet the requirements of the GAO, it must submit a Notice of Intent to obtain an Approval Order.

- Utah’s Board adopted four proactive final rules on October 1, 2014 for existing sources. The rules will retrofit oil and gas industry equipment to assist in VOC emission reductions. The four rules include:
  - Equipment must be properly maintained and operated.
  - Accelerates implementation of NSPS standards including replacing high-bleed controllers with low-bleed or no-bleed controllers. Phased, Dec. 2015 for Uintah and Duchesne counties and April 2017 for state-wide.
  - All new flares must be equipped with an automatic igniter; existing flares to be retrofit by Dec. 2015 for Uintah and Duchesne counties and April 2017 for state-wide.
  - Tank Truck Loading required to be bottom filling or submerged pipe filling on tanker trucks by Jan, 2015.
- The Ute Indian Tribe, enrolled in Ozone Advance on July 18, 2013. The basis of their Ozone Advance Path Forward may include:
  - Establish an ambient air monitoring program. As of June 1, they’ve retained MSI as the third-party monitoring operator for the Redwash and Ouray monitors, and they’ll take over Myton and Whiterocks on Oct. 1<sup>st</sup>.
  - Develop an oil and gas industry inspection and maintenance program. Region 8’s Alexis North has been out there a couple times demonstrating use of the infrared equipment to identify fugitive emissions. They’ve hired a certified inspector/compliance officer (Ty Navanick)
  - Establish permitting programs following the Clean Air Act, beginning with prevention of significant deterioration (PSD) and working up to Title V.
  - Develop an emission inventory; since March 2014, they’ve got nine monitors operating year-round, they’ll get their first quarterly data in July and they’ll have a full year in March 2015.

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#### Other EPA Region 8 Updates:

##### Emission Inventory

- Region 8 is gearing up to develop an emission inventory (EI) on tribal land for the Uinta Basin’s future ozone nonattainment area. We are working closely with the State of Utah to try to develop/define the EI process to ensure that efforts currently underway result in a SIP- and FIP-quality inventory on state and tribal land. There are several other stakeholders who are putting resources forward to improve the inventory in the Uinta Basin.
- While much of the inventory work so far has had a NEPA and a National Emissions Inventory (NEI) focus, as we shift towards a more regulatory process, we want to ensure that the resultant inventory can be used to develop Reasonable Further Progress plans and/or attainment demonstrations.

##### Wintertime Ozone and Particulate Matter Health Effects Planning Meeting

- With Utah DAQ, the Ute Tribe and Tri-County Health, Region 8 is holding a meeting of health and risk communication experts on October 22, 2014 in Ft. Duchesne, Utah. The main purpose of this meeting is to bring together health experts to discuss ongoing

research efforts and available health data to allow us to assess potential health risks from air pollution in the Uinta Basin.

- Another purpose of the meeting is to discuss how this information can be best communicated to the impacted public, and what we can do to support community actions to reduce public exposure to air toxics and reduce air pollutant emissions. Region 8's Jody Ostendorf will facilitate a discussion on "Risk Communication and Outreach Strategy."

#### Winter Ozone Study

- The Utah Department of Air Quality (UDAQ) released the 2013 Uinta Basin Winter Ozone Study on March 26, 2014, which identified the oil and gas industry, combined with cold weather inversions, as the prime contributor to the ozone problem in northeastern Utah. In the winter of 2013, ozone levels at one monitoring station in the Uinta Basin reached 142 ppb, about 90% higher than the National Ambient Air Quality Standard NAAQS (75 ppb). Seasonal controls and new rules to reduce pollution from legacy equipment were identified as key mitigation strategies. <http://www.deq.utah.gov/locations/U/uintahbasin/studies/2013study.htm>
- Preliminary results on the 2014 Uinta Basin Winter Ozone Study are available here, with a final report due out at the end of this year. <http://www.deq.utah.gov/locations/U/uintahbasin/studies/2014study.htm>

#### Monitoring

- For the area we designated unclassifiable, Utah DEQ's monitor located in Roosevelt has a current 2012-2014 design value of 77 ppb, which is based on a couple of moderately high days in the first week of January 2014, and a few more moderate days in the summer. We anticipate the design value will be certified in May 2015.
- EPA transferred oversight on June 1, 2014 to the Ute Tribe to operate the Ouray and Redwash monitors in the Uinta Basin, and the Tribe is beginning operation of the Myton and Whiterocks monitoring stations in October 2014.
- The Tribe received an EPA monitoring grant in late July, 2014; they have submitted a Quality Assurance Project Plan to EPA and once it's approved the stations can begin gathering regulatory data.
- On April 29, 2014, the RA sent a letter to the Ute Tribe's Business Committee members and the Energy and Minerals Department Director, expressing our support for the Ute Indian Tribe's commitment to developing an ambient air monitoring program. Utah has also been providing technical assistance to the Tribe.

#### Ozone Modeling

- Several groups are working on photochemical air quality modeling for winter ozone episodes, including UDAQ, EPA, NOAA, BLM, Utah State University and University of Utah. NOAA recently published modeling results suggesting that CH<sub>4</sub> and total VOC emissions for the oil/gas sector within the Uinta Basin in the 2011 NEI are underestimated by a factor of 4.8 and 1.8, respectively, and that NO<sub>x</sub> emissions are overestimated. EPA modeling is also biased low for VOC and biased high for NO<sub>x</sub>, and

the EPA model is not able to reproduce observed ozone levels using the 2011 NEI. UDAQ model simulations do reproduce the observed ozone levels, and this might be a result of updates to the VOC emissions or speciation data in the UDAQ inventory. There remains large uncertainty in whether the modeling accurately represents O&G emissions, transport processes, and chemistry within the Uinta Basin. The groups are collaborating in the analysis of emissions data and model performance with the goal of developing model scenarios that can be used for ozone attainment planning.

#### Revised Ozone NAAQS Implementation Schedule

- Revised ozone NAAQS proposed on December 1, 2014
- Finalized October 1, 2015
- State submits recommendations on air quality designations for the revised ozone standard October 1, 2016
- EPA issues final designations in October 2017
- SIP Elements: Areas designated nonattainment have 2 years to submit emission inventories, RACT SIPs and emission statement SIPs; 3 years to submit 15 percent RFP plans and Moderate

#### **Southern Ute Indian Tribe's Activities**

The Tribe to become a signatory party to the *Memorandum of Understanding for the Interagency Policy Oversight Group of the Four Corners Air Quality Group*.

Air Monitoring: <http://www.southernute-nsn.gov/environmental-programs/air-quality/ambient-monitoring/>

- Continue to operate the Ute 1 (Ignacio, CO) and Ute 3 (Bondad, CO) air monitoring stations.
- Reporting visibility data from the continuous particulate monitor (model Teledyne 602 BETA<sup>PLUS</sup>) located at the Ute 3 air monitoring station to AQS.

Tribe's Part 70 Operating Permit Program: <http://www.southernute-nsn.gov/environmental-programs/air-quality/title-v-operating-permit-programs/>

- The Tribe is nearing completion of transitioning EPA Part 71 permit to Tribally issued Part 70 permits for sources operating on the Southern Ute Indian Reservation. The transition deadline is March 2015.
  - As of August 2014, 30 Part 70 permits have been issued. This included issuing final Part 70 permits to 27 sources listed in the Transition Plan and three new Title V sources not previously included in the Transition Plan. To view the list of the Part 70 permits issued, please visit the Tribe's Part 70 Program website.

SUIT/CO Environmental Commission: <http://www.southernute-nsn.gov/environmental-programs/air-quality/environmental-commission/>

- Commission meetings held on February 14, 2014, June 3, 2014, and September 24, 2014.
  - June 3, 2014 - direct final rulemaking action on (1) certain non-controversial revisions to the Commission's Title V Operating Permit Program (aka Reservation Air Code). Public comments ended on July 24, 2014. No adverse comments were received by the July 24<sup>th</sup> deadline, therefore this action became

effective on August 23, 2014. A copy of the revised Reservation Air Code is available on the website.

- Next meeting is tentatively scheduled in February 2015. The agenda will be available on the Environmental Commission website.

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## **Federal Land Managers' Activities**

### **Oil and Gas**

- June, 2011 Memorandum of Understanding: Multi-Agency Air Quality Analyses and Mitigation for Federal Oil and Gas Decisions through the NEPA Process (NPS, FWS, BLM, USFS, EPA) provides for:
  - interagency consultation throughout the NEPA process,
  - common procedures for determining appropriate AQ analyses,
  - specific provisions for analyzing and discussing impacts to AQ and for mitigating such impacts,
  - and a dispute resolution process.
  - <http://www.epa.gov/compliance/resources/policies/nepa/air-quality-analyses-mou-2011.pdf>
  - <http://www.nature.nps.gov/air/hot/index.cfm>
- NO<sub>x</sub> emissions stipulation required for new stationary gas field compressor engines
- Facility optimization/centralization/co-location included in Land Use Plans for new development
- Condensation tank and petroleum liquid storage tank VOC controls for SW Colorado
- Low-bleed pneumatic devices required
- Reduced emission gas well completions included in Land Use Plans
- Mandatory continuous dust abatement
- Land Use Plans call for use of low or zero emission dehydrators
- Vapor recovery units or combustors for tank batteries, dehydrators, separators
- Collaboration among agencies on energy development planning including proposed leasing near Chaco Culture National Historical Park and Mesa Verde National Park, and regional air quality modeling to predict the effects of development in SW Colorado and NW New Mexico.

### **Monitoring Activities**

- Ozone: Bayfield, CO (Shamrock site); Mesa Verde National Park; Coyote Ranger District, Santa Fe National Forest (early Summer 2012), Norwood, Colorado (installed 2010)
- Mercury: Molas Pass, Mesa Verde National Park
- Visibility: Engineer Mountain; Bayfield, CO (Shamrock site); San Pedro Parks, Santa Fe National Forest (early Summer 2012)
- NO<sub>x</sub> – Shamrock, Bayfield Colorado
- Atmospheric deposition/wilderness lake sampling

- Wet/Dry Deposition: Mesa Verde National Park, Bayfield, CO (Shamrock site); Molas Pass; Wolf Creek Pass; San Pedro Parks Wilderness (Fall 2009)
- NHx monitoring: Mesa Verde, CO, Bandelier, NM, Chiricahua, AZ
- IMPROVE Speciated PM<sub>2.5</sub> monitoring representative of all Class I areas
- Mesa Verde National Park participates in a multi-agency dust monitoring network spread across the Colorado Plateau. Includes a webcam that records dust storms in the area. Impacts of recent, major dust deposition events include reduced visibility and the early onset of snowmelt. <http://www.nps.gov/meve/naturescience/dustmonitoring.htm>
- Throughfall/lichen monitoring for nitrogen, sulfur, & metals in northwest New Mexico on Carson and Santa Fe National Forest & potentially Mesa Verde (Fall 2013)
- Lichen monitoring (species and elemental analysis) through BYU at Wheeler Peak, San Pedro Parks, and Pecos Wilderness (Summer 2013-Summer 2014)
- Lichen monitoring through FIA in New Mexico (2010- preliminary data is now available)

#### Ongoing Commitments

- Active participation in Four Corners Air Quality Policy Oversight Group
- Collaboration among agencies on data exchange and retrieval
- Continued support of modeling studies, monitoring sites, and partnerships

BLM is currently conducting an air quality analysis with photochemical modeling for development, including oil and gas production, in Colorado. This comprehensive study is called CARMMS, and has been expanded this fall to include the Mancos Shale development in northwestern New Mexico. Some modeling results are available now, some will be available in 2015 as well.

#### Navajo Nation EPA

Navajo Nation EPA Air Quality Control Program monitoring activities:

- Shiprock NO<sub>2</sub>, SO<sub>2</sub>, and ozone with EPA data upload (AQS) since January 2010
- Shiprock PM<sub>10</sub> data upload (AQS) since January 2000
- Crownpoint PM<sub>10</sub> data upload (AQS) since January 2007
- Nazlini, AZ, PM<sub>2.5</sub> data upload (AQS) since January 2011
- H<sub>2</sub>S (suspended in July 2013) and ozone monitoring in Aneth, UT, since July 2012 in response to community concerns

#### Colorado's Activities

##### Air Quality Monitoring

- Ozone and PM<sub>2.5</sub> monitoring in Cortez
- PM<sub>10</sub> monitoring in Durango and Pagosa Springs
- Colorado monitoring in the Four Corners area shows attainment with the ozone, PM<sub>2.5</sub> and PM<sub>10</sub> NAAQS.

##### Oil and Gas

- Fully adopted NSPS OOOO in February 2014
  - o Culmination of Colorado Air Quality Control Commission's October 2012 directive to consider full adoption of NSPS OOOO
  - o Adopted complementary oil and gas control measures

- Intensive stakeholder process from January 2013 through August 2013
- Measures focus on identifying and repairing leaks in the oil and gas sector, but also contain some recordkeeping and reporting requirements.
- These measures are estimated to reduce VOC emissions by approximately 93,500 tons per year and methane/ethane emissions by approximately 65,000 tons per year, at a cost of approximately \$42.5 million per year.
- Additional requirements include:
  - Additional control requirements for new and existing storage tanks
  - Additional control requirements for new and existing glycol dehydrators
  - Requirements to ensure good capture of hydrocarbon vapors for controlled storage tanks
  - Leak detection requirements for well production facilities and compressor stations
  - Require auto-igniters for flares state-wide
  - Expand low/no bleed pneumatic controllers state-wide
  - Require best management practices during well maintenance and liquids unloading
  - Establish gas flaring/capture requirements at oil well sites
- Colorado is involved with several current and recently completed studies evaluating air quality characteristics, such as additional information for ozone precursors, related to oil and gas development.

#### Regional Haze

- Colorado completed its Regional Haze State Implementation Plan in January 2012, which will result in approximately 35,700 tpy reduction of NO<sub>x</sub> and 36,000 tpy of SO<sub>2</sub> with the majority of reductions by 2018 and the remainder by 2021.
- Air Quality Control Commission rulemaking set in November 2014 to revise Craig Station Unit 1 BART Determination for NO<sub>x</sub> from 0.28 lb/MMBtu to 0.08 lb/MMBtu with a compliance deadline of August 31, 2021 for additional emission reduction of approximately 3,300 tons of NO<sub>x</sub> per year.
- Collaborative and innovative process that resulted in the retirement of a number of older coal fired power plants
  - EPA fully approved Colorado's Regional Haze plan on December 31, 2012
  - Current court challenge on limited aspects of approved plan
  - CDPHE implemented detailed implementation schedules for compliance with Regional Haze plan emission limits, resulting in many facilities installing controls before the compliance deadlines in late 2017 and early 2018

#### Public Outreach

- Continued expansion of the Western Colorado Regional Air Quality Collaboration with thirty counties and two cities participating as of October 2014
  - Promotes ongoing engagement and education on air quality issues

- For more information check the website:  
[www.colorado.gov/cdphe/regionalAQcollaboration](http://www.colorado.gov/cdphe/regionalAQcollaboration)
- Enhanced air quality advisories covering more of the state and providing more complete information on air quality issues including impacts from wildfires, including the Four Corners region
- Visit our website or check us out on Facebook or Twitter for more information on Colorado air quality issues:  
<https://www.colorado.gov/cdphe/apcd>  
[www.facebook.com/cdphe.apcd](http://www.facebook.com/cdphe.apcd)  
[www.twitter.com/cdpheapcd](http://www.twitter.com/cdpheapcd)

### **New Mexico's Activities**

#### EPA's Proposal for Carbon Standards for Existing Power Plants

- New Mexico is preparing comments to be submitted by the December 1, 2014 deadline

#### Regional Haze:

- EPA approved New Mexico Regional Haze and Visibility Transport Clean Air-plan .

#### Oil and Gas:

- Continuing cooperative projects with BLM Farmington Field Office including Condition of Approval on compressor engines 300 horsepower or less used during well production must be rated by the manufacturer as emitting NOx at 2 grams per horsepower hour or less

Continue to support and participate in Western Regional Air Partnership activities

#### Ozone

- NM has a statute that requires a new plan with regulations be prepared to reduce ozone precursors if Ozone in any area of New Mexico exceeds 95% of the federal standard.

#### Contact:

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