Testimony
Energy Development and Transmission Committee
July 31, 2013
North Dakota Department of Health

Good morning, Chairman Wardner and members of the Energy Development and Transmission Committee. My name is Terry O'Clair and I am the Director of the Division of Air Quality for the Department of Health. My testimony today will touch upon four topics:

1. The Climate Action Plan announced by the White House
2. Regional Haze Update
3. Update on the Federal Sulfur Dioxide Standard
4. Fugitive Dust in Western North Dakota.

Climate Action Plan

In June of this year, President Obama unveiled his Climate Action Plan. The plan has three main pillars:

1. Cut carbon emissions in the United States
2. Prepare for the impacts of climate change
3. Lead international efforts to combat climate change and prepare for its impacts

The efforts to reduce carbon emissions, or greenhouse gas emissions, have already started with more stringent mileage standards for new motor vehicles and the requirement to use Best Available Control Technology to limit greenhouse gas emissions from new major stationary sources. The President's plan will place greenhouse gas emission standards on both new and existing power plants, petroleum refineries and other plants. These other sources could include oil and gas production, processing and transporting systems. The Environmental Protection Agency (EPA) is expected to finalize greenhouse gas emission standards for new power plants in 2014. In 2015, EPA will finalize guidance for states to use for developing greenhouse gas limits for existing power plants. The Department of Health (Department) will have to develop what is called a Section 111(d) plan for existing power plants, which specifies the required reduction in greenhouse gases. The plan must be submitted to EPA by June of 2016. As EPA regulates more source categories for greenhouse gases, the Department will have to develop additional Section 111(d) plans for existing sources. Absent any further guidance, it is still too early to tell how the White House Climate Action Plan will impact power plants in the state.

Regional Haze Update

In March 2010, the Department submitted its Regional Haze reduction plan to EPA. EPA approved most of the plan effective May 7, 2012. However, the EPA did not agree with the Department's determination of Best Available Retrofit Technology for nitrogen oxides controls at the Coal Creek Station and that additional nitrogen oxides controls were unnecessary at the Antelope Valley Station. EPA developed their own plan for nitrogen oxides controls at these plants. The Department has challenged the EPA plan in the United States Court of Appeals for the Eighth Circuit. Oral arguments were completed in May and we are awaiting the court's decision. A recent decision in the Tenth Circuit Court of Appeals favored EPA and their plan for Oklahoma. It should be noted that the decision was not unanimous with two judges voting in favor of EPA's plan and one judge offering a dissenting opinion in favor of Oklahoma. It should further be noted that the issues in that case were somewhat different from the Department's challenge. We believe the Department has a much stronger record than that of Oklahoma, and that our record supports North Dakota's position regarding Best Available Retrofit Technology.

In that same plan, EPA had agreed with North Dakota's decision regarding Best Available Retrofit Technology (BART) for nitrogen oxides control at M.R. Young Station and Leland Olds Station Unit 2. An environmental group has filed a lawsuit in the 8th Circuit Court challenging EPA's approval of this part of the state's plan, which has been consolidated with the state's challenge to EPA's plan. The environmental group also petitioned EPA to reconsider EPA's decision that agreed with the state's position. EPA has agreed to review the petition for reconsideration. EPA held a public hearing in Bismarck on May 15, 2013, to gather testimony. To date, EPA has not announced a decision. If EPA backs away from their position in which they agreed with the state and instead decides that selective catalytic reduction (SCR) technology should be installed, as proposed by the environmental group, it would cost the utilities an addition $500-$600 million in capital costs and an additional $60-$120 million in annual operation and maintenance costs with no perceptible improvement in regional haze. The Department provided testimony at the hearing supporting EPA's position that North Dakota had selected appropriate BART and we await EPA's decision regarding reconsideration.

Some of the air pollution control equipment required by the state plan has been installed and is operating. Minnkota Power Cooperative has installed a new sulfur dioxide scrubber on Unit 1 at the M.R. Young Station and updated the Unit 2 scrubber. In addition, the nitrogen oxides controls required by the state plan have been installed and are operating. At Leland Olds Station, a new sulfur dioxide scrubber was installed on each unit and reductions in nitrogen oxides emissions were also achieved. The installation of the controls at these two plants is expected to reduce sulfur dioxide

emissions by more than 72,000 tons per year and nitrogen oxides by more than 18,000 tons per year.

Update on Federal Sulfur Dioxide Standard

EPA promulgated a new National Ambient Air Quality Standard for sulfur dioxide in 2010. The standard, which is based on a one-hour averaging period, is much more stringent than previous standards. In the past, the Department has been able to demonstrate compliance, or attainment, with new ambient air quality standards using data from our own and industries' ambient air quality monitors. However, EPA has proposed that many air monitoring networks are not sufficient for making this attainment demonstration. EPA wants to use computer modeling as a tool to demonstrate compliance with the standard. The Department believes that such computer modeling can over-predict ambient concentrations and could lead to requiring the installation of costly and unnecessary additional air pollution control equipment at stationary sources. The state's position continues to be that the true indicator of compliance is the use of ambient air quality monitors.

As required, in May 2011, the Department submitted to EPA a recommendation that the entire state be designated in attainment. EPA failed to act on this recommendation in a timely manner and the state has asked EPA to fulfill its duty to complete the designation process under the Clean Air Act.

The Department will continue to follow EPA's actions on this issue, including a rule that EPA is expected to finalize in 2014 which specifies the thresholds and criteria for preparing the attainment demonstration.

Fugitive Dust in Western North Dakota

The influx of oil field traffic in western North Dakota is not only a major issue for the state's Department of Transportation (DOT), but is also a concern to the Department of Health due to the amount of dust generated from such traffic. The above average rainfall the state has received in 2013 has been helpful; however, the Department continues to receive dust complaints from this region. To ensure the state is maintaining compliance with federal and state ambient air quality standards for particulate matter, the Department has established an additional ambient monitoring site in Williston to track concentrations in that area. The data shows that PM10 levels in Williston are at 40-50 ppb, which is 10-15 ppb higher than other PM10 monitors in the state. These concentrations are still well below the state/federal standard of 150 ppb that is set at a level to protect the public health and welfare.

Absent paving roads, dust suppressants such as magnesium chloride are being used by counties in an effort to reduce the amount of traffic generated dust. The addition of

such commercial dust suppressants is very costly. Data from DOT indicate the cost of applying magnesium chloride to be at $8,000/mile for the first application and $4,900/mile for additional treatment. In an effort to reduce both the dust generated as well as reduce the high cost of applying dust suppressants, the Department is working in conjunction with the Department of Transportation and a number of the counties on a study that will examine the possible use of oil field generated brine water, which is normally disposed by injection into a disposal well, to determine if such water could be a possible resource to use as a dust suppressant. The study will evaluate any potential environmental issues, durability of the product and costs of application. If it is found that the brine water application is an appropriate substitute to the magnesium chloride solution, it could help address both the dust issue as well as substantially reduce the application costs.

That concludes my testimony and I would be happy to respond to any questions you may have.