AIR RESOURCES COUNCIL
MINUTES OF MEETING #226
09/15/14

MEMBERS PRESENT:	Robert Duval, Raymond Donald, Ryan Bielagus Georgia Murray (via conf. call), Carmela Amato-Wierda, William Smagula, Kris Blomback
MEMBERS NOT PRESENT:	Vice-Chairman David Collins, Debra Hale, Deborah Chabot
NHDES – ARD PERSONNEL:	Michael Fitzgerald, Rebecca Ohler, Gary Milbury, Joseph Fontaine, Chris Skoglund, Karla McManus, Felice Janelle, Michele Roberge, Pamela Monroe
OTHERS PRESENT:	Anne Keach

Call to Order:
Chairman Duval called Meeting #226 of the Air Resources Council (ARC) to order at 9:05 a.m. on Monday, September 15, 2014. Chairman Duval announced that a quorum of the ARC was present.

Approval of Minutes:
William Smagula entered a motion to accept the minutes of meeting #225. Raymond Donald seconded the motion. Chairman Duval abstained, all others were in favor. The motion carried. The minutes of ARC meeting # 225 of August 20, 2014, were approved and accepted by the ARC.

Division Activities & Legislative Update:
Chairman Duval introduced Michael Fitzgerald, Assistant Director of the Air Resources Division (ARD). Mr. Fitzgerald briefly updated members of the ARC regarding issues relative to the ARD, including:

State Energy Strategy
Mr. Fitzgerald reported that as a result of SB191 of the 2013 Legislative Session, the New Hampshire State Energy Strategy will be released on September 19, 2014. The Strategy ensures the state's energy policies and programs support the state's economic, environmental, and public health goals. SB191 also created an Advisory Council to assist the Office of Energy and Planning in the development of the State Energy Strategy. The Full Strategy, Appendices and Public Comments may be found at http://www.nh.gov/oep/energy/programs/SB191.htm

Market Street Marine Terminal
Mr. Fitzgerald informed members of the ARC that the New Hampshire Department of Environmental Services (NHDES) will hold a public forum on the *Fugitive Dust/Particulate Air Monitoring Report* on Tuesday, September 30, 2014 at 6:30 p.m., at the Portsmouth City Hall Chambers. The Forum will provide representatives of the NHDES to offer a brief presentation, and an opportunity for the public to ask questions regarding the air monitoring in the area of the Pease Development Authority, Division of Ports and Harbors, Market Street Marine Terminal in Portsmouth.

Chairman Duval asked Mr. Fitzgerald what the findings were. Mr. Fitzgerald reported that the monitoring was intended to determine if fugitive dust and/or particulate emissions associated with the site operations leave the site and potentially impact nearby residential areas and/or commercial establishments. The study was limited in scope and was only intended to be a screening tool for determining whether existing controls at the Terminal during the period of the study were effective. Mr. Fitzgerald added that the Report demonstrates that particulate matter is high in iron and that dust and road salt is associated with the site. The site operator's contract expires in December 2014, and the City Council voted not to extend the contract.

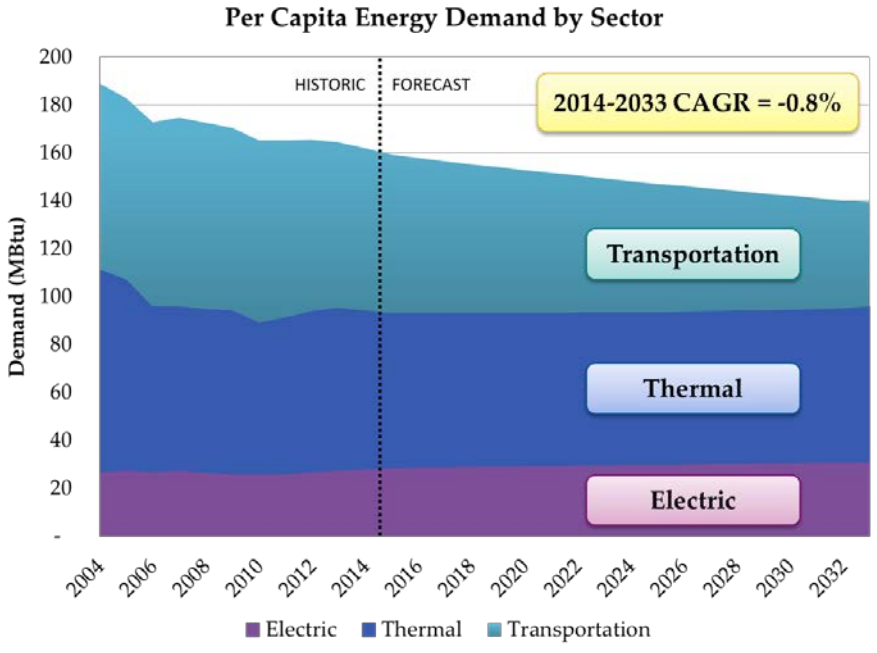
Chairman Duval asked if operations have ceased. Pamela Monroe, Administrator of the Compliance Bureau responded that the Pease Development Authority is the owner of site, and the PDA has contracted with the New Hampshire Department of Transportation to use the area as a lay down area for their construction equipment and materials. Ms. Monroe added that Fugitive Dust Rules require that the operations dust be contained on site.

Clean Air Act (CAA) Section 126 Petition

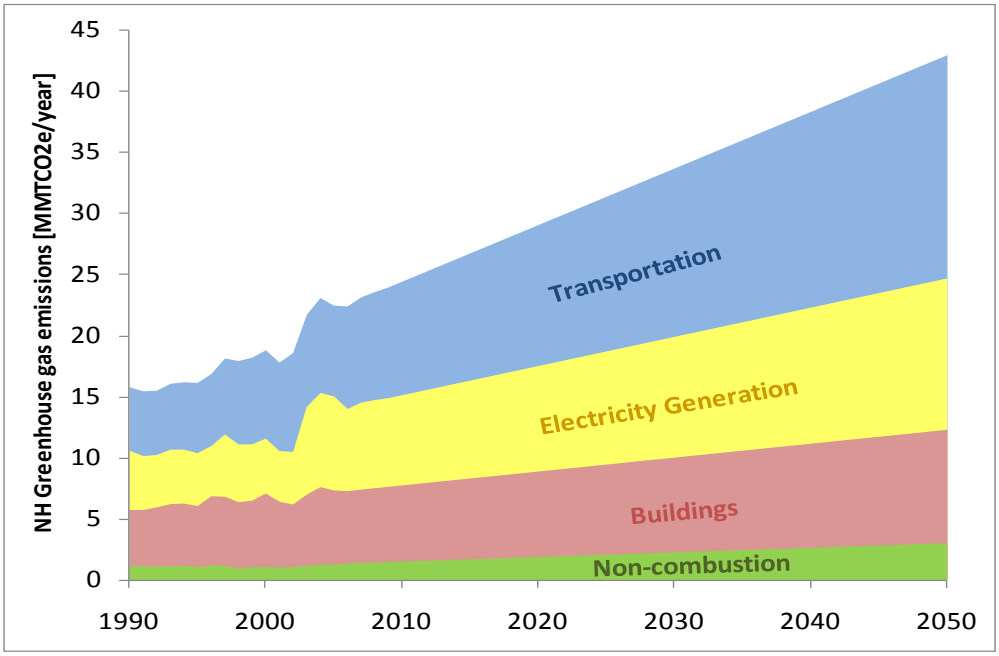
Mr. Fitzgerald provided members of the ARC with a handout explaining the Location and Operation of an Air Quality Monitoring Station in Eliot, Maine. The monitor will help facilitate a better understating of local air quality influences associated with emissions from the Schiller Station power plant in Portsmouth, NH relative to the recently revised national ambient air quality standard for SO_2. Mr. Fitzgerald stated that the air quality monitoring station will be located in the middle of the cul-de-sac on Sawgrass Lane in Eliot, ME. The Sawgrass Lane location was chosen as the proposed site because of its proximity to Schiller Station about 1.2 miles northeast of the power plant. The EPA, ME DEP, and NHDES, and Town of Eliot agree that based on the air quality modeling analysis provided by the Town of Eliot the proposed Sawgrass Lane site will be a good location for capturing the potential influences from Schiller Station when it is operating. The area surrounding the proposed site is free of tall trees and structures, which is critical for any air quality monitoring site. The air quality monitoring station will be installed within the next two to three weeks.

Climate, Energy and Transportation Programs Overview

Chairman Duval introduced Rebecca Ohler, Technical Programs manager of the Technical Services Bureau. Ms. Ohler presented a high-level overview of the climate, energy and transportation work that is accomplished in the Technical Services Bureau which centers around four areas; emissions trading, mobile sources, energy and climate, and air quality monitoring. The following figures were developed to support the creation of the 2014 New Hampshire State Energy Strategy and depict the recent and projected total energy demand for the state between the years 2004 and 2032, and projected greenhouse gas emissions between the years 1990 and 2050:



Projected Greenhouse Gas Emissions



Ms. Ohler explained that the 2009 *New Hampshire Climate Change Action Plan*, was the result of an extensive stakeholder project chaired by Commissioner Thomas Burack. A task force of twenty-nine members representing business and industry, non-governmental organization, municipalities, health advocates, academia, and state government developed, with the help of six working groups and the input of over one hundred private citizens, sixty-seven recommendations to achieve long-term reduction of greenhouse gas emissions of eighty percent below 1990 levels by the year 2050. The NH recommendations of the NH Climate Change Action Plan are:

- Maximize energy efficiency in buildings and transportation;
- Increase renewable and low-CO_2-emitting heat and electric power sources;
- Protect our natural resources to maintain the amount of carbon sequestered;
- Raise the awareness, knowledge and skills related to climate change and solutions; and
- Adapt to the impacts of existing and potential climate change.

As an outcome of the Action Plan, two very successful regional workgroups were formed:

- Coastal Adaptation Workgroup
- Upper Valley Adaptation Workgroup.

Each workgroup works locally within communities to help them and their decision makers to make sound scientifically based choices as future endeavors are planned.

The NHDES 2010-2015 Strategic Plan contains a commitment to incorporate climate change mitigation and adaptation strategies into state operations and into our dealings with our state, regional and federal partners; and also a commitment to “strive for efficient land use and development patterns that reduce energy use, support sustainable use and conservation of natural resources, and maintain a viable working landscape.

The Renewable Portfolio Standard establishes criteria for utilities to provide a certain percentage of power from various renewable resources. NH was the first state in the country to include a thermal

energy requirement in our RPS. This is a very complex program and, if you have not already gotten one, deserving of its own presentation.

Criteria pollutants including NOx, VOC and SO_2 are controlled by numerous regulatory programs including the NHDES Permitting and Environmental Health Bureau.

The NHDES participates in the oversight of several PUC-managed programs. It is the role of the agency to ensure the programs achieve positive environmental outcomes and maximize the effective use of limited funds.

The electric and gas utilities' consumer "CORE" energy efficiency programs provide large and small business and residential efficiency programs, low income weatherization programs, and rebate programs. Efficiency measures such as weatherization projects and lighting, as well as equipment replacement (boilers, pumps, etc.) are eligible.

The CORE programs have a budget of about $20 million annually and are funded through an Electric Systems Benefits Charge and a gas Local Distribution Adjustment Charge.

In addition, $1 from the sale of each RGGI allowance (about $6 million/yr.) goes to the CORE programs while the remainder is rebated back to customers. Based on recent legislation 15% of the RGGI CORE dollars go for low income weatherization and $2 million is earmarked for municipal building efficiency projects.

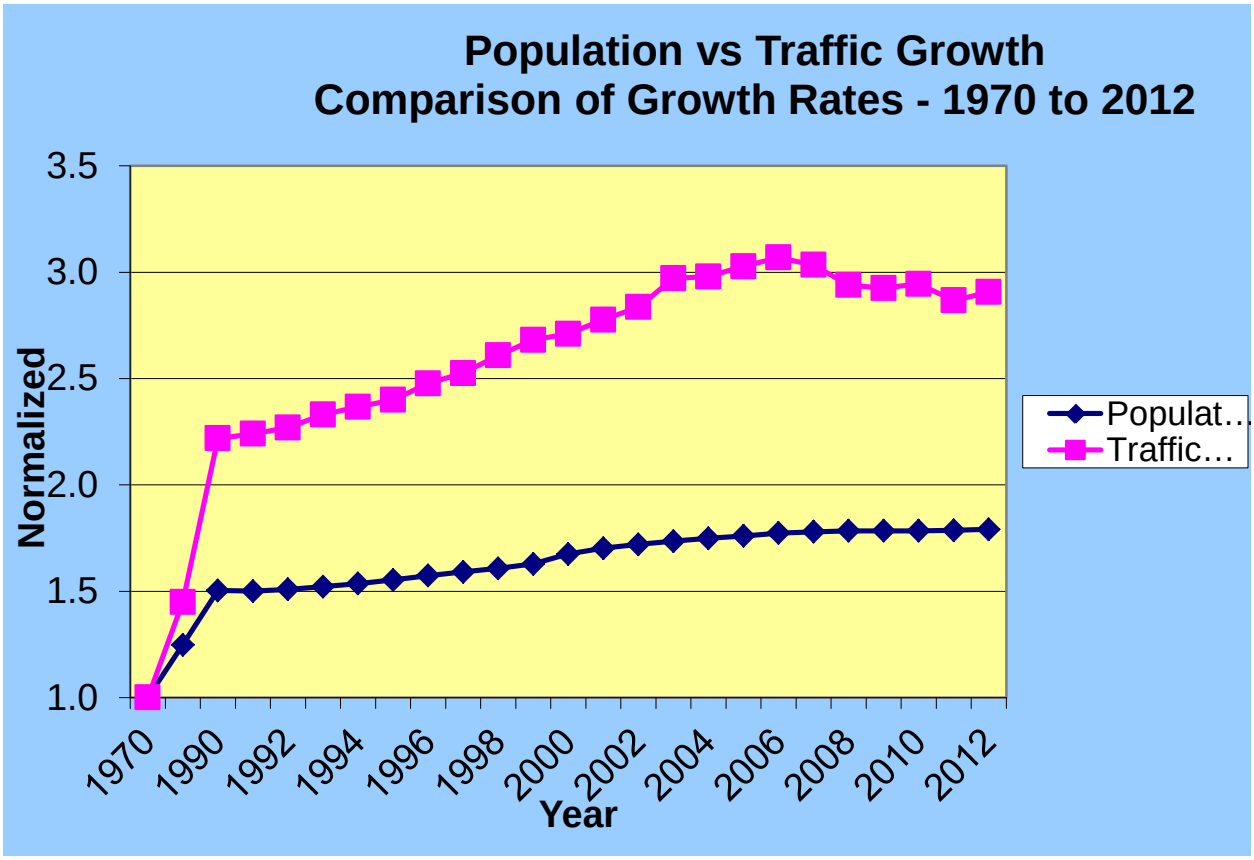
The Renewable Energy Fund proceeds come from alternative compliance payments made by entities that are unable to obtain a renewable energy supply at or below the ACP cost to meet their compliance obligations. The rate at which the ACP is set reflects the maximum value the state places on a particular renewable energy source. ACPs in NH are currently the lowest in New England.

NH does not have an Energy Efficiency Resource Standard in place, but several recent studies, including a study conducted last year, have noted the positive economic impact to NH from investing in all cost effective energy efficiency. The term "cost effective" means that the cost of implementing an energy efficiency measure is less than the lifetime cost of the energy that would have to be supplied absent that measure. The PUC is currently developing an EERS proposal that we anticipate will be released in the next couple of weeks. Under HB 1129 the Office of Energy and Planning, with assistance from the NHDES, is tasked with preparing recommendations for state energy goals and developing a plan for achieving all cost effective energy efficiency. An interim report is due November 1, 2014, and the final report is due on July 1, 2015.

The State Energy Strategy required by SB 191 was recently released and also includes a recommendation to capture all cost effective energy efficiency measures in the state.

<u>The Transportation Sector</u>

This chart depicts the drastic increase in annual miles driven beginning in the 1970s relative to population growth.



As cars became more affordable, two income families became the norm, and southern NH became a bedroom community for jobs in the Boston area the miles driven shot up. We saw our first decline in vehicle miles traveled, or VMT, leading up to the recession, but are seeing an upturn again in recent years.

Approximately 40 million miles are driven on NH roadways every day, so even though cars are getting cleaner and more efficient, a small amount of emissions times 40 million every day adds up to a lot of pollution

There are three main strategies for reducing emissions from the transportation sector:

- Use cleaner fuels
- Reduce vehicle tailpipe emissions
- Reduce the amount of driving

Cleaner Fuels, often referred to as Alternative Fuels, include renewable fuels such as biodiesel and ethanol, as well as natural gas, electricity, propane and hydrogen.

NH participates in the US Department of Energy's Clean Cities program, a program that is designed to foster local solutions through public private partnerships. The Granite State Clean Cities Coalition was formed in 2001 with 40 stakeholders. Today the coalition has over 100 stakeholders and four active working groups that focus on expanding the use of biodiesel, natural gas, propane and electric vehicles. DES hosts the coalition and Dolores Rebolledo is the coalition coordinator.

Electric vehicles are a very fast growing market. In NH, we currently have twenty-nine public charging stations, with the state's first fast chargers (designed to provide a full charge in about 20 minutes) set to open at the new Hooksett rest areas next year.

NH also has natural gas fueling infrastructure available, with public stations in Nashua and one recently opened in Pembroke, and a privately operated station at UNH that fuels their bus fleet and light duty cars. The State currently operates a private station at Stickney Avenue in Concord, but we will be closing that station in the next week or so and using the nearby Pembroke station to fuel our state CNG vehicles.

There is substantial controversy regarding ethanol, both in terms of utilization of corn to produce ethanol and concerns regarding use of ethanol blended fuel in planes, boats, and small engines. Essentially all gasoline in NH contains 10% ethanol due to federal renewable fuel standard obligations. Numerous vehicles on the roads today could burn ethanol blends up to 85% (flex-fuel vehicles – Ford Focus, many Chevy products), but , NH does not have any stations that sell ethanol at higher blends.

NH also has opted in to the federal Reformulated Gasoline program in an effort to reduce ground level ozone formation in the summer months. The southern four counties – Strafford, Rockingham, Merrimack and Hillsborough – are supplied with RFG from April through September.

The Federal Tier 3 program is part of a comprehensive approach to reducing the impacts of motor vehicles on air quality and public health. The program considers the vehicle and its fuel as an integrated system, setting new vehicle emissions standards and lowering the sulfur content of gasoline beginning in 2017. The vehicle standards will reduce both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium-duty passenger vehicles, and some heavy-duty vehicles. The gasoline sulfur standard will enable more stringent vehicle emissions standards and will make even existing emissions control systems more effective.

Both the transportation and heating oil sectors present an opportunity for reducing carbon emissions through the use of lower carbon fuels. NH has participated in a regional work group evaluating the potential for use of lower carbon fuels in the region. Most of the alternative fuels mentioned previously have lower lifecycle carbon impacts relative to conventional petroleum fuels. Additionally, new sources of crude, including the Bakken crude from the mid-west and tar sands crude from Canada, have higher carbon impacts compared to more conventional oil sources.

Sulfur limits for motor vehicle diesel fuel were reduced to 15 ppm several years ago. Many of our neighboring states are phasing in lower sulfur limits for heating oil as well. Some of that lower sulfur fuel oil is very likely making its way into NH, but there is also concern that NH could become the regional dumping ground for higher sulfur fuels. The sulfur in fuel oil contributes to the regional haze that often plagues our scenic vistas and wilderness areas.

Cleaner vehicles is the second strategy for reducing emissions from the transportation sector. Standards for tailpipe emissions, GHG emissions, and fuel economy are set by the federal government. States other than California are not allowed under the Clean Air Act to set their own vehicle emission standards, but states have the option of either following federal standards or adopting the California standards. All New England states except NH have adopted the California low and zero emission vehicle standards. Currently federal standards and low emission vehicle standards are harmonized through model year 2025. The ZEV standards apply an additional requirement for auto manufacturers to sell a certain percentage of ZEVs in a state. Consumers in states that operate under the California LEV and ZEV standard also benefit from extended warranties that do not exist under federal standards.

Vehicle inspection programs are designed to keep today's cleaner vehicles low emitting throughout their useful life. NH's vehicle inspection and maintenance program is implemented by the Department of Safety with assistance from DES and is required by the Clean Air Act due to our former nonattainment status and our inclusion in the Ozone Transport Region. The On Board

Diagnostics test, or OBD, is performed on all 1996 and newer light duty vehicles. Currently about 1 million tests are conducted annually.

We also collaborate with the Department of Safety (DOS)to establish diesel opacity standards for on-road diesel trucks and are presently working with DOS to bring NH standards in line with more stringent standards in neighboring states.

NH also utilizes federal Diesel Emission Reduction Act funding to target emissions from the on-road and non-road diesel fleet. We had approximately $1.3 million in federal ARRA funding to kick off the program, and funding levels now are about $70,000 per year and declining. The NHDES uses these funds to incentivize early vehicle replacement, changing to cleaner fuels and for idle reduction strategies. Under this program we have given significant attention to school bus fleets in the state, outfitting 110 school buses with idle reduction equipment.

Reducing travel demand is the most effective way to reduce vehicle emissions and the hardest to achieve. Reducing demand can mean either eliminating the need to travel at all, such as creating walkable communities, or to getting cars off the road by putting those passengers into a more efficient mode such as transit or rail. If you look back at slide 16, reducing demand requires that transportation options are available and that the price of those options (both in time and money) are equal to or less than using your own vehicle. How we develop our communities, our land use patterns, directly impact our ability to support transportation options. And, land use decisions will also determine how much travel is needed.

If you recall from the slide on VMT growth, the rate of growth has flattened in recent years. This is attributable in large part to recent demographic changes. First, baby boomers are retiring, thus reducing those commute miles. Second, the millennial generation does not have the same love of cars as previous generations. Millennials are delaying getting a license, foregoing car ownership, and have a relatively strong preference for living near and using public transportation. This will present a challenge for NH in the coming years. As a state we have not invested in a public transportation system, and therefore are not well positioned to attract this next generation workforce.

The NHDES participates in work groups aimed at improving bike and pedestrian facilities and ride share programs. We also work with DOT in support of increased investment in public transportation options and we work with the Regional Planning Commissions to support land use development patterns that reduce the need to travel and support public transit.

A federal requirement, referred to as Transportation Conformity, provides one of the few regulatory tools we have to impact how our transportation network develops. This federal rule requires that transportation plans are in conformance with our state implementation plans and do not exacerbate air quality issues in a nonattainment area or prevent achieving attainment. Compliance with this requirement is determined via computer modeling done in cooperation with NH DOT and the planning commissions.

Much of the work of the Technical Services Bureau is collaborative in nature. We're a small state and don't have the resources to do this work alone, nor would it be efficient or effective to do so. On federal level issues we collaborate with other air quality agencies through the National Association of Air Control Agencies.

The Ozone Transport Commission deals specifically with ozone related emission reductions in the thirteen-state Ozone Transport Corridor, and works to develop model rules to reduce emissions across the corridor.

Through the Northeast States for Coordinated Air Use Management (NESCAUM), the NHDES shares ideas, expertise and material on all subjects related to air pollution in the region. NESCAUM has been the lead for our work on a Clean Fuel Standard and has also taken the lead role in evaluating how energy efficiency programs might be able to get credit in State Implementation Plans.

The New England Governors-Eastern Canadian Premiers (NEG/ECP) provides a forum in which to broaden our regional efforts to include our northern neighbors. We participate in both the Transportation Committee, of which Ms. Ohler is co-chair, and the Climate Change Steering Committee which is co-chaired by Michael Fitzgerald.

In closing, Ms. Ohler reported that some very important work is being done to reduce energy use in state government. SB 73 required the state to reduce fossil fuel use in state buildings by 25% by 2025, and for each department to report annually on progress toward this goal and identify measures taken and potential future measures. We are very close to meeting this target already.

Two executive orders by Governor Lynch require new and reconstructed buildings to meet certain efficiency requirements and for the state to lead by example in reducing fossil fuel use. It requires development of an Energy Information System to comply with SB 73 requirements to track energy use and development of an annual Energy Conservation Plan by each agency. Additionally, it specifies purchase of Energy Star equipment, and requires compliance with a Clean Fleet Policy as established by the State Government Energy Committee (co-chaired by Commissioner Burack and Director Meredith Hatfield of the OEP). The Clean Fleet Policy includes idling restrictions, establishes minimum fuel economy standards for state vehicle purchases, and a requirement for all state employees who operate state vehicles to complete a course in fuel efficient driving behaviors. It also establishes a Best Management Practices for state fleet managers and operators.

Ms. Ohler added that HB 1129 also contains a requirement for the State Government Energy Committee to evaluate and report on compliance with Executive Order 2011-01, whether additional goals may be appropriate, and what tools or resources are needed to meet those goals. The SGEC is on track to recommend some legislative changes in the November 1, 2014 report.

Chairman Duval thanked Ms. Ohler for the presentation. William Smagula suggested that more current National Emissions Data be used for similar future presentations.

Env-A 4300, *Other Solid Waste Incineration*

Chairman Duval introduced Karla McManus, Planning and Rules Manager; and Gary Milbury, Air Permit Program Manager of the Air Resources Division. Ms. McManus provided members of the ARD with an overview concerning the readoption of Env-A 4300, *Other Solid Waste Incineration*, which is due to expire on January 5, 2015. The Air Resources Division is proposing to readopt Env-A 4300 with minor changes to clarify the rule.

Ms. McManus stated that the purpose of this chapter is to establish operating and performance standards for existing solid waste incineration units with the capacity to combust less than 35 tons per day of solid waste. This rule is required by 40 CFR part 60, subpart FFFF.

Gary Milbury added that the rule affects only one source located in Bridgewater, NH.

Members of the ARC discussed the proposed deletion of Env-A 4303.02 Startup, Shutdown, or Malfunction.

Raymond Donald entered a motion to accept for review, the proposed amendments of Env-A 4300. William Smagula seconded the motion. All were in favor. Chairman Duval instructed members of

the ARC to contact Vice-Chairman Collins with further comments regarding Env-A 4300 within fifteen days.

Status of Appeals
Currently, there are no appeals before the ARC.

New Business
No new business was taken up by the ARC.

Other Business
Chairman Duval scheduled the next meeting of the ARC to be held on Monday, October 20, 2014.

Public Commentary
No members of the public were present.

Adjourn
Having no further business to discuss, meeting #226 of the Air Resources Council adjourned at 10:45 a.m. on September 15, 2014.