

**Wasatch Front Regional Council
Air Quality Committee
Meeting Summary – January 21, 2010**

Attending:

Committee Members

Kip Billings, WFRC
Chuck Chappell, WFRC
Elden Bingham (*for Ahmad Jaber*), UDOT
Mayor JoAnn Seghini, Midvale
Cheryl Heying, DAQ

Others

Elden Bingham, UDOT
Ned Hacker, WFRC
Stacey Adams, DEQ
Vicki Bennett, SLC
Sam Klemm, WFRC
Susan Hardy, MAG
Michele Straube, SL Solutions
Kathy VanDame, Wasatch Clean Air Coalition
Alan Matheson, Envision Utah
Terry Marasco, private citizen

Excused:

Mayor Ralph Becker, SLC
Commissioner John Petroff, Davis Co.

Summary

Mayor Joann Seghini of Midvale chaired this meeting in the absence of Mayor Becker.

Clear the Air Resolutions – Michele Straube reported on the Winter Clear the Air Challenge. Salt Lake Solutions has established a website for people to record a New Year's Resolution for what they will do to reduce emissions for January and February 2010. Pledges can be recorded at <http://apps.slcgov.com/general/absolutefp/clearair.htm>. A "Clear the Air" Facebook page has also been established. People can become fans of the "Clear the Air" page and follow what others are doing to reduce emissions. WFRC will share the Clear the Air Challenge website with the WFRC mailing list.

Salt Lake Solutions is also endorsing the Reduced Idling campaign at schools and drive-in businesses.

MOVES Final Version – Kip Billings gave an update to the committee regarding the new mobile source emissions model from EPA called MOVES. The final version was released December 23, 2009 but EPA has not published in the Federal Register what the official implementation date will be for this model. Staff is still testing the new model, but initial indications are that MOVES will require several hundred hours of computing time to do what the current Mobile6 model does in less than 15 minutes. This will require more careful advance planning to keep transportation plans and SIP development on schedule. Conformity demonstrations for the 2011 and 2012 TIP documents and the 2040 Transportation Plan will be completed before January 2012 which is the earliest date that EPA will require the new MOVES model to be used in place of the current Mobile6 model.

PM_{2.5} SIP Update – Bryce Bird explained to the committee that the official PM_{2.5} non-attainment area designations from EPA were issued December 14, 2009. The Salt Lake PM_{2.5} non-attainment area includes Davis and Salt Lake Counties, and portions of Weber, Box Elder, and Tooele Counties. Tooele and Box Elder have filed a lawsuit challenging this designation. The DAQ has three years from the date

of the designation to complete a state implementation plan to control PM_{2.5} emissions. Until the lawsuit is resolved, WFRC will include Tooele and Box Elder County emissions in the SIP development effort.

PM₁₀ SIP Disapproval – Bryce Bird also reported on the status of EPA’s proposed disapproval of the PM₁₀ SIP submitted by the State of Utah in 2005. The comment period for this proposed action has been extended to March 1, 2010 at the request of several agencies from Utah. The Utah Air Quality Board will hold a special meeting in the next two weeks to discuss EPA’s proposed action.

EPA’s proposed action means that conformity requirements for Plans and TIPs remains as currently applied. WFRC anticipates a positive conformity finding for the new 2040 Plan in 2010 with the current emission budgets, models, and procedures.

Kip Billings noted three main concerns cited by EPA in their proposed action:

1. Road dust procedure
2. High wind events
3. Various technical issues involving point sources.

The road dust emissions procedure is the only concern directly involving mobile sources, but without resolution of the other two concerns EPA is unlikely to approve the motor vehicle emission budget even if the road dust concern was resolved.

Cheryl Heying explained that the intent of the new SIP was to bring the existing PM₁₀ SIP (which is 15 years old) up to date with current conditions. The WFRC will continue for now with established conformity procedures, but this cannot continue indefinitely. At the very least DAQ will need to update the existing PM₁₀ budgets using the MOVES model within the next two years.

Proposed Ozone Standard – Bryce Bird reviewed EPA’s proposed new ozone standard. EPA is proposing to change the primary ozone standard from the current 75 ppb to a value between 60 and 70 ppb. Also, a new form of the secondary ozone standard is proposed called the “W126” standard. At the lower proposed bounds, the entire state of Utah would be in violation of both the primary and secondary standards. In fact, the entire western U.S. with the exception of Montana violates the lower bound of the proposed standard. The primary standard is based on protecting human health, the secondary standard is designed to protect the environment. Cheryl Heying of DAQ explained the difficulty of meeting the proposed standard at a local or even state level when regional emission levels exceed the proposed standard. In addition, EPA is proposing to compress the normal implementation process from 5 years to 3 years. DAQ is anticipating further budget cuts from the State which will result in the reduction of one FTE in 2010.

WFRC Response – [Proposed] PM₁₀ SIP Disapproval – Draft copies of a list of possible responses to EPA’s proposal to disapprove the Utah PM₁₀ SIP for Ogden City and Salt Lake County were distributed at the meeting for discussion. Chuck Chappell led the discussion. The revised draft will be presented in letter form for final review and approval by the Wasatch Front Regional Council. DAQ noted that EPA concerns with “banked” SO₂ emissions from Kennecott could be resolved if EPA approved the submitted SO₂ SIP which would effectively retire these “banked” emissions. There was a question about the increase in red-alert air quality days and how this relates to PM₁₀. It was explained that the threshold for declaring red-alert days has moved reduced several times in response to changes in the PM_{2.5} standard. The red-alert notices are based on PM_{2.5} emissions and not PM₁₀ emissions which have been well within established standards since 1993. Elden Bingham noted that UDOT contributed over \$1.5 million in transportation funds to DAQ to prepare the PM₁₀ SIP.

WFRC Response – Proposed Ozone Standard - Draft copies of a list of possible responses to EPA's proposal to modify the ozone standard were distributed at the meeting for discussion. Chuck Chappell led the discussion. The revised draft will be presented in letter form for final review and approval by the Wasatch Front Regional Council. There was some discussion about the efficacy of imposing local sanctions for a problem that appears to demand regional solutions. In other words, the State Implementation Plan targeting individual counties is not the appropriate tool to effect regional changes in emissions.

The question was raised what the natural background level is for ozone. Given that 98% of the counties with air monitors are in violation of the proposed 60 ppb standard, it appears that the regional background level for the western U.S. is above 60 ppb. Terry Marasco commented that Utah's air has at times been cited as the worse in the nation and that the public wants solutions.

DRAFT - Response to EPA Proposed Disapproval of the Utah PM₁₀ SIP -
DRAFT

Public Comment: December 2009 – March 1, 2010

WFRC acknowledges the responsibility of EPA to protect public health by approving effective State Implementation Plans that meet the requirements of the Clean Air Act.

1. Aside from the road dust question addressed above below, the deficiencies in the submitted PM₁₀ SIP cited by EPA relate to point sources or questions about flagging data for high wind events. While these questions are resolved between EPA, DAQ, and the point sources involved, WFRC requests that EPA approve the submitted motor vehicle emissions budget for the purpose of performing conformity determinations. [DAQ requested further discussion with WFRC on this point.]
2. Ogden was designated non-attainment for PM₁₀ in 1995. Utah has met the SIP submittal deadlines in the 15 years since that designation and still no SIP has ever been approved for Ogden. This indicates a problem with the SIP process and compromises the relevance of SIPs and the air quality regulations.
3. The last time Ogden had an exceedance of the PM₁₀ standard which led to a violation was in 1993.
4. The last time Salt Lake County had an exceedance of the PM₁₀ standard (other than unrelated high wind events) which led to a violation was in 1992.
5. The Ogden SIP was disapproved on the basis that banked SO₂ emissions from Kennecott were not properly modeled and could possibly be transported to Ogden. This is unlikely during inversion conditions with little to no wind which characterize PM₁₀ episodes along the Wasatch Front.
6. It is unlikely that Kennecott will ever find a buyer for their entire SO₂ bank account which is unique and unusually large. Even if a portion of these emissions credits are sold, they would be subject to permitting review to verify that the added emissions do not lead to a PM₁₀ NAAQS violation in Ogden or elsewhere.
7. The deficiencies cited by EPA in the submitted SIP are details that EPA should have addressed and resolved while the SIP preparation was in process. With the five-year delay, a time consuming review is now required that is not included in current budgets for time or financial resources.
- 7-8.
- ~~8.—~~The wind-blown dust events that EPA cites as violations of the PM₁₀ NAAQS and one of the primary reasons for disapproving the SIP occur during conditions completely unrelated to the chronic winter inversions that the SIP was designed to control. ~~If there are measures that DAQ and point sources need to address to control the recurring wind-blown events that should be a matter for EPA, DAQ and the point source in question. This should not preclude EPA approving the mobile vehicle emissions budget for conformity purposes.~~

9. According to EPA, the calculation of road dust in the SIP was improperly reduced by 75%. The 75% reduction was based on a comparison of emission inventories to monitored concentrations. The emission inventory estimated by AP-42 is not supported by actual crustal and silica concentrations found on the PM₁₀ monitors. In other words, the SIP did not underestimate PM₁₀ concentrations (the concentrations were based on actual measurements), the dust estimating tool (AP-42) overestimated emissions.
10. The transportable fraction methodology recommended by EPA was released one month after the PM₁₀ SIP was submitted. Even if this were available prior to the SIP being submitted it does not fully explain the discrepancy between AP-42 dust inventories and actual monitor data.
11. With the advent of the new MOVES model for estimating vehicle emissions, states have just two years to redefine existing budgets using the new emission model. If the submitted SIP is disapproved, we will have to update the fifteen year old budget in the existing approved SIP which is for the year 2003. The submitted SIP would have established a budget for the year 2017 which corresponds better with conditions in the current 2040 planning horizon.
12. After over four years of review, the timing of this SIP disapproval by EPA is problematic for Utah. EPA has also started the three-year clock on the PM_{2.5} SIP for Utah. The existing SIPs in Utah all need to be re-evaluated with new attainment demonstrations and motor vehicle emission budgets using the new MOVES2010 model. This new model is still waiting final release, has significant operating flaws, and requires hundreds of hours of computing time to do what the Mobile6 model did in a few minutes. With these emission model limitations, WFRC will be inhibited in its ability to meet the various SIP development tasks in the time allotted. Requiring an entirely new PM₁₀ SIP submittal only adds to this backlog of air quality regulation requirements and could easily overwhelm the system of effective air quality and transportation planning within the state.

~~13. Aside from the road dust question addressed above, the deficiencies in the submitted PM₁₀ SIP cited by EPA relate to point sources or questions about flagging data for high wind events. While these questions are resolved between EPA, DAQ, and the point sources involved, WFRC requests that EPA approve the submitted motor vehicle emissions budget for the purpose of performing conformity determinations.~~

DRAFT - Response to EPA Proposed Ozone Standards – DRAFT

Public Comment: January 19 – March 22, 2010

1. We-WFRC acknowledges the requirement for responsibility of EPA to develop health based standards for air quality. However, at the proposed 60 ppb, 98% of the U.S. counties with air quality monitors would violate the standard including at least seven national parks in the intermountain west. This would suggest that background air in much of the country without monitors would also exceed the 60 ppb standard. We believe it is futile to impose air quality standards that even background conditions in less populated areas of the country cannot meet.
2. Even at the higher proposed standard of 70 ppb, at least three national parks in the intermountain west would be in violation. As stated above, this standard is too close to background concentrations of ozone to be a realistic target for improving air quality.
3. In Utah's urban areas about one third of the VOC emissions that contribute to ozone formation are from biogenic sources; in rural areas as much as 85% of the VOC emissions are biogenic. Altitude and cloud cover also play significant roles in ozone formation. It is unreasonable to apply the same standard in all areas of the country when there are significant variations in ambient conditions unrelated to anthropogenic sources. [Questions were raised about the accuracy of biogenic emission estimates. The figures stated above will be checked again with DAQ.]
4. The proposed secondary standard is a complex statistical device that does not lend itself to an intuitive understanding of what level of ozone concentration is unacceptable. Explaining and defending this standard to policy makers and the public will be difficult and will not foster support.
5. ~~The~~ timing of this new standard is problematic for Utah. After over four years of review, EPA has proposed to disapprove the Utah PM₁₀ SIP. EPA has also started the three-year clock on the PM_{2.5} SIP for Utah. The existing SIPs in Utah all need to be re-evaluated with new attainment demonstrations and motor vehicle emission budgets using the new MOVES2010 model. This new model is still waiting final release, has significant operating flaws, and requires hundreds of hours of computing time to do what the Mobile6 model did in a few minutes. With these emission model limitations, WFRC will be inhibited in its ability to meet the various SIP development tasks in the time allotted. Implementing a new ozone standard (with the usual five-year schedule compressed to three years) at such ambitious levels as proposed only adds to this backlog of air quality regulation requirements and could easily overwhelm the system of effective air quality and transportation planning within the state.
5. Efforts to Reduce ozone related emissions and PM_{2.5} related emissions may be counter-productive. Ozone conditions in the urbanized area of the Wasatch Front are "VOC limited". This means that in the combination of VOC and NOx that leads to ozone formation, there is more NOx than VOC. This results in "NOx scavenging" of ozone – the additional NOx emissions react with O₃ molecules and eliminate some of the ozone that is formed. There is concern that efforts to reduce NOx emissions in order to control winter time PM_{2.5} concentrations may

actually result in increasing summer time ozone formation by reducing the “NOx scavenging” effect on ozone.