

**MEETING OF THE NORTH CAROLINA  
ENVIRONMENTAL MANAGEMENT COMMISSION**

**Raleigh, North Carolina  
November 14, 2013  
Minutes**

The North Carolina Environmental Management Commission met in the Ground Floor Hearing Room of the Archdale Building, 512 North Salisbury Street, Raleigh, North Carolina. Chairman, Benne C. Hutson presided. The following persons attended for all or part of the meeting.

**COMMISSION MEMBERS:**

David W. Anderson	Benne C. Hutson	Clyde "Butch" Smith, Jr
Gerard A. "Jerry" Carroll	Steve P. Keen	Steve W. Tedder
Charles "Charlie" Carter	Kevin Martin	Julie A. Wilsey
Tommy Craven	Manning W. "Bill" Puette	
E. O. Ferrell	Dr. Albert R. Rubin	

**DIVISION OF WATER RESOURCES:**

Kevin Bowden	Richard Gannon	Matt Matthews	Kathy Stecker
Janice Bownes	Karen Higgins	Ian McMillan	Lois Thomas
Connie Brower	Cyndi Karoly	Cam McNutt	Julie Ventaloro
Jennifer Burdette	Elizabeth Kountis	Jeff Poupart	Steve Vozzo
Amy Chapman	Gary Kreiser	Tom Reeder	Debra Watts
Tom Fransen	Jeff Manning	Jason Robinson	Nat Wilson
		Diane Reid	Adriene Weaver

**ATTORNEY GENERAL'S OFFICE:** Mary Lucasse  
Phillip Reynolds

**DIVISION OF AIR QUALITY:** Sheila Holman  
Michael Abraczinskas  
Joelle Burleson  
Lori Cherry  
Patrick Knowlson  
Sushma Masemore  
Michael Pjetraj  
Donnie Redmond  
Schliesser, Steve  
Angela Terry  
Steve Vozzo

**Office of General Counsel:** Jennifer Everett

## **I. Preliminary Matters**

**Chairman Hutson:** Good Morning Everyone. (Chairman Hutson called to order the November 14, 2013 meeting of the North Carolina Environmental Management Commission at 9:05 a.m.)

I'll ask a couple of things. If you do have your cell phones and I know everybody does, would you please put them on vibrate? Commissioners, if you would remember to use your microphones when speaking. This meeting is being broadcast and there is a recording. If you could do that, and just wait to be recognized to speak. That way we don't have people speaking over one another.

To preliminary matters, we had the minutes circulated from our September 12th meeting. Could I have a motion and a second for approval of those minutes?

(Motion by Commissioner Carroll and second by Commissioner Tedder.) Hearing none. The minutes were approved.

We'll move on to the action items of the agenda. I do want to remind members of the Commission that General Statute 138A-15 mandates that I as the Chairman inquire as to if any members know of any known conflict of interest or the appearance of a conflict of interest with respect to the matters before the Commission today, if any member knows of a conflict or appearance of conflict, please so state at this time.

**Commissioner Wilsey:** Mr. Chairman I'd like for us to note that on action item 13-31, the Brunswick County Interbasin transfer, I am a user of the water system of Brunswick County but I verified that it is not a conflict. I'd just like to acknowledge that.

**Chairman Hutson:** Any other acknowledgements of conflicts or potential conflicts?

**Commissioner Craven:** With similar items I am a residential customer of Brunswick County Public Utilities, but again I feel in no way compromised in that situation.

**Chairman Hutson:** Any others? Obviously if during the course of the proceedings you identify a conflict please identify it at that time, and you can recuse yourself then. Thank you.

## **II. Action Items**

### **13-25 Election of a vice-chair to the Environmental Management Commission**

**Chairman Hutson:** To the action items of our agenda, first action item 13-25 which is the election of a vice-chair for the Environmental Management Commission. If anyone has a motion to nominate someone I will take those motions at this time.

**Commissioner Tedder:** Mr. Chairman, I would like to make a motion. I'd like to nominate Mr. Kevin Martin as vice chair of the Commission and would also move the nomination closed.

**Chairman Hutson:** Is there a second? (Commissioner Keen seconded.)

We have a motion by Commissioner Tedder and a second by Commissioner Keen. Any discussion? Hearing none I'll call the question. All those in favor of the election of Kevin

Martin as the vice chairman of the Environmental Management Commission signify by saying “Aye”? Oppose? (The motion passed unanimously.) Congratulations.

**Commissioner Martin:** I appreciate the vote of confidence. I’ll try not to let you all down. I’ll do the best can but call me on it if I don’t. I know Benne will.

**Chairman Hutson:** The next item is item 13-26 which is amendment of the internal operating procedures of the Environmental Management Commission of North Carolina to establish page limits on briefs in contested cases proceedings. I’ll ask Mary Lucasse, Counsel to the Commission, to make a presentation on that.

**13-26 Amendment of Internal Operating Procedures of the Environmental Management Commission of North Carolina to Establish Page Limits on Briefs in Contested Case Proceedings**

**Mary Lucasse:** Thank you. I just wanted to let you know that we’ve added a new section proposing to add a new section to Article XI under the operating procedures. This was all circulated. I don’t know if you’ve had a chance to review it. If you turn to the end, I’ve highlighted the proposed new language which basically includes the limits on pages that are presently used by the North Carolina Court of Appeals with the idea being that this Commission should be able to have something relatively succinct, if 35 pages is succinct, and that can focus them on the record. In the past there have been situations in which attorneys have written much, much more than this and we think that this is a helpful limitation that will focus our work. If you have any questions I’d be glad to take them. I just wanted to remind you all that as we move to amend the bylaws under the bylaws itself, it will take a three-quarters vote to do that.

**Chairman Hutson:** Discussion or questions? I did speak last week to the counsel section of the State Bar Section on Environment and Energy and Natural Resources while I made them aware of this. Most of the lawyers in the room were happy about the change. There were a couple who had written briefs here who were not. But that’s the way it goes. I will entertain a motion and a second for approval of this proposed amendment to our operating procedures. Do I have a motion? (A motion by Commissioner Carter.) Is there a second? (Second by Commissioner Ferrell.) Any discussion? If not, all those in favor of the proposed amendment to the operating procedures please say “Aye”. Opposed? The motion passes unanimously which satisfies the three-quarters majority vote requirement.

**13-27 Hearing Officer’s Report on Revision of Arsenic Acceptable Ambient Level (AAL) (514)**

The next item is item 13-27 which is the Hearing Officer’s Report on revision of the arsenic ambient level. This was considered at the July meeting of the Commission. At the end of that consideration there was a motion to continue action on it until September. With the changeover in the Commission there was a motion adopted to continue action on that item until this meeting. We have a number of speakers on this. Is Ms. Cherry going to start? I’d ask Lori Cherry from the Division of Air Quality if you would come forward and then we will also hear from Donnie Redmond who was the hearing officer. Dr. Thomas Starr, the head of the Science Advisory Board for the state, will be here. So Ms. Cherry, welcome and thank you for coming.

**Lori Cherry:** Thank you Chairman Hutson. Good Morning Members of the Commission. My name is Lori Cherry and I work for the Division of Air Quality. I am supervisor of our air toxics branch. The discussion this morning will be on the Secretary's Science Advisory Board. This is a body that was formed in 1990 by the Secretary of DENR. Its primary purpose is to assess the potential human health risk associated with the inhalation risks from breathing toxic air pollutants. However, on occasion they have been asked to evaluate other chemicals of importance to the department such as mercury and a synthetic chemical called perfluorooctane. The eight members of the Science Advisory Board are voluntary scientists from North Carolina and they are appointed by the Secretary to four-year terms. The professional disciplines that are represented by the board members is varied. They include toxicology, bio-statistics, epidemiology, environmental health, pediatric and occupational medicine, and risk and exposure assessment. The board members are highly regarded for their scientific expertise and judgment in their respective professions. This is a high national regard and if you can refer to the handout this is a select group of their credentials. We thought that would be helpful for you to see. North Carolina is fortunate to have access to this level of expertise because of the close proximity of these major universities in the state and research organizations, and also federal governmental agencies. The North Carolina Academy of Sciences recommended creating the Science Advisory Board to issue regular scientific review of toxic air pollutants. In this way the Science Advisory Board provides a continuous peer review of the state's acceptable ambient levels or AALs, which you will hear. The AAL is a concentration above which a toxic air pollutant may be considered to have an adverse effect on human health. The Science Advisory Board uses published literature that reports the findings of various health effects and interprets this collective body of information using professionally accepted and current methods. Then the SAB's deliberations conclude with the recommendation to the agency of a range of exposure values below which adverse health effects would be unlikely. The exposure values are expressed as a range of risks. So when information comes to you for your decision making you'll have a low number and a high number. The reason for that range will be explained in those particular packages. DAQ assigns an appropriate averaging period for the type of chemical and begins the rulemaking process. Both the Air Quality Committee and the EMC provide input and approval of the draft rules incorporating the resulting recommended AAL and the associated fiscal note prior to proceeding to public comment on those proposed rules. Following conclusion of the public comment period the hearing record is brought back to the EMC for final decision in its risk management role. All the SAB meetings are publicized and open to attendance and we have a pretty standard distribution list to announce those meetings. Documents and other SAB materials are posted on our website. Final proposed risk assessments are published and open for 30-day public comment period before we even begin any of the rulemaking process. Then the EMC makes the final risk management decision and now has the opportunity to do this for arsenic. Any questions? Thank you very much.

**Donnie Redmond:** Thank you Mr. Chairman. Good Morning Members of the Commission. My name is Donnie Redmond and I'm the ambient monitoring section chief with the Division of Air Quality. I was the hearing officer for these proposed rules. Originally there were two hearing officers. Chris Ayers who was a member of the AQC and the EMC was the other hearing officer. At the beginning of the hearing he recused himself so that left me as the sole hearing officer for these two rules. There are two specific rule changes that are being addressed. One was 15A NCAC 02D .1108 to revise North Carolina's acceptable ambient level for arsenic, an inorganic arsenic compound, from the current annual value of  $2.3 \times 10^{-7}$  milligrams per cubic

meter to  $2.1 \times 10^{-6}$  milligrams per cubic meter. The other rule was 15A NCAC 02Q .0711 to revise the corresponding emission rate requiring a permit for arsenic and inorganic arsenic compounds from the current value of 0.016 pounds per year to 0.053 pounds per year. I promise I won't read to you anymore.

Normally when we come to you with a change in the air quality standard it's for criteria pollutants, ozone, fine particles, SO<sub>2</sub> and NO<sub>2</sub>. Those are national standards that are set by the EPA. There's also a federal Clean Air Act that they review those rules, those standards for those criteria pollutants every five years. With air toxics, it's different. It's the EMC who establishes the standards. It only applies to North Carolina and there's no definite period for review for this in these rules. Where the EPA rules typically may be ozone was 80 parts per billion the EPA did a review and decided that wasn't protective enough for human health so they would lower it to 75 parts per billion. Similarly, a year or so ago they did it with fine particles. It was 15 micrograms per cubic meter. They lowered that standard to 12 micrograms per cubic meter. Again with the toxics such as arsenic it's different. What you're looking at is essentially if a person stood at a property line for a year breathing the air at that property line, over the course of that year they would have a one in a million increased chance of developing cancer during their lifetime. So the target that you're looking at is the one in a million risk of developing cancer, and so what we need to do, is establish what the concentration is and, in this case arsenic that would lead to that level of risk. So it's a little bit different from what we typically come to. I want to point out a few numbers from the SAB's risk assessment.

Eighty-eight percent of arsenic in ambient air in North Carolina is from background. That is it's from natural sources or it transferred it in from someplace else. Of the emissions that are from North Carolina, 92% are from point sources. Most of that is from electrical power distribution, about 74%, followed by pulp and paper mills. By fuel type 96% of the arsenic emissions are from coal. Also from the SAB's risk assessment they noted that the measured ambient concentrations in North Carolina are steadily decreasing over the past ten years or so. From the economic assessment developed by DAQ we know that under the existing rule there are about 450 facilities that are subject to the existing rule. Under the revised rule 313 would still be subject to the rule. So, about a quarter of the facilities would no longer be subject under the revised rule. Three-quarters of them would still be subject.

A little bit of background of how we got there today. About three years ago, the Air Quality Division Director asked the SAB to review the arsenic AAL. The standard was set in 1990. It's based on data that's now about thirty years old, and it hasn't been reviewed since 1990. Over the past thirty years or so the Division has established additional monitors, and we've noticed that from the measured readings from these monitors that we're getting close to exceeding the AAL. So that was a concern. If your monitored readings are exceeding what you've established as an acceptable limit you either got a health problem if there's some question about the level of that AAL. So the division director asked this SAB to evaluate the AAL. Through 2011 the SAB met several times to review, current literature and to develop a recommendation. By October of 2011 they had developed a recommendation and they voted unanimously to put their recommendation out for public comment. They met twice more after that to discuss the comments that were received during this public comment period. In January 2012 they voted unanimously to provide that recommendation to the AQC and the EMC. They didn't change it as result of the public review. It came over to your side in March 2012. The concept was received by AQC. Early this year on January 2013, the draft rule and economic analysis was provided to the AQC. In March of 2013 the EMC approved going out to public hearing on these rules. On May 14th of this year

the hearing was held. My approach in conducting this hearing wasn't to second guess the expertise of the SAB. I didn't go back and pull out the models, pull out the studies and do my own analysis. My approach was to accept the public comment on the work that they said was being done and to evaluate whether there were any areas or considerations that the SAB should have reviewed, should have considered, but did not. There was only one speaker at the public hearing but he spoke on behalf of a couple of regulated facilities who subsequently provided written comments. We received a total of five written comments. Three were from industry: Jackson Paper, Evergreen Packaging, the North Carolina Manufacturer's Alliance. They all agreed with the rule. Their reasons for agreeing with the rule were that it was based on a more robust dataset than the original rule from 1990 and that the current AAL could give a wrong impression about the air in North Carolina and that these changes were consistent with recent changes to the toxics program remanded by the General Assembly in 2012. We received comments from two environmental groups, the Southern Environmental Law Center and the Blue Ridge Environmental Defense League. They both disagreed with the rule. Among their concerns were they questioned the studies and models that were used by the SAB. I looked at the comments. I looked back at the hearing. At the public comment period that the SAB had two years ago, these same comments had been received then and had been considered by the SAB. They decided they had used appropriate methods and studies to arrive at their recommendation. The environmental groups also believed that the SAB had failed to take into consideration ingestion. When I went back and read the minutes from the SAB, there were at least two different occasions where they talked about ingestion, early in the process and then again after the public comment period. They discussed that the primary way arsenic is ingested is through drinking water. The primary way arsenic gets into drinking water is just the natural process of groundwater going through rocks and arsenic leaking into it. Also from pesticides that may be in well water and that groundwater concentrations were higher than surface water concentrations. The SAB had discussed about whether they should include ingestion into their study or not. Another comment was that we shouldn't change this AAL at the same time these other changes are being made to the toxics program as made by the General Assembly. But these are all being implemented by the Division of Air Quality. So I checked with the managers who are in charge of this sort of thing. They didn't seem concerned with changing the AAL at the same time they were incorporating these other changes. Finally there was one of the comments that the SAB should consider background levels and the Division of Air Quality should consider background levels when they're implementing this rule. This hearing was just about the level for the arsenic though. These suggestions about including background level, they would require more fundamental changes in the toxics program which would require additional regulation or perhaps legislation to make the changes that they were suggesting. So I consider those beyond the scope of this particular hearing. There was one item that gave me pause, that was the fact that EPA has announced that they are starting their own study of arsenic. Environmental groups recommended that we wait until EPA's review is done. The industry groups said we should not wait for that. EPA's scheduled to complete that review in 2016. So I considered what would be the results, what could be the possible results of EPA's review. How would that influence our decision that you make here. Best case, worse case depends on your perspective. But on one hand it could be that SAB, our science people just review this data. It's like the EPA may review a lot of the same information and come to similar conclusions. In that case we're going to be at least three years ahead of adjusting to a more appropriate AAL for arsenic. On the other hand EPA says they're going to finish this by 2016. It's not unusual for

EPA to be late or to miss their deadlines. Technical work takes longer than they expected. Legal challenges arise that derail the whole process. Financial matters come in to play, you know the limited resources of this and resources get shifted to a higher priority. I have confidence that EPA is going to go about this in good faith. But things happen. It's not unusual for EPA to miss a deadline. If we moved ahead with approving these rules now, and EPA did come out with something that was different, we could adjust whenever that happens. If we decide to wait for EPA and 2016 rolls around, and the end of EPA's review is nowhere in sight. I came back on July 10 to present my recommendation to the AQC and on July 11 to the EMC. I recommended approving the rule. This was based on that this is not a relaxation of health standards. By definition it's equally protective of health. The measured background concentrations of arsenic are trending downward over the last ten years. Most of the sources subject to this rule are still going to be subject to this rule. Finally, if you needed you could review the rule when EPA comes out with something in three years or more. My recommendation resulted in a lot of questions from the EMC which a lot of them were about processes. What did the SAB do, particularly? But I wasn't involved in that process two or three years ago, so I couldn't answer them other than identify what I just read in the minutes.

**Chairman Hutson:** I think in light of the schedule we have, let's get all the presentations before the Commission and then we'll open it up to questions of all the presenters, and then move toward action on this item. Mr. Redmond, thank you again for serving as hearing officer and coming here now twice to present this. Thank you.

Dr. Starr, welcome. Thank you for coming and we appreciate hearing your comments on this.

**Dr. Starr:** Thank you very much. I am Tom Starr. I am the Chairman of the Science Advisory Board for Air Toxics, the Secretary's Science Advisory Board. I've been doing this and been a member of the board since it's been created. Before that, I was a member of the previous board which was a part of the North Carolina Academy of Sciences. It's been up over twenty years, almost thirty years that I've been involved in this, and for the last six or so, I've been the chairman.

I'm here basically to address the questions that came up in front of the EMC in their July 2013 meeting. But before I do that I just want to clarify one thing that was said by the hearing officer that I don't think is quite right. This one in a million risk that we're talking about is a risk that applies over a course of a lifetime sitting at the fence line, not just one year. You can sit at the fence line for seventy years to experience that one in a million risks. The population of the size of North Carolina, by ten million people, we're talking about ten additional deaths over the course of seventy years of lung cancer. If all of the assumptions that underlie our assessments that happen to be correct, and I would just emphasize to you that these assumptions are almost always extremely conservative. It is our objective to err on the side of caution and to protect the population at every opportunity. It's very unlikely that even if the AAL was to be violated, the new AAL, if you adopted that there would be any appreciative increase in the risks. It's possible but not likely. We're very comfortable with holding releases to the point where the AAL is not violated because below that level we think there is virtually no risk at all. That's a question that science really can't address because the risks are so tiny, when you think that one of three people will die of cancer from all the other causes of it. We're talking one in a million out of that one in three. Here are the questions up on the slide.

Was the recommended acceptable ambient level based on new data or a change in methodology? The answer to that question is yes. It was actually based on both new data and a change in methodology. The new data comes from the original studies that EPA evaluated back in the early 80's from two smelters in the United States, one in Washington, the Star Coast smelter and another one in Montana, the Anaconda smelter. Since then two other smelting facilities have been added to the database, one in England and one in Sweden. Updates on the mortality of the workers who were exposed during the operations of those smelters have occurred. So the follow up on workers has increased significantly since EPA did its assessment and the studies have also updated the exposure assessment. That's the primary reason that the proposed AAL is higher than it would have been otherwise. The exposure assessment, the new one, basically produces a much higher level estimate of exposure during the course of these smelting facilities operations. As a consequence of that, the risk per unit of exposure goes down. As a consequence of that, the AAL which is sort of the inverse of that goes up. So the answer is new data has definitely had a serious effect where we would put the AAL. The other change was the change in methodology. EPA originally did analysis of the two smelting facilities separately and came up with estimates of potency factor based on each of them, and then took a geometric mean, if you know what that is. If you don't it doesn't really matter; it's just a way of calculating an average of two numbers as its best estimate of the potency. Since that time new approaches of combining data from different studies have become common in epidemiology and even in toxicology. One of them is a method called meta-analysis where the data are pulled and a single assessment is done on the basis of the data in combination. That's what we relied on when we developed this AAL. Data from three different studies, the Anaconda and Star Coast smelters in the U.S. and the Swedish smelter data were combined. We obtained a single estimate of potency from those three studies in combination. That's the basis of our AAL recommendation.

The second question, did the SAB consider deposition and ingestion of arsenic in developing its recommendation for the AAL? We did. We realized that ingestion is the primary route of exposure and the increment that comes from breathing inorganic arsenic suspended in the air is a very, very small trivial contribution in comparison to the sources of drinking water. We weren't asked that question. It's a very difficult thing to do and it would have been a lot harder challenge to develop an AAL that included the other sources. This is a process that's being examined now. Multimedia exposure assessments and risk assessments are something that everybody wants to do. It's a very difficult thing. In this case, all we were asked for was what is the contribution from air? That's what we addressed. We thought about it. We realized that an increment from air is small and this is all we're going to be addressing. But I think we did a good job of that.

Another question, is the SAB work peer reviewed? The work that we're talking about here is the work of the Division of Air Quality. They're the ones that prepare these risk assessments. Our SAB just advises. It gives them advice when they have questions about process, when they have questions about data quality or choice of datasets, ad nauseum. Lots of issues come up during the course of construction of a proposal and we sit there and advise them. Our work is not peer reviewed. But we serve as peer reviewers for the Division of Air Quality's assessments. I might mention that in the case of inorganic arsenic, we relied on work that had been done under the sponsorship of the Texas Commission on Environmental Quality, who had used work conducted by a good colleague of mine, Dr. Robert Silpin. He's a bio-statistician down in Texas and he was the first to propose this combination of study data from multiple studies. At the time that we deliberated on this that report had not been published in the peer review literature. But I

can tell you now that it has been published. It is peer reviewed and it meets all the standards that we would expect in a high quality scientific journal that does use peer review as a criterion for publication. While our work isn't peer reviewed, that work was peer reviewed. In fact, before it was published it was reviewed by another organization called TERA, Toxicology Excellent Risk Assessment, and they endorsed the approach that the Texas Commission on Environmental Quality had taken. I think we're on solid ground here and I will make just one more comment. I think when EPA comes to address these questions in the next few years, they're going to be faced with the same sets of information that we used. There may be improvements in it but I doubt it at this point. But there may be some improvements and they're going to be forced to deal with the same issues. Is the new exposure assessment which is primarily responsible for the increase in our AAL solid enough to rely on? And if so, the effect levels that are derived from these studies are going to be much higher, and as a consequence airborne concentrations or concentrations in drinking water will also be elevated by them. I hate to speak for them but I think that's the way they're going to have to go. It isn't always the case. Oftentimes when you have new data it indicates that things are worse than we thought. But right now it looks like things are better than we thought. Thank you.

**Chairman Hutson:** Thank you Dr. Starr. Ms. Cherry, would you come back and then Ms. Stecker? Thank you.

**Lori Cherry:** Thank you again. The question that I was asked to address is will the EPA's re-evaluation consider ingestion pathways through groundwater, surface water and the like? The EPA through their IRIS or the Integrated Risk Assessment System develops what's called, for lack of a better word, a potency value. They established one for the inhalation risks and they established one for ingestion. If there is information that leads them to believe they need to consider groundwater, surface water and so forth in their assessments, they will consider it. But the evidence has to be there. I would also like to note that with the EPA re-evaluation they've recently been guided by their Science Advisory Board to consider an approach in their evaluation for this new potency factor that's very, very much identical to the one that our Science Advisory Board did. Any questions?

**Chairman Hutson:** Kathy Stecker from the Division of Water Resources. Then we'll open it up to questions of any or all of the speakers.

**Kathy Stecker:** Good Morning. The discussion in July was rather wide ranging. So I brought some additional information to the Commission. It's very general. But North Carolina has an adopted surface water standard for arsenic. Currently, arsenic levels in surface waters are lower than the standard. We also analyze fish tissue for arsenic and a lot of other substances and share this data with the Department of Health and Human Services. DHHS has not established an action level for arsenic in fish. I also wanted to mention we also look at arsenic in groundwater. We have staff here that can provide more details on that if you would like it. Thank you.

**Chairman Hutson:** That's the end of the formal presentations. I will now open it up to the Commission for questions or other appropriate action. Questions of any of the speakers?

**Commissioner Carroll:** I have a question but I don't know to whom to address it. I'm thinking what are the practical implications of the change of the rule?

**Chairman Hutson:** Director Holman or does anyone else want to respond to that?

**Director Holman:** Thank you Chairman Hutson. The way that the acceptable ambient level is used is when the Division is permitting facilities, we compare the projected emissions, and the concentrations, actually the concentrations resulting from the projected emissions, to that acceptable ambient level at the property boundary. Again, as Dr. Starr said, the acceptable ambient level was established to protect the public's health. As we're looking at increases in a given toxic air pollutant from a given facility, we use their projected emissions and use a model to predict what would the concentration be at the property boundary. So the practical implication is, do the facilities that have arsenic emissions that to meet the current AAL or the revised AAL. It changes what controls they might need to put on in the course of doing their business.

**Commissioner Carroll:** So if the standard is too rigid or strict, then it imposes a cost that's really unnecessary?

**Director Holman:** That is correct.

**Commissioner Carroll:** By making it more reasonable or correct, I suppose, you eliminate the unnecessary cost burden. That's really the whole point of the exercise. I mean public health considerations are mandatory or primary. But then you want to get it right.

**Director Holman:** Exactly. The point of the whole exercise is to get an acceptable ambient level that is adequately protective of public health.

**Commissioner Carroll:** Thank you.

**Commissioner Carter:** I actually had a question that is sort of a follow on of Mr. Carroll's. Mr. Redmond mentioned that, I think something over 300 facilities were actually subject or had the AAL be applicable to them. But is it not correct that simply means that for most of those facilities, if not all of them, it's simply doing the kind of modeling exercise you've described, and not necessarily required to actually add controls to reduce arsenic emissions?

**Director Holman:** I think you're right. I'd have to look back at all the modeling. But generally speaking most of the facilities have been able to show compliance with the arsenic AAL at the property boundary.

**Commissioner Carroll:** The standard has been in effect, for what, 20 years now? So how is it that the cost then would change if everybody supposedly for 20 years has been in compliance with the old standard, and then you change to the newer standard? How does that impact? Do they stop doing things they've been doing or how does that work?

**Director Holman:** Part of the action that triggered the review had to do with an action taken by the Environmental Management Commission in 2010 when they reviewed the exemption for

boilers or combustion sources across North Carolina. The Division started doing an analysis of the arsenic from those units. So there had been an exemption for certain sources up until that time. Now it's where we are implementing the removal of that exemption, we're more actively addressing arsenic emissions of those facilities.

**Commissioner Carroll:** That explains it. Thank you.

**Commissioner Ferrell:** What are other states doing in this regard?

**Director Holman:** There are some states that have risk-based air toxics programs like North Carolina where they would look at the concentrations the emissions would likely generate. Not a lot of states still have those programs. A lot of states have begun to rely more on the federal technology based programs. But there are still some that rely on a risk-based program. Not all states have adopted the same toxic air pollutants. It varies and as Donnie was indicating earlier, while the National Ambient Air Quality Standard applies nationally, some of our toxic air pollution standards apply in North Carolina. Some states are going to have some programs, others are not.

**Commissioner Anderson:** Mr. Redmond indicated that some of the monitoring results now show that we're above the AAL now. Are those monitoring sites in close proximity to the subject monitored facilities or are they random throughout the state?

**Director Holman:** They are located at our urban, what are called our urban air toxic sites. So they tend to be in more urban areas and not necessarily close to our larger facilities that emit arsenic. It's looking at the general mix of urban air toxics in Charlotte or Raleigh, for example.

**Commissioner Puette:** What sources now that are subject to the old regulations would not be included now? I think there are about a hundred sources that would no longer be subject.

**Director Holman:** I think that would be some of the smaller facilities with relatively small boilers. I don't know if there's staff that can name what those are. It's basically going to be the smaller emitters of arsenic and it might be a facility that has a very small boiler, for example.

**Commissioner Puette:** If EPA comes up with something different; the hearing record says that we can adjust later. What kind of problems is that going to impose if EPA does come up with significant different standards?

**Director Holman:** Well what we can do Sir is ask the Science Advisory Board to then look at EPA's new numbers and evaluate do we need to conduct a new evaluation for the arsenic AAL in North Carolina. So we would essentially start the process over again, if EPA's number is indicative that we need to go back and revisit this question.

**Chairman Hutson:** If EPA were to come back with a standard that is less stringent than what is being proposed here, would we not then have to change our standard because of the legislative requirement that we not have standards more stringent than federal standards?

**Director Holman:** I'm sorry Sir. Would you repeat that?

**Chairman Hutson:** If EPA were to come back and come up with a standard that is less stringent than what we're adopting here, would we not have to then change our standard to comply with the legislative structure passed a couple of years ago that we cannot have standards except in very limited circumstances more stringent than a federal standard?

**Director Holman:** I think we have to consider that legislation again as Lori Cherry explained, EPA comes up with a potency which is a number that then the Science Advisory Board evaluates to basically develop the AAL. So you can't compare an EPA number to the AAL directly.

**Chairman Hutson:** Ok. The second question is probably for Dr. Starr. What led the Science Advisory Board to use the Texas methodology before it had gone through what you just described as the traditional peer review?

**Dr. Starr:** Part of the process of creating the database that is used to construct one of these assessments is an outreach. We searched the literature. We made contact with other states and as part of that outreach, the work that was being done in Texas by Bob Silkin and his colleagues came to light. We invited them to make a presentation to our board at one of our meetings and it was a marvelous presentation done at a distance with a teleconference and slides. We were all impressed with the power of it and the fact that the exposure assessment that it relied on was so different from the one that is 30 years old now in particular happen to be a champion of this meta analysis which allows one to draw emphasis that you might not be able to draw from individual studies by looking at them in combination. All of those factors brought that information forward and attracted us to it. It turned out to be a very good way to go about doing things.

**Chairman Hutson:** Ms. Cherry mentioned and I saw in the Professional Trade Press last week that the National Academy of Science is the advisor to the IRIS program and they have recommended to EPA that either this methodology or a methodology very similar to this methodology be used in the re-evaluation of arsenic by the federal agency Is that correct?

**Dr. Starr:** That's exactly correct. I mean it's a committee of the National Academy. Multiple committees are looking at EPA's process now doing this assessment. They did recommend use of that analysis. I might mention that EPA has done this before. It's not brand new. During the course of the dioxine reassessment that's been ongoing for 23 years now, epidemiology studies were pooled, four different cohorts again using that analysis. The problem with that was that they made all of the risks associated with dioxine goes away. EPA was not happy about that. So they went back to the individual study analysis to assure there were risks.

**Director Holman:** Thank you Chairman Hutson. I did want to follow up. I have the source category types that would be exempted or, if you will not be subject to the new arsenic AAL. Those include ready mix concrete manufacturing, asphalt paving mixture and block manufacturing, textile and fabric finishing, concrete block and brick manufacturing, and semi-conductor and related device manufacturing. The complete list is actually included on page 12 of the economic analysis which should be part of the package.

**Chairman Hutson:** Other questions for our presenters? Other discussion among the Commission? If not, I will entertain an appropriate motion.

**Commissioner Carter:** I would move to accept the hearing officer's report and proceed to adopt this change to the AAL. (Seconded by Commissioner Keen.)

**Chairman Hutson:** We have a motion by Commissioner Carter and second by Commissioner Keen to approve the change in the ambient air limit for arsenic as presented before us today. Further discussion or questions?

**Commissioner Rubin:** My question deals with the EPA assessment in the future. I think it was established that this decision will be reviewed in the future based on that decision. Is that correct?

**Chairman Hutson:** Director Holman, would that be an appropriate characterization?

**Director Holman:** Absolutely. As soon as EPA completes their determination in 2016 we would take a look at the potency value and see if there is reason to go back and revisit the AAL.

**Chairman Hutson:** And this is sort of stating the obvious. But if there were other data that come in before 2016 or any other development, this is an ongoing process in terms of evaluating the standards that we have in this regard.

**Director Holman:** That's correct.

**Chairman Hutson:** Other questions or comments? (Hearing none, the Chairman asked for a vote of the motion to adopt the change to the arsenic AAL limit and the motion passed unanimously.) I do want to thank staff, Dr. Starr, Mr. Redmond who was abandoned by Chris Ayers in the middle of the hearing process as he left the EMC and went on. This was debated at length at our July meeting. We have had a change in the Commission. What we've seen here is a presentation that thankfully, for what I know is very complex scientific work which was presented in a way that was very understandable. Dr. Starr, I commend you for that and all in all we really thank everyone for helping us get through this process and make an informed decision. So thank you again.

We will now move to the next item on the agenda which is item 13-28 which is the hearing officer's report on inspection and maintenance rules revision. Steven Vozzo from the Division of Air Quality in Fayetteville Regional Office will make this presentation. Welcome Mr. Vozzo.

### **13-28 Hearing Officer's Report on Inspection/Maintenance (IM) Rules Revision (517)**

**Steven Vozzo:** Thank you Mr. Chairman. Good Morning Members of the Commission. My name is Steven Vozzo and I am the Air Quality Regional Office Supervisor in DENR's Fayetteville Regional Office. I was appointed by the EMC to be the hearing officer for the public hearing on the amendments to the motor vehicles emissions control standard rules. I want to first thank Steve Schleisser, Joelle Burleson and the staff in the Division of Air Quality's

planning branch for their coordination of the hearing process and their support and assistance in producing the hearing record at today's presentation.

The Division of Air Quality was tasked to propose modifications to the .02D environmental regulations governing the Emissions Inspection Program. These changes are based on the session law passed by the General Assembly in 2012. This law was titled An Act to Exempt Vehicles of the Three Newest Model Years and with less than 70,000 Miles for Emissions Inspections. There are three main components. Change the emissions testing program for newer vehicles, incorporate the revised exemption of the three most recent model vehicles with less than 70,000 miles from emissions inspection, and still require a safety inspection with visual inspection of a vehicle's emissions components. The public hearing was held in Raleigh on September 18, 2013. Written comments were received through October 14. Five specific rules were to be addressed.

The first rule was 15A NCAC 02D .1002 which is the applicability section. The proposal for amendment is to extend the exemption from the current model year vehicles to the three most recent model year vehicles and with less than 70,000 miles. 15A NCAC 02D .1003 is the definition section. The proposed changes are to consolidate, add or modify definitions, and also to include a new terminology that reflects the advancements in new technologies. 15A NCAC 02D .1005 is the on-board diagnostic standard section. There is a need to make changes to align the rule with the new statute and to update the language for hybrid, electric and fuel-cell vehicles. 15A NCAC 02D .1006 is the section involving the sale and service of analyzers. Changes are to update the language reflecting advancement and capabilities, and to track emission inspection analyzer vendor service calls. The remaining section is 15A NCAC 02D .1009. That section dealt with model year 2008 and subsequent model year heavy duty diesel vehicle requirements. The proposal is to repeal these sections as duplicative of USEPA rules that are no longer necessary.

During the hearing process 15 comments were received on the proposed rules. Over the last 15-20 years the Division of Air Quality has worked closely with the North Carolina Division of Motor Vehicles in the implementation of these .02D regulations. The DAQ again worked closely with DMV in responding to these comments. The first topic deals with the less than 70,000 mile provision to the exemption. The questions were how will the provision be enforced, what preparations are being made to enforce by the effective date and how are the inspection stations going to police themselves? Much of this response falls into the DMV assignments and how they plan to inspect the inspection stations. They will use education and oversight to enforce the new program including providing updated materials and certification course to address changes, provide oversight with audits, checks and safeguards to minimize fraud. They will be held accountable for performing valid inspections and of great importance is if fraud is identified, DMV will prosecute. The second topic deals with the applicability. The comments here were that the exemption is like a tax break for the more affluent, why exempt only the three most recent model years, claims that the inspections are a waste of money and a scam and why are these inspections only in certain counties? The responses here you see that there is a reference to a study. A year before passing Session Law 2012-199 North Carolina General Assembly directed the DMV and the DAQ to conduct a joint study to determine the impacts of exempting the three newest model year vehicles and all vehicles from emissions inspection requirements. They also evaluated whether air quality standards would be violated based on existing or future air quality standards being considered for adoption by the EPA and they evaluated what the fiscal impacts would be for the motor vehicle owners, the inspection stations,

the DMV and the DAQ. Based on the detailed results of that study and its cost impacts, the General Assembly passed the Session Law 2012-199. So the response to this question is the study revealed emissions controls on newer cars seldom fail, the study concluded exemptions from emissions test in the first three model years save consumers, and the negligible effects on air quality; and the modeling analysis showed that the exemption would not interfere with air quality standards. The answer to the last part of why emission inspections were required only in certain counties is that the General Assembly previously identified these 48 counties based on population and the existing air quality at that time. The next set of comments dealt with tampering with emission controls. The answer here is that tampering with emission controls is a violation of federal and state laws. The on-board diagnostics called OBD II had been on all gas-powered vehicles since the 1996 model year. Mechanics used certified analyzers as well as performed visual inspections. There was a comment on inspecting exempt vehicles with a check engine light on. All vehicles will still be required to get the annual safety inspection. During this test if the inspector noted that the check engine light on, it would be letting the customer know that there was an issue. It would be in the customer's best interest to know this and to get this evaluated, especially since this is a newer vehicle with lower miles and likely under warranty. There was a comment on how state agencies will deal with the approximately \$11 +million in lost revenue over the next few years. Whereas there will be a financial savings to the motor vehicle owner, the agencies will lose some revenue. The response here was that the agency will absorb losses by planning and adjustments. Some adjustments were enabled by the E-Sticker Program's completion and investments in the state information systems. There will also be an increase in the number of future vehicles to offset some of this loss. DMV has come up with a new system that will reduce the operating costs by about \$5.7 million per year, and it will pay for itself in the next four years. A comment was received from the Department of the Army objecting to the rules applying on federal lands and their claim of sovereign immunity. They requested repealing the applicability of the 15A NCAC 02D .1002 rules to federal installations. This issue was also raised back in 1998. At that time the USEPA concluded the Clean Air Act amendments apply to the federal facilities in the inspection and maintenance counties. The proposed rule is consistent with the current North Carolina statute. However, the Division has begun investigating this request further. At this time North Carolina cannot accommodate the federal request to repeal the rule, but it is recommended that DAQ further study this and consult with the USEPA and the Department of Defense to further evaluate. There were also two comments in the rule implementation. The first comment was that the language was too ambiguous without having an electronic equipment system to determine whether emission inspections would be required. To handle this, changes in two definitions were made to clarify the inspection requirements. DMV developed a detailed flow chart to determine if the inspection is required. Qualified staff and management would become familiar with the flow chart to consistently implement this rule. The second comment in this area was the opposition to relax the OBD specifications in rule 15A NCAC 02D .1006. The DAQ agreed with this comment and concluded that the existing rule language best carries out the legislative intent. In conclusion I recommend that the proposed amendments with changes as presented Chapter 2D be adopted by the EMC. I also recommend that the DAQ study the concerns of sovereign immunity at federal installations as expressed by the Department of the Army. For this I propose that DAQ report back to the Air Quality Committee of the EMC no later than March 2014, and if needed, at that time they will provide a concept for rule changes. Thank you Mr. Chairman.

**Chairman Hutson:** Thank you, Sir. Any questions on the presentation? Recognize that this is a rule that is being proposed to comply with a new statute adopted by the General Assembly which exempts out three years or so of vehicles from the inspection and maintenance requirements. So the rule is one that has to be in place in order to implement the statute that was passed. Questions/Comments? Hearing none I will entertain a motion and proceed with appropriate action.

(A motion was made by Commissioner Ferrell and second by Commissioner Carroll.)

The motion is for adoption of the hearing officer's report and approval of the rules revision to the inspection and maintenance requirements as outlined in that proposal. Any further discussion or questions? (Hearing none the motion passed unanimously.) Thank you Mr. Vozzo for serving as the hearing officer.

We will now move to the next item which is the request for approval of emissions reductions beyond the Clean Smokestack Act 2013 Report. This was an action item at yesterday's Air Quality Committee meeting. So we'll have the presentation by Sushma Masemore and then I will recognize Commissioner Carter who is Chair of the Air Quality Committee for a report on the action proposed at that committee's meeting yesterday which will be in the form of a motion.

### **13-29 Request for Approval of Emissions Reductions Beyond Clean Smokestack Act 2013 Report**

**Sushma Masemore:** Thank you Chairman Hutson and Members of the Commission. My name is Sushma Masemore and I represent the planning section in the Division of Air Quality. This presentation provides a background on the status of the Clean Smokestack Act implementation and a summary of the recommendations contained in the beyond CSA 2013 Report.

The Clean Smokestack Act which we refer to as CSA or the Act was passed by the North Carolina General Assembly in 2002. It was intended to improve air quality in the state by imposing emission limits of certain pollutants from coal fired power plants with generation capacity of 25 megawatts. It was considered a landmark legislation at the time and it still is, that resulted in early action of the installation of state of the art air pollution control equipment at coal fired facilities. It was based on a multi-state regional study that was called the Southern Appalachian Mountains Initiative or called SAMI. This showed that each state would achieve significant reductions in emissions and benefit air quality by reducing emissions within its own boundaries. The act specified an entity wide emission limit for nitrogen oxide which we refer to as NO<sub>x</sub>. NO<sub>x</sub> is a primary pollutant in the South that is responsible for creation or formation of ozone. The act also set emission limits for SO<sub>2</sub> which is sulfur dioxide. SO<sub>2</sub> is the primary cause of acid rain and is involved in the secondary formation of particle pollution and haze. Since the passage of the Clean Smokestack Act the EPA has promulgated primary standards for nitrogen dioxide or NO<sub>2</sub> and SO<sub>2</sub> which are now one hour standards. The act specified a specific schedule for meeting the NO<sub>x</sub> and the SO<sub>2</sub> emission limits. For NO<sub>x</sub> 2007 was the first year where the limits were supposed to be met. These limits were gradually reduced to 256,000 tons in 2009 to an overall reduction of 78% relative to 1998 levels. For SO<sub>2</sub> 2009 was the first year for meeting the emission limits. By 2013, which is the end of this year, are required a total emission of 130,000 tons per SO<sub>2</sub> from all affected facilities. That equates to a reduction of 74% relative to

1998 levels. One unique requirement under the Act was that these reductions had to occur through actual reductions and not through buying or trading credits from utilities and other states. It also contained a cost recovery provision for recovering the costs of new pollution control equipment. This map here shows the 14 coal fired facilities that were subject to the legislation. By 2014 all but seven will remain as coal fired power plants. Four will have been converted to natural gas. Three out of the four have been converted already. Sutton is scheduled to be converted early in 2014. Three smaller coal fired facilities have already been retired. DENR and the North Carolina Utilities Commission have been required to prepare a joint report documenting the status of the implementation and the compliance with the program. In our June 2013 report it was cited that all permitting, construction and equipment testing related activities had been completed. The total compliance cost for the installation and operation of that equipment was reported to be \$2.89 billion. The report also quantified the emission reductions in NO<sub>x</sub> and SO<sub>2</sub> as of today. This chart on the left shows the NO<sub>x</sub> reductions and the chart on the right shows the cumulative SO<sub>2</sub> reductions. The bar showed the 1998 levels and the three smaller bars showed the last three years of actual emission rates. So both NO<sub>x</sub> and the SO<sub>2</sub> are well below the CAPs. For SO<sub>2</sub> the utilities have already achieved in the 2013 SO<sub>2</sub> CAP. In the 2013 compliance report Duke estimated the 2014 predicted emissions for NO<sub>x</sub> and SO<sub>2</sub>, and those are at the levels that have not been seen for a very long time. Those are the lowest levels ever documented for all of our coal fired BTUs for electric generating units. The CSAs are considered one of the key contributing programs that have helped our state reduce ozone levels throughout the state. The first controls came online in 2003 and the other controls came gradually over the period. The lower ozone levels have allowed the state in specific areas that had an issue with air quality, to achieve attainment in those areas. We have currently only one area that is considered and designated nonattainment for the 2008 ozone standard, and that is our Charlotte region. The CSA related controls and associated emission reductions have also helped the state meet its state implementation plan obligations for various pollutants. For example, SO<sub>2</sub> reductions help support redesignation requests for particulate matter, we call PM<sub>2.5</sub>, for two areas in the Triad region. Based on the demonstration the EPA adopted CSA emission CAPs, which is a component of the entire legislation, into our North Carolina State Implementation Plan. The CSA also helped meet our regional haze requirements related to specific goals that are stated for national parks and wilderness areas. In our 2012 progress report we reported that all areas of what we call Class I areas are on track to meet visibility goals. Most importantly, the CSA allowed North Carolina utilities to be well positioned to comply with various federal rules. Some of these rules you will hear about in the coming weeks and months and years. One component is what we call the Interstate Air Pollution rules called State Air Pollution Rule and the Clean Air Interstate Rule, CAIR and CSAPR. Both of these rules were designed to address transport of pollution from one state to the other and how those pollutants interfere with specific areas from attaining the federal standards. Additionally, scrubbers placed on coal fired units are expected to help meet the mercury and air toxics rule that EPA promulgated recently. This rule sets emission limits for hazardous air pollutants such as mercury, heavy metals and acid gases. The North Carolina utilities have had about 11 years to comply and meet these requirements while certain utilities that were not required to do anything will have three to five years to comply. There are several studies that have looked at the early adoption of such regulatory programs and the benefits or disadvantages associated with them. The Duke Nicholas School of Environment published a paper last year that examined the ratepayer's impacts and health benefits of the CSA. The primary conclusion of the report was that the CSA allowed North

Carolina and its ratepayers to stagger the cost of pollution control technologies over a longer period. The potential for a scenario under 25% escalation and control of device costs equates to a lower compliance cost with the CSA for North Carolina ratepayers. The authors also concluded that as a result of that the state has enjoyed earlier health and environmental benefits. There's also a more comprehensive study that is currently being peer reviewed in a medical journal. This study was conducted by a group of medical doctors for the Duke University Medical School. They are looking at the benefits associated with various programs that have been enacted in the state since 1992-2010. Specifically, they looked at the rate of mortality from different diseases that are or are not associated with changes in air quality. Coming back to the requirements of the CSA, Section 11 requires the EMC to report the need for any further NO<sub>x</sub> and SO<sub>2</sub> reductions beyond the CSA. The report is required to be reported bi-annually starting September 1, 2011. In the 2011 report the EMC concluded that many pending actions at local, regional and national levels could influence future actions. It recommended future state actions be presented in 2013 Beyond the CSA report. In the 2013 Beyond CSA report in front of you, the department has cited various reasons for its conclusions. The department is stating that a key federal judicial decision, a rulemaking action still remains unresolved. First, there is still significant uncertainty regarding the fate of interstate pollution transport rules. Second the electric utility, mercury and air toxics rules are still being implemented and many power plants in our state as well as neighboring states would be undergoing significant changes to comply with this NAAQS rule. But most importantly, for air quality planning purposes EPA has delayed revisions to ozone standards to possibly 2015. This decision could have an impact on where we see the direction for further reductions. Also, EPA is beginning to develop new implementation rules for that SO<sub>2</sub> and NO<sub>2</sub> standards that I mentioned earlier. Since each of these programs has the potential to affect the coal fired power plants that are also subject to the CSA, the need for additional reductions beyond CSA is unclear at this point. Based on this reasoning, the 2013 CSA recognizes that significant reductions have already been achieved. Pollution transfer from electrical generating units and neighboring states will be reduced as they install new or similar pollution control devices and or close smaller plants. Whether or not these reductions are sufficient will not be determined until the new ozone hourly standards are proposed in the coming years. With this reasoning we are recommending that the bi-annual report no longer be required or deemed necessary. In the event that EPA promulgates a tighter restriction standard, DENR will evaluate the need for additional reductions beyond CSA, and if necessary, open up the permits or conduct necessary rule changes in order for us to attain and maintain those NAAQS. That is the end of my presentation and I'd be happy to take questions.

**Chairman Hutson:** Thank you, Ms. Masemore. Before we get to questions let me just relate how this is now before the Commission. I found out being chairman they don't tell you a lot of things but all of a sudden I was being asked to sign reports. Some are just on the workings of the Commission, and so these go to the Legislature on a quarterly basis. Those were fine. When I got to this one I saw this was a report on behalf of the Commission and I thought it was inappropriate or you might want to use the word presumptuous for the Chairman to sign a report that the Commission has not had the chance to review, comment on and approve. So that's the reason this one is in front. If there are other similar reports in the future we will go through the same process. But I do thank staff for putting together the report and explaining to me, and which Ms. Masemore has done today very well, the genesis of it and what the recommendations are. Questions and comments?

**Commissioner Rubin:** Would you please go back to slide #4 and advance it slowly. Is that the pre-closure slide or the post-closure slide?

**Sushma Masemore:** This is the starting point.

**Chairman Hutson:** Any other questions or comments? If not, I will entertain the appropriate motion for approval of this report. We have a motion by Commissioner Rubin.

**Commissioner Carter:** Did you want me to.....?

**Chairman Hutson:** Oh I'm sorry. This is an action item. I apologize, Commissioner Carter. Commissioner Carter, this was considered yesterday at the Air Quality Committee meeting. I forgot and I apologize for that. I will turn it over to you and you can make the recommendation in the form of a motion.

**Commissioner Carter:** Not a problem. Yes the Air Quality Committee heard this report yesterday and considered it and also recommended unanimously that this report be signed by the Chairman and forwarded to the appropriate parties. I would so move at this time.

**Chairman Hutson:** Motion by Commissioner Carter and second by Commissioner Rubin. Any further discussion or comments? (Hearing none the motion passed unanimously.)

We'll move onto the next action item which is now. We are moving into the water resources section of our action items. The first is item 13-30 which is the presentation of the Water Quality Committee's recommendation on a petition for rulemaking to reclassify a portion of the Dan River to Class C. I'm going to ask first our counsel, Ms. Lucasse. Petitions for rulemaking are subject to a number of procedural requirements. I'd like for her to review those and how they were met in this case. I would then ask Commissioner Tedder as Chair of the Water Quality Committee to present the action by the Water Quality Committee yesterday, and a recommendation in the form of a motion. So, Ms. Lucasse.

**Mary Lucasse:** Thank you Mr. Chairman. Under 150B-20, which is our Administrative Procedures Act, an agency is allowed to establish by rule procedures for submitting rulemaking petitions. We have under that provision because we are a Commission 120 days from the date the petition was admitted to accomplish a decision on that. In addition, we have our own rules and procedures on rulemaking. But in this case the North Carolina petition process established under the APA requires that since the petition was received approximately 8-23-2013, our petition process must be completed by December 21, 2013. That's the 120-day requirement. We've gone through a process by which the petition after it was received was reviewed for completion. That was done by the Chair and following the determination that the petition was complete, the petition was referred to the Water Quality Committee by the EMC Chairman and that was sent to the Water Quality Committee on 9-14-2013. We did have presentations at the Water Quality Committee meeting yesterday and a decision was made to make a recommendation to the Commission as a whole today. We will do that today. But because that is being considered by the Commission as a whole, without 30 days between the time it came to

the Committee and the time it came to Commission as a whole, we will need, as part of this process, a motion to waive the requirement set forth in our bylaws at the Section, Article VII, Section II that there be a 30-day period between the time it comes to the Committee and the time it comes to the Commission as a whole.

**Chairman Hutson:** Thank you Ms. Lucasse. Also mentioned there are within our rules or within the EPA rules requirements of notice to be given to various parties during the process to advise them of the assignment to Committee and the hearing process. Those notices were timely given in accordance with the rules as well. Commissioner Tedder is Chair of the Water Quality Committee. I turn the forum over to you.

**Commissioner Tedder:** Mr. Chairman, you want these in two motions, I assume? Do the 30 day waiver first.

**Chairman Hutson:** We will need two motions. One to waive the 30 day requirement, and then a second motion on the committee's recommendation.

**Commissioner Tedder:** I will so move that we waive the 30 day requirement.

**Chairman Hutson:** We have a motion by Commissioner Tedder and seconded by Vice Chairman Martin to waive the 30 day rule. Is there any discussion or questions about that? (Hearing none the motion passed unanimously.) Commissioner Tedder I turn the floor back over to you for the recommendation of the Committee.

### **13-30 Presentation of the WQC's Recommendation on a Petition for Rulemaking to Reclassify a Portion of the Dan River to Class C**

**Commissioner Tedder:** At yesterday's meeting of the Water Quality Committee this petition for rulemaking was heard by committee members. As you are aware the materials from Caswell County that made this petition requesting a portion of the Dan River which is currently classified WS-IV and WS-CA which is critical area be reclassified to C waters. This was actually a segment of the Dan River that was classified by this Commission to WS July 3, 2012. The petitioners stated the current classification is not in the best interest of the residents of Caswell County and that the current classification requires imposition of unnecessary restrictions on land use in the County. They also noted during the discussions that they thought that the notice to Caswell County was insufficient. The rules of the Commission basically allowed the petitioner to address the committee along with one speaker was against the request of action, as well as staff. Mr. Henry Sappenfied and Mr. Brian Ferrell spoke for the petitioners. Mr. Nicholas Herman spoke on behalf of the City of Roxboro, Person County and Yanceyville who opposed the petition. Ms. Elizabeth Kountis with staff spoke for the Division and also spoke in opposition to the petition. Each of you has had a chance to review the substantial amount of materials that was submitted by all parties. A lot of you were in attendance at the Water Quality Committee yesterday and heard the presentations. Based on the materials presented, reviewed and provided to the committee the committee voted unanimously to recommend denial of this petition. As Chair, I want to make a motion that the petition be denied for the following reasons which we do have to state reasons for denial as we proceed; that the waters are shown to meet

WS-IV standards and criteria. The waters have been determined treatable for public water supply use. The need for public water exists and was provided. The Environmental Assessment or the EA received a finding of no significant impact. The Attorney General's Office did review the APA process for rulemaking and notice, and ruled that it had been done appropriately by staff. EPA has already approved the reclassification to WS and other pertinent information is that Caswell County it actually signed a local agreement in support of this project in the past, and that the County was provided an opportunity for comments at the public hearing for the water supply classification and at that time the County, although invited, did not attend the public hearing nor did they submit comments during the public hearing process. The petition itself lacked any cause, justification or information relating to the impacts on the county. Based on that information the committee recommends denial of the petition.

(Seconded by Commissioner Anderson.)

**Chairman Hutson:** I would just add for clarification purposes when they were talking about participation. That was in the reclassification to WS-IV that was voted on by this Commission in July 2012. During the course of questioning of Council for the petition yesterday, they did concede that the notice given was legally sufficient. They did concede that the notice given of the public hearing was legally sufficient.

(The chairman asked for a vote. The motion passed unanimously.) Commissioner Tedder, thank you and members of the committee for your work on that.

We'll now move on to the next item which is item 13-31 regarding the Brunswick County Interbasin Transfer determination. I will note again for the record that Commissioner Craven and Commission Wilsey have identified that they are customers of the Brunswick Water System and after consulting with Counsel for the Commission it does not pose a conflict that requires recusal. Ian McMillan on behalf of the Division of Water Resources will make a presentation. Welcome.

### **13-31 Brunswick County Interbasin Transfer (IBT) Determination**

**Ian McMillan:** Thank you Mr. Chairman and Members of the Commission. I'm here to deliver the final presentation regarding the proposed Brunswick County Interbasin Transfer petition request. It should be noted that the Interbasin Transfer Certificates are now being processed through the Water Supply Planning Branch rather than the Basin Planning Branch that I'm the Chief of, so that now it's going to be processed through Linwood Peele's Water Supply Planning Branch. However, since the notice of intent filed in February of 2009 for this IBT has been carried through the branch that I'm the chief of, we decided that it was determined that I should go ahead and do the final presentation today.

Brunswick County has petitioned the EMC for an interbasin transfer of 17 million gallons per day calculated as the daily average of a calendar month. July was selected as the calendar month for the calculation because it consistently has the highest water demand. Of the 17 MGD the water transferred into the Waccamaw Basin will remain constant with a current value of 0.81 MGD. The remainder of 16.19 MGD will be transferred from the Cape Fear into the Shallotte Basin, which represents a 6.5 MGD increase from the existing transfer amounts. Currently, Brunswick County is following its grandfathered IBT certificate which allows for a total basin transfer of 10.5 MGD from the Cape Fear River into the Waccamaw and the Shallotte river

basins. This map is showing the service area depicting basin boundaries, major towns and roads and the two water treatment plants. The Northwest Water Treatment Plant will be expanded to receive the additional raw water should this IBT be approved. This is our recommendation. DENR recommends that the EMC grant Brunswick County a transfer amount not to exceed 17 million gallons calculated as a daily average of a calendar month from the Cape Fear River Basin to the Shallotte and Waccama river basins. These are the eight factors that the EMC must consider by Statute when determining the decision of an IBT certificate. I'll go through each one of these.

(1) Water demand projections prepared for Brunswick County suggested that the peak day demand was estimated to reach 80 percent of the water system capacity around 2007. Peak day demand dipped in 2008 and 2009 but is now near the levels projected ten years ago. Anticipated growth is projected to be the greatest in the Shallotte Basin. Per capital water use is now significantly lower than that observed prior to 2008. Brunswick County's 36 MGD was included in the 106 MGD. Therefore, approval has been granted for water withdrawal sufficient to supply the IBT water associated with the petition. (2) Given the size of withdrawals relative to the river's low flow regime and the tidal nature of the river below Lock & Dam #1, NC DWR used calibrated hydrology modeling to date, instead of a detailed field study of stream flow to determine any potential impacts on downstream habitat and recreation. Comparison of incremental increase in the projected withdrawals with and without the additional withdrawal for future scenarios was conducted. (3) There were no direct impacts to the receiving basin. These measures had been determined in the EA to adequately minimize and mitigate indirect and cumulative impacts from the proposed water transfer. Other measures included aquifer storage, recovery study and the existing CAMA restrictions, and other state and federal rules. (4) The first bullet is the preferred alternative and that is to grant the request for a new WS source in the form of the IBT that's being requested today. Due to the projected growth in the Shallotte Basin, a portion of Brunswick County, a no action alternative is unrealistic. Impoundment storage is not applicable. (6) Multipurpose reservoir constructed by the United States Army Corps of Engineers is also not applicable. (7) Whether the service area of the applicant is located both in the source basin and the receiving basin; in regards to this Brunswick County Public Utilities contains significant portions of the service area population within both the source and the receiving basins thereby avoiding the removal or receipt of water in a basin not contained within the existing service. (8) Any other facts or circumstances. There are no other considerations at this time. This slide is the project timeline, as I referenced earlier the notice of intent was filed in February 2009. Public meetings were conducted in April 2009. The draft EA was submitted in July 2012. There was a finding of no significant impact issued in April of this year. A draft petition was submitted in June of this year. There was a public hearing held in Leland in September of this year. That brings us up to today for determination by the EMC. Once again the recommendation is that the EMC grant Brunswick County an average daily transfer amount not to exceed 17 million gallons calculated a daily average of a calendar month from the Cape Fear River Basin to the Shallotte and Waccamaw river basins.

**Chairman Hutson:** Thank you, sir. Questions for Mr. McMillan?

**Commissioner Ferrell:** I have one. Can you summarize the comments at the public hearing?

**Ian McMillan:** That's easy. If they were all like this it would make our lives a lot easier. There were approximately 12 or 13 people that attended. There was one comment and that was in favor of processing the IBT.

**Commissioner Ferrell:** So nobody was against it?

**Ian McMillan:** No.

**Chairman Hutson:** We didn't see that in the Catawba Basin, did we? Other questions or comments regarding the presentation? If not, I will entertain a motion and I would suggest that we phrase the motion that after consideration of the eight statutory requirements, the EMC moves to approve the request of Brunswick County as set forth in the final recommendation of the agency. Can I have a motion to that effect, please?

(Commissioner Tedder made a motion. Seconded by Commissioner Keen.)

**Chairman Hutson:** Commissioner Tedder that is using language that I had suggested before phrasing of the motion?

**Commissioner Tedder:** Yes.

**Chairman Hutson:** Further questions or discussion? (Hearing none motion passed unanimously.) Mr. McMillan, thank you for this. We'll move on to item 13-32 which is the request for adoption of a proposed rule and rule amendments under the Jordan Lake nutrient strategy in accordance with 2009-2012 Session Laws. Mr. Jason Robinson is here on behalf of the Division of Water Resources. Mr. Robinson, welcome. Please proceed with your presentation.

### **13-32 Request for Adoption of a Proposed Rule and Rule Amendments under the Jordan Lake Nutrient Strategy in Accordance with 2009-2012 Session Laws**

**Jason Robinson:** Thank you Mr. Chairman and Members of the Commission. My name is Jason Robinson and I work in the planning section of Division of Water Resources. I come before you today to request the adoption of a proposed rule and five rule amendments under the Jordan Lake nutrient strategy in accordance with 2009-2012 session laws. The Jordan Lake nutrient strategy has been effective since 2009 and all the rules have been implemented to some degree. Six session laws have been enacted between 2009 and 2012 that have an effect in some of the rules. The requirements of these session laws have been implemented since the session laws were enacted. The session laws that made these requirements mandate that the rules go through this rulemaking process to incorporate the session law requirements into the rules and that they be substantively identical to what was in the session laws. This rulemaking process is a housekeeping procedure and exercise to incorporate the session law requirements into the rules. At the same time this is a good opportunity to better familiarize you with the Jordan rules if you weren't already. I just want to give you some quick visuals and very brief background on the Jordan rules before presenting our recommendations. This is a map of the 1,700 square mile watershed. The blue line is the outline of the watershed located in the upper portion of the Cape Fear River Basin. That encompasses the eastern portion of the Triad Region as well as the

western portion of the Triangle Region In this list it affects portions of eight counties and all or portions of 25 municipalities. A watershed model showed the lake hydraulically behaves like three separate lakes. Therefore, the watershed is divided into three sub watersheds. Each arm has a different impairment and therefore each sub watershed has different overall strategy goals and nutrient reduction goals. You can see here the Haw portion being the largest portion of the watershed making up 80% of the watershed with an 8% nitrogen and 5% phosphorus reduction. The upper New Hope arm sub watershed is the most impaired portion of the lake and has a 35% nitrogen and 5% phosphorus reduction goals. The lower New Hope arm which is right around the bottom of the lake has 0% nitrogen and 0% phosphorus reduction goals. These are based on a 1997 to 2001 baseline period. The Jordan nutrient strategy is made up of 12 individual rules. The rules address all major sources of nutrients in the watershed, those being wastewater, agriculture and both new and existing development stormwater runoff. In this list, the brighter yellow rules that are listed are the ones that are being revised during this rulemaking process. You can see the session laws listed down at the bottom. It's worth mentioning that .0266, the existing development stormwater rule which is the original one adopted by the Commission, was disapproved by the General Assembly and replaced in its entirety by a 2009 Session Law language. You'll also notice there was a 2013 session law that was enacted in this most recent General Assembly. That is not part of this rulemaking process.

This is a slide of the timeline of this current rulemaking process to amend the Jordan rules. Again, the rules became effective in 2009. That same year two session laws were enacted that affected some of the rules. In 2011 and 2012 an additional four session laws were introduced that affected some of the rules. In 2013 a session law was introduced that will need to be addressed in a separate rulemaking process. That is because it was enacted after this rulemaking process began and after these rules went out to public comment. Several requirements are mandated in the session laws, and all session laws direct the Commission to adopt amended or replacement rules. Session laws required that the revised rules be substantively identical to what's in the session law. The language disallows the Rules Review Commission from commenting on the changed portion of the rules. They mandate that these rules go back to the General Assembly for their review. The timeline of this rulemaking process in previous actions are in gray. The EMC approved the rules to go to public comment in January 2013 and during that sixty day public comment period no comments were received. The bolded text is where we are today, seeking your adoption of these amended rules. If adopted they will proceed to the Rules Review Commission and then to the 2014 General Assembly. If the General Assembly approves them they will become effective in July 2014 or thereabout. But as I mentioned earlier, it still will not affect the implementation. They are already being implemented as the requirements of the session law. This is just a housekeeping exercise to bring those requirements into the rules so they're all in one convenient place. So with that I'd like to request the adoption of the rules as described in the title of this agenda item and in your packet. I will be happy to answer any questions or go into any specific rules changes that the session laws require.

**Chairman Hutson:** Thank you Mr. Robinson. Questions or comments for Mr. Robinson?

**Commissioner Keen:** Yesterday at the Water Allocation Committee meeting we discussed and I handed out to each Commissioner sort of an overview. Not the minutes that should be adopted at our next meeting but just a brief overview. We talked about the Jordan Lake allocations on round four that is being done at this time. Just for clarity and understanding that this part is not

part of what we're doing. Understanding that do we not get in the weeds but do we consider that at all?

**Jason Robinson:** I've not been involved with the allocations of the Jordan.

**Director Reeder:** The allocation of the water in Jordan Lake which is, of course, owned by the State of North Carolina and is done. Basically the EMC has the responsibility for actually allocating that water supply of who gets how much of it. That's completely independent of the Jordan Lake rules which are designed to address the impairment of Jordan Lake by chlorophyll-a. So those are completely independent actions and there's no correlation between the two at all.

**Commissioner Keen:** Thank you.

**Chairman Hutson:** Other questions or comments?

**Vice Chairman Martin:** Jason, I've got a question that I think you might know the answer to because I think I know but I'm not sure. There are a lot of local governments who have already adopted a lot of these rules. I'm assuming this won't have any effect on them. Theirs are still going to be adopted based on whatever they've done and they came to the Commission for approval. So are they required to go back and make changes to be consistent with the legislation or not?

**Jason Robinson:** I don't think any of these session law changes would affect anything that's being implemented currently.

**Vice Chairman Martin:** I guess I don't know either. My inclination is the same as yours. I'd just request that you double check it and if they are supposed to, that the department notify them of what they need to be doing to be compliant with the session law, if anything. I suspect you're right that it's nothing.

**Jason Robinson:** I know specifically for the new development rules and the local programs that were adopted prior to the delay, and several session laws delayed the rules. But as far as what was the actual meat of what was in their new development ordinances that were approved, these session laws have no effect on that.

**Vice Chairman Martin:** Thanks

**Chairman Hutson:** Other questions or comments? I just have one and Mr. Robinson, I don't expect you know the answer. This is addressed to other people here today. I would hope when the General Assembly requires a Commission like ours to adopt rules verbatim and they've already passed the statute, they're saying you have to do this, I would hope that we would work to make that exempt from the fiscal analysis requirements. Because we do not have any choice, as I understand it but to adopt these rules. So if that is not the case I would hope as we work on these fiscal analysis statutory requirements which are undergoing discussion, and have been undergoing discussion that those in the audience in management at DENR consider getting an exemption for rule changes that are required to comply with a statutory mandate from the

General Assembly. It takes a lot of time and effort to get those fiscal analyses done. I recognize that fact because it sounds like we have one coming that you are not able to include in this rulemaking. Right now I take that it would still be subject to the fiscal analysis requirements. Thank you. Other questions or comments?

Hearing none I will entertain a motion consistent with Mr. Robinson's presentation. Do I have a motion to adopt the proposed rule and rule amendments as presented by Mr. Robinson?

(Commissioner Ferrell made a motion that the rules as presented be adopted seconded by Vice Chairman Martin.)

Any further discussion or questions? (Hearing none the vote passed unanimously.) Mr. Robinson, thank you.

### **13-33 Central Coastal Plain Capacity Use Assessment Report**

**Nat Wilson:** Good Morning Chairman Hutson and Commission Members. My name is Nat Wilson and I work with the Division of Water Resources, Groundwater Management Branch. I'm here today to talk about this Central Coastal Plain Capacity Use Assessment that we've done. I have some recommendations that I'd like you to take a look at and agree with us on. I need to talk to you today about the assessment, how that worked and a little bit of background information. Also I want to discuss how we measure current aquifer conditions and review some of the public comments we received on this assessment document and our recommendations. Lastly, I want to describe what we're calling the criteria driven, permit review process that we're proposing to you today. We hope that it becomes a part of our permit review process. The conclusions that I hope that you'll reach are that we not make any changes to the Central Coastal Plain Capacity Use Area. The assessments are done to allow review of the aquifer conditions with the possibility of making changes to what we call the reduction zone map or the percentages of reduction applied to those zones. We recommend that there not be any changes to those. We further recommend that we use the provision in the current rules .0502(p) which will allow us more flexibility to manage reductions. The link on the bottom of that page, if you have the presentation before you, takes you to the assessment document. An individual permit holder with us that is using Cretaceous water sources, primarily the Upper Cape Fear Aquifer and the Black Creek Aquifer have before them the issue of bringing on additional sources of water. Because we established what we call an approved base rate, that's an annual rate of use established either by 1997 use or a combination year August 1, 1999 through July 31, 2000. From the approved base rate that permit holder will have to reduce their use of the Cretaceous aquifer sources in favor of alternative water sources. Those reductions took place in 2008, 2013 and will take place again in 2018. These assessments also occur at those times. We did one in 2008. This one is for the 2013 juncture. There will be another one in five years. The reductions on the map I mentioned earlier are the ones before you. It's a little bit faded in the overhead but the 15 counties of the central coastal plain are shaded in grey. The ruled area is what we call the declining water local zone. There's a brick pattern, the Dewatering zone and another area called the Salt Water Encroachment Zone. In the declining water level zone there are three phases of 10% reduction from those Cretaceous water sources. But the Dewatering zone and salt water encroachment zone each have three phases of 25% reduction.

We're in 2013 and we're beginning to be asked questions like, how much recovery is necessary? We have many systems bringing on additional sources of water. We've seen some

recovery in the Black Creek and Upper Cape Fear aquifers. They're asking us, well how much recovery is necessary, how far do the water levels have to recover to be enough? We feel like the Division needs more flexibility than what these broad brush reduction zones give us. Let's step back and look at how we've analyzed these systems. Each of the Central Coastal Plain capacity use area permits require that daily water withdrawals by source be reported on a monthly basis, that monthly static and pumping water levels be measured by the permit holders and that a good many of them have to measure their raw water for chlorides to assess salt water encroachment potential. The Division has 616 wells at 209 sites throughout the state. Since 1998, 182 of those wells at 55 sites have been brought on-line. A good many of those were in the Central Coastal Plain area, those 15 counties. Automatic recording equipment, which allows us to gather water levels on an hourly basis, are on over 80% of the wells currently. We do measure chlorides in our monitoring well network at the appropriate stations for each of the aquifers on a 2 to 3 year schedule. These two maps before you are of the Black Creek on the left and the Upper Cape Fear on the right. They represent the current potentiometric surfaces of those two aquifers. It's a map based on a combination of the Division water levels and the water levels that are reported to us by our permit holders. So you see that there is a cone of depression in both of those aquifers. On top of that map, are the red lines that indicate the boundaries of the three reduction zones I mentioned previously. You have a way of gauging what has happened to the aquifer since 2002 when those lines were first drawn and what the current potentiometric surface maps look like in comparison. On an individual well basis we have a mixture of responses. The well you have pictured here from Kinston shows a dramatic response, especially after 2008. Of course, there is a dramatic response earlier with the decline. But after 2008, there is a very dramatic rise associated with a surface water intake on the Neuse River. The users of that intake cut back their withdrawals from the Cretaceous aquifer significantly, by 75-90%. So you have a major rebounding. But we also see wells that are maybe not continuing to decline at as fast a rate, but they are (at least in this case, in Duplin County), stabilizing toward the end of that hydrograph. There is a mixture of responses, but certainly a major recovery. We best measure that recovery with these series of maps. Again, for the Black Creek on the left and the Upper Cape Fear on the right it shows the rebound associated primarily with that new source of water in the Neuse, surface water. But other sources as well and you can see that when you subtract the potentiometric surfaces from one another the first being from November 2007 and the latter from May 2013, you get this very large rebounding effect. This next map is one that looks at each of the permit holders facing reductions, the outer circle is colored in red and it's the largest of the circles. The concentric inner circles indicate the reductions facing each of the permit holders and the yellow area in the middle of those circles represents their current withdrawals (this map is for the year August 1, 2011 through July 31, 2012). This is a good way of comparing the Cretaceous use, like use of the Black Creek and Upper Cape Fear aquifers between permit holders, and how much it has been reduced as a result of bringing on alternate sources. Looking back we have these new sources, the hydrographs were mentioned, the rebound maps and the comparative usage maps you see before you. When we look at those we see that the center of the rebound areas are fairly stable which is a good sign. A large portion of the water demand has switched to other sources and we draw the conclusion that the overall withdrawal appears to be sustainable. That is outside of the saltwater encroachment zone where we still see some problems. We mentioned before we would prefer to have some flexibility to offer certain permit holders. We want to offer them a different plan than the reduction schedule dictated by the current rules. We're only going to offer that plan if the reduction levels meet certain criteria, and

it may be that economic hardship is a valid factor for a different reduction plan. So what are we proposing? That static water levels that are measured by each permit holder are level or upward trending in each of their reduction wells, that pump intakes in those wells be above the aquifer top, that pumping water levels should be above the aquifer top, and that chloride concentrations are fresh with no upward trend. So in a visual, we have static water levels that are indicated by that dashed line, those would be as measured by the permit holder and submitted to us. Those would show a level or upward trend, that the pump intake as shown here would up above the top of the aquifer which is this line here, that the pumping water levels that are also submitted by permit holders would be above the top of that aquifer, and that chloride measurements that they may make, they would not have a trend upwards which would indicate salt water encroachment. These temporary permits we're proposing, and that is allowed through the rule and statute, would be offered where aquifer conditions meet specific requirements as measured by applicants, reduction wells or nearby monitoring wells; and that those measurements are consistent with the CCPCUA standards of groundwater withdrawal as defined in .0502(c). Then the statute of the Water Use Act GS 143-215(c)(ii) and our rule of 15A NCAC 2E .0502(p) allows the Division to issue temporary permits that do not follow the reduction schedule as set out in 15A NCAC 2E .0503. If future measurements do not meet these specific requirements, then the permit holder will be removed from temporary permit status and will face the normal reduction schedule. So let's go back and look at that statute. GS 143-215(c)(ii) states that in a capacity use area we can grant any temporary permit for such period of time as the Commission shall specify where conditions make such temporary permit essential, even though the action allowed by such permit may not be consistent with the Commission's rules applicable to such capacity use area. We've asked the Attorney General's Office and they've offered this opinion the gist of which is the combination of the Water Use Act in 15A NCAC 2E .0502 and our provision in 15A NCAC 2E .0502(p) in the Central Capacity Use Area Rules provide the authority for issuing temporary permits and that because of the nature of that authority that they provide enough guidance so that rulemaking would not be necessary. What do we hear about from the public? When we brought this to them early on we had two camps. One that agreed with our assessment and agreed with the way the boundary should be drawn for the reduction zones. They were sort of cool to the idea of a temporary permit. The other camp was very much in favor of that idea. After our second draft which was sent out in June 2013 we have only heard supportive comments of the temporary permit criteria. Here's our recommendation which is based on our assessment: no action needs to be taken by the Environmental Management Commission to change the zone map or the reduction percentages. But we ask that you approve the use of temporary permits in the CCPCUA as authorized under G.S. 143-215.15(c)(ii) and 15A NCAC 2E .0502(p) where an applicant's wells meet specific criteria. I'm finished with my presentation.

**Chairman Hutson:** Before we get to questions and comments, there are a couple of things we just want to clarify. What you referred to as the Attorney General's opinion, those in the legal field know that has a very specifically defined meaning. What we got was advice of Counsel. In this case Frank Crawley provided advice which is now included in the plan and there had been questions that had come up in previous meetings, and it appears to address that issue. With that opinion you have authority to do the temporary permits under existing statute and regulation. I'm not sure that any action is needed from us and that this should be an information item and receipt of the report. One of the major questions of previous Commission meetings is whether we had to go through rulemaking with regard to the temporary permit issue. I'm now satisfied

that there is authority to do that under the existing statute. If you have that authority and you're looking for flexibility do we need to approve anything? Because if we approve something are we taking away your flexibility?

**Director Reeder:** I think what we're really asking for is your concurrence with the report. We're supposed to bring this report to the EMC every five years. In accordance to our recommendation, normally we would recommend. What was initially expected when the program was set up is that we recommend the next phase of reductions and you would concur with that. In this case, basically what we're recommending is that we stay with the current phase of reductions and implement this temporary permitting process. So really what we're asking for, I think is your concurrence of our recommendations in the report.

**Chairman Hutson:** Ok. Well let me open it up to questions and comments. Then I'll ask the question of whether there are any objections to the recommendations in the report that need to be noted in the record. Otherwise the lack of objections will be an indication of concurrence with the report. Questions/comments by any of the Commission members?

**Commissioner Rubin:** How temporary is temporary?

**Nat Wilson:** We issue time limited permits now. Currently we issue permits that are five years in length. We have the authority under the Water Use Act to issue permits up to ten years in length. We currently are issuing time limited permits, so a temporary permit we imagine will be the same length of time, five years.

**Commissioner Rubin:** When a temporary permit is issued, is there some requirement that they demonstrate some attempt to bring their system into fuller compliance for lack of better words, fuller compliance whatever that is?

**Nat Wilson:** Their permit will have reporting requirements which allow us to check compliance.

**Commissioner Rubin:** Thank you.

**Chairman Hutson:** Other questions or comments?

**Commissioner Keen:** Yesterday we indicated this; that the Director does have power to move in this direction for the temporary permits. But we also ask will the Director keep us informed, the EMC informed when these temporary permits were applied for and as they were happening in the process that we would be brought up to date as quick as possible on those applications.

**Nat Wilson:** Would an information item be satisfactory to the Water Allocation Committee?

**Chairman Hutson:** I think they would be information items to the Water Allocation Committee and then Chairman Keen of that Committee would report to the full Commission at the following meeting.

**Commissioner Keen:** That was just for information from yesterday's meeting?

**Chairman Hutson:** Right. Other comments or questions about the report or does anyone have any objections to the report? Hearing none as Chair, I will indicate for the record that we have received the report and the lack of objections indicates the concurrence of the Commission with the report, that the matter was reclassified as an information item for purposes of this meeting, and those actions are taken in accordance with that reclassification for agenda purposes.

Mr. Wilson, thank you. I don't know how many times, I think four and each time we always had more questions. You're a very patient man and we appreciate your fine work and work of the other staff that was on this. We will be interested in hearing how the implementation of the strategy moves forward. Thank you.

**Chairman Hutson:** Now we will move on to agenda item 13-34 which is the request for approval of the Neuse River Buffer Program to the Town of Hillsborough. Jennifer Burdette from the Division of Water Resources will make that presentation. Ms. Burdette welcome, and the floor is yours.

### **13-34 Request Approval of Delegation of the Neuse Buffer Program to the Town of Hillsborough**

**Jennifer Burdette:** My name is Jennifer Burdette. I'm the 401 Buffer Coordinator for the 401 Permitting Unit in the Division of Water Resources. I'm here today to present the Town of Hillsborough's request for delegation of the Neuse River Riparian Buffer Rule. This rule is currently implemented for the town by Orange County. Through implementation of their own unified development ordinance, the town believes they can provide improved customer service while better protecting riparian buffers within the town's jurisdiction. The town has submitted their proposed ordinance changes, shown their land use jurisdiction for the riparian buffer and demonstrated that they have the resources necessary to implement and enforce the state's buffer protection requirements. Staff has reviewed the information submitted, and determined delegation requirements have been met. This information was presented to the Water Quality Committee yesterday.

**Chairman Hutson:** I'll turn it over to Commissioner Tedder who's the Chair of the Water Quality Committee for the recommendation of that Committee in the form of a motion.

**Commissioner Tedder:** Yes this was heard before the Water Quality Committee yesterday. It was adequately approved by the Committee and I move that the delegation be approved. (Second by Vice Chairman Martin.)

**Chairman Hutson:** Any questions/discussion? (Hearing none the motion carried unanimously.)

Ms. Burdette, thank you for your help on this. That concludes the action item portion of the agenda. We'll now move to the information items. The first is Jennifer Everett who is the Rules Coordinator for the Department of Environment and Natural Resources. This is entitled periodic review and expiration of existing rules. As you are about to hear this we're doing this pursuant to statute. This is the biggest regulatory review ever in the history of North Carolina. It is something that is going to be at the forefront of our Commission's work for the next five years, if not longer. It is a daunting undertaking and the General Assembly has decided for good or for

bad that the first effort will be done by DENR and this Commission. So I will leave it to your own conclusions after this. Jennifer has been very diligent on this. She's keeping myself and Lacy Presnell and the General Counsel, DENR – Jennifer's doing her best to control both of us which is a daunting task in itself. I urge you to put a lot of attention into this presentation. I'll have some comments to add at the end of it. But Jennifer, welcome, and the floor is yours.

### **III. Information Items**

#### **13-19 Periodic Review and Expiration of Existing Rules**

**Jennifer Everett:** Thanks for that introduction. I'm just going to give an overview of this session law that came out this past year. House Bill 74 is also known as the Regulatory Reform Bill became Session Law 2013-413 and in it Part I, Section 3.(b) describes the process for reviewing existing rules. It is codified as General Statute 150B-21.3A in the Administrative Procedures Act. The 150B statute, also known as the APA, is where the requirements for rulemaking are outlined. I think the APA is provided as one of your attachments, all about rulemaking. If you want some light reading you'll love. So what is this process? The General Assembly like the Chair said is requiring the Rules Review Commission to implement a process for all agencies that are subject to making rules to review all of their existing rules every 10 years. Their review does not include rules that have been repealed. The RRC will set the scheduled for review. The review process for agencies and the Commissions will begin next year. The goal of this initial review is to have all rules reviewed in the next five years. After the initial review, the process will revert back to the decennial review. I think one of the primary reasons that I'm here today, too is because the session law also had a special part in that identified rules that are adopted by the EMC related to surface water quality and wetlands have to go first in this process. This process is starting next year. The first step in this process is that staff will conduct an analysis of the rules and place the rules into one of three categories. The "necessary with substantive public interest" category are the rules in which the agency had received any written comments in the last two years or if the rule affects property interests of the regulated public and the agency knows or suspects that any person may object to the rule. The "necessary without substantive public interest" means rules the agency has not received a public comment regarding the rule in the last three years and includes rules that merely identify information which is readily available to the public like addresses and telephone numbers. The last category "unnecessary" means a rule that is absolutely redundant or otherwise not needed. So after that process, the EMC will then need to approve these initial recommendations, that would have been conducted by staff, for moving forward to a 60 day public comment period. These rules and the categorizations will be posted to the DENR website to accept public comments. Also these rules will also have to be posted to the Office of Administrative Hearings' website, and notification about this public comment will be sent out through ListServes and other mechanisms. After the public comment period closes, staff will then provide responses to the comments received. These responses will go into a report format that will be provided by the RRC. In addition to the responses the report will contain the EMC's initial determinations, which were the determinations that went out to public comment. To begin with the report will also include whether the rule is required by federal law. All of the comments and statements received will be included, as well as all the final determinations about the categories. The report will then be sent to RRC, after your approval, and then be taken up at one of the RRC's regular

scheduled meetings. Once it gets to the Rules Review Commission, they'll be looking at whether the comments received for rules that had been put in the "necessary without substantive public interest" and the "unnecessary" categories had merit per General Statute 150B-21.9 and what are they that should have been moved to the "necessary with substantive public interest" category. If you hadn't already done that at your meeting, they will make that change in their final decision report which will be sent over to the Joint Legislative Administrative Procedures Oversight Committee. We all just say the APO. They will notify the agency when they send that report over to them. If the APO does not meet to conduct a review of that report within 60 days of receiving the report, then on the 61<sup>st</sup> day from the submission the RRC determinations become effective. If APO does meet, then the report will be effective on the date that it was reviewed. If the APO does meet and they disagree with one of the RRC's determinations, then they may recommend to the General Assembly that the agency conduct a review of that rule the following year. What happens after all that? The rules that have been placed in the "necessary with substantive public interest" category will have to be readopted. Readoption could look kind of one of two ways. If there's no changes made to the rule for readoption, then the rule itself in a form could simply be sent to the RRC for one of their meetings to be taken up. If there are amendments or any rule language changes to the text of the rule, then the agency will have to proceed with the formal rulemaking process under the procedures for adopting a permanent rule under General Statute 150B-21.2., and then obviously "unnecessary" rules would expire. We don't have to do anything with those. The rules that were placed in the "necessary without substantive public interest" category will just remain in the code and get updated with their effective date and history note. The RRC plans to develop rules that regulate this review process. They are drafting some rules now. They should be coming out for public notices soon. We're also in the planning stages of developing a website to provide the notification and portal for the public to comment on the rules. We've also been becoming familiar with all of our Title 15A subchapters since some may have been transferred to other agencies over the last few years, and are no longer under our authority. When I say, "our" I mean not just your Commission, but all the other Commissions that have rules in Title 15A. That's all I had.

**Chairman Hutson:** Before we get to questions let me just add some things to this. First of all for purposes every regulation in North Carolina is going to be reviewed and go through this process. I went to a meeting about a month ago that the Rules Review Commission which is a Commission that was established a number of years ago whose sole jurisdiction is to determine, is a rule necessary, is it authorized by statute and is it clear and unambiguous. The Legislature wanted some second check on those basic things and that's been what it's done. On a couple of rules in its history they've gotten involved but for the most part it is not a Commission that most people know about. It now becomes the gateway for this exercise. They held a meeting and when you think about all the rules in North Carolina, I was there with some DENR senior management. There were people from the Board of Cosmetology, Board of Professional Engineers, the Revenue people, you name it and they are going to start with the exception of environmental regulations and DHHS regulations. They're going to start a Title I, Chapter I and over the next five years work their way through. When your rules come up, they'll go through this process. They're negotiating a schedule with environmental and with DHHS because we have so many rules. The EMC has jurisdiction over water, stormwater, air quality and underground storage tanks, and that's 1200+ rules that are going to go through this process. Right?

**Jennifer Everett:** Well there's more. But I didn't know if you were done.

**Chairman Hutson:** Is there more?

**Jennifer Everett:** In addition to this those programs, the EMC also has some in waste management.

**Chairman Hutson:** That's underground storage tanks. That would be in the waste management group. We also have the wetlands which include what's called the EEP Program. That will be there. For purposes of this statute the agency doing the review of the rules is not DENR. The agency is the rulemaking authority which is this Commission. So we will be the ones who will be making the determinations and going through this process. The first step is this classification as to whether or not a rule is necessary and if there is substantive to public interest. For purposes of statute they've actually defined what is a public comment. If somebody writes in or tells you anecdotally, I like the rule, that is not a public comment. A public comment has to be a criticism which I interpret to be, I don't like the rule or think the rule should be changed. At that point it becomes a rule with substantive public interest. Then you have the ones that are "necessary but there's no substantive public interest." Then you have the ones that would be classified as "unnecessary." That is already generating discussion because we put out these initial classifications. Say we put one out that says our classifications rule is "unnecessary." And somebody says no, I think it's necessary. The RRC staff which is also where the Office of Administrative Hearings is, their Counsel, initial position was that makes a rule "necessary with substantive public interest." The question I asked at the meeting and I had following up on it is what if one person says that. One person says that and we decide no, the rule's unnecessary, we're going to get rid of it, and they appeal that action to court. If I'm their lawyer, the first thing I say is, how can you get rid of a rule as unnecessary when it was classified as necessary? So that is still being worked out and is one of what's going to be numerous issues that will come up. We believe that the RRC is backing off on that position. But I was at a presentation last week and a question came up and said if it's not one comment, how many letters have to be submitted to make it necessary? My own personal views should go to the substantive of the comment as to why the rule is necessary as opposed to getting 500 postcards whether it be from an industry group or environmental group it all says the same thing. But that is an issue that we're going to have to work out as we go through this. So we do this initial classification. Then it comes back and we've got "necessary with substantive public interest." When Jennifer says we have to readopt the rules that is the process that I talked about at the last meeting. We have to start from scratch and go through the notice and comment rulemaking. There may be some that there are no changes. But with most of these, there's going to be comments that look to us to possibly change the rule. A lot of our rules are going to have to go through the notice and public comment which is a proposed rulemaking to committee, go out to public comment and come back to this. This is a daunting undertaking in terms of the level of work that this is going to take by staff and by Commission members. I will tell you, and this is a good thing, in the presentations I've given to regulated industries, attorneys and municipalities, they see this as the opportunity to get regulations correct, right or good, as they see them. So we're going to get things that in the past a party would have to bring a petition for rulemaking like we saw with the Dan River, which I've done on a couple of occasions. You got to hire lawyers, consultants and

it's a time consuming process. It's expensive. This is the opportunity for everybody to have their say on existing rules. There is an exemption for rules that are required by federal law or required to comport with federal law regulations. There's some debate as to what does that include. The easiest ones are a lot of our air rules are federal required rules, and we will not have to deal with them. There's some that are not. There are some water rules we're supposed to have but they don't dictate exactly what they'll have to say. We're working our way through that process as well. In terms of schedule, and I have been in discussions with senior management at DENR about this, here's where we tentatively are. In January we will bring forward to the Water Quality Committee the proposed initial classifications for the .02b rules which are the surface water rules, and the .2h rules, and possibly one other. I'm going to have discussions later that are related there. One of the things we're going to have to deal with is, as we go through this process; we got to time it right. We could change certain rules that affect other rules in different subsections, and leave those in the regulated community in a very difficult situation because we've changed these rules, we haven't gotten around to these yet, what are we supposed to do? The Legislature did not in the statute establish a deadline for re adoption of the rules. They're going to address that in the short session in the spring. I'd appreciate your ideas. I have ideas as to what should be that deadline. I'm hoping that the deadline is an ultimate deadline at the end of the process, so that we can deal with these interactions, as opposed to once you say it is "necessary substantive public comment" you have two years to do that. But I won't get in the weeds on that. What my recommendation as Chair is, it will come to the Water Quality Committee meeting in January. Because these are actions that affect rulemaking, we're subject to the 30-day rule in our internal processes. At least with this first set, I'm recommending that we do not waive the 30-day rule. Let's get the first ones out there, give everybody time to get some understanding of the process and what we're doing. Then in March we will come back with those for the full Commission action and go out to public comment. We will still have public comment back then by May, which is before the General Assembly reconvenes. Some of the thinking of this timing is let's get one started so if we identify some problems we can identify those for the General Assembly and try to get them fixed in the short session. I also want to try to keep it to one committee to start with, so the other committees that will be considering this. In all our other committees we'll get standards to review. The groundwater standards under, 2L will be at the Groundwater Committee. There will be Water Allocation issues. There will be air issues, that we don't get on two different tracks, two different committees doing it different ways and run into contradictions or inefficiencies in that regard. I think between Jennifer and me and our sense, this is big. There's no other way to describe it. It's the best adjective to put on it. I would also ask Commission members if there are groups that you know of out there who are impacted by rules, if there are people you know that are real leaders in their fields. As I told a group of lawyers last week I do not want you waiting to get hired by clients before you submit comments on these rules. I want to see comments coming in that say I have 10 years, 20 years, 30 years, 40 years experiences in environmental law. Let's take advantage of that historic knowledge. That same is true for engineers, wastewater treatment plant operators and air pollution specialists. I recognize in a government setting in my private sector presentations on this, this is the part of my presentation I'm calling the altar call. We need people to come forward and get involved in this process so that we end up with regulations that everybody's had input in. This is the opportunity to do that. There is nothing in the statute that prevents us as a Commission or individual Commissioners as rules come before us to say, I think we should change it. Here's what I think we should do. We

can go back out with rules with proposed changes. But this is a real opportunity for all of us in the state to come up with a set of environmental regulations that hopefully.... There are two reactions; the generation from now said they did a great job reporting. They really messed this up. You know we're going to try and we can't control the outcome. That's what we're looking at. I open up the floor. Jennifer, if you got anything to add, any questions or comments that others may have regarding this process.

**Jennifer Everett:** Just one little thing. The rules that Chairman mentioned about coming to you in January, just to get a reality check on the number of those; there are two different subchapters in Title 15, .02B and 02Hs. The number of rules that those two combined are about 236 rules just as a point.

**Chairman Hutson:** Just as a point resignations will not be accepted.

**Commissioner Keen:** We're definitely going to get proficient as hearing officers and the amount of time that's going to be required to deliver the customer service that Mr. Chairman that you have indicated to get things done in the manner that they should be done. With that said, allocating a funding arm back in the short session to the General Assembly to make sure they're funding appropriate areas as we take this plan on the road, that we can do it proficiently with the staff and not overburden our staff, but have funds allocated to get the job done right.

**Chairman Hutson:** I'll just follow up. I don't know what the funding is for implementation of this and you may not know either, Jennifer. Those who may know may want to consult before they answer that question. That was just a comment.

**Jennifer Everett:** Ok. I know that RRC have been able to receive some resources to hire one or two more attorneys to help process it on that end and some other type of administrative or paralegal help as well.

**Commissioner Keen:** Just to follow up, Mr. Chairman. Going into the public hearings and having Commissioners available for those hearings, can we get a balance of what is going to be required of our Commissioners and a timeframe when we implement this in January?

**Chairman Hutson:** I will strive to make sure that the burdens are allocated as fairly and equitably as possible. There will be some rules that get a lot more attention than others. So I'll work to make sure that we've got a balance and, Commissioner Keen, I invite you and any other Commissioners to offer their suggestions and help in that regard. We have not yet had discussions as on certain rules, how many public hearings we will have, whether we need to have them across the state, but we do need to have a process that those in the citizenry can feel they have the opportunity to be able to have a say on what we're doing. I saw Commissioner Rubin.

**Commissioner Rubin:** Thank you. Where our rule is in concert with a rule and another board, will there be an attempt to bring both of those rules up kind of simultaneously so both boards have a chance or Commissions have a chance to comment? I'm thinking specifically water quality and drinking water, for example.

**Chairman Hutson:** We will hope to do that. There are some of our rules that get into the health services rule with regard to drinking water quality. What I would suggest is that anybody who knows where those intersections are now to let me know so that I can work with Jennifer and staff at DENR to make sure we do that. But right now the intent is, we'll have to talk with the Rules Review Commission on how that coordination could take place. Except as I said for environmental and health and human services, all other rules will just be one through whatever it is of the title of the Administrative Code, and that's when we'll get to them.

**Jennifer Everett:** Well it is my understanding that just, when I say department I mean your Commission and all the other Commissions, Environmental Commissions there are a total of about 2500 rules that my brain is working with. You all have about 1,100. DHHS has had 6,000 rules so we're number two. DHHS has number one, Department of Agriculture is third with the number of rules, and then everyone else. It's my understanding talking with RRC staff attorney that the RRC will want to look at all of the rules across the state, which are about 22,000. They also need to take into account how long it's going to take for them to go through all 22,000 rules in a five-year period. I think that there's still a lot of questions about just the mere number to get through.

**Commissioner Carroll:** I guess since there are so many rules to evaluate, is the plan and some are not required because they are based on federal requirements?

**Chairman Hutson:** They're required to comport with federal laws or regulations.

**Commissioner Carroll:** But those are then exempted from the review. Is that my understanding?

**Chairman Hutson:** Well they have to be reviewed. That's another question. My understanding is they had to be reviewed but classified as that. Then we don't have to go through. But there has to be a review of them so they get classified in that categorization.

**Commissioner Carroll:** Right. So that would be I would suggest the first cut to try to identify what those rules are and get them out of the way through the process?

**Chairman Hutson:** I know that Director Reeder, Director Holman, Tracy Davis, the Head of DEMLR and Dexter Matthews, (fortunately, from the environmental side) the Secretary had directed a review of rules months ago. We were on the process to do this. We're a little bit ahead of the game in terms of the dove-tailing with the new statutory requirements. We also have the question of what if somebody disagrees that a rule is not federally required next to categorization. That question may come up as well. I think that it is going to be done but that categorization of federally exempt needs to be done. Although Director Reeder shared with me with regard to the .02(B) rules, virtually all of them look like the initial classification is going to be necessary with public interest.

**Director Reeder:** I think what will probably happen in January, what we'll bring to the Water Quality Committee is we'll probably bring all the .02(B) and .02(H) rules. I would assume that all of those will be classified as "necessary but with substantive public interest." Then what

we'll further do is try to designate which ones we feel are federal requirements; which ones are those .02(B) and .02(H) we feel are federal requirements. We get, of course WQC concurrence and input on that and go to the EMC in two months. Then that's what we'll take out for the initial round of public comment, revise it based on public comments and take it back to the RRC probably sometime this summer.

**Commissioner Tedder:** Just to further complicate things. We've got a Triennial Review public hearing up next week and you might want to kind of put that in context, if you want to.

**Director Reeder:** Right. Obviously, we can't do independent rulemaking simultaneously. That would be insane, ok. So what we're going to do is we have a Triennial Review public hearing coming up next week that Commissioner Tedder is going to be the public hearing office. We're just going to accept public comments on all of our water quality standards which we're required to do by EPA. I think once every three years and EPA is actually coming up for the hearing. We're a couple of years behind on this. So we're going to get that out of the way. We're going to get that done and then we're going to take those comments. What I envision happening is, we'll take all our rule packages, back to the RRC next summer and say, ok our rules are "substantive with public interest." Here are the ones we think are federal requirements. Once we get their approval we'll start the readoption process, and the reason I'm saying that is because we'll incorporate these comments that we get at the hearing next Tuesday into our proposed readoption. So next fall we'll start working on the rules that we're going to readopt and what those rules will look like. We'll incorporate those comments that we receive at the Triennial Review public hearing into that proposed readoption. Then we'll actually think what is going to happen is going to be more detailed than you want. But I think what we'll probably have like about a six month stakeholder period where we meet with all the major interest groups about these .02(B) and .02(H) rules, so we can get some initial idea of what they want to see in the rules before we actually bring any proposed readoption to the Commission and the committee. So I think what will probably happen is we probably won't have any .02(B) or .02(H) rules to go out for readoption back to the Water Quality Committee and the Commission until early 2015. That's just the way the process is going to play out. We have to go through a multi-month stakeholder period to get some idea of what these rules should look like before we actually take them out and bring them to you for proposed readoption.

**Chairman Hutson:** I'll just say as that stakeholder process is going on after March of next year and we've worked through and maybe waiting until after the short session, we're in our July and September meetings, maybe before that, but at least by then we'll be taking up other subchapters to go through this process. If any of you have college children who are computer engineering majors before I force this on my own daughter of creating the excel spreadsheet that will track and map everything of where we are. We're going to be moving in a number of different fronts and any suggestions on how to best communicate within the Commission so that we keep straight on where we are would be appreciated as well. Is there anything else for Ms. Everett? Thank you. I know we will continue to be in touch as we go through this process.

We will move to the next information item which is on shale gas development in air quality which I asked Mike Abraczinskas, who is the Deputy Director of the Division of Air Quality, to make a brief presentation. At our last meeting if you remember, some representatives from the Blue Ridge Environmental Defense League presented us with information regarding the air

quality standards for oil and gas operations, primarily hydraulic fracturing. I wanted to make sure that this Commission had the background of what the regulatory structure currently is, what it's likely to become so that we're putting everything in the appropriate context for this. So Mr. Abraczinskas the floor is yours. Thank you.

### **13-21 Shale Gas Development and Air Quality**

**Mike Abraczinskas:** Thank you Mr. Chairman and good morning everyone. I appreciate the opportunity to be here to present on this topic, a topic of great public interest and one where we at the Division of Air Quality have been rapidly expanding our knowledge base on this subject. Because as you know oil and gas production in North Carolina hasn't been happening and certainly this type of activity is one we have little or no experience with. When the subject came up several years ago we rapidly started getting smart on this subject. Today I want to use this opportunity to share our existing knowledge base over the last two years by characterizing some of the air emissions, sources and pollutant profiles that might be expected with this type of activity and explain how we've been learning from others. Many of our colleagues in other state air quality agencies have a lot of experience with shale gas development and production activities. What does their regulatory framework look like? How have they gone about managing the air resource aspect of this type of activity? I'll also share with you our efforts to gather some of the very best emissions data that is out there. Thankfully that is an area that is evolving and improving from other's experiences elsewhere. I'll wrap up with a brief summary of our assessment of our ambient air quality monitoring network in the area that is thought to be most promising for shale gas development and what our strategy is to ensure that we are collecting sufficient baseline data in that area. So let's start off with just a very high level overview of what type of emission sources we might expect from this type of activity. I've attempted to color code into different phases of activities. The first column here involves development of a well pad. Those activities are shaded in green. The emission sources at that stage in the development stage of a well pad are temporary air emission sources. Because what we're talking about is the drilling phase. So what's involved with drilling a well; well there are usually moderate to large size engines, usually diesel engines brought on site, usually on the back of a flatbed trailer, to run the drills and run a lot of the equipment used to develop each well on that pad. Similarly, once the well is being constructed and is constructed it moves on to the hydraulic fracturing phase, which is a very short term activity. What's involved there? Well those are pumps, again large engines, usually diesel engines running those operations. Once the fracturing is completed and the well completion stage wraps up there are some emissions that are covered there under new federal standards, and I'll speak to those momentarily. Again, those activities and I'm calling that phase well development phase and usually mainly involve emissions from engines that are not permanent or stationary engines on that site. They are there for a very short period of time. Again, the drilling and well construction phase usually does not exceed a hundred days. The hydraulic fracturing piece can be a matter of days or weeks at most, but usually a number of days. So again these are short term and temporary activities per well-constructed. Now within the green dotted line I've included everything that is happening at the well pad. So that includes the second phase which is transitioning that well pad from a construction and development phase to a production phase where there are far fewer activities involved there. This is becoming a production site where the collection lines are run. There may be a few tanks on site and again the types of emission sources are a little bit different. Quite

different in that you have far fewer engines, diesel engines on site. You may still have some emergency generators on site. But again the look and feel of the emission sources are quite different on the same site. Again, once that becomes a production site that's going to be there for a while, right? Or that's what the hope is while the resource is being tapped. The third phase or kind of downstream or midstream activity involves compression and transmission of the product that is being gathered from various well pads. You can have activities such as dehydrators, compressor stations and whatnot. Again, a lot of those will run on diesel or natural gas. They may be co-located on a well pad. They may be slightly downstream. The compressor and transmission stations may run some of the gathering lines to many different well pads in the vicinity. Ultimately that is typically carrying the product to a processing station which is kind of shown here in red. It's kind of a final phase where it is preparing the product for use, either commercial or residential or whatnot. Those processing facilities from an air emissions standpoint are permanent stationary sources that are akin to a moderate chemical processing facility to kind of put it in context, and would require a typical air quality permit, usually a major source air quality permit. So that gives kind of a little background but again there are variety of air pollutants emitted from both these temporary and mobile sources at various stages and from permanent stationary sources at later stages in the process of harnessing the resource. There are a variety of regulations that apply, mostly at the federal level and some at the state level to various aspects of this activity. But again, the point I want to drive home is the life cycle of the early activities and kind of the temporary and mobile nature of those. So if we get a little bit more in depth into the regulatory structure that is in place for all of these activities, we've been taking a very careful look at this over the last year or two. Overall what we have concluded at the Division of Air Quality is that our existing regulatory framework is sufficient to cover the air emission sources and the permitting process for these types of facilities. I will note and of most importance is the middle bullet here in red. There are new federal emission standards for this activity in place now. Those were put into place by USEPA in August of 2012. Those have been adopted by reference automatically into North Carolina's rules. I've left you with the references here for future reference 02D .0524 which is our new source performance standards, and 02D .1111 which are the national emission standards for hazardous air pollutants. I left you with a little quote here as well. I hate to put this many words on a slide but again something to refer back to. How EPA referred to these rules when they were promulgated in 2012 and basically a sense of their confidence in these types of rules, and to give you a sense of how many facilities nationwide are already engaged in the types of emission control activities that these rules require. So they are in EPA's words, "proven and cost effective practices for reducing emissions from various stages of this activity." Those rules most specifically address one of the phases, and that is the hydraulic fracturing and well completion phase, that has been a topic of concern nationally over some period of time. Those rules require what is called a well completion or a green completion which requires capture of any resource when flow back begins during the well fracturing and completion stage. Recent studies have also shown that EPA requirement for that well completion phase is about 98 percent effective in capturing the emissions that were otherwise vented directly to the atmosphere or flared in previous years and decades elsewhere. We also learned in our discussions with other states and learning from their experiences that they did not develop specific air quality rules for shale Gas activities. The exceptions were the states that had to deal with some unique situations that involved violations of federal air quality standards. A lot of those were especially unique in that they were areas of unique geography, topography and meteorology. So in valleys where there was frequently a snow pack and strong

temperature inversions that did not allow any air pollution that might have been generated in that valley to escape over some period of time. Those are the exceptions and in those cases those states have been required to deal with the resulting nonattainment by virtue of violating those federal air quality standards. I should also note that a lot of the experiences of other states were during a time prior to the federal EPA rules being in place. So while we are certainly reviewing and learning from all of the activity and studies that have been done nationwide on this subject, we're also keeping that in mind, that point that was prior to these new federal rules being in place. What our experience will be in North Carolina will be a different era. It will be an era when these rules will be in place fully implemented at the time that this activity first occurs. At this time our division is not recommending any changes to existing rules in this context and we're not recommending any new rules. Certainly we will continue to review any and all information on this subject as we continue to gather that or new information or studies emerges. I think that's especially true in regard to leak detection and repair. I think that is probably one area where some of the more recent studies in other states show that the existing practices perhaps can be improved. I think EPA is taking another look at that and states like Pennsylvania have put in place some rules to address that subject. So again, just an area that we're going to keep our eye on as this evolves. From an air quality permitting perspective we're also learning from other states. Again, I mentioned a lot of the early activities involved with well development and construction are temporary and mobile. Those are types of activities that typically are not permitted in air quality. Many states, most states have not permitted that phase of the well construction and development. They do typically provide an air quality permit for the production phase of the well pad, and again those activities usually include some tanks and some compressors or the engines on site. Kind of downstream activities, I do think that's an area where permits will be necessary. Again, we're talking about larger compressor stations and certainly the larger processing facilities if any emerge and the site has a potential to be a Title V or major source under air quality regulations here in North Carolina. Moving on to emissions data, this is an area where there's been a lot of improvement in data collected and just a better understanding of emissions per activity level for all of the activities involved whether that's just the quantifying truck trips and idling, and the uptake in that type of activity to some of the engines that come on site to do the drilling, pumping and whatnot. We're in the process of compiling all that information and further study is planned, once we have pulled together the very best emissions data. What we anticipate is that we will use that emissions factor data, combine it with estimates of the level of activity anticipated in a certain geographical area, say Lee County and that will allow us to project hypothetical situations. If X number of wells are there the result is this additional amount of emissions, and then we can do some modeling to assess both local and downwind air quality impacts. So those activities are planned in 2014. Finally wrapping up this morning, we undertook a study in 2012. Our department did on this subject and a very small piece of that study concluded that baseline data was necessary. Not just air quality but also water data as well. But here with regard to air quality that recommendation and the study manifested itself into Session Law 2012-143. But the wording was such that it is a little unique. It said it required rules related to the collection of baseline data. Well in air quality we have the existing authority in rules and expertise in place to do ambient air quality monitoring. So no additional rules are necessary. But we certainly started an assessment of our existing monitoring network relative to the areas that we know are the most promising for shale gas development. In that assessment we identified really well placed upwind and downwind multiple pollutant air quality monitoring stations. But we really didn't have one right in the core,

again of the Triassic Basin, the Sanford sub-basin in Lee County. So ultimately we recommended that we establish a multiple pollutant air quality monitoring site in Lee County. This map just briefly shows you, there's a dot every place we have some sort of air quality monitor in North Carolina. As you can see there was a relative void in the central part of the state right along the access of the shale gas Deep River basin area. So again we have well placed, we believe upwind and downwind sites in Montgomery County and then downwind in the Raleigh area as well. Getting a baseline site in Lee County is something that we're doing. What does an ambient air quality monitoring site look like? This is not the site in Lee County but this is what a typical site looks like. What are we going to monitor? We started off with a plan to monitor 89 compounds. As shown here on the slide we've recently revised that plan based on feedback from the Mining and Energy Commission and the comments that the public provided to the Mining and Energy Commission when we initially presented this monitoring plan to them. They had suggested that we also monitor above and beyond the 89 that we initially proposed but small alkanes, alkenes and alkynes like methane and ethane. That was something that we can do and something we're going to do. So that increased the number of compounds that will be measured. Again, we're focused on collecting at least a year of baseline data. There will be a hodgepodge of continuous samplers and then there are other samplers that run on an every 6<sup>th</sup> day schedule which is something that is done nationwide for those types of pollutants. We'll collect meteorological data as well, and as I mentioned earlier identical upwind and downwind sites. This stands to be probably one of the more comprehensive baseline monitoring stations in the context of shale gas development activities in the U.S. We're excited about getting this site started and collecting some data. In wrapping up I thank you for the opportunity to share this information and growing knowledge base with you this morning. We've also been doing that before the Mining and Energy Commission on a variety of subjects listed here on a couple of their different committees and study groups were participating in. We had been before the Environmental Management Commission earlier this year to talk a little bit about monitoring plans and we also talked about this in our knowledge and monitoring plan and whatnot with DAQ stakeholders including a quarterly meeting we call the Outside Involvement Committee. There has been information exchanged as our assessment of the existing regulatory framework has progressed and as our monitoring plan has progressed. I expect that will continue over the coming years as this activity becomes more of a reality in North Carolina. So that's the end of my presentation. There are some resources for you here on the slide for you to check out if you're interested. I'll be glad to take any questions that you have.

**Chairman Hutson:** Any questions or comments regarding the presentation? Mr. Abraczinskas, thank you. We'll look forward to updates through the Air Quality Committee and back to the Commission that way.

### **13-22 Revision to Selection Procedure for Special Air Permit Appeals Committee to Conform to Section 128 of the Federal Clean Air Act**

The final information item regards a revision to the selection procedure for the Special Air Permit Appeals Committee to conform to Section 128 of the federal Clean Air Act. This is agenda item 13-22. It was either earlier this year or in January of this year the Environmental Management Commission adopted a resolution forming this appeals committee. There are requirements of the Clean Air Act. It required composition of this committee. What happened

after that was there was a document that was developed that was how we go about selecting the committee members. That did not come before the entire Commission. It's been brought to my attention in the last week or so that there is an inconsistency between those two documents, and in fact, the selection procedure document is not consistent with Section 128 of the Clean Air Act. Under the resolution the Chairman was given authority to modify the selection process when appropriate. I'm working with Ms. Lucasse. We're in the process of doing that. The impact that this will have on you is that we will be circulating to all Commission members a certification as it's called to determine which members meet the requirement of representing the public interest and not deriving a significant portion of their income from sources that are subject to air pollution regulations. Not everybody has to meet that requirement. We just have to have a majority of committee members. I think it's best that we get all that information on file and then I will appoint the committee to hear, and we do have one case coming up in the next six months. It will have to be heard by that committee. That also gives us the flexibility that if other cases come up and somebody has a conflict with one of the parties, I can identify somebody who can be appointed to meet the requirements of the Act. You should be seeing that certification in the next 30 days and if you'll complete that and send it back, then any questions can be addressed by myself or Ms. Lucasse. Any questions about that?

Let's move to the last section of our agenda which is concluding remarks and under Commission members, I'm going to include the committees that met yesterday for a very brief summary of what went on at those meetings. I'll start with Water Allocation Committee.

#### **IV. Status Reports**

##### **A. Water Allocation Committee Steve Keen, Chairman**

The hydrologic modeling overview in 2014 schedule passed out to you is just an overview of some of things that we spoke about yesterday. The models are used as tools for water and resource planning for water quality. Of course they are not regulatory tools for water allocation, flood analysis, water quality or directing other groundwater. But through this process though, if we didn't have enough to do now that you've brought all this up to us about what we're having to do. With that Tom Fransen had brought up some information yesterday that I wanted to take my time, I guess and share along with Kathy Stecker. They had some good information. Again you have it before you. On the back page under EMC approvals it's based on this area, just turn it over to Tom, please and if you'll take it from there, I appreciate so much. Thank you for being here this afternoon.

**Tom Fransen:** Thank you Mr. Keen. I guess usually when I come up here we have something unusual for the Commission to work with. The modeling is something that's unusual. In 2010 the General Assembly made the decision that the EMC needed something else to do and they added the responsibility of approving hydraulic river basin models. At that time Chairman Dr. Moreau decided since this was something unique and kind of a specialty area, he created an ad hoc Technical Advisory Group or the TAG as part of the Water Allocation Committee to work with staff to go through this process of how we would go about approving a model. It gave a couple folks on the Commission the opportunity to get more in depth of what we do, what's involved with the model and help us prepare what is needed to come to the full Commission for their approval. When it came time for approval they helped us. In some ways these models are simple but there's a lot a detail to them. It allowed the staff to really get one on one with the Commission to make sure you're comfortable with the approval process. So when it came time

for you to approve we had a couple of folks on the Commission to say yes they went through the process correctly and we feel comfortable with that they're ready for approval. As we heard in the Water Allocation Committee yesterday, we use these models, in activity related to the Commission, like Jordan Lake allocations. We use them as part of the impact analysis for doing a basin transfer so with that, I'm open for questions. Hopefully we'll find a couple of volunteers that would like to join us in modeling.

**Chairman Hutson:** As I told Commissioner Keen and Mr. Fransen yesterday I'm opening up this opportunity to anyone on the Commission and if there's anyone interested in this, it is not required by our internal operating procedures. But as Mr. Fransen said that has proven valuable to have a couple of members that staff can work with to review these models which can be somewhat dense. If there's anyone interested, if you would let either Commissioner Keen or myself know; then we will have Tom and his staff get in touch with you. We'll see if we can proceed in that regard as we have in the past. Is there anything else Commissioner Keen?

**Commissioner Keen:** No, Mr. Chairman.

**B. Water Quality Committee Steve Tedder, Chairman**

Yesterday we met. We heard a petition for rulemaking as you've already heard today. Following that we had a proposed reclassification, a segment of the Dan River from C to WS-IV critical area. This came from Hoke County and that was approved by the Committee to move forward to the full Commission in the next meeting in January. We did hear and approve a major variance for the Neuse River riparian area protection rules. That was approved by the Commission. That will not come forward as approved in the Water Quality Committee. We also heard the Hillsborough request which we've heard today and we had updates on the Coastal Habitat Protection Plan and the Nutrient Criteria Development Plan from staff.

**Chairman Hutson:** I will tell you the Coastal Habitat Protection Plan, that section of DENR which is Matt Matthews is also looking for a EMC volunteer. They have a group that has members from Coastal Resources, the EMC and others and will be looking for a couple of volunteers to serve on that committee as well. Thank you Commissioner Tedder.

**C. Air Quality Committee Charlie Carter, Chairman**

Thank you Mr. Chairman. We had a good first meeting. We've actually gone through most of the business of the committee yesterday with the hearing officer's report from the two rules and the Clean Smokestack Report. Beyond that we had a brief report also on the rulemaking that's going forward on the changes to the air toxics rules. We expect that will be back to the Commission at the January meeting depending on the volume of comments and how long it takes staff to work through that. But right now we should see that in January. We had three concepts that will probably be coming forth soon for consideration by the Commission. Thank you.

**Chairman Hutson:** Any other comments by any of the other members of the Commission? Director Holman, do you have any comments you wish to add? Director Reeder? Ms. Lucasse, any comments.

**Mary Lucasse:** I have nothing further. Thanks for the opportunity to participate with you.

**Chairman Hutson:** Let you give me my final three notes that I've got with regard to matters that may come forth. I've had a couple of questions. We had a presentation at our September meeting about when it is appropriate for Commission members to talk with members of the public about matters that may come before us. Ms. Lucasse can correct me if I'm wrong. The only time there is a limitation is when we're going to be sitting in a judicial or quasi-judicial capacity. So if someone is appealing a matter from the Office of Administrative Hearings, then it is not appropriate for us to talk. But on proposed rulemaking concepts, plans, and those types of things it is ok to talk to people, and in fact, I encourage you to talk to people so you can get some input and views, and be able to make informed decisions. If you have any questions about that please contact Mary or Jennie Hauser. If you can't get them you can call me. But in most cases we are not sitting in that quasi-judicial capacity and therefore communications with members of the public are appropriate. Is there anything that you would like to add?

**Mary Lucasse:** The only thing that I would add in would be variances. We had one yesterday that is quasi-judicial rule that you planning and deciding the variance.

**Chairman Hutson:** Thank you. I wanted to give you a heads up. We may have a special meeting in December. There is an issue going on with regard to the General Assembly in House Bill 74. There was a change to the definition of built upon area for purposes of stormwater regulations. Traditionally it excluded wooden slatted decks and the water areas of swimming pools. There was an amendment at and the eleventh hour of the session; it now excludes gravel and the Governor and the agency have concerns that in many cases gravel as used in the statute that if you take it could cause runoff problems. We have been working with staff doing outreach and I've learned one thing is what everybody thinks is gravel; there's no such thing as a gravel road or gravel driveway. Those are unpaved roads and unpaved driveways with crushed stone. In the industry gravel is defined as rounded river rocks, pea gravel and the like which are very permeable and are used for landscape and the like. So we're working on a possible rulemaking that would adopt the industry definition of gravel and that is one that we would do as a temporary rule. The initial idea is to schedule of a special meeting in December, and then take out for final action as a temporary rule at our January meeting. I am not going to subject this Commission to two meetings between Thanksgiving and Christmas. Finally we do have Remission Committee I which has one matter to consider and Remission Committee II is going to just have a very brief meeting to go over the remission process. Is that right?

**Mary Lucasse:** That's correct.

**Chairman Hutson:** Remission Committee I will meet in this room. Remission Committee II will meet in the conference room on the 11<sup>th</sup> floor.

**Mary Lucasse:** I just wanted to point out that Phillip Reynolds is an attorney from our office. He's here and he will be working with Remission Group II.

**Chairman Hutson:** We welcome you and you will probably be the leader of the pack. Does everybody know which Remission Committee they're on? Lois, do you have it or Mary do you have it?

**Mary Lucasse:** I'm going to read Remission Group I. That includes the Chairman, Mr. Hutson, Commissioners Carroll, Craven, Keen, Puett, Smith and Wilsey. For Remission Group II, that includes Commissioners Anderson, Carter, Ferrell, Martin, Rubin and Tedder. Thank you all.

**Chairman Hutson:** Commissioner Martin will serve as the Chair of the Remission Committee Group II. Just to Remission Committee Group I these take a short period of time. Ms. Lucasse will help us with regard to the overview of it. So I'm going to suggest that we take a five minute break and we will reconvene at 12:30 and proceed with Remission Committee Group I. Thank you all who attended today. Thank you staff for your hard work and good presentations. Thanks to those of you who are listening in and I'll declare this meeting adjourned. (With no further comments the meeting adjourned at 12:15 p.m.)

(NOTE: Attachments are on file in the Division of Water Quality with the Official Minutes.)

*Lois C. Thomas*      11/15/13  
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Lois C. Thomas, Recording Clerk

By Commission Members  
By Directors  
By Counsel  
By Chairman

Adjournment AG11-14-13