

**ENVIRONMENTAL MANAGEMENT COMMISSION  
GROUNDWATER COMMITTEE MEETING  
SUMMARY**

**May 11, 2011  
11:00 A.M.**

**BRIEF**

The Groundwater Committee (GWC) of the North Carolina Environmental Management Commission (EMC) did the following at its March meeting:

- Recommended that the EMC approve the petition for amendment of the Groundwater Quality Standard Rules
- Heard information item regarding recent request to establish Groundwater Interim Maximum Allowable Concentrations (IMACs)

On May 11, 2011, the GWC met in the Ground Floor Hearing Room at the Archdale Building in Raleigh, North Carolina.

**The Chairman's Opening Remarks:** In accordance with North Carolina General Statute § 138A-15, Chairman Martin asked if any GWC member knew of any known conflict of interest or appearance of conflict with respect to any item on the May 11, 2011 GWC agenda. No member indicated that they had any conflict.

**GWC Members in Attendance:**

Chairman Kevin Martin	Ms. Marion Deerhake	Mr. Donnie W. Brewer
Mr. Stephen Smith	Mr. Stan Crowe	Mr. Thomas F. Cecich
Ms. Yvonne Bailey	Dr. David B. Peden	Mayor Darryl D. Moss

**Attorney General's Staff in Attendance:**

Mr. Frank Crawley, Attorney General's Office

**I. Action Agenda Item: Groundwater Committee Approval of the September 2010 Groundwater Committee Minutes:**

A motion was made by Mayor Moss to approve the March 2011 Groundwater Committee Minutes and was seconded by Mr. Thomas Cecich.

**The motion to approve the March 2011 minutes was passed unanimously by the Groundwater Committee.**

**II. Action Agenda Item: Petition for Rulemaking to request amendment of the Groundwater Quality Standard Rules**

**Presentation Description:**

Mr. Michael Shatynski, a remediation project manager, with Rhodia Inc. gave a brief overview about the petition and then turned the presentation over to Mr. Benne Huston, Rhodia's outside environmental counsel, who is working with Rhodia in North Carolina.

Mr. Benne Hutson, with McGuire Woods, presented Rhodia's petition for rulemaking to amend the groundwater quality standard for 1,1-Dichloroethylene (1,1-DCE) from 7 ug/l to 350 ug/l. The petition was requested because several years ago EPA updated its Integrated Risk Information System (IRIS) for 1,1-DCE and concluded that it is not as hazardous as previously thought. Mr. Hutson stated that North Carolina regulation, as written, requires groundwater quality standards to be based on the most recent IRIS evaluation. He stated that there is no technical disagreement that the standard should be 350 ug/l. Mr. Hutson then went through his

interpretation of how 15A NCAC 2L .0202(d) and (e) should be applied in establishing the standard for 1,1-DCE. Rule .0202(d) states that the standard is the least of six criteria listed. Rule .0202(e) lists the references in order of preference used to establish the concentrations that are listed in (d). This is a two-step process; first, look in (d) for the most stringent concentration. Second, look in (e) to see if there is any valid scientific basis for the concentration listed in (d). If there is no basis listed in (e), then the concentration listed in (d) cannot be used. Mr. Hutson stated that for 1,1-DCE that four of the six criteria do not apply and what is left is either the systemic threshold concentration or the Maximum Concentration Level (MCL). The current standard is 7 ug/l which is the MCL. Mr. Hutson then stated that there is no basis in .0202(e) for the current MCL. In .0202(e) the references are listed in order of preference with IRIS being the most preferred. So, the current IRIS does not support the MCL and for non-technical reasons EPA has not changed the MCL. The result is that the systemic threshold concentration is left which is 350 ug/l.

Mr. Hutson then stated that the state has consistently failed to provide any legal basis for not changing the standard and that Rhodia has repeatedly and directly raised this issue several times in the administrative process. He stated that Rhodia submitted comments during the triennial review, in 2004 and 2009, with no changes. Mr. Hutson stated that the 2005 stakeholder process that recommended using a variance process is legally inappropriate to remedy an incorrect statewide standard. Variances are site-specific and include numerous criteria that are irrelevant to the establishment of the standard. Mr. Hutson stated that Rhodia applied for a variance stating that the standard was wrong. The response from the state did not even address that issue; instead it addressed all of the site specific issues. This is why Rhodia withdrew its variance request and instead is requesting a petition for rulemaking.

Ms. Sandra Moore, with the Division of Water Quality, presented the division's position regarding the petition. She briefly reviewed the regulatory background for the development of the groundwater quality standards and the development of the current 1,1-DCE standard. She stated that the groundwater standards are established as the lower of the six criteria. Ms. Moore pointed out that only criteria 1 (non-cancer threshold concentration) and 2 (1 in 1 million cancer risk concentration) are calculated by the division. The other four criteria are taken from literature and are not calculated by the division. She stated that paragraph (e) of the rule does state that the following references, in order of preference, shall be used in establishing concentrations of substances which corresponds to levels describe in Paragraph (d) of this Rule. The division does use the toxicity data from these references in order of preference for criteria 1 and 2 listed in Paragraph (d). Again, the other four criteria are taken from literature and EPA regulations. The basis of the current 1,1-DCE standard is the lower of the six criteria which is the federal MCL of 7 ug/l. Ms. Moore stated that the state does acknowledge that the MCL is not based on the current toxicity data published in the IRIS database.

Ms. Moore then discussed that this issue was first brought up in triennial review that ended in 2005. The hearing officers acknowledged that based on current science the health-based standard for 1,1-DCE should be greater than 7ug/l. However, they did not believe that the 2L rules allowed for a standard higher than 7 ug/l since the MCL was the lowest of the six criteria in Paragraph (d) and the standard was not updated. The GWC did direct the division to establish a stakeholder group to address this issue. The group met throughout 2005 but were unable to reach a consensus on revisions to the groundwater standards to address the 1,1-DCE issue. One of the issues brought up during this process was the potential impact to public water supply systems whose enforceable standard is the MCL of 7 ug/l. This could increase the treatment cost to them and transfer the cost from the responsible party to the public water system. In the end the division recommended to the GWC that the issue be dealt with the variance process set out in 2L .0113 that takes advantage of the existing flexibility of the rules and could take site specific conditions into account to allow for deviation from standards when it does not endanger public health. In July 2006, the GWC unanimously accepted and concurred with the division recommendations to use the variance process to allow a less restrictive groundwater quality standard while providing the site specific requirements necessary to protect public water supplies.

The petition seeks amend the 2L groundwater standard based on the fact that the MCL is not based on current science. The division concurs that MCL is not based on current science. As pointed out in the petition, EPA has recognized that the MCL is overly protective; but determined that the update to the MCL to be a low priority and did not recommend that time and money be spent on updating the MCL since there would be no public

health benefit or cost savings to public water supply systems. Ms. Moore stated that the petition presents the argument that .0202(d), lower of the six criteria, and .0202(e), four sources of toxicity data in order of preference, used in tandem, provide the regulatory flexibility to establish a groundwater standard under .0202(d)(1) at 350 ug/l. However, in the February 2005 GWC minutes, the EMC and its counsel, Frank Crawley of the Attorney General's Office, concurred that the 2L .0202(d) and (e) do not provide the flexibility to establish the standard at 350 ug/l. Ms. Moore stated that as long as EPA's MCL is 7 ug/l the groundwater standard must stay at that number since it is the lower of the six regulatory criteria. The division recognizes that if 1,1-DCE is driving the cleanup at a site, then there would be potential savings in investigation, monitoring and remediation costs, but there is not a clear picture on how many site cleanups are being driven by 1,1-DCE contamination.

Ms. Moore then laid out three options that the GWC may want to consider to address the petition:

- 1) Modify the standard per the petition
- 2) Modify the rules to give the EMC the flexibility to establish a 2L standard outside the lowest of the six criteria, where the most up to date toxicity information is not being used; and
- 3) Deny the petition, and encourage Rhodia to work with Division of Waste Management to address deficiencies in the variance request.

Ms. Moore then discussed the pros and cons of each option and made the recommendation that the GWC deny the petition and encourage Rhodia to continue to pursue a variance.

### **Discussion:**

Mr. Crowe asked if Mr. Frank Crawley's opinion has changed. Mr. Crawley stated that his interpretation on how the rule should be implemented has not changed.

There was discussion about why the division cannot use the Integrated Risk Information System (IRIS) listed in .0202 (e) to establish the MCL. Mr. Hudson re-stated his interpretation of how 15A NCAC 2L .0202(d) and (e) should be applied in establishing the standards. Mr. Evan Kane with the Aquifer Protection Section stated that the EMC has statutory authority to designate uses and adopted standards that are appropriate for those uses. The EMC has adopted groundwater as supply for drinking water and this designation includes the federal MCL to protect this water source for public water supplies that are held to this federal MCL. Chairman Martin asked about costs to public water supply. Mr. Kane said that Division of Public Health has stated that if public water supply was using water with concentrations higher than 7 ug/l for 1-1 DCE that the public water supply would have to meet the federal MCL and that there would be associated costs with meeting that requirement.

Mr. Thomas Ceich stated since there is no debate on the science behind establishing the MCL at 350 ug/l he had concerns that the division is asking a private entity to file a variance for a bad regulation versus the public entity when in the unlikely event that this occurs and that the public water supply could file for a variance as well. Mr. Ted Bush stated that there is a concern where a private industry has a cleanup in close proximity to a public water supply and the standard is at 350 ug/l that the public water supply would still have to meet the MCL and might not have the same variance provisions and the cost to cleanup from 350 to 7 ug/l would be passed on from the private industry to the public water supply system.

There was discussion about Rhodia's claim that it had exhausted all of its administrative remedies and what role the Division of Waste Management, the Division of Water Quality, and the GWC has in review of variance applications. Also, discussed was the original recommendation to use the variance process to deal with this issue and how the variance process does not work.

### **Motion**

Mr. Cecich made a motion for the GWC to recommend to the EMC to begin rulemaking as proposed by the petitioner. Mr. Crowe seconded the motion.

There was more discussion about the variance process and the potential to amend the variance process instead of changing the groundwater standard as petitioned. There was discussion on the motion and the potential ramifications of proceeding to rulemaking as proposed against counsel's advice.

**The motion passed with five voting in the affirmative and one opposed (Marion Deerhake) with Chairman Martin and Stephen Smith abstaining from the vote.**

**III. Information Agenda Item: Information on Recent Request to Establish Groundwater Interim Maximum Allowable Concentrations (IMACs)**

**Presentation Description:**

Ms. Moore presented information on an IMAC for tert-butyl alcohol and additional information on three previous established IMACs (Acetochlor ESA, Acetochlor OXA, 4-Isopropyltoluene). The IMAC for tert-butyl alcohol is 10 ug/l and was requested by the Division of Waste Management and will be effective June 1, 2011. Ms. Moore discussed the number of IMACs requested (58) and the number of established (54) and these IMACs will be incorporated as permanent standards during the next groundwater triennial review.

**Questions/Comments:**

There was a question about arsenic and the standard established during the last triennial review. Ms. Moore stated that the standard for arsenic was set at the MCL of 10 ug/l because EPA said that the information in the IRIS database was not current and should not be used to establish a standard. If the IRIS data was used then the standard would have been 0.02 ug/l instead of 10 ug/l. It is the reverse of the situation with 1,1-DCE with outdated IRIS data.

**IV. Closing Comments:**

**Chairman Martin**

There being no new business and no additional comments by the members or staff, Chairman Martin adjourned the meeting.