

To: Eric Gobler for email distrib'n

Date: July 26, 2004

Via: email

cc: Sylvia Hamilton

Subject: **July 22, 2004 Meeting Minutes**

A meeting of the Perchlorate Community Advisory Group was held at the San Martin Lions Club, 12415 Murphy Avenue, San Martin, on June 11, 2004 at 2 pm.

1. **Pledge:** The Chair, Ms. Sylvia Hamilton, led the Pledge.
2. **Presentation on Treatment Certification Process:** (Terry Macaulay) (Department of Health Services (DHS))
 - a) Perchlorate treatment status
 - i. Reverse Osmosis (point-of-use)
 - ii. Ion Exchange (point of entry or well head)
 - b) Ms. Macaulay began her presentation by giving a two minute summary on DHS's requirements for a system to receive the Residential Water Treatment Device Certification.
 - 1) System must be certified if it is to be used for residential purposes and if it makes any type of health claims.
 - 2) In order to become certified the system must first go through independent testing, DHS approved test protocols, and product labeling and literature requirements.
 - c) DHS also had a fact sheet about what should be looked for when purchasing a water treatment device which was passed out.

*note -The contact information on the fact sheet is old and should not be used.
 - d) Ms. Macaulay emphasized to always ask for a certificate when buying a treatment system. In addition if the product makes health claims then there must be a data sheet included.
 - e) RO systems have some limitations such as it only treats water that you drink. The systems are also known to be rather slow and waste a lot of water.
 - f) She then went on to discuss her first topic which was reverse osmosis systems and how they have recently become certified for perchlorate.
 - 1) The systems are manufactured by Watts Premier
 - 2) They are available at Costco and Sam's Club and cost around \$180.00.
 - 3) Certified for 100 ppb influent
 - 4) The RO system can reduce perchlorate levels to less than 6 ppb
 - 5) The systems are point-of-use only.
 - 6) There is a nitrate claim that DHS is hoping to add shortly to the systems.

Q: Mr. Peter Forest asked what pressure you would look for in an RO system.

A: Ms. Macaulay replied 60 psi.

g) Ms. Hamilton mentioned that the Santa Clara Valley Water District is working on a RO fact sheet that should be out soon.

h) Ms. Tracy Hemmeter added that since our water tends to be harder than most places we may have to change the RO membrane more often.

Q: Audience Member asked how to discard the filters when changing them?

A: Ms. Macaulay replied that it was safe to just throw them away.

- f) Ms. Macaulay added that it was important to test your water for all types of contaminants before selecting a method of treatment because each treatment system is not certified for all contaminants. For example, if your water is contaminated with As^{+3} then the RO system would not be a good choice.
- i) She then moved on to her second topic which was Ion Exchange (IX)
 - i. Ion Exchange Basics
 - ii. Update on ion exchange test protocols
- j) Ms. Macaulay provided the group with some background information on what ion exchange is. The purpose of IX is to remove bad molecules and replace them with good ones. For example, water softeners replace calcium (hard water) with sodium. Perchlorate is considered an ion (1/2 of a salt molecule) that can be replaced with a better half.
- k) Ion Exchange test protocol background
 - 1) Point-of-entry or wellhead treatment
 - 2) NSF task group
 - 3) Participants are DHS, EPA, NSF, WQA, IX, system and resin manufacturers.
- l) Ion Exchange test Protocol
 - 1) Challenge: 130 ppb reduced down to 6 ppb
 - 2) Concerns of whether it's going to cause a nitrate dumping problem
 - a) MCL Levels
 - b) Continuous nitrate analyzer to monitor for dumping
 - 3) Resin tanks
 - a) Lead-lag arrangement
 - b) Capacity limits on tanks
 - c) Off-site resin regeneration
- m) Ms. Macaulay then went on to discuss the remaining issues regarding ion exchange test protocol.
 - 1) Capacity validation
 - a) Whether to test at 100% capacity? 120%? 200%?
 - b) Test small model and extrapolate to full size?
 - c) Validate per bed volume
 - d) Computer modeling
 - 2) Arsenic is not yet included
- n) She also informed the group of current ion exchange activities that are taking place.
 - 1) Kinetico (RO manufacturer)
 - a) They want to combine RO systems with IX parts system so they could take perchlorate levels to about 2 or 1 ppb.
 - b) 130 ppb influent
 - 2) U.S. Filter
 - a) Point-of-entry 5-20 gpm
 - 3) Pionetics
 - a) Electrodialysis with IX
 - b) Also test for N/N As^{+3} , As^{+5} , Cr^{+6} , others
 - c) Point-of-use, then point-of-entry
- o) Contact Information
 - Terry Macaulay, P.E.
 - Senior Engineer
 - Phone No: (916) 449-5630
 - Email: tmacaula@dhs.ca.gov
- p) In the end Ms. Macaulay mentioned that for any treatment system there is a very large range prices depending on where you purchase it. However, they are all the same type of system and have gone through the same testing.

3. Administrative Items:

- a) Additional Agenda Items:
 - 1) Two agenda items added under section 3
 - i. Rick McClure from Olin Corporation requested to come back to the September PCAG meeting to discuss the progress of Olin's efforts to clean the perchlorate up in South County.
 - ii. Repositories/Websites
- b) Interested parties should add their name and contact information to the sign-in sheet at the back table to get on the PCAG mailing list.
- c) Approve June 11, 2004 meeting minutes: The minutes were approved as written.
- d) Ms. Hamilton asked PCAG whether they would find it beneficial if Peg Pinard came and gave a presentation regarding the recent clean up for Avial Beach and Guadalupe. The group agreed that it would be beneficial if she came and gave a short presentation.
- e) Ms. Heinrich informed the group regarding the repositories: Copies of studies, reports, and evaluations are available at both the Morgan Hill library and the Gavillian Community College. The information can also be accessed on both the Santa Clara Valley Water District and Regional Board websites.

4. Regional Water Quality Board Update (RB): (David Athey, Water Resources Central Engineer)

- a) Mr. Athey gave a detailed update of how Olin is progressing in their efforts to clean up the perchlorate in South County. His presentation consisted of two main topics:
 - i. Cleanup and Abatement Order issued by the RB.
 - ii. Onsite soil clean up approval
- b) Clean up and Abatement Order
 - 1) Mr. Athey began his presentation by giving a brief summary of the events which led up to the order being issued. On October of 2002 the Regional Board sent Olin Corporation a letter directing them to supply alternative water to well owners with perchlorate levels \geq 4 ppb. Olin appealed this request. The State Board did not review the petition, because the Regional Boards letter is not an enforceable final action by the Regional Board. At this point the RB's Executive Officer decided to issue the Cleanup and abatement order on July 6, 2004.
 - 2) The Cleanup and Abatement Order includes the following demands of Olin:
 - 1) Provide uninterrupted replacement water for wells testing greater than or equal 4 ppb.
 - 2) Provide replacement water for wells testing less than 4 ppb
 - a) Allowed to stop replacement water if they meet testing criteria.
 - b) Includes follow up monitoring for verification
 - 3) Submit detailed Alternative Water Supply implementation work plan (4 to 9.9 ppb wells) by October 2004
 - a) Mr. Athey informed the group that anyone from Gilroy to Morgan Hill can request that Olin test their wells.
 - b) If anyone has specific questions regarding wells that need to be tested or if there is anyone who has a contaminated well and is not receiving water from Olin to contact David Athey. DAthey@rb3.swrcb.ca.gov
 - 4) Implement replacement water plans for wells > 10 ppb as outlined in Olin's Alternative Water Supply Evaluation Report by May 2005.

Q: Gary Shallcross asked whether Olin would have to pick up costs for things such as RO system and their maintenance costs.

A: Mr. Athey replied that the RB is going to leave that between the Olin and the well owners to decide.

5) Ms. Hamilton mentioned that she was concerned that agricultural wells had not been mentioned in the Alternative Water Supply Evaluation report. So she contacted Mr. Rick McClure and he informed her that Olin's main concern was first that the people are protected and then the agriculture.

c) Tennant Soil Remediation Discussion

1) Soil Cleanup includes the following:

- a) Detail plans for In Situ and Ex Situ soil remediation
- b) Approximately 850 cubic yards of Ex Situ soil
- c) Approximately 65,000 square feet of In Situ soil treatment
- d) Includes Soil verification sampling and groundwater monitoring.

Q: Audience member asked who is responsible for supervising the treatment.

A: Mr. Athey informed her that he makes it a point to make sure everything is being done on schedule and properly. He visits the site about once a month to check on the progress.

Q: Audience member then inquired why is Olin required to stop at 5 ft and not go to 8 to 10 ft where the majority of the concentration lies.

A: Mr. Athey emphasized that the major concentration were at 4 to 5 ft.

2) Current Status

- a) Work plan approved June 10, 2004 with comments.
- b) Soil Cleanup waiver issued July 9, 2004.
- c) Olin addressed comments July 21, 2004.
- d) Construction to start July 26, 2004 tentative

5. PCAG Discussion Topics- moved to next month's meeting

6. Additional Topics

a) Ms. Hamilton spoke about her trip to Washington D.C. to testify on behalf of PCAG at the H.R. 4459 Llagas Reclamation Groundwater Remediation Initiative Congressional hearing on June 23, 2004.

- 1) Copies of testimony are available on the back table
- 2) Thank you to Tracy Hemmeter for her assistance with the testimony

b) San Jose State University Perchlorate Project Presentation (Jim Madden)

- 1) Masters student at San Jose State University
- 2) Worked on two projects dealing with perchlorate
- 3) Came to ask community members to share their experiences with perchlorate so that he may include it in his study. He assures that all information given to him will remain confidential. Interested individuals can sign up by adding their information to the sign up sheet at the back of the room.

c) Mr. George Cook spoke about the upcoming conference organized by Mr. Thomas Mohr of the Groundwater Resource Association. The topic of the conference is "Perchlorate in California's Groundwater". It takes place on August 4th, 2004 at the Glendale Hilton Hotel. For more information contact Thomas Mohr at tmohr@vallywater.org

7. Groundwater Guardian Program (Tracy Hemmeter)

- a) Santa Clara Valley Water district is working on a reverse osmosis fact sheet that should be out shortly.

8. Next Meeting – Friday, August 13, 2004 (2-4 pm)

- a) Suggested Agenda Topics
 - 1) Olin's Second Quarter Monitoring Report

The meeting was adjourned.

NEXT PCAG MEETING: Friday, August 13 2-4 pm at San Martin Lions Club Hall, 12415 Murphy Ave., San Martin. Agenda items to Sylvia Hamilton (sylvialrs@hotmail.com).

Minutes submitted by Zohra Karimi