Rice, Tami [DNR]

From: Rice, Tami [DNR]

Sent: Thursday, September 23, 2010 10:44 AM

To: 'Jennifer Carpenter'

Subject: Thermogas Review Summaries

Jenny,

I finished reviewing our split sampling results for the various Thermogas sites. My comments on each site are summarized below. In general, you may submit the reports for Montezuma and Decorah to close out the sites with no additional monitoring required at this time. We are anticipating an additional monitoring event to be conducted yet this year with the final report submitted around 1/31/2011 for the following sites: Buffalo Center, Emmetsburg, Rockwell, Algona, Clinton, and Charles City. We may consider site closure for Buffalo Center and Emmetsburg depending on results from the next sampling event. Monitoring should also continue for Marengo but we will be sending a formal response to the report submittal.

You'll notice below that there were a couple of things I requested for Decorah and Emmetsburg so my opinion on these two sites may change a little pending my review of the additional data.

Let me know if you have any questions, comments, or concerns.

Thanks, Tami

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Decorah:

Can I get a copy of the results for Decorah and Rockwell? I can't find any emails with the data for these two sites. Pending my review of your results, we can close this site. Please send the final report which we will respond to formally.

Emmetsburg:

Can I get an updated table with the water levels included? Also could you send a groundwater flow map for the June sampling event? There were significant decreases in metolachlor and it looks like the plume may have migrated offsite to the SE based on the increases in MW-14 & MW-15. Based on the previous flow maps and contaminant plume maps, this does not look like something that is originating on the adjacent ag chem. dealership. We should plan to sample this site again and if the concentrations appear to be stable we can consider closure. I have some reservations based on the significant decline in concentrations that we may need to be tracking down a plume that migrated offsite but want to see the water levels, flow map, and results from the next sampling event before making any decisions on how to proceed.

Buffalo Center:

As we discussed, this site should be sampled during the next sampling event due to the metolachlor concentrations in MW-3 that are the highest concentrations onsite to date. If the concentrations remain the same or decrease after the next sampling event, we'll close the site.

Rockwell:

The concentrations are still high in MW-2 onsite and since the well onsite can't be sampled or plugged, we will need to continue monitoring or remediate the site. When it comes to remedial strategies, we haven't had many sites attempt to clean up pesticides and nutrients in groundwater so I'm not much assistance. Normally soil source removal is our main remedial strategy. Some ideas have been tossed around like trying to pump out the water from MW-2 to apply on nearby fields or use as irrigation water on the golf course. Whether or not this is feasible and would remove enough of the mass of groundwater contamination to make a difference is unknown. The idea of an environmental covenant is not something the Department would like to pursue since it's too difficult to enforce. Also it seems like the property owners are willing to consider covenants until it's time to do the paperwork so I think it's unlikely you'd actually get the property owner to sign off on an EC.

Algona:

Based on previous discussions, CHS was going to review purchase agreements and open discussions with the active ag chem. sites to determine if they can pass monitoring requirements onto the current owners. Another consideration would be to look at some of the newer pesticides to determine if some of these are found onsite and were not handled during ownership by Thermogas/CPS. I'm not sure but I think acetochlor is a newer pesticide that may not have been used during Thermogas's ownership. Our field office staff did visit the site and talk to someone at the facility but did not see any issues. They said the facility does not have a storm water permit and they would be willing to go take another look if we wanted them to. I'm not sure if we would get any useful information from them so I'm not going to pursue that until CHS has completed their discussions.

Clinton:

Clinton is in the same situation was Rockwell where there is a well on the property but an environmental covenant would not be easily enforced by the Department so we need to monitor until MCLs (or close to MCLs) are reached. Really the site has only been monitored for a few years so I think with more data we would be more comfortable to consider closure. Atrazine and nitrate concentrations have varied a lot in the few years of monitoring so no real trends have been observed yet.

Charles City:

Similar to Algona, CHS was going to review purchase agreements and begin discussions with the current property owner to try to pass the monitoring requirements onto the active ag chem. dealership. This is another site where you may be able to distinguish the older contamination from the newer contamination by looking for newer ag chemicals. Monitoring will need to be continued until CHS has had an opportunity to complete their discussions.

Marengo:

The concentrations onsite are not extremely high but there is a very shallow well onsite which has detected nitrites during all of the sampling events. The concentrations only exceeded the MCL once in 1998 but it is obviously impacted by nitrates. In addition, there is at least one other very shallow well in the site vicinity (Grimm well). This is a site where something like an injection to remove the little contamination that seems to be left in groundwater onsite might be appropriate. The site has a very hydraulic conductivity and sandy soils which would make it easier for the injections to spread through the plume. One concern as previously experienced with the pilot projects is dissolving soil contamination into the groundwater. If we can consistently meet the MCLs onsite we could easily close the site. Other than cleanup, we don't have any other suggestions if the property owner will not allow plugging of their private well.