EPA Public Drinking Water Stage 2 Rule Package
Third Stakeholder Meeting
November 14, 2006

8:00 – 8:30 **Arrival and Sign in**

8:30 – 9:15 **Discussion on the Four Major Elements of the Groundwater Rule**

Introduction of Rule Project Manager: Marlo Wanilesta Berg

Introduction of the Regional VTC Participants (Abilene, Amarillo, Beaumont, Corpus Christi, Dallas-Fort Worth, El Paso, Harlingen, Midland, San Antonio, and Waco)

Discussion of Housekeeping issues, today's agenda, and the VTC Rules.

Introduction of Greg Rogers, Manager of the Groundwater Rule

Overview of the EPA new Groundwater Rule and discussion on the rule's background and its critical elements.

Rule applies to all groundwater systems (and those that use groundwater sources) and all providers. The compliance date of the rule is December 1, 2009, approximately 3 years away. The rule takes a risk targeted approach and builds on existing state programs such as the Total Coliform Rule. EPA recognizes that there are shortfalls in the current federal rules. For example there are currently no federal provisions that require ground water source sampling, corrective action for sources that are determined to be impacted by fecal contamination, and while sanitary surveys are currently required, there are no provisions to identify and report significant deficiencies found during the survey.

The rule consists of four major categories:

(1) Sanitary Surveys and Significant Deficiencies
(2) Ground Water Source Monitoring
(3) Corrective Action
(4) Compliance Monitoring

Discussion of the periodic sanitary surveys. Systems are required to provide information to the State to conduct sanitary surveys; includes onsite review of wells and identifying sources of contamination. The survey must include an evaluation of the eight criteria which are:

(1) source;
(2) treatment;
(3) distribution system;
(4) finished water storage;
(5) pumps, pump facilities, and controls;
(6) monitoring, reporting, and data verification;
(7) system management and operation; and
(8) operator compliance with State requirements.

The rule contains new public notice and CCR reporting requirements. Detection of a fecal indicator positive (FC+) requires Tier 1 public notice. The rule has some new CCR requirements for annual reporting including; fecal indicator positive at the source, sanitary survey significant deficiencies, whether the problem has been addressed, the plan if the problem is not addressed, and if fecal indicator positive, the potential health effects.

All wells must be sampled within 24 hours of a total coliform distribution positive sample. The state may extend the 24 hour period, but the question we want to discuss is under what circumstances? We'll be talking about the possible reasons for granting an extension later this morning.

The rule allows states to require a Source Monitoring Plan. Part of this plan allows a water system to identify representative sources so when source sampling is required, a water systems can sample a subset of wells. The plan also allows water systems to identify a subset of wells that are providing water to the part of the distribution systems where the total coliform distribution positive was collected.

The rule requires corrective action whenever a significant deficiency is identified during the sanitary survey or in the event of a fecal indicator positive source sample. If the State does not require immediate corrective action, the public water system is required to collect five addition samples from that well. We'll discuss under what circumstances should the state not require immediate corrective action.

We will also want your thoughts on when a total coliform distribution positive is related solely to the distribution system.

The proposed Ground Water Rule from 2000 relied heavily of the concept of Hydrogeologic Sensitivity Assessments which identifies wells that are most susceptible to fecal contamination based on well construction, geology and the presence of fecal contamination sources. The adopted rule allows states the option of requiring assessment monitoring. We can clearly identify shallow wells and other wells that could warrant proactive source monitoring rather than waiting for a total coliform distribution sample positive to trigger source monitoring. We will want to get stakeholder thoughts on the option.

The new rule requires states to chose one of three indicator organisms. The rule identifies three fecal indicators and multiple analytical methods: E.coli, enterococci, coliphage. The rules do allow for sampling invalidation. The State may also determine that a fecal positive is not related to source quality, e.g., a waste water operator is collecting both drinking water and waste water samples and cross-contamination has occured. Public notification is required for systems with a fecal indicator positive that is not invalidated and must conduct Tier 1 Public Notice.

A PWS has 30 days to consult the State on corrective actions when there is a fecal indicator positive or when a significant deficiency has been identified through the sanitary survey. The PWS has 120 days to complete corrective actions or be in compliance with the interim measures of state approved corrective action plan.

Water systems must notify the state if the fail to keep the 4 log w/ in 24 hours (the next day) and must keep records of all of these transactions: documentation of corrective actions, public notice documentation, invalidation records of fecal indicator [positive samples. Documentation of notification to supplier regarding distribution coliform positive, records of State-specified minimum residual disinfectant concentration, records of lowest daily residual.

9:15 – 10:15 **Sanitary Survey – Significant Deficiencies**
Introduction of Elston Johnson, moderator, and Jayme Sadlier, and Bob Burrell, scribe

Discussed the eight elements in the sanitary surveys and the items evaluated during the sanitary survey evaluation by the TCEQ's Field Operations inspectors, and the types of violations that can be documented.

The TCEQ's Enforcement Initiation Criteria are provided on the Agency's web site. Version 10 of the Enforcement Initiation Criteria (EIC) is the current version. Version 11 is currently being developed. The TCEQ has defined category A violations for each of the eight critical elements of a sanitary survey.

Stakeholder : Using cat A violations as the guidelines for defining and enforcing the significant deficiencies. So if we look at the handout this is the detail of what we need to look at on the GW System operations.

TCEQ: The handout includes surface water category A violations as well as ground water. The rule requires the state to define at least one significant deficiency for each of the eight elements of a sanitary survey. For this rule, the surface water violations do not apply.

El Paso Region Stakeholder: how does automatic enforcement apply, is it a fine or Attorney General action.

TCEQ: Automatic enforcement is typically a fine. A notice of violation is notification w/out a fine and if its formal enforcement it's a fine that is adjusted. Attorney General referrals are typically used for uncooperative systems. Fines run from $5--$1,000. $1,000 would be in cases of documented sick customers.

Stakeholder: This rule is focused on source water. 142.16 CFR special primacy requirements are requirement on the state to maintain primacy and the change to the primacy requirements from EPA on the state that we identify at least 1 deficiency on at least 1 of the 8 elements. Its not unusual for the EPA to use special primacy requirements to direct the requirements of the State.

Stakeholder: I understand you must define "significant deficiencies" but many of the eight elements of the sanitary survey have nothing to do with fecal contamination of ground water. You need to figure out how to make sense of that federal rule.

TCEQ: We think the goal of EPA was to address that there have been no federal requirements to identify significant deficiencies related to the sanitary survey.

SANITARY SURVEYS AND SIGNIFICANT DEFICIENCIES

Eight Critical components of a Sanitary Survey

(1) source;
(2) treatment;
(3) distribution system;
(4) finished water storage;
(5) pumps, pump facilities, and controls;
(6) monitoring, reporting, and data verification;
(7) system management and operation; and
(8) operator compliance with State requirements.

Questions

The TCEQ's Enforcement Initiation Criteria categorized violations based on a number of factors one of which is impact to human health and/or the environment. Violations that are documented to have an impact on human health and the environment are considered "Category A" violations. Do you think the Category A violations listed on your handout should be considered "significant deficiencies?" And, are there any other considerations the state should take into account to improve the current system of sanitary surveys?

Region El Paso: 120 days to correct violation includes submitting to Austin for plan review approval. This is too short of timeframe to impose on a PWS for design, approval and construction.

Region San Antonio: shouldn't we considering making wells operating w/out approvals and plans a significant deficiency? should these be category A violations as a new significant violation

Stakeholder: Many of the wells were drilled 30-45 years ago, there were no rules and no records kept. You can't come up with the drilling logs from that far back. You may find a log from a well within 300-400 feet. You've got problems if we consider these as a Cat A violation and there needs to be consideration for owner that can't find these records. It should not be a Cat A, it should be a Cat B. with exceptions for loss of records, unless you can prove it to be criminal.

Stakeholder: Can we make it subject to the rule but not a Cat A violation? Don't add these sources as a significant deficiency but potentially require source monitoring based on missing well information and/or operating without approval.

Stakeholder: When I look at the Cat A list, I don't see this tied back to the intent of the GW Rule.

TCEQ: We included all of the Cat A violations to give you an idea of how we define them and how the violation is treated. We could use a subset of the Cat A violations to satisfy the rule requirement to define a significant deficiency for each element of the sanitary survey.

TCEQ: Let's have input from EPA

EPA: Yes

Stakeholder: What is significant? No well casing or cracked casing where surface contamination running directly into the well?

TCEQ: should the presence of abandoned well we considered?

Stakeholder: No, because it can't be corrected by the water system. Therefore this is not a significant deficiency that should count against the PWS.

Stakeholder: What we consider a minimum standard for a well in Texas does not exist in other states. We would be appalled at what some states are using. EPA is writing the rule for broad application to satisfy the federal requirement.

Stakeholder: The minimum well construction standards take care of the minimal protection requirements. Our rules in Texas take care of this.

Region El Paso: Must use some common sense on the check lists. Keep it small and focus on the health effects. We do a great job. A lot of the Cat A elements do not affect public health if these are turned into immediately enforcement.

TCEQ: we need at least one from each of the 8 elements that we can look closer at and reconsider which have an effect on public health.

Stakeholder: Process questions: When will we look at the proposed language for the significant deficiencies?

TCEQ: We can't deliver rule language to the public until the proposal phase.

Stakeholder: Texas is already meeting these federal regulations. Can't we say that we meet or exceed the EPA requirements on the sanitary surveys? And if there is no need to do new violations in each of those, then the only new violation would be the failure to do the new reporting requirements related to the groundwater rule.

Consumer Confidence Report (CCR) (40 CFR 141.153)
Questions:

1. Should the TCEQ develop draft recommended language for reporting significant deficiencies in the CCR?

Stakeholder: Yes, TCEQ should develop recommended (not required) language on how to report significant deficiencies.

Stakeholder: Agree. Yes. TCEQ should also allow the PWS to modify the language to fit their specific situation. Allow PWS to work with TCEQ on the language.

Stakeholder: The CCR comments that I receive is why does PWS waste money sending this out. If there is a problem you will notify me. Don't send me this garbage. The education levels I deal with make this a problem in generating lots of calls on why are you sending this to me.

TCEQ: We often hear complaints about the technical language to the CCR and the perceived waste of money better dedicated to other health issues.

Stakeholder: If you are going to be drafting this language, take into account if a significant violation occurred 6 months ago and that violation has been fixed and the CCR notification is about historical events and doesn't recognize the quick action and how well the local PWS resolved this concern. The PWS should be able to show the positive corrective action that was taken.

Stakeholder: Goal of the CCR is supposed to be risk communication. What is the risk and what is the solution.

TCEQ: The CCR can be beneficial if it uses the right type of language on the risk and the risk protection available to the consumers.

Region DFW: When you have a public notice that has been satisfied I agree, why go back and rehash historical events when the communication has already been satisfied. Don't' slap the PWS. Rather than rehash the negative you shouldn't harp on the historical. We don't want to open up any undue stress on the general public.

Region San Antonio: on the significant incidents, do they have to provide immediate notification, for example of the boil water notice, and if so, do you have to put it in the CCR/public notice.

TCEQ: yes if you find that there is verified potential for vial presence in a well there is tier 1 24 hrs notice similar to BWN. But then again if your system had a BWN last year you must put that in your CCR as well. Also the tier 2, 30 day initial notice and follow up notice for as long as it exists, if you fail to correct, you must notify on a tier 2 schedule as part of the GW rule.

2. How should the CCR present the plan and schedule for correction of significant deficiencies [141.153(h)(6)(i)(C)]?

Stakeholder: Put in the positive to make this not a complete waste of time.

EPA: It's not required that you report a significant deficiencies in the CCR, unless its not been corrected.

TCEQ: If it is fixed after the reporting year, how do you address that? How should the PWS handle a CCR Significant Deficiency that existed during the entire year of 2005, and was not corrected until June 2006. should it be in the CCR if it's corrected.

EPA: Yes, if you want to report the positive spin. But you don't have to put it in your CCR if it's corrected.

3. Should systems be required to provide CCR notification when a reported significant deficiency has been corrected?

Region DFW: Yes notify the public on the positive fixes when they have taken care of compliance. So if there is something that has to be noted, make it positive and give PWS a pat on the back that the customers can see that the pws is doing what it needs to be doing.

4. If the significant deficiencies have been corrected, but the state has not provided written confirmation of that, can the system report the correction [141.153(h)(6)(i)(D)]? You fixed the problem but have not notified the State or you've reported it but we haven't responded yet, do you report this anyway without state approval?

Stakeholder: Concern with how the reported correction action goes from the regional staff to the central office records.

TCEQ: This is a coordination concern between TCEQ Central Office and the Regions.

Stakeholder: If we report to TCEQ and the Region doesn't get it the regions, they will have no knowledge that we've been dealing w/ TCEQ and got it settled because the Regional office was not notified.

TCEQ: Communication between TCEQ Central Office and the regions is important.

Stakeholder: Have problem w/ how to notify all areas of changes to records because there isn't one computer system.

TCEQ: We can discuss the Agency's Central Registry and how reporting to that system gets sent to the impacted areas.

5. Systems must provide Tier 1 notice for confirmed fecal presence in a raw source. In the notice, a system is required to state how they are following up on the issue. should this include mentioning distribution disinfectant levels? What recommended language should TCEQ provide?

Region San Antonio: We had a well that had a hit on the containment and then it was gone and then we had a hit later on, what do we do on the CCR and for public notice?

TCEQ: Both positives would result in a Tier 1 public notice. For this example, the new rule would require corrective action at the time of the first sample and should resolve the issue before the second sample comes back positive.

10:15 – 10:30 **Break**

10:30 – 12:00 **Source Monitoring**

Greg Rogers, moderator, and Matt Court, scribe

The rule allows for invalidation when improper analysis occurred. PWS must proved TCEQ with written documentation form the lab stating that improper analysis occurred resulting in the fecal indicator positive sample. TCEQ must determine and provide written documentation that there was substantial evidence, that the positive sample is not related to source water quality.

TCEQ: Does anyone have a comment on which one of the 3 methods available the state should use.

Stakeholder: E.coli.

TCEQ: E.coli will probably be the most inexpensive option and PWS are more familiar with it. Also, most labs will be able to complete the analysis.

Stakeholder: Enterococci could be used as an indicator when e coli comes back negative.

Stakeholder: By the time analysis take place the 24 hour time frame will have passed.

TCEQ: 24 hours is the time frame for collection, not analysis.

TCEQ: Invalidation of samples would most likely follow the current invalidation process for the TCR program.

Stakeholder: TCEQ should develop a longer term analysis and consider samples over a period of time.

ANALYTICAL METHODS (40 CFR 141.402)

1. Are there going to be problems with the processing time of the sample and compliance determination (24 hrs)?

STAKEHOLDER: the 24 hr turn around time is hard for rural people, when the results come back it may be 3-4 days. The e.coli is faster and more efficient. The Rural providers are not able to timely respond to the 24 hour turn around We can get it analyzed but getting the results back is a problem since they put the results in the mail and its 3 days.

Reg SA: What is the time frame for the invalidation and is it the region's responsibility?

TCEQ: Clarification: The 24 hour timeline is the timeframe for initiation of action by the system, namely collection of the sample, not the return of the results or follow up corrective actions.

2. Do the labs have any conflicts with any of the methods?

Stakeholder: For routine monitoring either the E.coli or enterococci are acceptable. I lean towards E.coli for ease of understanding. Enterococci is more resistant and it may be a better indicator. Both have 24 hr lab turn around time so both samples are timely.

3. What are the costs benefits between each of the methods?

TCEQ: Enterococci samples run typically $100-150 each, if the State were to choose enterococci would that be burdensome to the local systems.

Stakeholder: Yes. That would be unduly burdensome.

TCEQ: If the water system is doing 4 log treatment they don't have to monitor the source.

Stakeholder: Can they show that they have chosen to go the route of continuous monitoring would they need to continue on w/ the more expensive testing?

Stakeholder: If it's appropriate to do a laboratory procedure to show that their viral load has dropped by 4 log by doing a comparison sample.

TCEQ: we can discuss this further in this afternoon's CT discussion

4. Are there any differences that make one method better than the other?

Stakeholder: Statistically on a long term basis if you find one you are going to find the other. Not sure if this is a single sampling event. At any time you can have a single sample that is not representative, you probably need a long term analysis and take into consideration the variations across the state to determine the number of samples that are required to determine the qualify of water in the well.

TCEQ: The state is required to initiate corrective action on one positive result , but we'll get into that later. The comment is that there may need to be a series of smaller corrective action steps, such as well disinfection, in conjunction with continued source monitoring.

11:00 – 12:00 TRIGGERED MONITORING (40 CFR 141.402 Raw monitoring)

Matt Court, moderator/scribe and Greg Rogers, scribe/moderator

141.402(a)(2)(i) The state must define criteria for extending the 24 hour time frame to pick up raw well samples. What criteria should the state use? What if a lab does not accept samples Fri thru Sun, and what areas of the state could this apply to? How much additional time is reasonable for any of those proposed conditions? What documentation and conditions should be allowed for the 24 hour extension?

Stakeholder: Availability of the laboratories could be a problem based on the indicator organism.

TCEQ: Remember, the 24 hour time frame is for the collection, not the analysis.

TCEQ: How should water systems request that extension?

Stakeholder: By email.

TCEQ: should extension by approved by TCEQ if system must take a large number of source samples?

Stakeholder: That would be meltdown and the PWS would not be able to collect within 24 hours.

Stakeholder: If there are several sources there should be some allowance for the number of sources to be samples. The State should show some flexibility.

Stakeholder: Receiving systems may take several days to coordinate with providers.

Stakeholder: From lab standpoint that the labs be made aware of the need for special handling and the nature of the sample and the timeline the systems are under. Let the lab know the urgency.

Stakeholder: How do you determine the 4 log treatment of viruses in an initial analysis situation. How does a system demonstrate that?

TCEQ: How do you suggest a PWS demonstrate that? If the PWS has not provided plans and documentation of 4-log treatment in advance, can it be provided in the event of source monitoring is required?

Stakeholder: You may have significant 4 log removal but you have not followed the process you might be in the situation of notifying your systems and customers of a problem that doesn't apply since 4-log treatment was achieved.

Stakeholder: Continuous monitoring can be used as proof. Its well documented and you can show by some records that you kept that you had no lapse in chlorine, you can recreate thru the records you have on hand that you did disinfect , you can show with reasonable certainty that you did have 4 log removal.

Stakeholder: In regards to the TCR invalidation of the distribution sample. It takes TCEQ longer to validate the TC samples and the PWS would still need to take the source sample because of the 25 hour requirement.

TCEQ: The invalidation does take longer than the 24 hours. What could speed up the process in this situation?

Stakeholder: The PWS could e-mail TCEQ requesting an extension depending on the results of the distribution positive.

TCEQ: We recognize some transportation issues in distant rural areas, weekend issues, and other factors for our consideration. But want to emphasize that the 24 hour is based on sample collection and not process time.

141.402(a)(2)(ii) The state may approve using a raw water sample from one source or sources (GW Entry Point) to represent a group of sources, if the system has an approved source water monitoring plan. How should the state approve using a representative set of raw water sources?

Stakeholder: Yes the state should approve a representative set of samples.

TCEQ: SMP (Source Monitoring Plan) may be specific to a specific incident?

Stakeholder: Yes the SMP should consider.

Stakeholder: And the sample plan should be required of all water wholesalers.

TCEQ: should it be required of all systems?

Stakeholder: Depends on the number of wells. Suggest it be required for systems with at least 20 wells. Base the need for a monitoring plan on the complexity of the system.

Stakeholder: With a system with a long history of good service and no problems, this plan serves no purpose and is just some more paperwork that just goes in the drawer.

TCEQ: should the existing monitoring plans be amended to include the source monitoring plan?

Stakeholder: Yes. No need for two different sets of monitoring plans. Many PWS already have this in place.

TCEQ: Facilities shouldn't be required to do this…The systems TCR history should be taken into consideration before requiring a monitoring plan but the water systems need to know that if no SMP in place and after 12/1/09 and they have a distribution positive, they would be required to monitor all sources when there is no plan.

The approval can only be granted “If directed by state” to require systems to submit source water monitoring plans. should the state require systems to submit source water monitoring plans showing which entry point feeds which geographical area of the distribution system so that we can approve raw sampling from a representative source?

Stakeholder: I don’t think TCEQ should go there. It’s too difficult for some systems to track this down and untangle. It should be tied back to the source sampling. The large systems in growth areas with 20 wells may be required. It should be tied back to the number of sources and the complexity of the system. The monitoring plan should identify the sources, plants, and pressure planes to justify.

Region: Can’t we just update the monitoring plan if they have it.

Stakeholder: It should be a complete pipe analysis done by a consultant

TCEQ: Is a PE signed off model required to justify that entry point source plan.

Stakeholder: No, a PE should not be required.

TCEQ: Is it necessary for some hydraulic model w/ at least 2 entry points to establish.

Stakeholder: should be more than two, three is too few. You’re much better off taking samples form the well.

Stakeholder: It’s easy to add source tracking to the model and determine what %age source tracking for each well.

TCEQ: Is there some other thing to consider to establish what part of the system is serve by which entry point?

Stakeholder: You should be able to isolate to some extent which plants pump to which areas based on your systems hydrology. A distribution system map that shows the pressure plans that shows the location of the wells and the well head protection plan and that this well is the closest to the source and these are the 5 wells that serve that source. You go back to your up dip and down dip conditions and that should be adequate to sample for that well field and you look at what’s changed to cause this to happen.

TCEQ: In terms of the sampling plan, location of the aquifer and well integrity issues also apply.

TCEQ: Wells selected for the monitoring plan should be the wells that are most susceptible.

141.402(a)(2)(iii) If the state approves E. Coli as an indicator, we can count one of the required TCR repeat samples as the triggered raw (for systems serving fewer than 1,000). If we do that, a fecal positive source sample (one of the TCR repeat samples) would require corrective action. should we allow one of the TCR repeat samples to be collected as a source sample? This could result in a TCR acute MCL in addition to a corrective action requirement due to fecal indicator positive from the source? This could be considered two major violations and result in enforcement.

Stakeholder: is it 1,-000 connections or population?

TCEQ: It’s 1,000 connections.
TCEQ: any comments in applying the 4th repeat as the source sample

Stakeholder: Thumbs up.

TCEQ: If the 4rth repeat is taken at the source and the sample comes back positive, they get an acute MCL. This puts the PWS in a position for a double whammy. They would get an Acute MCL and source fecal indicator positive that would result in corrective action.

Stakeholder: Yes.

TCEQ: If the state adopts this, should we do some warning to the systems w/ 1,000 connections about the risk of doing this and the potential for two tier 1 public notice requirements? (Tier One public notice requirement related to the GW rule and an acute MCL on the TC rule?

Stakeholder: Yes.

Stakeholder: You could also end up with a non-acute TCR w/out triggering the GW rule. There is a risk of using a non disinfected sample for the second sample that will create a positive result.

141.402(a)(3) The State can chose not to require a corrective action by making the system collect 5 follow up raw samples from the same source, after a raw fecal positive. Under what circumstances would the State not require corrective action in place of the five additional samples?

Stakeholder: I can't think of anything but you tell them to disinfect the well and see if it s a short term problem. Place a nondisinfection pipe in the well. At least disinfecting the well is a corrective action.

TCEQ: Is disinfection of the well a corrective action.

Stakeholder: Yes.

TCEQ: Are there any situations where correction action is required after the first sample.

Stakeholder: It should be a minimal correction action requirement such as well disinfection with continued source monitoring.

Stakeholder: If you have contamination in your well of course you are going to disinfect the well. That's common sense.

TCEQ follow-up: if you do the corrective action, do you have to do the reporting for the positive? And is well disinfection considered a corrective action.?

TCEQ: EPA?

EPA: we assume the state considers well disinfection as a corrective action and the pws has a coliform indicator in the well does the system have to notify or not? Yes notify the public and then determine to apply the corrective action (well disinfection) or run 5 more samples.

Personal view of EPA Stakeholder is to consider well disinfection as a corrective action but not sure what the EPA Headquarters decision is on this. Region 6 will check. (Later was confirmed that well disinfection can be considered corrective action).

Stakeholder: Does triggered monitoring trigger a single event where the assessment monitoring is a 12 month event so how does this play out? Are you finished with your source monitoring or are you finished with your triggered monitoring.

TCEQ: The PWS is done with it's triggered monitoring once the sources are sampled. The states may require additional assessment monitoring during a 12 month period.

TCEQ: At what point is well disinfection not a corrective action? When the positive occurs again?

Stakeholder: When one of your other significant deficiencies indicates that you must do something else in your well. Cracked casing. An unbelievable shallow well that you do not believe the single disinfection action will take care of that well.

Stakeholder: shouldn't the repeat sample count as corrective action if they come back negative?

Stakeholder: Problem there is not a repeat requirement in the federal rule.

Stakeholder: If the TCR distribution repeats come back negative then triggered monitoring should not be required.

Stakeholder: Your repeat sample show a TC in one sample you are considering your whole system as impacted because 1 out of 10 or 5 or 4 came back positive. Maybe it's not the well, it was a bad sample; could be accidental sampling error.

Stakeholder: state should require the 5 source follow up if it gets you out of something? Can we use the 5 repeats for the invalidation?

EPA: No. Public notice would have to happen within 24 hours.

TCEQ: if a pws rather than collecting a single sample, were to collect 6 sequential samples and there is one positive and the 5 others came back good, would that be sufficient to invalidate?

EPA: Personally if all 6 samples were taken at the same timef, I personally agree that this would be ok but would need to check w/ EPA headquarters on their reply.

141.402(a)(4) A system that receives ground water must notify their provider(s) when they get a TCR positive. Then, the provider must do triggered source monitoring within 24 hours of notification. If the providing system has a fecal source sample, they have to notify all their receivers. What, if any, guidance do systems need from the state on this? should the receiver be required to report the fecal indicator positive of the provider in their CCR? should the state require systems with multiple

providers to identify which purchased source serves which part of their distribution system in their source water monitoring plan?

141.402(a)(5) If the state says in writing that the TCR positive is related to a distribution problem, the system does not have to do raw fecal indicator sampling. What conditions would prove that the TCR positive is a distribution problem? The state must provide written approval of this in 24 hours – what documentation could systems provide that would allow the state to make this decision in that short a time?

Stakeholder: System has to admit there is no chlorine residual, low pressure situation, TCEQ has things that would allow it to determine quickly that it's a pure distribution system problem.

Stakeholder: Limit it to something fairly sever, suggest tying to BWN.

141.402(d) The state may invalidate a raw fecal positive if the state determines and documents in writing that there is substantial evidence that it is not related to source water quality. Under what conditions can the state make this determination? What documentation is needed to prove it? If the sample is invalidated, then the system has to pick up a replacement sample within 24 hours of getting that notification from the state. If they can't get that replacement sample in 24 hours because of circumstances beyond their control, the state can extend the 24-hr time period. To extend the time period, the state must specify how long. Under what conditions should the state extend the time period, how long, and what documentation would be needed?

Stakeholder: There are only a couple of ways to do this…complete mishandling during collection, device for the sample was leaking, you were sampling the outside of the faucet instead of the water, or the lab says they messed up.

Stakeholder: The same kind of thing you required for invalidating the distribution system sample.

Stakeholder: inclement weather , rainfall, wind, and other weather problems with the 24 hr turnaround.

Stakeholder: if you have a completely protected well, 1000 feet deep, cemented, in clay, w/ some fecal contamination present the fecal containments probably went down the bore hole you should disinfect the well.

TCEQ: concerned w/ well confinement when identifying a distri sample ?

Stakeholder: Invalidating is at discretion of TCEQ. Then is at your discretion to ask them to do another sample and if it looks good keep it simple and do what's necessary .

141.402(e) Raw sample sites must be prior to any treatment. Under what conditions should the state approve a site after treatment? What should the state do about down-hole chlorinators?

Stakeholder: If it is not feasibly possible to get raw sample.

TCEQ: If it's feasibly possible to put in a raw sample tap then?

Stakeholder: Then it is feasible to take the sample.

1:15 – 2:05 ASSESSMENT MONITORING

Announcement: DWAWG will be January 9, 2006. Will have a better idea of our draft rule language and may discuss homeland security with opportunity for the Regions to attend the DWAWG.

JOHN MEYER, MODERATOR, AND GREG ROGERS, SCRIBE

This is optional by EPA….12 consecutive months of sampling, however if a seasonal source EPA suggests spreading the sampling over several years.

1. What do you feel about assessment source water monitoring (used to target ground water systems at higher risk of fecal contamination) as an option rather than a requirement as proposed by EPA?

Stakeholder: Can you do this where you have a well w/out an easement you can do the raw water sampling.

TCEQ: If a water system can't meet our rules we generally put the PWS on an indefinite series of raw water tests. We could pull some of the exception process into this is we want to fold that well into this.

Stakeholder: How will this help systems with GW? What is the advantage or attraction of participating in this part of it? Is there any advantage? It seems like the advantage is to know what the situation is and not wait until the TCR distribution sample positive. Assessment monitoring may have helped TCEQ manage the Brushy Creek incident and could have prevented the human illness.

TCEQ: Texas is in a unique situation since we mandate ground water disinfection for everyone. Do you really know if the 4 log removal is killing all of the viruses? Probably not in the aquifers consisting of sand and clays but perhaps in others. The PWSs themselves would want to know the nature of their water sources. They may not be able to change some things but they might be able to beef up their treatment and get into the 4 log part.

Stakeholder: Is this a corrective action?

TCEQ: since you are still identifying the problem it probably isn't a corrective action yet.

Region DFW: On the vulnerability side, we should look at what is going on around the wells, the potential for fecal contamination, and the type of aquifer.

TCEQ: The hydrologic assessment will include that …need to know the well's age and depth, and other factors as well. We can do a source water assessment on a very finite distance around a well, especially with fecal sources around the well.

Stakeholder: Does this take effect for the smaller systems? I'm referring to the potential containments in the area around the well.

TCEQ: Yes it would fold into the same process. We can run these Source Water Assessments on all communities in Texas.

Region San Antonio: We must be proactive in dealing w/ the outbreak of a water borne disease. With the droughts, is 12 months monitoring sufficient with the infrequent runoff events?

TCEQ: EPA recommends 12 months of sampling however, given the periodic weather events over several years, the concern is 12 months may not be sufficient to appropriately characterize the situation and we should sample during a variety of seasonal and climatic conditions.

Stakeholder: Source sampling should take place during the worst case scenarios.

Stakeholder: TCEQ should also be proactive about Legionella disease.

2. What sensitive aquifer types in addition to those recommended by EPA (karst, fractured rock, gravel) should be considered in an assessment source water monitoring program.

Stakeholder: No comments

3. What criteria besides those recommended by EPA (sensitive aquifers; wells in high population density with septic systems; aquifers with high viral transport rates; shallow unconfined aquifers; aquifers with thin/absent soil cover; well with previous fecal contamination) should be considered in selecting wells for assessment source water monitoring?

Stakeholder: What you are already doing w/ the set back distance requirements?

TCEQ: Age of wells, and depth of wells, are important. The oldest public well we know about was drilled in the 1890s. We are looking at the criteria we have in our files and databases to help us develop the criteria on these wells. What about well location and if the well is in the 100 year flood plain.

Stakeholder: When prioritizing wells for assessment monitoring, TCEQ should consider looking at sample results including nitrate.

Stakeholder: TCEQ should develop regulatory guidance for PWS in regards to the assessment monitoring and keep the rule language for assessment monitoring as a tool that TCEQ may require.

Region El Paso: You might consider faults in your assessments, natural faults in the area.

TCEQ: We've thought that TCEQ would do the selection but we would have to work with the water systems as they are the most familiar with their local area. The Field Ops input thru the Sanitary Surveys and the CCIs will be a part of this as well.

4. What criteria should not be considered in selecting wells for assessment source water monitoring?

5. EPA recommends 12 consecutive months of raw ground water samples for assessment source water monitoring. Is this amount of sampling adequate?

Stakeholder: Comment for being proactive for waterborne pathogens, does that include Legionella.

Region San Antonio: I hope so.

Region DFW: 12 months works fine as a good assessment on the source. I would go with 12 months as a requirement.

EPA Follow-up: Would you feel that same way w/ seasonal system?

Region DFW: Would extend so you get a better baseline timeframe but not indefinitely.

Stakeholder: Rather than 12 calendar months, it should follow based on testing done best case and worst case scenarios: Pick some times where it is most likely that you would have some contamination.

TCEQ: should put some guidance in a guidance document that is easy for staff to maintain?

6. What distance from a well to a potential fecal source of contamination should be considered adequate if an inventory of sites must be determined?

TCEQ: Do we want to consider everything in the set back distance or within a two year period of travel (the two year lifespan) since most viruses won't survive over two years.

STAKEHOLDER: You can't determine that distance unless you look at a lot of variables. Don't take a cookie cutter approach. Use site specific information like the time of travel. This should be in guidance language not spelled out in the rule.

TCEQ: in 2003 the State began its source water assessments and took a look at the aquifer characteristics and hydrologic properties to determine what the time of travel is. We also looked at point and non-point source contamination and population density.

Stakeholder: An overall hydrologic analysis is good but trying to tie it back to the source it probably won't be very valuable. It really doesn't make any difference it you can identify a potential source of fecal contamination and disregarding other short travels times from the well pump you've still got livestock, dogs, septic systems in the immediate area.

7. Who (TCEQ, PWS, …) should conduct this inventory of potential fecal source of contamination?

Stakeholder: The PWs should be the first ones since they know their areas, their wells, and what surrounds them. And if they have a problem then the TCEQ can come in and help the local systems and support their efforts.

Region Waco: Taking the inventory is the easy part, setting the criteria and using that information is the hard part.

Stakeholder: What is the amount of risk you are trying to manage here? How many systems are affected by this broad sweep? And What is there real level of risk (the unconfined alluvial) how high do we set this bar?

TCEQ: The water systems in the Central Texas area w/ the limestone aquifers and the GUIs in fractured rocks in their surface water bodies. The number of water borne disease outbreaks attributed to gw systems had an impact form a fecal source coming into contact with the gw. Some folks were unaware of bacteria in the aquifers.; some were aware. One of the aspect s is we are having a difficult time quantifying those situations in the various aquifers; some of which are filtering out the pathogens; however, is this really filtering the viruses? If we are only relying on a triggered source monitoring does that mean we are really safe?

Stakeholder: This rule is set up on a national level for the undisinfectied gw systems. It's a complicating issue in requiring a disinfectant.

8. What evidence does the state need to be sure that the physical inventory has been performed adequately?

Stakeholder: Doing an inventory is great when you have fecal contamination but the failure to connect the source of the fecal contamination to the water quality is the trick. Any unidentified source may still lead to a contamination event.

2:05 – 2:20 **CORRECTIVE ACTION ALTERNATIVES**

GREG ROGERS, MODERATOR; AND ALICIA DIEHL, SCRIBE

141.403 Treatment Techniques
Correct All Significant Deficiencies
Under what circumstances would the State allow significant deficiencies to remain uncorrected?

Stakeholder: It depends on what the SD is, what to cost implications are, and the health impacts. It may be a CIP plan or a budgeting plan. You may have to get a contractor hired. It may take awhile.

Stakeholder: Is there any case where you can show fecally contaminated GW source with a positive where the state would not require 4 log treatment?

TCEQ: A corrective action would have to take place.

Stakeholder: Understand fed rule but realistically where disinfection is already required …source has fecal contamination…realistically is there scenario when allow time / disinfection of well. Cannot see scenario where that would occur. Need to have treatment as ultimate cure for that.

TCEQ: Federal Rule requires problem to be addressed or interim measures to be met within 120 days. Systems should begin working with the state within 30 days to develop plan.

Stakeholder: Systems that have lots of positive source samples should be handled differently from systems with one positive. The should be a scale based on degree of urgency, timeframe…directly correlated to # of hits. Degree of public health risk should play some part in determining timeline for response and the general effort.

Stakeholder: # of hits will let you know if really a GW contamination problem or not.

Stakeholder: Intensity of Corrective Action should be tied to intensity of problem.

Eliminate Sources of Contamination
Systems have the option to eliminate sources of contamination as a corrective action. This action may not have immediate results. How should the State evaluate this type of action?

See discussion below.

How should the systems demonstrate and document that this type of action has addressed the significant deficiency or fecal indicator positive? Under what circumstances is a site visit necessary? should the State require monthly source samples until it is determined that the elimination of the contaminant source has addressed the fecal indicator positive?

Stakeholder: Seems like samples would need to be after that. Narrative would follow.

TCEQ: Rule did not specify monitoring to determine if Corrective Action did any good. What is your comment?

Stakeholder: Eliminating sources of contamination is an option without samples after that?

TCEQ: No. A fecal indicator positive is not invalidated by state then state requires Corective Action. This is one option state has. Question is has this really solved the problem? should there be monitoring to ensure this action has solved the problem.

Stakeholder: Will not ever eliminate sources of contamination. May eliminate entry into well but not eliminate sources. How should we evaluate elimination of sources…sterilize the world. Not gonna happen.

Stakeholder: If use this as CA, 1. show that samples proves has corrected issue or 2. require 4 log reduction until samples show corrected issue.

Provide Alternate Source of Water
Are there any comments regarding this Corrective Action Alternative?

No comments.

Provide Treatment that Achieves 99.99% Viral Treatment.
See Treatment Handout and Questions.

2:20 – 2:35 break

2:35 – 3:50 **TREATMENT OPTIONS**

I. Summarized the Treatment Options (Jack Schulze, moderator; Cindy Haynie, scribe)

Slide # 72 thru end.

Jack reviewed the portions of the rule related to treatment in section 141.400 and section 141.403 that are in the handout.

II. Questions

1) Do you think very many plants will be interested in using the treatment technique option? That is, continuous disinfection to 4 log viral inactivation in lieu of triggered raw water monitoring. If so:
   a) Would many plants choose to use chemical disinfection?
   b) Would there be many plants choosing the membrane option?
   c) Would any plants select UV disinfection?
   d) Are there other options that we have not identified yet?

   Stakeholders: Yes, if well shows fecal contamination some systems will choose 4 log vial inactivation and online monitoring in lieu of continued raw sampling. People will be resistant if samples from well are good. However, some proactive systems may go for 4 log removal if there is anything in it for them. If nothing for it,some systems may wait until get hit. ……will they get any acknowledgement for 4 log approach

   TCEQ: Folks with demonstrated 4-log viral inactivation will get out of triggered raw water monitoring

   Stakeholders: Committed themselves to continuous monitoring…stop monitoring…get M&R violation…stop treatment…get treatment violation. It's a big bear trap.

   TCEQ: Folks using free chlorine are more likely to head down this road as precautionary or b/c is normal practice. Using free chlorine pretty easy to get 4 log inactivation unless well discharges against pressure tank or an elevated tank that floats. If using chloramines, inactivation numbers higher and 4-log viral inactivation requires more time (more difficult to achieve). Will anybody with chloramines go after this option?
   Stakeholders: No response. Not expecting many using chloramines to head down this road.

   TCEQ: If there is not enough contact time, the system would need to install a contact chamber or use UV light since it kills so quickly. There are three options in the GWDR.
      a) chemical disinfection
      b) membranes
      c) Alternative (including UV)

   Stakeholders: Is IT table official from EPA?
   TCEQ: Yes, available on website at link to LT2 rule which provides IT tables.

   Stakeholders: Are GW systems going to have to run tracer studies or submit reports like surface water plants?
   TCEQ: That is one option but we'll discuss this more later. But briefly, we used a "minimum specified residual" (MSR) approach for several years but found out that surface water systems were not running calculations when they operated outside approved conditions. Consequently, we developed a report that automated the calculations and required all surface water treatment plants to use it for determining compliance. However, GW conditions are less variable and the MSR approach might be a viable alternative for this rule.

   Stakeholders: Would we require separate inlets and outlets to claim disinfection credit? Putting it in and sucking it out of the same line has bothered him for many years because it results in water stagnation.
   TCEQ: That's the floating tank thing. No, there's no contact time credit for floating tanks because there's no way to know if the water even entered the tank much less determine how much time it spent there.

   Stakeholders: Disinfection under 290 (f) 0.2 for chlorine; 0.5 for chloramination. In building whose responsibility is that?
   TCEQ: If city delivers water that meets requirement then it has met its obligation. No requirement for the individual buildings unless they have their own treatment system …If change chemical quality, then the bldg become a pws.

   Stakeholders: No max level for chlorine. Is it possible that water supplier send out that would give 10 to 12 parts of free chlorine.

   TCEQ: If high enough and long enough to affect running annual average, it is a violation. However, you can do it for short periods of time if you want to burn out a distribution system biofilm. EPA explicitly allows this in their rule and so do we.

TCEQ: Should UV be put in rule or lumped in with "other disinfectants" and dealt with on a case by case basis?
Stakeholders: It should go into the rule separately . . . CL2, chloramine, UV, dioxide, etc

Stakeholders: UV has validation and monitoring requirements in the LT2.rule. What LT2 requirement would leave out while still ensuring adequate kill?

TCEQ: We don't know but, for example, should all units used for GWDR disinfection be validated under LT2?
Stakeholders: IF UV system, needs to be validated consistently regardless of source of water. No problem with putting in rule. Straightforward. Same process needs to happen with other disinfections. Put in rule rather than guidance.

TCEQ: Membrane credit in GWDR is based on molecular weight cut-off value of membrane material which basically means that a GW system would have to use softening membanes.

Stakeholders: No one with GW will use membranes for viral credit.

TCEQ: Some systems using membranes for dissolved solids removal may want credit. LT2 has validation and monitoring requirements for Crypto credit but doesn't set them for viral credit. What should viral credit requirements be?
Stakeholders: Hole in the federal rules, physical devices will have faults so you have to be able to monitor to get credit.

d) Are there other options that we have not identified yet? No Stakeholder response.

2) Do you think it would be reasonable to develop a "Minimum Specified Residual" that applies to groundwater systems that met specific design criteria? If so, what conditions (i.e., storage vs. production ratio, baffling factor, water temperature, pH) should we assume if we set a MSR?

TCEQ: If using free chlorine for 4 log viral inactivation…the same number applies where pH is less than 9. Plus GW usually come out of the well at 60 -70 degrees. If we assume that it never comes out of ground less than 50 degrees and always less than pH 9.0, we can tell you how big your tank if we know what your flow rate is and what residual you have. This is the basis for the Minimum Specified Residual (MSR) approach. Should we establish a MSR for systems that meet certain design parameters to reduce M&T requirements and CT calculations…it's a very simplistic although very conservative approach.

Stakeholders: Yes, we'll go for this. There's lot more consistency in GW than SW.

Stakeholders: still need option for CT because some system may be having trouble or use alternate disinfectants
TCEQ: Agreed, not just the MSR road but mechanism for plants that want to use this. Systems using chloramines should be able to take advantage of the calculations.

TCEQ: Should we ever assume that GW will exceed pH of 9?

Stakeholders: No.

TCEQ: Baffling factor…for swtp with separate inlets and outlets, we assign 0.1 baffling factor. If there is an air gap of at least 2 feet, we allow baffling factor of 0.3. Are there many systems that would warrant us to look at baffling factors at other than 0.1 or do most have single inlet and single outlet.
Stakeholders: Lots of GW systems use aeration system to get rid of odor, especially those with a hydrogen sulfide problem. These have the two foot break and should get credit for the higher the baffling factor.
Stakeholders: what effect if extended beyond 0.1…look at inlet flow, volume of tank and 10% baffling factor…am I close to 4 log or am I at 35 log. This will help decide if the difference between 0.1 and0.3 make a difference.

TCEQ: Right, in real world might not have any impact at all. Plus many systems are targeting residuals at tank that are much higher than needed to get 4 log. We can always revert to a site specific analysis but can develop an MSR based on some conservative assumptions.

TCEQ: What constitutes production? 1 well , 1 tank pretty easy. 3 or 4 wells used in diff combos, things get nasty. Standby wells or emergency wells,,,things get hairy,,,in terms of calculating flow rate into tank. Yrs ago, SW plant flows were based designed on output of raw water pumps or plant capacity. However, it's more complicated with GW system because there is no set capacity. There are operational wells, emergency wells, standby wells, etc . . . what if combined capacity of pumps exceeds the flow rate we used to set MSR. Do we restrict capacity of output or if exceed flow rate must do this calculation?

Stakeholders: If have ability to put in backup well then entitled to that capacity. If need water have capacity to pump in excess of 300 gallons to entitle that production credit, what does the EPA rule say?

TCEQ: 4.0-log virus but nothing about MSR or CT calculations . . . although the preamble talks about CT and CT calculations are required at unfiltered surface water systems.

TCEQ: if you have regular well and emergency well. When using the regular well capacity, the MSR could be less than the typical operating residual but with both wells the MSR might exceed the typical operating residual. If we based MSR on 2 wells operating, the system might decide to run with an unnecessarily high residual even though 2 wells seldom operate simultaneously.

Stakeholders: looking at baffling factors most systems might not need to bump the residual. Maybe look at GW systems. Is this an issue with a large number of them? Then set parameters.
TCEQ: Yes, it might be best interest to deal with on case by case basis.

3) Should we allow viral removal credit for membranes? If so:
   a) Which membrane types (microfilters, ultrafilters, nanofilters, RO filters) Should be given credit?
   b) How much credit should be given to each "acceptable" membrane type?
   c) What type of testing, if any, should be required before granting treatment credit?
   d) What kind of compliance monitoring should we require?

TCEQ: UF, NF, and RO membranes typically provide in molecular wt cutoff spec but this is not always true for MF. Under LT2 have to challenge membrane w/crypto size particles and demonstrate that membrane will remove crypto. Should we have analogous thing for membranes that say they can remove viruses or should we just use the EPA's spec?

Stakeholders: no viral credit for membrane removal in TX for surface water plants. If go this way on GW, will LT2 open back up?
TCEQ: There is currently no way to verify virus removal from membranes other than challenge studies and no way to do periodic integrity tests.

Stakeholders: TX needs to look at things in broad perspective unlike EPA…which can lead to having trouble w/subsequent rule. A treatment technique needs to be based on the target organism regardless of the source.

Stakeholders: What ability is there to verify quality of a membrane?
TCEQ: EPA headed there (at least for Crypto) with the LT2 rule but did not take the step for viruses. There is no analogous test to run for viruses. Should we require period direct physical integrity test for Crypto and assume (if it passes) that the viral integrity still exists? And what frequency should they be conducted?
Stakeholders: Bubble test can be run on membranes to test them periodically to ensure maintains integrity.
Stakeholders: Cannot see integrity test any less stringent than crypto for viruses. Even if rely on those focused on crypto…would be one way to approach…but should have some way to verify (viral removal) quality.

4) Should we allow viral removal credit for UV? If so:
   a) What type of testing, if any, should be required before granting treatment credit?
   b) What kind of compliance monitoring should we require?

Stakeholders: Removal credit should be based on challenge study for viruses. The requirement should apply to both surface water and GW because the technology is the same. *(TCEQ comment: This gets back to the contaminant vs source comment made earlier)*

Stakeholders: What about advanced oxidation / UV / hydrogen peroxide for viral…kept on talking about being thing of the future at water quality conference in Denver last week.
Stakeholders: makes sense. Like to be able to cut down on initial cost as well as operating cost.
Stakeholders: also talking about endocrine disrupters and the CCL list.

TCEQ: Can UV be used for 100% for GWDR? The surface water UV treatment requirements for viruses are based on adenovirus which is really resistant to UV. Therefore, high doses are required. The GWDR does not set validation requirements like the LT2 does but tells the state it must develop them. Should we adhere to LT2 protocol are defining protocol for GDWR as well. If not, what's the alternative?
Stakeholders: Use LT2 unless there is data showing GW has different viral contaminants.
(TCEQ comment: This is not very likely since adenovirus outbreaks have occurred at GW systems also.)

Stakeholders: State of Washington put sensor at end of light (worst case), SCADA monitoring every 15 minutes, and validation parts…and are giving disinfection credits.

Stakeholders: What's the status of the EPA's proposed UV Guidance Manual?
TCEQ: It was just published and is available on the EPA LT2 website.

5) Should we allow the use of on-line monitors that do not strictly adhere to EPA-approved methods? If so:
   a) What type of testing, if any, should we require before approving them?
      i) Vendor/Manufacturer, Utility, Third-party?
      ii) Centralized or site-specific?
   b) What kind of performance verification and calibration requirements should we impose, if any?

TCEQ: EPA sets up approved methods based on bench top tests …vendors have adapted some to on-line monitoring and developed other on line instruments which do not use benchtop methods. EPA allows state to decide which on-line analytical methods are okay. State can approve things not explicitly approved by EPA with respect to online monitoring.

Stakeholders: If EPA wants to opt out of analytical approval…okay. Unless standard written to allow equipment to be tested against it…then pws in position of being questioned. Need standardized validation method for on-line equipment.

TCEQ: There is no equivalent benchtop analytical method for online ozone analysis. But we have allowed on-line methods on case by case, site specific basis. Initial data is sent to us for peer review and we set ongoing performance verification requirements for the on-line instruments. However, additional data is not sent unless inspector says results "looks fishery." Performance verification must be done even if have EPA approved method and we have established a safety factor based on site-specific results.

Stakeholders: state has taken on responsibility of developing something to determine accuracy.
Stakeholders: similar to substantial equivalency in medical field. Onus should be on vendor to show substantial equivalency.

Stakeholders: no problem as long as some standardized way of verifying accuracy.
TCEQ: There is a problem…there is not a good primary standard for many of the analytes and so verification is based on secondary standards or comparison with an EPA-approved benctop method.

Stakeholders: thinks substantial equivalency be demonstrated first then becomes site specific.

TCEQ: first barrier accurate and precise on lab water…now in field have to verify at this specific site remain accurate. Go through two stage test verification process.
TCEQ field office: agree with that. Go there w/understanding that we may have to prove data at some time. No standard but making certain that documentation is there and do have consistency throughout.

TCEQ: The Public Drinking Water Section worked directly with plants on the equivalency testing for ozone analyzers. Have a more effective relationship with the TCEQ's Lab Certification group now…If there is more PWS interest, we can ask them to help us develop protocol for equivalency studies.
Stakeholders: that would be good. Have potential of some accountability down the road.
Stakeholders: The PWS's need to know what to do so they can say "we followed same steps as required by ANSI or something"…TCEQ cannot leave water systems out there shooting in the dark.

6) Should we require systems to submit/report their monitoring results? If so,
    a) At what interval, e.g., monthly, quarterly, etc?
    b) What data should be reported?
        i) for chemical disinfectants?
        ii) for membranes?
        iii) for UV?
        iv) for others?

TCEQ: GW systems are now turning in a quarterly disinfectant residual report (DLQOR). We could develop a supplement for Treatment Data reporting …provided that a system tells us that a violation has occurred when it occurs and not 3 months later.

Stakeholders: how many systems will be doing this? PWSs do not want to have different reporting frequencies because that gets confusing. Makes sense to incorporate into quarterly MRDL Report (the DLQOR) and but send a Violation Report (like te surface plants do) if a violation occurs.
TCEQ field office: Agrees with previous stakeholder. Simplify. Common sense says to incorporate into other.
If there is problem along the way then go to a more frequent report, if need be.

Stakeholders: how slowly will we start?
TCEQ: The initial thought is quarterly to match with DLQOR. This rule, unlike surface water rule, does not give deadline for reporting.
Stakeholders: Quarterly would be good.

3:50 – 4:10 pm **MEETING WRAP-UP**

Greg summarized what we covered:

Significant deficiencies…focus on health issues.

Source monitoring…triggered…source monitoring plan…analytical methods…e.coli is most applicable indicator organism…but some good things about others….should pursue looking at proactive monitoring of sources.

Corrective action…

STAKEHOLDER: public notice TCR portion…concerned about triggered monitoring based on TCR have total coliform positive…do samples all negative…but source has problem however, water customers are drinking is fine…this is risk communication and must deal with this or what tell customers will be complete nonsense.

TCEQ: may provide some standard language that system can use if chooses

DWAWG is January 9, 2007. Regions will be able to participate in this.

Greg thanked everyone.

EPA: If less than 1000 population…if use source sample as repeat will count as source sample positive and MCL violation. Also, well disinfection can be used as corrective action.

Does bottle water constitute alternative source for 141.101?

TCEQ: Cannot be used as permanent solution but can be used as temporary solution.

Adjourn: 4:08 pm