

Meeting Minutes
Surface Water Quality Standards Advisory Work Group Meeting
June 30, 2020

Location: Online Webinar

Time: 9:00 am - 11:30 am

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9:00 a.m. Welcome and Webinar Instructions, presented by Peter Schaefer

- Call to order and general welcome.
- Instructions regarding the webinar and how attendees may ask questions of the presenters.

9:07 Introduction to the Procedures to Implement the Texas Surface Water Quality Standards, presented by Peter Schaefer.

9:15 Plastics, presented by David Galindo, Water Quality Division Director

- David Galindo gave a presentation about plastic pellets and how they are regulated in Texas Pollutant Discharge Elimination Systems (TPDES) permits.
- Mr. Galindo clarified that plastic pellets are not allowed to be discharged under a TPDES permit.
- Permit applications will be updated to identify facilities that produce or handle plastic pellets.
- Provisions will be added to clarify handling and BMPs for facilities that produce or handle plastic pellets.
- As discussed, the TCEQ proposes to place a prohibition in wastewater permits for facilities which handle plastic resin pellets generated at organic chemical manufacturing facilities, or packaged and transported to processors for molding into plastic products. This proposal does not include post-consumer refuse such as plastic bottles, straws, or bags.
- For more information, please contact Dr. Sarah Johnson at sarah.johnson@tceq.texas.gov or 512-239-4649

General Discussion

QUESTION: You mentioned that permit language for plastics are being proposed. What is the timeframe for those changes?

ANSWER: We'll be seeking comments and considering those comments. Then we will be running proposed permit language changes through upper management. We may have permit language changes out in the next 6 months.

QUESTION: What happens to permits that are in-house currently?

ANSWER: Some applicants have opted to accept the prohibition language and get their permit issued. This prohibition language is essentially a statement that no discharge of plastics is authorized. If a permit is in-house currently and on-hold, work with your permit writer or call me to address any issues.

QUESTION: It is generally recognized that there are different sizes of plastics, macro and micro- some which are visible and others which are not. What size plastics will be covered in this proposal?

ANSWER: We will be focusing on plastics that are visible to the naked eye. If you have any information for us to consider, please send it to us.

QUESTION: Just a request that you might consider putting some sort of a document on the website, with the specific issues that you've already identified, that you'd like in public input on.

ANSWER: Update- an e-mail with these topics was sent to the stakeholder e-mail list on 7/09/2020 and is also found in a link on https://www.tceq.texas.gov/waterquality/standards/WO_stds/#2021RevisionstotheProcedures.

QUESTION: If a permit amendment is in-house, does the permittee have to accept the plastics prohibition language to get their permit issued?

ANSWER: Applicants can accept the language and move forward with their permit. Otherwise, work with your permit writer to address the permit-specific issues.

QUESTION: The Formosa facility went through a lawsuit and was able to go to no discharge of plastics in a quick timeframe. TCEQ may be able to learn something from that.

ANSWER: Comment noted.

QUESTION: How will regulation of plastics be addressed in MSGPs and how will MSGP entities be notified?

ANSWER: This will be addressed in Sector Y and we will identify these entities by this sector. MSGP entities will be notified during the NOI process.

QUESTION: Will there be any grandfathering of existing facilities?

ANSWER: We are looking at requiring all facilities to comply with this. We will provide a compliance period, but facilities need to give reasons for time needed to comply.

QUESTION: TPWD and Sierra Club-Lone Star Chapter both expressed support for the prohibition of the discharge of plastics.

ANSWER: Comment noted.

QUESTION: A commenter suggested the use of “Operation Clean Sweep”, a voluntary initiative for plastics producers, as guidance for BMPs.

ANSWER: Those facilities that are already taking advantage of that program can roll those BMPs into their permit.

9:55 a.m. pH Screening Procedures, presented by Peter Schaefer

Handouts: Draft pH screening procedures
Freshwater pH screening spreadsheet
Saltwater pH screening spreadsheet

- Mr. Schaefer gave a presentation regarding pH screening procedures and demonstrated the freshwater and saltwater screening spreadsheets
- Peter Schaefer’s contact information: peter.schaefer@tceq.texas.gov; 512-239-4372.

General Discussion

There were no questions or comments raised on the topic of pH screening.

10:15 Whole Effluent Toxicity Reasonable Potential Determination, presented by Michael Pfeil

Handouts: Draft WET procedures clean copy
Draft WET procedures with track changes

- Mr. Pfeil gave a presentation on the draft Whole Effluent Toxicity procedures.
- Michael Pfeil’s contact information: Michael.pfeil@tceq.texas.gov; 512-239-4592.

General Discussion

QUESTION: A commenter questioned why synthetic dilution water was allowed as opposed ambient stream water. There were concerns about synergistic effects that may not be discovered if dilution water is used.

ANSWER: We find that when people collect an upstream sample from the receiving water, it sometimes fails the validity test which fails to meet acceptability criteria. If it fails to meet acceptability criteria, that invalidates the test. So we're not gaining any knowledge, except saying the receiving water is toxic. Then the permittee must switch to synthetic dilution and use synthetic dilution water for the remainder of the permit term. With freshwater testing, most facilities fail the validity test, especially after stormwater events, which invalidates the test, and fail the acceptability criteria. Regarding synergistic effects, normally, if the receiving water isn't toxic, it tends to have more mitigating factors, such as dissolved organic carbon and total organic carbon, which actually can mitigate toxicity, especially for metals. That's the whole basis of water effect ratio studies.

QUESTION: What is the basis for changing the designation for salinity from two parts per thousand to one part per thousand?

ANSWER: That was based on a comment back in 2000, when we drafted the 2000 IPs. And it was noted that, with history to guide us, that with freshwater organisms, especially the water flea, *Ceriodaphnia dubia*, when you start approaching one part per thousand salinity, one thousand milligrams per liter TDS, reproduction is inhibited. And the reality is we determine which testing organism is to be used based on our critical conditions memo.

QUESTION: While the IC25 is more flexible and that can be an advantage to having different dilutions, are you contemplating a default dilution series?

ANSWER: We haven't contemplated a default dilution series, but what we've been doing is to include the critical dilution, the dilution series, and an upper dilution of 100%. We welcome any input from the regulated community as to what they would like to see. But there have been instances where the critical dilution is 98, but we don't put that in the dilution series where we have concentrations of 75 and 100. We don't have to have the actual critical dilution in the dilution series. Normally we do, especially on the low end, for low critical dilutions such as in saltwater, the 8% default critical dilution, and we like to have those dilutions in there. But the answer is, right now, we're not contemplating a default dilution series. We just include the regular dilution series, remove the lowest dilution and include 100% as the highest one.

QUESTION: A question was raised about the applicability of WET testing on minor facilities, and in particular, discharges that might not always be covered, especially non-continuous discharges.

ANSWER: Our IPs include a 24-hour acute testing section to address intermittent discharges if deemed appropriate. But for the most part, we test continuous discharges. Federal regulations required WET testing provisions on all EPA major

facilities, but we chose to also add WET testing for some industrial minor facilities based on things like continuous discharge and potential toxicity. But based on 30 years of experience, we were a bit overzealous in the beginning about some of the people we applied WET testing to, and we now know that many of these minor facilities that we assigned WET testing to simply don't show potential for toxicity. We will continue to assess the need for WET testing for minor facilities, but we want to focus on continuous discharges and major facilities.

10:25 a.m. Appendix B: Federally-Listed Aquatic-Dependent Endangered Species presented by Brittany Lee

- Ms. Lee gave a presentation regarding updates to Appendix B to address threatened and endangered species that have been listed and de-listed since the appendix was last updated.
- Brittany Lee's contact information: Brittany.lee@tceq.texas.gov; 210-403-4048.

General Discussion

QUESTION: One commenter noticed Appendix E includes coastal aquatic dependent bird species such as the whooping crane and the piping plover. There are some western aquatic-dependent bird species in the desert streams of West Texas, that are on the federally endangered species list and was wondering what the process is to determine and include which aquatic dependent birds are listed?

ANSWER: Most of our determinations are based on the 1998 US Fish and Wildlife Biological Opinion, which. We have reached out to the U.S. Fish and Wildlife Service for updates as well as searched the web and federal register. There isn't a master list that we can go to that automatically lists all aquatic-dependent species in Texas that have been listed or de-listed. So, we have reached out to U.S. Fish and Wildlife Service to get their input. We will also have to make some changes to the text in our IPs because it currently references the 1998 Biological Opinion and some of the new species may not be listed in that opinion or the addendum that came out shortly after the Biological Opinion.

QUESTION: Another species for consideration that is federally listed is the smalltooth sawfish. Has the TCEQ considered listing this species?

ANSWER: We are not aware of this listing, however we will look into it. If there are any additional updates that we are unaware of or have not included in our appendix, please feel free to email them directly to Brittany Lee.

QUESTION: A commenter raised a question regarding juvenile Green Sea Turtles. The green sea turtle is a federally-listed threatened species that lives off of the Texas Coast and utilizes seagrasses in the estuaries which are threatened by dredge and fill projects that are subject to 401 certification. During 401 reviews does the TCEQ look at this?

ANSWER: During 401 reviews of federal 404 permits, the TCEQ may look at endangered species that are potentially affected by these types of projects, but our comments to

the USACE are typically more general regarding overall habitat and water quality. The U.S. Fish and Wildlife Service has the expertise to provide more detailed comments specific to endangered species. The TCEQ receives these comments and considers them in our review. Furthermore, we consult with the U.S. Fish and Wildlife Service during our 401 review when necessary.

10:35 Appendix C: Critical Low-Flows and Harmonic Mean Flows for Classified Segments presented by Katie Cunningham.

Handouts: Draft Appendix C clean copy
Draft Appendix C with track changes

- Ms. Cunningham gave a presentation on the updates to Appendix C and discussed how data is obtained to determine critical low flows and harmonic mean flows for classified segments.
- Katie Cunningham's contact information: katie.cunningham@tceq.texas.gov; 512-239-3533.

General Discussion

Based on comments submitted, we are looking into having electronic versions of the Appendix C Table added to the TCEQ website so that the 7Q2 and harmonic mean values for the classified segments can be updated more frequently in-between published versions of the IPs.

QUESTION: Why do some of the periods of record for some of the locations change as you update these? It seems like you would want to use the entire period of record, but maybe there's some reason why you don't.

ANSWER: We typically use a 29-year period of record because roughly 30 years includes climatological changes. Some of the gages have less than 29 years of data, and that is most often because the gage is discontinued. We also adjust the period of record if, for example, a reservoir was constructed upstream of the gage, we would adjust the period of record to be a few years after that construction took place to reduce any effects this may have on a gage.

QUESTION: Is there anything in any of the permitting procedures that may account for changes or reductions in flow on effluent dilution? I have been concerned that flows could be reduced which could have a big impact on whether water quality standards are being met after a discharge has already been in place for a long time.

ANSWER: Given that our permits are on a five-year renewal cycle, each time a permit is in-house for review, we use the most recent values that USGS has approved and published.

QUESTION: I noticed on some of the gages, for example, on Clear Creek (USGS Gage 08076997), the period of record previously used was 1965 to 1992, and then 2007 to

2008. But in the 2015 update, the data between 1965 and 1992 is not included. By choosing the last eight years of data, the 7Q2 increased significantly.

ANSWER: That's something I'll have to look into a little deeper. I don't have an answer for you right now. It may be that the gage was discontinued for that period of time, and then put back online, so that might be why. But I'll have to look into that a little deeper. I don't know immediately why it changed.

QUESTION: How are anomalous flow events handled? For instance, how are flows that occurred during the 2011 drought considered? Are outliers such as these included in the calculation?

ANSWER: These flows are still included in the period of record. We don't adjust a period of record to omit flow data that occurred during droughts, (like from 2011 to 2015) when calculating the 7Q2 and harmonic mean.

QUESTION: I'm wondering if that could create some bias in your calculations. For instance, if a river went dry, but has never gone dry except for that one year, would that bias your calculation?

ANSWER: I don't know. However, I'm hesitant to remove outliers such as droughts because it's more conservative to keep them in the period of record from a wastewater permitting perspective.

QUESTION: Then one other question. I happened to be looking at the Comal River (USGS Gage 08168710) and noticed that the 7Q2 went from 13 cubic feet per second to 82.7 cfs. One of our concerns when you have large increases in 7Q2, is that there are standards that are not applicable below the 7Q2. It seems like there's potentially a lot of things, especially bacteria, that can be thrown out in the assessment by such a drastic increase in that particular flow metric. Why would you have such a huge increase in a pretty constantly spring-fed system like that?

ANSWER: I'm not sure. That also might be one that I have to investigate a little bit deeper. I'm not sure of the reason why it changed so drastically, but I'd be happy to look into that.

QUESTION: I'm interested in hearing your thoughts on changing the period of record for 28 years. For example, if the period of record is from 1979 to 1987, you may be capturing a more regulated period of record where, for example, water may be withdrawn or there might be a new dam or some other development that limits that stream flow through this gage. The statistic that you're basing this off describes a new regulated period. If you're not including some of those past pre regulated periods, how are you protecting the environment?

ANSWER: We try to use the latest 29 years of data to capture any development or recent changes to the watershed. Sometimes a gage's period of record is also adjusted on a case-by-case basis, depending on the watershed. For example, in the Houston area, we don't use data prior to the 1980s because there was a huge amount of development

in that area around that time period. When evaluating 7Q2s, we look at the watershed as a whole and take into account changes such as development or diversion canals, impoundments etc. to the watershed.

QUESTION: Are you defining the period of record to the 2015 endpoint or to the most currently available date?

ANSWER: We plan to extend the period of record to the latest USGS-approved date, which will likely be 2018-2019, depending on the USGS gage.

ATTENDEE COMMENT: I think it's very important that we discuss this further, this last topic about the low flows and their application to the development of permit limits. I believe the previous commenter may be misunderstanding how this works. I believe that the TCEQ response is correct. I believe that under no circumstances, do you want to remove low flow events from this record, specifically in the use of these flows in developing permit limits. You will end up overestimating the dilution that's available. If anything, if you were going to remove any outlier events, I think you might want to look at removing flood events. So, I think TCEQ has answered this correctly, that the current approach is somewhat conservative of water quality.

TCEQ RESPONSE: Thank you, and it's important to note that this data is for wastewater permitting only. This is not used for water rights permitting or determining in-stream flow requirements or anything like that. That's a whole different department, and this data is not used for that.

It was noted by an attendee that this data is also used in development of the Texas Water Quality Inventory.

ATTENDEE COMMENT: The harmonic mean procedure that TCEQ uses is inconsistent with the guidance for using the harmonic mean from EPA, which acknowledges that if you have effluent-dominated streams, the harmonic mean is not an appropriate measure. This is especially concerning with regards to evaluating TDS.

TCEQ RESPONSE: Would you mind submitting the EPA reference document that you're talking about as a formal comment? I'd like to take a look at that.

10:45 a.m. Appendix D: Classified Segment Ambient Water Quality data presented by Brittany Lee

- Ms. Lee gave a presentation regarding updates to Appendix D to address updates to ambient water quality data.
- Brittany Lee's contact information: Brittany.lee@tceq.texas.gov; 210-403-4048.

General Discussion

QUESTION: A question was raised regarding the basin wide numbers in Appendix D and why they are different within the same basin. For example, in the Red River Basin a basin wide number was used in two locations and they are both different.

ANSWER: Brittany Lee answered that she would look into this. She had also noticed the discrepancy and said it may have been an oversight by the previous person that constructed the tables. She asked that the commenter send the examples of where this occurs in the appendix and she would get back to him on this.

11:05 a.m. Appendix E: Minimum Analytical Levels and Suggested Analytical Methods by Peter Schaefer

- Mr. Schaefer gave a presentation regarding updates to Appendix E to address EPA's 2017 Methods Update Rule and new analytes added to the Texas Surface Water Quality Standards.
- Peter Schaefer's contact information: peter.schaefer@tceq.texas.gov; 512-239-4372.

General Discussion

QUESTION: One commenter asked if we still plan on using the 3.18 multiplier for the MDL when calculating MAL?

ANSWER: We are still planning to multiply the MDL by 3.18 to calculate the MAL. We will be sending out a response to comments received to the MUR workgroup soon to address this topic.

QUESTION: I know that there's been some issues with cyanide, specifically in the evaluation of dredged material disposal data. And I don't know the exact problem off the top of my head, but I think it's along the lines of the criteria are established for a certain cyanide parameter, but the actual measurement is something else. So when that measurement exceeds the criterion, people just say it's not really relevant to the criterion. So, it seems like there needs to be some effort to reconcile this.

ANSWER: That is correct that the criteria is for free cyanide, but the 2010 IPs list total cyanide. And so, part of the revision, and this is included in the response to comments that we hope to have disbursed and submitted to everyone shortly, is that we're going to break down the different parts of cyanide. and we will have entries for total, for free, and for available cyanide. We will identify the different forms of cyanide. What we're screening for in permit applications, from a water quality standpoint, is free cyanide. And so, we are going to clarify that in the revised Appendix E.

QUESTION: Will there be a chance for another meeting, or Go To Webinar, to discuss the revised Appendix E list, and a timeframe for when the revised Appendix E will be released to the public?

ANSWER: Currently we do not have any firm plans for any other meetings regarding Appendix E. We will be releasing our response to comments and will open up another comment period, so we want to know what kind of feedback is provided, and what additional concerns may be raised at that point. And then we'll re-evaluate the need for another meeting regarding Appendix E.

Regarding when the revised Appendix E will be released, I can't give you a firm date, because it is in the final stages of management review, but we do hope in the immediate future. And we will e-mail that out to everyone on the MUR stakeholder list,

the Pretreatment Stakeholder List and the WQAWG Stakeholder List. Once we send that revision, and the response to comments out, we will have another 30 day comment period.

11:15 a.m. Potential changes to TDS screening procedures presented by Peter Schaefer

- Mr. Schaefer gave a presentation regarding some minor changes being considered to the TDS screening procedures.
- Peter Schaefer's contact information: peter.schaefer@tceq.texas.gov; 512-239-4372.

General Discussion

QUESTION: Under consideration of the use of the actual flow rather than permitted flow, would this just apply to the TDS screening procedures?

ANSWER: That's correct- this would only be for TDS screening calculations.

QUESTION: For municipalities that are not showing signs of population growth, you're saying using the projections of five years, Are you talking about a hard percentage in terms if it's predicted to growth up by for instance 7% in five years, 10%? What is the cutoff for saying a municipality is not showing signs of population growth?

ANSWER: We haven't come up with a method yet for determining when a population is considered static and not growing. This may be something that is handled on a case-by-case basis outside of the IPs, but we wanted to put this out for public consideration and comment.

11:25 a.m. Bioequivalency Factors (BEFs) presented by Peter Schaefer

- Mr. Schaefer gave a presentation regarding consideration of allowing the use of BEFs in screening of dioxin and dibenzofurans in wastewater permits.
- Peter Schaefer's contact information: peter.schaefer@tceq.texas.gov; 512-239-4372.

General Discussion

ATTENDEE COMMENT: In terms of supporting information for use of BEFs in Texas, data were collected as part of the Houston Ship Channel, Galveston Bay TMDL. For the dioxins and dibenzofurans, because of the molecule size, the more highly chlorinated compounds simply do not bioaccumulate and enter the food chain to the extent that other congeners do, which are more toxic.

TCEQ REPSONSE: Thank you.

11:30 a.m. Establishing Permit Limits for Toxic Pollutants Without Criteria presented by Peter Schaefer

Handouts: Toxic Criteria Revisions clean copy

Toxic Criteria Revision with track changes

- Mr. Schaefer gave a presentation regarding removal of the lipid correction factor from the formulas indicated for deriving human health. This update would bring this calculation consistent with current state and federal practice.
- Peter Schaefer's contact information: peter.schaefer@tceq.texas.gov; 512-239-4372.

General Discussion

There were no questions or comments on this topic.

General Questions Regarding revisions to the IPs

QUESTION: I'm specifically interested in whether the implementation procedures include any discussion of how to ensure that the salinity provisions under the narrative portion of the standards are properly accounted for in the review of a permit application. And I'm bringing this up specifically because of the proliferation recently of applications for brine discharges from desalination facilities.

ANSWER: Our IPs allow for screening of discharges to tidal (saltwater) waterbodies, however, we don't have a procedure in our IPs for screening discharges of brine to a saltwater body. With increased interest in desalination facilities, we are seeing a number of applications for discharge of brine. Although we don't have established procedures in our IPs, we are taking a very technical approach to how we review these facilities to ensure that whatever they're discharging is not going to have an impact on the aquatic life and water quality in the receiving waters. So, we do have a method for looking at that, but it's on a case by case basis at this time. If we continue to see more of these facilities and see a need to draft standardized screening procedures, we will work with the stakeholder groups at that time.

QUESTION: Do the implementation procedures include discussion of how do you guys evaluate dredged material discharges under 401 certification?

ANSWER: No, that that's handled through 30 Texas Administrative Code Chapter 279.

11:30 a.m. Adjourn