

## Water Meeting

9/23/14

J.T. LANE: Good afternoon everyone. We're going to get started. Can you hear me all okay? We'll start with the roll call.

SHEREE TAILLON: Dirk Barrios, Vern Breland, Ben Bridges, Robert Brou, Jeffrey Duplantis, Greg Gordon, Jimmy Guidry, Jimmy Hagan, Randy Hollis, Patrick Kerr, J.T. Lane, Rick Nowlin, Rusty Reeves, Chris Richard, Keith Shackelford, Cheryl Slavant, Joe Young, David Constant. Perfect attendance. Everyone is here.

J.T. LANE: And it's the first day of fall. Welcome everyone. I wanted to start by introducing Laurie Jewell to all of you. She's sitting here against the wall. She's our new full time staff member for the committee and all the water regulations to make sure we're adequately supported for all the work we still have ahead of us. We were able to snag her actually from DEQ. She's been in the regulatory unit for a while and decided she wanted to change to DHH, the good side. We welcome her. She's an attorney so we're very happy and excited to have her expertise. You might be getting a lot of correspondence from her. So welcome Laurie. We have a packed agenda because we have the amoeba update and then the ASCE report card for all of us to talk about. When I first saw the headline a few weeks ago, I think I forgot the number that was needed nationwide, I remember it being pretty astronomical. As soon as I saw that I forwarded the article to everyone. I said we should probably add this to the agenda. With that, move on to number three on the agenda for approval of the minutes. Everyone should have received that. Did anyone have any questions about the minutes?

RANDY HOLLIS: I have one comment. On page 14 it's quoting me and it uses the word

turf. The correct word is curve. Occurred in about three places.

J.T. LANE: We will correct that and re-upload a revised copy with that revision. Any other questions? Do I have a motion to approve the minutes with that revision? Jeff seconds. Any objections? Thank you. We'll move on to agenda item number 4. Jake, an update on the amoeba.

JAKE CAUSEY: Okay, so on the amoeba update we did launch a surveillance, I guess we're calling it a surveillance program, on August 11th to begin doing some I guess testing for the presence of thermophilic amoeba whether they flagellate or not which would indicate naegleria species and then specifically PCR analysis for naegleria fowleri specifically. So included in your handout is a graphic of the results that we have so far. Typically about a two week turnaround in the lab from when we drop the samples off and get results back. It's certainly an interesting graphic that you can make some observations from. One thing I'll mention at least everyone benefits looking at the graph is that the E bar system is a purchase system, or at least was at the time of sampling, a purchase system purchased all of the water from South Toledo Bend. So that's just a little relationship there. Actually since the time of the sampling they are now buying a 100 percent from Sabine Water District. I actually think for other reasons, but anyway. That's that. As we get more results throughout the summer we are, all of these systems on this graph are chloramine systems. We have sampled some free chlorine systems and ground water systems since so we are trying to get a broad view, different source types, different geographic areas and things. Although we won't have a huge number of samples, hopefully we'll at least have some samples from different types of systems this summer. I guess that's really all I'll say about the graph. You can make your observations, but there's still a lot of evaluation that needs to happen. We certainly are seeing thermophilic amoeba and

naegleria with the presence of low levels of total chlorine. So I do want to mention we did have a science advisory group this past Friday where we had CDC, EPA, folks from Arizona, Southern Australia, Western Australia. And actually Dr. Afia Zafar from Pakistan has joined us on several calls now and they've actually now had 10 deaths this year that they don't attribute to recreational water exposure. There's some speculation made about the ablution process as for as prayer and water in the nose. This doctor indicated a lot of these patients are frankly not that religious. They still question where some of the exposure is happening. An interesting fact so far it's been all males. They have not had any females. Kind of a strange thing, but that's their experience thus far. I do want to say that the folks from Australia we shared these graphics with the folks on the science call. Folks from Australia really emphasized their chloramine systems they really strive to maintain a 1 milligram throughout. If they fall below a .5 or .5 or below it's kind of all hands on deck for them, especially during the warm temperature months which is high risk peak. The other thing I wanted to mention the AWWA water quality technology conference is in New Orleans and there is a seminar devoted to naegleria fowleri that CDC, University of Arizona, myself, and Corona, and Dr. Geoffrey Puzon from Western Australia. Quite a group of presenters that's going to be talking about all the different experiences. So since it is going to be right here in New Orleans I wanted to mention it to everyone in case you would like to attend and have that audience there to ask questions. It's really all I got on the update so far.

PATRICK KERR: Are you seeing a correlation between disinfection and chlorine, that correct levels have any more propensity to include?

JAKE CAUSEY: We did ask the folks, especially those in Australia, just these results we had two results where we had levels above .5. I think a .7 and may be a .8. Where

we did have thermophilic amoebas where we didn't necessarily see naegleria. Basically ask them do they routinely see the amoebas in that range and they said typically no. They have had occasions where they saw thermophilic amoebas, but their responses are specific if it's thermophilic naegleria or they also look for (inaudible) amoeba because they had infections, which we're not even looking at that. Generally those two results seem to kind of, I don't know that we would expect to see thermophilic amoeba generally present at total chlorine levels between .5 and 1.0. We got a small number of samples and again also thermophilic naegleria fowleri levels as well. Which we haven't thus far, but certainly that's a lot of the information that we want to derive from the surveillance program what are we seeing and what are the conditions.

BEN BRIDGES: These are all chloramine systems?

JAKE CAUSEY: On this particular sheet yes. One system, the St. John, is a ground water system. The others are surface. And again, the St. John a membrane filtration plant for their ground water.

RANDY HOLLIS: (inaudible) system down here, clearly all three samples are below the .5. Now they've switched to Sabine, is that surface water? So that's ground water.

JAKE CAUSEY: So Sabine is ground water using free chlorine.

RANDY HOLLIS: Have those results that show if you're free chlorine and now you go back and test this system is that amoeba still in the (inaudible) or did the free chlorine at .5 take care of it?

JAKE CAUSEY: Right now they are performing a free chlorine burn at 1.0. I'm not sure the exact level. I presume they must be getting free chlorine greater than .5 from Sabine, but I know they were already set up at certain tanks the ability to boost as

well. Seem to change their mode of operation several times throughout the year. At one point they were buying water from South Toledo Bend and adding free chlorine and screwing up the residual significantly. They are now a 100 percent buying from Sabine ground water free chlorine. Once they go through the 60 day burn period we'll sample. But we will be doing some sampling of ground water systems free chlorine to see what we find. We do try to look at frankly historically what the residual levels have been at different sites and try to look at areas that seem like the greatest risk. I think we had at least maybe six additional systems we've sampled since then. Results may be the end of this week. By the time the water kind of cools down it may be below 20 degrees Celsius, at least 20 to 25 systems. We'll have a little larger group to look at.

ROBERT BROU: On St. John number one sample .73 point of entry. Do you think there's a failure in their filtration?

JAKE CAUSEY: That's the residual they have been running at for quite a while.

ROBERT BROU: Immediately outside of their fence, the point of entry to the distribution system is positive for amoeba and only a .73 something happened.

JAKE CAUSEY: They obviously are leaving the plant with a much higher residual and should have been at that time to maintain a .5 throughout.

J.T. LANE: Any questions, discussion? With that we'll go to agenda item number 5, the report card and Jeff's going to give us a review of that and have a discussion on that.

JEFFREY DUPLANTIS: I'll start national wide and get down into the state report card. I don't know how many of you are aware back in 2009 ASCE national did a report card and updated it in 2013. What you have is an executive summary from 2013, and again this is a national evaluation of all the different criteria. I gave you a business card. It has a scanner on the back and what you can do that downloads an app for an

iPad and I think they have one for a phone, an iPad app as well and you can zero in on the different categories solid waste, water, drinking and actually gets down into the states so that you can go back and look at those as well and you can come and look at Louisiana. Again, that's from a national prospective. So in 2012 the Louisiana section of ASCE decided they were going to put together a committee and do a report card solely geared towards Louisiana. This is the actual full blown report card. I didn't have enough in my office to bring one for everybody so if you want one that's the whole document let me know. I have a few copies with me and if I run out I can get you some. What this is is a tri-fold flier that we use when we go to meetings and that sort of thing to provide and it basically gives a breakdown of each of the different categories and almost a summary paragraph of the findings for each of those. Specific to drinking water the grade was a D+ back in 2012. The grading system was based on basically four categories. Condition, which included the physical condition to raw water pump, well, treatment plant, distribution system. Resilience was the ability of the water system to meet the requirements of the sanitary code and 10 state standards. Capacity which was the ability of the water source and water system to provide potable water for current and future conditions. And then we also looked at funding which was the financial ability of the water system to maintain a system properly, cost effectively, and in accordance with regulation. Those were the four categories from the water system. Each of the other categories within the study had similar type categories that were looked at. And again we went through, looked at it at the front of the full report card is a committee and so you can go and see who served as the chair for each of the different committees for each of the different categories and who served on those committees. Jake I think served on the water and wastewater committees. So anyway, if y'all have any questions. Again, if y'all

want a hard copy the full Louisiana one let me know and I can get you a copy of that. I don't know if there was any particular questions or anything else y'all wanted to talk about?

RANDY HOLLIS: Where do we fare better than other states?

JEFFREY DUPLANTIS: We didn't compare. If you go in the national, if you go look at the national you can see from state to state, but again the national one didn't get into the interviews and the meetings with the people that we did. I think there is DOTD information and FHA information, probably some DEQ information and things like that. We got down and sat down with DHH and had interviews and discussions. Jake, I don't know if you wanted to elaborate more on what happened as far as the water one.

JAKE CAUSEY: I remember the 2012, trying to remember the 2013 update. We definitely had a lot of the work existed especially with the surveys we do for SRF grant, typically future needs. Trying to remember there was several folks involved trying to locate what all the resources were consolidated to make this. I think it's something that's been used certainly at the national level time and time and time again. Just demonstrates the independent cost to maintain these utilities. I guess hopefully something that we can keep using more and more to remind the public what's needed.

JEFFREY DUPLANTIS: One of the things from a state level it's been more of an infrastructure focus. We've made presentations to the transportation committees on the state legislative side of things, couple rural caucuses, things like that. So we're trying to get out. It's been kind of more of a transportation related focus on a lot of those meetings. So if there's a need to get out and start talking to some other people about some of the other categories in here we can look at doing some of that.

There's been some discussion about doing an update to the Louisiana one, possibly look at may be five years after this one, may be 2017. It was about a year and a half effort of quite a few people from around the state, engineers from around the state, as well as others from state agencies, local agencies, working on this. It was a pretty big effort. We're hoping that the people who worked on it kind of forget how much it took to do it so they'll do it in 2017.

J.T. LANE: Do you know the 2012 grade the nation got for drinking water?

JEFFREY DUPLANTIS: If you look from 2012 or 2009 to 2013 I think it went up from a D- to a D overall. Fairly insignificant. We're moving in the right direction, but when you're talking about your kids coming back home from school and they went from a D- to a D, not really happy about that. Dollar amount we were talking about, looking at 1.2 trillion dollars in infrastructure upgrades that are necessary. Basically that means we need to do 1.2 trillion dollars' worth of work right now to get our entire infrastructure, that's nationwide, not Louisiana, to get our infrastructure up to a passing grade. At this moment in time. That's really all I have.

J.T. LANE: Comments? With that we'll go into old business and review our part 7 and part 9 side by side. Start with part 7. You should have a red line copy of part 7 with a copy of the side by side, the subcommittee's recommendations and DHH's recommendations. With that Jake or Caryn? What is easier in reviewing this for discussion? Easier to go to the side by side or do you have a preference?

JOSEPH YOUNG: Marked up.

JAKE CAUSEY: So I'll quickly go through the comments that we had on this part. So the first comment is relative to insertion of the word current AWWA standards. And the only comment is that as stated previously need to specify what that current addition is. And we can incorporate that I guess where the file, the code version. The next

comment is relative to, so generally throughout the enforcement notes similar to I guess like applicability statements in a sense and I guess it also seems to relate to the grandfathering notion that's been discussed. And I think our proposal at this time is that we have these notes in here we can't insert these notes in this format really, but we'll propose a format to incorporate that particular desire in a way that can go into the code. I think right now, certainly one thing Laurie had begun looking at is how other states incorporate similar grandfathering or what have you is basically starting with the chapter or whatever this applies to everybody and then in particular section you get specific about for new construction or modification systems shall. I don't know at the end of day how many of those things we're going to have, but at least it's a very straight forward approach verses having another section that restates, makes exceptions to in certain circumstances. I think for the purpose of this document we retain these notes, we got comments on some where may be you had a different line of thought, but so we left those moments in here. Comments certainly noted exactly like that isn't going to work for rule language. Retaining the document so we can propose a different format to effectively accomplish the same thing. I guess that's what the DHH comment means.

J.T. LANE: Just so we're clear, a format placement issue verses...

JAKE CAUSEY: It may be more than format in a sense of how you write it. I think sort of what's effective would remain the same. Again, how it's structured within that chapter I'll just say is uncertain right now. Certainly get the gist of what the intent is. We just left it as that for now and then we'll kind of do more research and figure out what we think is the best way to incorporate that as actual rule language. Can't just put a parenthesis that says enforcement.

RANDY HOLLIS: Let's go back to the first one here. Current AWWA, this is going to

come up time and time again. How are we going to put language in here about that? We can't put the latest, so do we leave that out and just say steel structures shall follow AWWA standards?

JAKE CAUSEY: One way in the plumbing code, cause we do have a lot of standards referenced in the plumbing code, we created a separate table that has all the standards listed with the specific conditions it's adopted. Within the text when you say steel structures shall follow AWWA no (inaudible) standard applicable, but T250 you go back to table 2 and whatever so T250 means the 2011 addition blah, blah, blah. So it is specific so as you update standards you don't really have to change the text, just update the table. But you do have to adopt an addition and later you can adopt a new addition. Can't just arbitrarily reference to the latest and as they change the rule automatically changes.

RANDY HOLLIS: What legal method do we have to follow to update the table?

JAKE CAUSEY: The rule making process.

RANDY HOLLIS: Go back to the legislature?

PATRICK KERR: Not the legislature, just rule making.

JAKE CAUSEY: It's either create a table that has all those or reference each specific addition. We're not going to have that many, we really don't need that table. It makes a lot more sense just to see how many there is, do it within the text, or have a table. It will specify the addition. The next comment was relative to the enforcement note. The section says fire flow requirements established by, may be the word appropriate stricken as well, established by the Property Insurance Association of Louisiana should be satisfied where fire protection is provided. It's not a shall so it is not a specific requirement, but there was an enforcement note so I guess the comment is that enforcement note doesn't seem necessary since it's a should.

PATRICK KERR: I thought we weren't going to put shoulds in here. The reason I say it now is because PIAL changes their standards routinely and I don't know this is a should I don't know what difference it makes to the department whether a system meets PIAL recommended fire flow requirements. It seems to me it should come out in its entirety. If you want to direct something that will be fine, I'm afraid of a liability, honestly.

RANDY HOLLIS: To follow up on that, water systems only (inaudible) 40 percent.

PATRICK KERR: With the rating.

RANDY HOLLIS: So we're saying it should meet that and I think it does because it's saying should be satisfied where fire protection is provided. It's implying it is only 40 percent of the rating for water, the other 60 percent is the fire department and communications. And if you get the water system to a 100 percent and the fire department is a 20 percent the deficiency is going to kill you. You don't want one far ahead of the other. I think for water quality we shouldn't even address this. Delete it from our standard.

PATRICK KERR: I agree because there are also various levels of PIAL requirements. We happen to be a class one city in Baton Rouge and our fire flow requirements are driven by that. It's a political issue, not a health issue. I don't see any health purpose for this language to remain.

RANDY HOLLIS: That's a decision of the people that live there and what they want to pay for, not water quality.

JAKE CAUSEY: We had it as a should. In a lot of cases there are local ordinances that trump that, that do mandate fire protection be provided so. But anyway, I did talk to PIAL they said we just follow AWWA fire flow, I'm not sure the manual or the standard is, but that's all they referenced. I don't have any particular heartburn with

that.

ROBERT BROU: Take a vote and strike that.

J.T. LANE: Delete it and we'll take a vote when we have the final.

JIMMY GUIDRY: If they don't do it we're not going to enforce it, but it does impact our water quality. If we lose pressure because they didn't build it to sustain pressure for fire then you are putting our water systems at risk. I'm not saying it has to be in our rules, but there's got to be an understanding that if they don't meet that requirement and they're going to use that water and lower the pressure they are putting our water at risk in my mind. They should have to be required.

RANDY HOLLIS: The very first part under A says the minimum storage capacity for systems not providing fire protection shall be equal to the average daily consumption. You have 24 hours of storage sitting there according to that. Now if you don't have that much storage then it allows you to put in standby power to continue to operate. So we're not jeopardizing the system by taking out fire protection. We have more than enough sitting there.

PATRICK KERR: If we want to leave something about fire protection though I think you could just say fire flow requirements shall be considered and we don't need to cite anyone else just the design engineer needs to know if I'm putting fire hydrants in have a system that's capable of providing fire protection. I need to be concerned about low pressure when fighting a fire. I think that might kill both concerns. Just take the PIAL out because they are not a regulatory body. All that happens if you fail a PIAL survey you go see the mayor, it's bad. But it's not got anything to do with health.

RANDY HOLLIS: Use the word considered not satisfied. Satisfied implies we are going to (inaudible).

PATRICK KERR: If you want to leave something in there like that Dr. Guidry I would be fine with that.

JAKE CAUSEY: Fire flow requirements shall be considered, is that good?

CHRIS RICHARD: The very first sentence says storage facilities should have sufficient capacity as determined from engineering studies to meet domestic demands and where fire protection is provided. It's telling you to take that into consideration the very first sentence.

JAKE CAUSEY: Okay. That will cover that. We can strike C.

RANDY HOLLIS: A question about the next one. Location of reservoir, isn't there a major conflict between A and B? A is saying the lowest level in sump floors shall be placed above a 100 year flood elevation. And then in B the second sentence, says if the bottom of a storage reservoir must be below the normal ground surface at least 50 percent of the water depth. I realize that's not flood elevation, but does it lead into a conflict? Do you allow ground storage reservoirs below ground surface?

JAKE CAUSEY: We have and I'm trying to recall we just built one, (inaudible). They are well above flood elevation, but part of the storage is below the ground surface.

RANDY HOLLIS: So the (inaudible) is acceptable to keep you dry?

CHRIS RICHARD: Back to A where it says or highest flood of record, we talked about that before. There may be some areas the highest flood of record that you might have to put a tank 30 feet in the air. Leave at a 100 year flood, agree to scratch the higher.

KEITH SHACKELFORD: Above the 100 year flood elevation how can you be below the ground water table?

PATRICK KERR: Gravity sewer line, and the reason I'm asking about the 20 to 50 foot rule that's established here we don't have that same luxury in production facilities. We have to be 50 foot away from a gravity sewer or have (inaudible). Either one or

the other is right. I don't know which you'd rather have?

JAKE CAUSEY: Relative to a finished water storage tank rather than a water well. I'm just thinking the two are completely different risks.

CHRIS RICHARD: The ground water tank is.

JAKE CAUSEY: Seems like 20 is pretty close. This can't be closer than 20 within 20 to 50 so build it this way. DHH 4 comment, comment relative to enforcement code.

Finished water storage designed to facilitate fire flow requirements and meet average daily consumption should be designed to facilitate turnover of water in the finished water storage to minimize stagnation and/or stored water age.

Consideration shall be given to separate inlet and outlet pipes, mechanical or similar mixing, or other acceptable means to prevent poor water circulation and long detention times that can lead to loss of disinfectant residual, microbial growth, formation of disinfectant byproducts, taste and odor problems, and other water quality problems. So I guess the enforcement note basically said this was only applicable to new construction and/or improvements. 7.0.6. I guess so our note is really in cases where there is an identifier known water quality problem for a water system because of this particular issue that is something that we should consider outside of permitting.

PATRICK KERR: I think you need to change the should in the second line to a shall so the whole thing is compulsory.

RANDY HOLLIS: I want to make sure the definition of turnover does not mean you're actually forcing the tank to change an elevation significantly. Turnover means that you have a complete mix basin putting water in and pulling it out, but turnover is not misinterpreted to fluctuate the water level. That would be the only thing to concern me. Make that a shall.

PATRICK KERR: Specifically allows for circulation, for recirculation mixing.

RANDY HOLLIS: The second sentence, just want to make sure the first sentence does not misinterpret, turnover is fluctuation of the water level.

PATRICK KERR: What would you use instead of turnover?

RANDY HOLLIS: I don't know, just trying to throw that out there as we pass these things that we understand turnover does not mean fluctuation. That it does mean we can have complete mix and circulation and not dictated to (inaudible).

JAKE CAUSEY: The second sentence clearly says it needs to be considered and I think it covers all those things. I follow what you're saying, but I think it would be hard to read the first sentence without the fact that the second sentence consideration shall be given to these different mechanisms.

PATRICK KERR: Could we not just strike facilitate turnover of water and just say design to minimize stagnation or stored water age?

JAKE CAUSEY: Yeah. So I guess the comment then again is referencing I guess enforcement. I guess I'm trying to think of the criteria. Really where it's a known or demonstrated issue causing repeated chlorine residual.

ROBERT BROU: I don't know the exact wording, but it does say anytime the quality of the water is threatened or health problems the state health officer has the right to enforce whatever they have to do. It could be at least looked at on each sanitary survey.

JAKE CAUSEY: At least within the enforcement note so we capture the proper intent. Says the design standard is for new systems and/or improvements, but does not enforce sanitary survey except where water quality problems are occurring. I was trying to think of something maybe like that where it's specific.

RUSTY REEVES: Put where water quality issues warrant further investigation and

treatment options. Just what we see in here situations a lot of times it comes down the chlorine residual lost in one tank we've established that.

JAKE CAUSEY: Yeah, that's really the only thing when we have issues like that we're trying to get identified.

PATRICK KERR: How about you put a period after detention times and then you say something like where lost disinfectant residual blah, blah is found remedial corrections may be required or something like that? Probably shouldn't say that because it will bite me in five years, but if that's what we're trying to do. If we got a problem we should fix it and I think that's a place we should do that. You don't have to wait for the sanitary survey. We have a problem in the tank I think the department should have the power to make us fix it.

RANDY HOLLIS: A significant loss every tank is going to lose chlorine residual.

PATRICK KERR: Less than .5 is significant.

JAKE CAUSEY: I'm going to read back what I wrote. So after water quality problems period where loss of chlorine residual below 0.5 milligrams per liter occurs certain action shall be taken.

RANDY HOLLIS: Where are you inserting that?

JAKE CAUSEY: The very last sentence after water quality problems period. The next DHH 5 comment is relative to I think very specific prestressed concrete tanks and the particular text is certain prestressed concrete tanks having eyelid overflow opening installed on the top or side of the tank shall not be required to have an internal overflow pipe as long as any eyelid opening used an overflow is installed in such a manner that prevents contamination of the water in the tank. I just wanted to clarify that typically overflows, as I recall and understand it, are not referred to as eyelids. The overflows are vertical and that they can affix an eyelid to the overflow that

affectively makes it downturn to prevent contaminants, articles, and rain, and other things. I guess my comment was this refers to the overflow itself as an eyelid overflow. I don't know that's accurate. I think there's an eyelid piece affixed to the overflow that helps protect it. May be just a changing of the wording there.

CHRIS RICHARD: I think they're referring to the Crom tanks typically. They have a dual-purpose, the four quadrants of the tank, they call it the eyelid. It is the overflow, doesn't go down to the ground, just an overflow. I know the issue the sanitary survey is a requirement that a lot of these existing tanks built years ago be retrofitted with an overflow pipe and the problem on the prestressed tanks can't drill a hole without filling the tank. A dam that you can work with, very expensive to retrofit tanks. You can put a Crom tank in with the eyelids, you can install it, but you can't really retrofit them.

JAKE CAUSEY: I know that some have been so there are ways, but I'm not on that. I know things are possible, but all I'm saying is all the Crom tanks out there don't have eyelids covering the overflows. They are just vertical and they have a screen, but rain and other things can enter those tanks. I just want to clarify my understanding is they don't refer to the overflow as an eyelid. We had the conversation with Crom we had an eyelid piece that you can affix to the overflow. I want to make sure the worry in here is in fact accurate so that we're comfortable with that design as long as it has an eyelid piece affixed to it then that's fine. Wanted to make sure we have the wording right.

RANDY HOLLIS: Let me suggest this. Preload, Crom, all of them have the vertical vents at the top, that's the way they make them. Every one of them has overflows that are vertical. The eyelids came into play about three or four years ago, a fiberglass piece retrofitted so the vent turns down. I think you're talking about two issues here. I

think somewhere in this storage you need to state that ventilation of the tank shall all turn downward so whether it's the eyelid or anything else have a downward turn to prevent anything from coming in the ventilation part of it. I think that's one thing. And as far as allowing the vents to serve as an overflow that's what we're talking about now is the vents can serve as an overflow provided (inaudible) splash pad (inaudible) overflow.

JAKE CAUSEY: I don't recall these overflows were also vents. I thought that one of the tanks I looked at they had a separate vent. So the number of overflows they have (inaudible).

RANDY HOLLIS: (inaudible) but they also have ones that are around the perimeter of the tank. They have the vertical screens; that's the ones you have to put the eyelids on.

JAKE CAUSEY: The number of overflows they have.

RANDY HOLLIS: It can vary by the size of the tank. Normally it's four. (inaudible) a number of those around the perimeter of the tank which acts as the overflow. And I guess that's our point, we have all these overflow protections provided on the tank and then require an internal pipe that is insignificant compared to the overflow capacity of all of these vents.

JAKE CAUSEY: I don't think it's about the availability of overflow. It was about the protection of the water within the tank and to make sure we're not compromising the tank itself. My comments were not that we should require that, disagree that we should require separate overflows, I'm just saying I think the way this is written is not accurate.

RANDY HOLLIS: I think you just need to state all overflows on these type tanks shall have eyelids so it's downward opening. And then I agree we don't need an internal

overflow if we have these vents around the perimeter of the tank.

JAKE CAUSEY: I guess maybe it would still be that, I didn't realize the vents and the overflow. We can revise the wording. I wanted to make sure that I was understanding what was overflow and an eyelid are two different things. It referred to it as an eyelid overflow. I'm thinking the wording should say tanks having vertical overflows shall have an eyelid affixed such that they are downturn.

CHRIS RICHARD: I would leave the word eyelid out, getting specific to Crom. Screen overflow or something like that. Try to keep it very generic so you don't get too restricted.

RANDY HOLLIS: I agree. Let's leave the word eyelid out of there and over 7.0.9 vents where we cover the downward open part which is the eyelid.

JAKE CAUSEY: May be we can include it in both parts. I'd rather have it in both sections so that it's covered.

JOSEPH YOUNG: First sentence 7.0.7 drainage inlet and 7.0.2 we say something about here in the second sentence about sewers, drains, standing water 50 feet. Do we want to see a drain in the second sentence 7.0.2? Do you want to just take out drains of 7.0.2?

JAKE CAUSEY: Presume meaning drains other than one dedicated to receive overflow. So the next comment is in section 7.0.8 relative to the enforcement note. I think it just needs to be reworked relative to the manholes. Says this design standard is for new systems, improvements, and/or sanitary survey except to access manholes which is not enforced on sanitary survey. Presuming we still need to have one. Just wanted to make sure that's the intent.

DIRK BARRIOS: New construction going to have to have two manholes above the water line?

JAKE CAUSEY: Right. Okay, the next DHH comment 7.

PATRICK KERR: 7.0.9 strike (inaudible).

JAKE CAUSEY: May have to make an exception or something.

CHRIS RICHARD: The other ones on the tank are (inaudible) they were just overflow.

There was no pipe involved. This says overflow pipe shall not be so I think it's different.

RANDY HOLLIS: You do have the right there already. I think we're going to run into a problem there; Crom tank under D on 7.0.9 vents. On ground-level storage structures shall open downward with an opening at least 24 inches above the roof or the finished grade of the surrounding ground covered with 24 mesh non-corrodible screen. Those eyelids are not 24 inches above the roof.

CHRIS RICHARD: They're below the roof.

JAKE CAUSEY: If it's right there on the roof you have a lot of things around that you get the vent up off the roof, not right smack on top of it. At least Crom tanks they're on the side, hopefully nothing sits and does its business right there. I think that's (inaudible) of things off the ground floor, off the surface of the roof elevated above.

CHRIS RICHARD: Say roof mounted vents because the Crom tank's on the wall basically.

RANDY HOLLIS: No, they're on the roof. Let's face it, nobody wants to admit it, they're on the roof. You got a vertical wall, you got the roof, and they're sitting right there on the roof. Just like a dormer. And the eyelids go right there. So you're probably looking at an opening of 6 to 8 inches. Y'all been out in the field, you've seen them.

JAKE CAUSEY: I've had pictures sent to me.

RANDY HOLLIS: They work extremely well.

JAKE CAUSEY: A lot more screen material to maintain.

RANDY HOLLIS: The screen is the same.

JAKE CAUSEY: I mean it's got a lot more surface area to maintain than just one overflow.

But that's okay as long as you do it. That's fine, we just have to get the wording right.

RANDY HOLLIS: If you change shall to should and you'll have should open downward (inaudible).

JAKE CAUSEY: This says when you go back to that overflow section the wording there says certain prestressed concrete tanks, let's just say an overflow opening installed on the top or side of the tank shall not be required to have any kind of overflow pipe. May be we can use whatever same language we come up with there to describe those, insert it here, and D is an exception from having to be 24 inches above the roof.

ROBERT BROU: Jake, just a point of clarification. The reason they had the word sod in there these are not ground storage tanks, these are ground level storage tanks. Meaning they are basically submerged on some surface and it's 24 inches above the ground level. That's why they needed that, why the word sod was there. We don't call them ground level, we call them ground storage tanks, a huge difference.

CHRIS RICHARD: The vent is not describing a vent typical to a steel ground storage tank. A steel ground storage tank doesn't typically go down, but can act as a hatch and screens on the side.

JAKE CAUSEY: I'm thinking there's a level elevated tanks, there are ground level tanks, and then there are below ground level tanks. So if you say to me ground level structure I'm thinking a ground storage tank, a tank that is built at ground level, not floor 2, 3, or 4. I don't know, I follow your logic. I think they may be just trying to cover, because they cover elevated, on elevated tanks and standpipe you do this on a ground level meaning right at or near ground level, I presume. It's got to be 24 inches above the roof, or sod, or finished ground whatever. I would presume may be both.

CHRIS RICHARD: The vents on a ground storage tank, typically the ones I've seen, they are not pointing down on a regular steel ground storage tank. They're around the periphery, but then (inaudible) actually used as a man way when they are rehabbing and they don't point down. On a clear well you have a pipe that would come up and point down. It's the same downward pointing vent. I don't think they are referring to ground storage tanks.

BEN BRIDGES: I think our understanding of ground storage tanks is one that sits on ground level, not a subsurface. When you think of ground storage tank I'm thinking may be submerged a foot or two, but sits on the ground.

JAKE CAUSEY: If you consider it in that fashion then it doesn't address ground storage tanks at all, which I wouldn't believe is the case. What other section would you say is applicable to a traditional ground storage tank? If you follow that then they don't have a section that would apply to that at all.

CHRIS RICHARD: Then we can add it. I think it's confusing the way it's written. If we need to add a section to ground storage to make it clear then we need to.

JAKE CAUSEY: I don't disagree, but I do believe the intent of that section is to cover both. We can segregate it and we can make it abundantly clear.

SPEAKER: Manhole, can you call them a manway instead of manhole?

PATRICK KERR: Can we just call it a worker entrance?

RANDY HOLLIS: Let me bring this back. Let me ask this, if we have a concrete tank and we have the vertical vents on the top which are like dormers and we put in an eyelid if that spacing between the bottom of the eyelid and that roof is less than 24 inches is that going to be acceptable?

JAKE CAUSEY: That's what we said, make an exception.

RANDY HOLLIS: So we're working on exceptions?

JAKE CAUSEY: Yeah. It wasn't identified as a need. So I think all we're talking about is distinguishing the non Crom situation. I guess the vent I guess may be a clear well, subsurface type storage verses a tank verses like a typical steel bolted ground storage tank. I guess the requirement that the vent open downward and be at least 24 inches above the roof or finished.

RANDY HOLLIS: Why don't we just take out the roof of the sentence? They open downward with the opening at least 24 inches above the finished grade of the surrounding ground. When we're not (inaudible) we will be 24 inches above the finished grade no matter what type of structure we have.

JAKE CAUSEY: On top of a ground storage tank you don't want that vent sitting right there at the same level frankly as the tank. A lot of tanks are flat so if you have a screen that's flat all that rain is going to run right into it. And also you have birds and things that will sit there and congregate and all that's going to run off in the tank so you have to elevate the screen above the roof.

RANDY HOLLIS: And I agree with you. The dormers that we want to call those things the initial part that's built with the tank is built on a steep slope.

JAKE CAUSEY: Yeah, I'm not talking about that circumstance at all. That part's okay. We're talking about the other circumstances where they actually have a vent in the center of the tank on the roof, the middle highest part of the roof that's got to be 24 inches above the roof, can't be sitting right on the roof.

RANDY HOLLIS: No problem with that.

CHRIS RICHARD: They typically don't open downward.

RANDY HOLLIS: The center ones every one now from the (inaudible) to all of them got a big plate on the top that goes down over the top.

CHRIS RICHARD: It's got a shield, but it's not pointing, unless you want to call that

pointing down.

RANDY HOLLIS: That prevents ice and formation.

BEN BRIDGES: But then you look at the true U shapes that are vented down on the subsurface type tanks and they are physically downward.

JEFFREY DUPLANTIS: Should this section be broken into three different groups, styles? One should be an elevated, we should have a ground, and should have a below ground. And direct the venting or specific to each of those. I think you're trying to cover a scenario over three things.

JAKE CAUSEY: Even for the below grade like you talked about where they use the inverted J I guess they call it. I've seen some that also use the mushroom top that create that downward as well. You're going to have both scenarios for below grade and above grade types of quote unquote (inaudible) and we certainly all agree that those are downward covered vents. But we do need to include the Crom tank scenario, insert that as a separate section. We can delineate for below ground, above ground, and elevated structures with below ground, above ground say the exact same thing generally speaking I guess.

JEFFREY DUPLANTIS: Or do you change it and don't worry about what kind of tank it is and address the type of vent. Like this type of vent can be used for these two types of structures and then this type of vent can be used for that type of structure. I think you start getting into manufacturing issues. But I think if you break into the three different types of vent or type of tank then you can cover the vents specifically.

PATRICK KERR: I think A shall prevent the entrance of surface water and rain water, covers that. I know that our vents on most of our storage tanks are not 24 inches from the top of the storage tank to the bottom of the vent, they're not. But there is a shoulder to prevent water from going into the vent and I think you're covered by A.

Now we do have some ground level tanks, several million gallons stored under sod and on those we have the vent and that shoulder is at least 24 inches. And it's funny because we started this conversation because of so something doesn't walk up to it, a dog doesn't walk up to it and use it as a fire hydrant. It's tall enough that that's not going to happen. But I think if we have a shoulder that prevents the entrance of rain water or any other contaminants it covers that and then D is specific to ground level structure 24 inches because all we need to make sure on our elevated tanks is that we don't bring contaminants into the tank. I know some of our vents don't have a cover that covers the vent itself. They have a metal or stainless band around them to prevent horizontal entrainment of matter, but the vent is just protected from wind blowing dust in. It vents up and down like a chimney cap, some of the older ones. But none of them are 24 inches from the top of the tank to the bottom of the opening and that's what this indicates. Honestly I think the language we have here is fine just as it is as long as we have the understanding that we're talking about ground level structures or structures which may be sod covered tanks, or may be built into the side of the hill and have an exposed wall and the rest is earthen. Which I know examples of that too, where an animal could crawl to the top of it. But birds on vents the vent normally is wider than the pipe it's attached to and that shouldn't be a problem.

RANDY HOLLIS: So we're really saying D is shall on structures where the roof is level with the ground?

PATRICK KERR: No. (inaudible) Storage Facility for example it's an incline, it's sodded, but it's 15, 20 feet above ground level and several feet below its structure. That's a ground level structure. A person can walk right on the top, they don't have to climb a ladder or anything else.

RANDY HOLLIS: The top of the tank is above grade even though it's covered with sod the top of the tank, the roof, the vents are 24 inches above the grass. So if we say the shall on structures where the roof is level with the adjacent ground surface.

PATRICK KERR: It's 15 feet, 20 feet above the (inaudible).

RANDY HOLLIS: I'm calling the sod the roof, the ground surface.

PATRICK KERR: I think ground level structure as long as we understand that to be what we're describing is right. Leave the word sod. Actually we should leave the word sod in there, may be a sod roof.

RANDY HOLLIS: We could say where the roof is level with the adjacent grading to the vent. The roof is level with the adjacent grade of the vent. Then it has to open downward at least 24 inches between there and the top of the roof. Be it whether it's 5 feet above the ground or whether it's 20 feet.

PATRICK KERR: So make no changes to 7.0.9, right?

JAKE CAUSEY: But let me ask this, the definition of section D is not going to include I would say ground storage tanks where the bottom of the tank is the top of the ground and then it goes up then the screening requirement on the vent, 24 mesh noncorrodible screen doesn't apply. We have no 24 mesh screen requirements at all for vents on ground storage.

PATRICK KERR: It's a standpipe. May not be a standpipe with significant energy in it, but a ground storage tank is above, it's a type of standpipe. Again, we don't have a hydraulic in there just like we do on a tall one, but a tall ground storage tank like we have at Bluebonnet and Perkins we've got a range that's above our hydraulic (inaudible) system and it acts as an elevated storage and (inaudible) type storage. You could add it to E, shall on elevated tanks.

JAKE CAUSEY: I wouldn't call it a standpipe, might could add. So I guess in that case

you're talking about a 4 mesh noncorrodible screen rather than the 24. I'm trying to read E. Yeah, cause remember the vent on an elevated tank is way up there, standpipes way up there, ground storage tank 20, 30 feet.

RANDY HOLLIS: I've never understood this, but I think AWWA researched or recognized that mosquitoes cannot fly that high or whatever. When you're a 100 feet in the air or more and you require a 24 inch mesh screen.

JAKE CAUSEY: But when you're close to the ground. So if we put the ground storage tanks in E you got the mosquito problem.

RANDY HOLLIS: You got to put 24 mesh on ground storage.

JAKE CAUSEY: I agree. So we need to create some separate sections here, how about that? So the DHH 7 comment was I guess relative to the enforcement note where I guess it said and/or on sanitary survey except for finer mesh noncorrodible screens under 7.0.9E. And I guess I was curious to understand why we would enforce a screen requirement on surveys for these particular mechanisms. And maybe it was a misunderstanding of the report, I'm not certain. It was on the subcommittee report. 7.0.9E. In the enforcement note it says that these venting requirements are enforceable for everything including sanitary survey except the fine mesh requirements under 7.0.9E. The requirement says or with finer mesh noncorrodible screen in combination with an automatically resetting pressure vacuum relief mechanism. I'm not sure if you recall.

ROBERT BROU: If you use a finer mesh you have to have an automatic resetting pressure vacuum maybe because of the airflow being restricted through finer mesh.

RANDY HOLLIS: A number 4 screen it's not going to plug up, but if you for some reason decide to use a 24 inch screen on top of an elevated tank then it's requiring you to use that vacuum relief system so you don't collapse the tank because of the

restriction in airflow. Most of them simply pop up and send the vacuum stop fall right back in place so the vacuum does not have the finer mesh, it's outside of it.

JAKE CAUSEY: So to strike that part from the enforcement note is fine cause it doesn't require you to use a finer mesh screen to begin with, but it does say if you use a finer mesh screen you have to have a relief. So that's fine, just strike that from the enforcement note. That makes sense. So I guess the next comment DHH 8 there was an enforcement note in the 7.0.12 safety section. Well, I guess really the comment is I don't think it's relative to the note. It was just something if the subcommittee states at the end of their enforcement note that new standards shall have some global reference to the appropriate safety requirements or other code. And so I guess the only question was is there something else that is intended for us to include here or is this fine?

JIMMY HAGAN: Was that a note relative to confined spacing requirements changing like other standards might change? I think that's what y'all were alluding to.

JAKE CAUSEY: Standards shall have some global reference to appropriate safety requirements or to other codes. I don't know. That's all it says, just says new standards shall have some global reference to appropriate safety requirements or to other codes OSHA, etc. So if there's some part of the section that reference some of that it's fine.

CHRIS RICHARD: I think those codes are covered by other entities and we don't need to bring them in because not everybody applies to OSHA. There's a lot of things that come into play designing a water system, the fire marshal, OSHA, DHH. We don't need to cover everybody else.

JAKE CAUSEY: I think what we have right here is good rather than reference any additional codes.

DIRK BARRIOS: On safety where it says railings or handholds shall be provided on elevated tanks where persons must transfer from the access tube to the water compartment. Are we talking about a railing (inaudible)? After a few years they rust out and none of the contractors use them. They're hard to paint, they're hard to blast, they're in the way, and a lot of times they cut them out. Why are we getting into that part, has nothing to do with--

JAKE CAUSEY: I presume it's like most things is that for a person to get access to the water compartment for purposes currently need to do so safely.

DIRK BARRIOS: You got a 40 year old elevated storage tank I'm going to open it up and let you climb the tank from the inside and let you use the ladder rungs that are there. I guarantee you you won't use it. It's from a safety issue because you can't trust, I don't care how well you keep up your tanks, they are going to rust. Randy will tell you, you can't blast them, you can't get around them, and the first time you're going to get in there and I just hear they try to convince you to let them cut them out when they can't. When they get so bad they just in the way, they can't pass inspection because they can't blast around, they can't paint around, just an issue.

JAKE CAUSEY: The railings and handholds?

DIRK BARRIOS: That's why I'm asking. Are we talking about the steps?

JEFFREY DUPLANTIS: Aren't we supposed to be focusing on the parts of this chapter or these chapters that affect water quality that need to be brought into the code? And if it doesn't affect water quality then it needs to be up to whoever's jurisdiction for safety and stuff. How do we get away from updating the code for jurisdictional required things that don't have to do with design?

JAKE CAUSEY: I would say that certainly the purpose is far more than just water quality. It's water availability, sustainability, resiliency, all those things that are needed to

ensure our water system operates successfully, continuously, and does produce good water quality. I think that access to parts of your system, water plant storage tank, for example if you don't have a ladder to get up on your storage tank to inspect the event that's a problem. I don't know that what this is saying applies to what you're saying. It says railings or handholds so I'm not certain what you're referring.

DIRK BARRIOS: Says must transfer from the access tube which to me is the (inaudible) into the water compartment which is actually the tank that holds the water. I'm talking about I guess we call it the ladder rung. Lack of a better term.

RANDY HOLLIS: I have to believe, this comes from 10 state standards, this is from 40 years ago when somebody sat on a committee and climbed a tank and nobody provided a way to get in and he said let's throw that in and make everybody require handholds. You bring up a good point, we don't put steps in manholes anymore. We don't and why is that because they all rust out. We make contractors use a ladder because if they step on one or two steps, the old iron ones, they're gone. We do not put steps in manholes. We require contractors to use a ladder. I think your point is well taken here and that we don't know the condition of those things here so why make it a requirement. Let's figure out the best way to get to a tank to service it and put that on his responsibility.

JEFFREY DUPLANTIS: Where is lighting at in this section? Things that don't pertain to water quality and you're talking about access, where is lighting? You're making them carry a flashlight or you're putting in lighting? Some of these things don't make sense from a water system quality whatever, however you want to term it, prospective. And I don't think some of these things pertain to maintaining the system from outside of safety. I agree they need to be able to get from one place, a guy is getting off of them and moving over there you want some sort of thing, but that's an OSHA

something. I don't know if that pertains to a DHH water code.

JAKE CAUSEY: Yeah, we got to inspect them as well, have to be able to access.

Generally aren't climbing water towers. From my view if you can get in and inspect as needed it's a matter that a ladder or something be provided.

PATRICK KERR: Two things. I think you could leave the first paragraph and take the rest out, all that specific, just take it out. OSHA, for example, there's two different standards. I have a different standard for climbing one of my own tanks than a contractor who's required to rig it himself. We use 1610, and so a completely different standard. I'm not allowed to climb a tank if the rungs aren't serviceable, a contractor is if he rigs and works around it. I think you just take everything out and just say design will conform to laws and regulation. You shouldn't need to say that because it should conform to law and regulation, but the rest of it just it changes.

JAKE CAUSEY: Yeah, I guess keep in mind the enforcement code here for new construction.

CHRIS RICHARD: When you permit a new construction you go back and use the standards that are designed to when you do your sanitary survey. Not able to be maintained then we have a problem.

PATRICK KERR: It makes all the language you're using about what not to use on sanitary survey is not what we want to do. In all of these anything that was built after this regulation put it on the sanitary survey. I think you need to find better language.

JAKE CAUSEY: Well, it's not our language.

PATRICK KERR: I understand, but you need to find language that says enforced on anything constructed after this date on sanitary survey.

CHRIS RICHARD: Or like the fire marshal. There's a period of time that you have to meet and maintain in accordance to the standards when you built it and prior to that

you have your exception to this code allowing the grandfathering. Don't grandfather beyond that point. This section is headed by design. The very first paragraph, design water tank. The way I read that everything in this section is related to design, period.

JAKE CAUSEY: I think keep in mind that so we are the only entity reviewing these facilities when they are constructed. We can say that some of these things probably should look at when we issue permits and make sure that they are included. I think they are important. I think everybody saying wouldn't design a tank wouldn't have these elements than if there is one and be done with it. Because what happens is frankly a lot of engineers, especially new engineers, they don't read all the reference manuals, etc. and they are going to look for what's in the code specifically and that's all they are going to follow. I think that's the reason, especially a lot of these things are there that we wouldn't do it without this, that's why it's there. It's obviously a permit thing.

RANDY HOLLIS: Under safety A, B and D are fine. I can tell you in a shop drawing on tanks I can't tell you that on a shop drawing that I can even find railings or handholds in that particular location of like an elevated tank. They are going to put it whether they want to. I don't think that I can even find it on the drawing. I'm fine with A,B, and D, I just think delete C. I recommend we delete C and move on. I do have a question on the next one. 7.0.13 freezing. States in here in the last sentence of the first paragraph if a water circulation system is used it is recommended that the circulation pipe be located separately from the riser pipe. If you have a wet riser and you're simply taking water out of the lines and sending it back to the tank I would prefer to be inside the riser as far as discharge pipe because that is better freeze protection than putting a smaller 4 inch or 6 inch pipe on the outside. You're asking for trouble. I would ask that that sentence be deleted because it's better to have it

inside. If you're taking the tank out you're not going to (inaudible) the system anyway. I would prefer for it to be inside the riser than running a separate pipe on the outside.

BEN BRIDGES: The only problem with that is blasting or painting (inaudible) riser. (inaudible).

RANDY HOLLIS: (inaudible) it's never painted.

JAKE CAUSEY: You might need to specify materials.

RANDY HOLLIS: Brackets on the inside of a wet riser and then attach schedule (inaudible) PVC, turn it up to the 90, and run it up to the bowl so it's not corrodible. Paint the riser, take the PVC out. I know it says recommended, but I hate to see something like it (inaudible) and we can't put it in here.

DIRK BARRIOS: If you let them a steel pipe.

RANDY HOLLIS: Well, the problem I have with an overflow the overflow is a dry, it's dry, it's got air in it and it will rust so you get internal corrosion on the overflow pipe. Recirculating you don't as much circulate the water (inaudible). Overflow pipes, as much as I hate to say it, okay on the outside, but recirculation I would prefer to put on the inside.

DIRK BARRIOS: A lot of the older tanks the overflow's on the inside of the riser and it's just as hard to paint.

RANDY HOLLIS: But I think there is a big difference in the overflow pipe verses recirculation pipe. And we can leave it like it is. Just says recommended. I think it's better to have it on the inside. That's the engineer's preference, the type of pipe material, and the owner, the longevity of it.

JAKE CAUSEY: The impact on water quality.

RANDY HOLLIS: I don't know if we've ever specified the type of pipe material and I hate

to start specifying in one place.

JAKE CAUSEY: The next section was 7.0.17A. So it would just state paint systems shall meet ANSI/NSF 61 and be acceptable to the state health officer. And so the note in section 335 part 12 there's an AWWA D102 standard for coating steel water storage tanks that should be incorporated into this section. So the next section is 7.0.17C. Cathodic protection should be designed and installed by competent technical personnel and a maintenance contract should be provided. Enforcement note about when to enforce it since it was a should. And a should we just wanted to clarify that they are shoulds and not shalls which may be a caveat or something.

PATRICK KERR: On A paint systems, we've got into some arguments about different systems about fill material below the paint surface filling the steel and not being able to approve fillers. This doesn't mention that. It mentions the paint system. I'm just curious, is that something that you're no longer concerned about, or is it just not in here because we didn't put it in, we forgot to?

JAKE CAUSEY: No, I don't think it's something that we're not concerned about. I haven't reviewed the AWWA D102 standard and that might address that or not.

PATRICK KERR: Randy, I'm talking about fill material for corroded steel before we paint.

RANDY HOLLIS: I knew you'd bring me into this. I guess let's look at it realistically; the steel is not NSF 61. The welding lines are not NSF 61. None of that is NSF 61 so when you have a tank and you take it down and you find pitting in the tank then you can plug weld it, that's one of the ways we fill in the plug if it's more than half of the thickness of the steel, or if it's less actually use a pit filler and that's flush with the steel when you finish. So you have pit filler. On top of that you put in primer, your (inaudible) coat, finished coat or just two finished coats, whatever. They're epoxy coats that are NSF 61. The problem we ran into in the past was we were told to not

only use pit fillers NSF 61 approved. My comment is it's no different than the steel, it's no different than the welding rods so why does a pit filler have to be NSF 61 approved when the coats go on top of it? So here we are with the best paint system we have in the world and they didn't paint pit fillers NSF 61 because they never thought they would have to. So now you have to go to someone else that might make NSF 61 and now we've got an ink compatible paint system from somebody else to make pit filler so now we have compatibility issues between companies. The real question is the pit filler is just like the steel and the welder rods.

JAKE CAUSEY: Do they make a 61 product now?

CHRIS RICHARD: They stopped making it about a year and a half, two years ago.

(inaudible) made like a glass surface, epoxy. They don't make it at all.

JAKE CAUSEY: I guess the only other question I have is that if the AWWA D102 standards does that address pit fillers?

RANDY HOLLIS: I don't know off the top of my head. I think they address finished coatings, which would be the primers and everything else. We can look at that and see.

JAKE CAUSEY: I hadn't looked at that, but I'll make a note and we'll include a note here need to address pit fillers and we'll make a note.

RANDY HOLLIS: That was a big problem we were running into; couldn't find them and their compatible paint system. And because they are totally covered within NSF 61 why do we even have to to begin with?

JAKE CAUSEY: So for C cathodic protection. That enforcement note it was either should or intent this was a shall with enforcement note. Jim, do you recall?

JIMMY HAGAN: It wasn't on the subcommittee. Wherever the note appears was intended to be the grandfather question. That was the subcommittees way of

describing you could have just said grandfather rather than go back and enforce it.

CHRIS RICHARD: It will have to be addressed separately; not necessary in this section because this section is design.

JIMMY HAGAN: Everywhere that we had one it was permissible the different situation going forward, few situations where it was going forward also looking back on sanitary survey every time it came up noted which one of these specifically.

JAKE CAUSEY: So on this one it says should so cathodic should, not a compulsory requirement to begin with so it would seem the intent is to maintain it that way, no enforcement needed. Cause it's a should, unless the intent was a shall. Then enforcement may be applicable. We can just strike the enforcement note here I presume.

RANDY HOLLIS: I want to go back to B real quick if we're through with that one. On wax coatings, I was shocked a maintenance company came in about three or four months ago promoted to a town to come back in and put a wax coating on the inside of an old tank. I'm wondering under B it says wax coatings for the tank interior shall not be used on new tanks. Can we say or rehabilitation of existing tanks so that we cover that here even though this is meant as new tanks? I don't think we should use wax coatings on any type of (inaudible) tank. But these maintenance companies are coming in and doing that.

JAKE CAUSEY: Okay, we'll strike the enforcement note on C, no objections. The next section 7.0.18A. Okay, so that comment was just the addition which we'll pull up. I think 2011. DHH comment 12 needed to clean up the language so it says if such testing shows the presence of coliform bacteria repeat samples shall be taken until two consecutive samples taken in 24 hours, 24 hour intervals are negative. Was to clarify the tank cannot be put back into service until you get those negative samples.

PATRICK KERR: So if your first sample is a good sample you can put it back in service. If the first one's good you can put it in service is what this says.

JAKE CAUSEY: The next one, DHH 13. Disposal of heavily chlorinated water from the tank disinfection process shall be in accordance with the requirements of the state regulatory agency. So I guess we're suggesting rewording disposal of heavily chlorinated water from the tank disinfection process shall be in accordance with the AWWA C652 standards. I guess they specify how they dispose of that, but the standard, or in accordance with requirements of DEQ. And then it says or other state and federal authorities, whichever is stricter. And then DHH comment 14 again was just our note really.

RANDY HOLLIS: Under disinfection. Really says, it just says use C652 and then under C it says we really don't recommend that you use method three. So do we just not address that you can use one or two, or it never says which one to use. It just says don't recommend three. Do you have a preference or do we just leave it silent that you can use either one?

JAKE CAUSEY: So I think the blue language was just sort of cleanup to clarify what was stated there. So it said the disinfection procedure specified AWWA standard C652 4.3 which allows the use of highly chlorinated water blah, blah, blah. So that's what that section said so I think just reword it to say subsection 4.3.3 I guess. So you're saying there's another section that allows the use of highly chlorinated water?

RANDY HOLLIS: I think there are three different methods for chlorinating tanks. Method 1, 2 and 3. Three is the highly chlorinated water (inaudible) then you have to flush all of that out and refill it. Another one is spraying down the tank (inaudible) then you fill it up. And another is put 5 percent at the bottom (inaudible) and then fill up the entire tank. Methods one and two verses method three. So are methods one

and two acceptable if it's silent, really?

JAKE CAUSEY: Yes. I think what happens is A says you can use standard C652 for disinfection period, the end. I think this section was really, as I interpreted, saying one of those particular methods says you can fill this thing up with a whole bunch of highly chlorinated water and we don't really recommend you do it that way because then you have all this chlorinated water to deal with. If that's the route you choose to do you need to make sure you dispose of it properly. That's really all I see C saying, or attempting to say. But A I think clearly states all methods within C652 are at your disposal.

RANDY HOLLIS: I'm trying to remember, but I didn't think y'all had a preference of one over two or one or the other.

JAKE CAUSEY: I don't think so for tanks, not that I recall for tanks. I think we specify two methods in the sanitary code.

SIDNEY BECNEL: I think that section 4.3.3 that's the one specifically says filling tank up 50 milligrams per liter chloramine need to dispose of it, or they say the 50 milligrams. It sounds like it was allowing to keep that 50 milligrams and dilute it. So I think what this section is saying it's not recommended because disinfection by-products, which need to be kept out of the distribution system, but if it's used then you have to properly dispose of the water in accordance with the regulations.

RANDY HOLLIS: That is methods one and two in there also. Okay.

JAKE CAUSEY: DHH 15 filter washwater tanks, backwash tanks shall be sized in conjunction with available pump units and finished water storage to provide the backwash required by section 4.3.1.11. Consideration must be given to the backwashing of several filters in rapid succession. So our comment was I guess relative to the enforcement note to not use on sanitary surveys was that for systems

who aren't able to adequately backwash their filter due to inadequately sized backwash tanks or over time the number of scenarios that can occur, I don't know, things happen. That if there's an issue there that it could be important for the sanitary survey. I don't think this necessarily says that you have to have a dedicated backwash tank. Just have to have adequate storage for backwash. I think some systems use backwash. From our view backwashing is definitely a water quality issue. If you can't adequately backwash with your backwash system then that needs to be an enforceable part of the sanitary survey. I take it everybody agrees?

ROBERT BROU: Needs to be closely coordinated with whatever the final version of treatment is.

JAKE CAUSEY: Treatment does get into backwash.

RANDY HOLLIS: If we've got a backwash pump and a backwash pump, backup backwash pump, and even a third which we do at one of our plants, three backwash pumps. I wouldn't want this to be interpreted where's your finished water tank in conjunction with your pumps because we don't have a tank. We need backwashing with triple redundancy.

JAKE CAUSEY: We pump out something, don't you?

RANDY HOLLIS: We pump out of the tank underneath, yes.

JAKE CAUSEY: I think that would be the tank.

RANDY HOLLIS: Okay, that's fine.

CHRIS RICHARD: This is if you have a built in (inaudible) dedicated (inaudible).

JAKE CAUSEY: I presume that if you're doing that the tank is adequately sized. For some reason I can't imagine how it wasn't. Really small clear well (inaudible).

BEN BRIDGES: If they expand the plant over several years.

JAKE CAUSEY: Yeah, many things that can occur.

RANDY HOLLIS: The tank was built in the 40's and then the clear well underneath the filter. It's made to work with other filters in service until you have water. You lose the water being produced out of the plant, but enough internally.

BEN BRIDGES: But you have seen plants that have such bad backwash rates they run out of water and the backwash stays online. That's very prevalent in some of our customers.

JAKE CAUSEY: I guess, again, it just says filter washwater tank shall be sized in conjunction with available pump units and finished water storage to provide the backwash required by section 4.3.1.11. If that is forcible not just for permitting, but also for sanitary surveys I guess I'm thinking that in all the cases considered adequately this is enforceable on new system improvements and sanitary survey.

RANDY HOLLIS: I don't know. We do the double redundancy on pumps and everything else.

JAKE CAUSEY: The backwash water required by section 4.3.1.11 is the 15 gallons permit.

CHRIS RICHARD: I understand what you're saying. You want to be able to test the water quality you have to have sufficient storage to backwash your system, sufficient water supply.

RANDY HOLLIS: Yeah, but you don't have to have 15 gallons to get (inaudible) so that doesn't apply to everything.

CHRIS RICHARD: The water supply does. I'm saying I'm not getting specific. I'm saying don't say water storage, adequate water supply to backwash your filters to keep them clean. That's what you're after. You're not after some volume. You want to make sure they can clean their filter when they need to be cleaned.

JAKE CAUSEY: I guess the only question something you're talking about incorporated in part 4?

CHRIS RICHARD: Yeah, adequate supply not storage.

JAKE CAUSEY: Adequate supply shall be available to accomplish backwashing. Just say being addressed in part 4. DHH comment 16 relative to section 7.1.4 other treatment plant storage tanks unless otherwise allowed by the reviewing authority other treatment plant storage tanks/basins such as detention basins, backwash reclaim tanks, receiving basins and pump wet-wells for finished water shall be designed as finished water storage structures. And so I guess the point is that all the preceding requirements for finished water storage structures would not be enforceable on these particular facilities if it's not enforceable on sanitary survey. The enforcement is saying that design standards is for new systems and/or improvements, but is not enforced on sanitary survey. Seems to carte blanche all the requirements.

CHRIS RICHARD: In Lafayette we have backwash water tank, we re-tank the water and bring it back to the plant. It doesn't meet the requirements for finished water because we're going back through. It has an open top. We bring the water back through a clarifier which is open as well, then it goes through the filters through a covered reservoir. Wouldn't meet the requirements of a finished water tank, but it doesn't need to. It's actually a process. It's not a ground storage tank.

JAKE CAUSEY: That's another issue. I don't disagree that might be a conflict.

CHRIS RICHARD: If it's still within the treatment process, still has treatment and filtration why would it need to comply with finished water requirements?

JAKE CAUSEY: I think the only requirement you're talking about is open top. I'm presuming you think all other requirements--

CHRIS RICHARD: Right, but all those other requirements aren't necessarily related to ground storage tanks, they're related to (inaudible) and contact with the tank and other things. Not because it's a tank.

JAKE CAUSEY: I think we might just need to iron that one out a little more.

PATRICK KERR: Can we just change the heading of that? Finished water storage tanks.

JAKE CAUSEY: Yeah, I think we may have to investigate that further, a backwash reclaimed tank. Backwash water is not finished. I'm assuming call it a reclaimed tank, reuse it, and it needs to be generally protected to the same level as a finished water storage tank.

KEITH SHACKELFORD: No. (inaudible) it's being recirculated.

PATRICK KERR: Jake, an example. Reuse it to clean the filter before you retreat it. Jake's example is backwashing the filter, putting the unprotected storage tank, the water from that process, and then reusing it without further treating it to backwash the filter again. That's the example you're giving, right Jake?

JAKE CAUSEY: I guess I'm not certain. I'm trying to think about these different processes. I guess what I'm thinking of is that...

JIMMY HAGAN: I think what this is probably talking about is intermediate basins. I think tank is probably miss-numbered. There are areas or basins as you go through plants, depending on how they are designed, that need to meet the requirements of finished water storage. They are not a dedicated tank showing on drawings or something that might be where a number of pipes come together in a compartment or a basin. And we've actually had this situation before on one of our jobs where DHH pointed out that that didn't exactly mean finished water storage even though it was post filter. And so changes were made to make it meet the requirements of finished water storage. Post filter, but it wasn't a storage tank. You can call it a basin, a compartment, a concrete vault. You can call it a lot of things, but it needs to meet the finished water storage requirements. This is a catch-all deal because if you have anything that might be called any of these other items that need to meet the

requirement for finished water storage, or that finished water is passing through on to somewhere else.

JAKE CAUSEY: It does specify that. All these facilities for finished water. So finished water is being stored in these basins, tanks, etc. pump wet wells for finished water. If you change the title other treatment plant storage tanks for finished water you can add that to the title, but you're right. I guess I think what you're talking about if it's a backwash being returned to the head of the plant it's not finished water. So I guess on the enforcement note to say but not enforced on the sanitary survey, is enforced on the sanitary survey, or at least in so much as other requirements for finished water storage tanks or specified as being enforceable on sanitary survey. Maybe we could say it that way. Only enforce sanitary survey for requirements that were previously identified.

RANDY HOLLIS: As long as we're talking about storage if I have clarifiers that is a basin, but I can't cover it like a finished water storage tank.

JAKE CAUSEY: It's not finished water.

RANDY HOLLIS: But hitting that other treatment plant storage tanks.

PATRICK KERR: We just changed that.

JAKE CAUSEY: If you read the sentence it says basin, tank, pump wet wells, but it does say for finished water.

RANDY HOLLIS: Okay, sorry.

JAKE CAUSEY: As long as it's storing finished water, improvements and on sanitary survey. Again, I guess for some of these it is not on survey and some of it is. I would just say we follow the same enforcement notes that are provided for each specific requirement finished water storage facilities.

PATRICK KERR: In 7.2 I'm just curious, a little disconnect between that and 7.0.1. I'm

thinking about small systems. You just say in very small systems; we don't define that anywhere. I think we need to tell, I guess my question is most small subdivision systems, stand-alone subdivision systems do not have a day's worth of supply storage. I know we're requiring them to put in a second source now and that second source has adequate supply could offset the requirement to store water if it has backup power and all these good things, but we need to define when do you need something, when is a hydropneumatic tank no longer adequate? What size system is that? Is it a 25 connection, what do you want to call a very small system? I think we ought to be specific.

JAKE CAUSEY: To me reading that section seems to imply a 150 living units. But again, it's not a compulsory requirement.

PATRICK KERR: It is except in 7.0.1. I'm sorry, it's a should also. No it's not. A makes it compulsory. 7.0.1A says you shall have storage equal to average daily consumption.

RANDY HOLLIS: But the second sentence says it can be supplemented by standby power or other means. So storage doesn't have to equal average.

PATRICK KERR: I want to know how DHH is going to enforce that? What does that mean to you Jake? What does that mean when a developer comes in and says I've got a 100 lots I'm going to build. Do I need to put an elevated or ground storage for that new subdivision?

JAKE CAUSEY: Not when it says should it doesn't.

PATRICK KERR: It's shall.

JAKE CAUSEY: Oh, that you have the one day supply?

PATRICK KERR: The minimum storage capacity for systems not providing fire protection shall be equal to the average daily consumption. Doesn't say anything about size, just systems that aren't providing fire protection. It's never been enforced to my

knowledge and I want to be sure we're not going down a path we shouldn't.

JAKE CAUSEY: Well, I read it just as you do and the second sentence as Randy stated may be reduced when the source and treatment facilities have sufficient capacity with standby power to supplement peak demand on the system.

PATRICK KERR: So if I build a subdivision and I got to put in two wells that are capable individually of supporting the entire system demand and I need to put standby power on both of them, or I need to put in storage for a day. Is that what we want to say?

JAKE CAUSEY: I don't know that storage for a day like as in lieu of standby power.

PATRICK KERR: It is. It says the requirement may be reduced when the source treatment facility has sufficient standby power. If I had no standby power and I put in one day's storage that would be adequate under this. Are you going to require, it's already pressing developers to say that they have to put in two sources supply and we also interpret that to mean each independently sustain the entire system. Correct? Has to have the capacity so now we're going to tell them they have to have standby power on both of them too?

JAKE CAUSEY: No, I don't think so. We require standby power so I think essentially you can guarantee a new system comes in two wells and standby power, or one of them could be both.

PATRICK KERR: So one well's enough?

JAKE CAUSEY: No, no, no. But you'll have backup power so automatically qualify for the reduction in storage capacity based on that criteria, but you are still going to be able to meet all the demands, etc. What we would do is we would comment on should be this way, looks like proposing it this way, okay provide a rationale, this is why we're doing it.

PATRICK KERR: So you are going to require storage on small systems going forward?

JAKE CAUSEY: Going to require storage?

PATRICK KERR: I'm asking.

JAKE CAUSEY: Yes. I would think so. I haven't seen a system propose without storage.

PATRICK KERR: There's a lot of small systems on a hydropneumatic tank.

JAKE CAUSEY: I wasn't following you then.

GREG GORDON: One thing I would add along the same lines as Pat is you're looking at future phases of a subdivision when they build on and may be you have an existing subdivision that has one well in the tank and the developer is bringing on more to that system when you do the new. Let's say you need a new well or secondary source and it's rural and there's nothing close by to interconnect with that's cost effective. Would you also require a different type of storage, ground storage, standby power and things like that? And the other one I was wondering just with we've got a whole bunch of hydropneumatic tanks, they're not fun to deal with. I'm dealing with a problem one now. But you also have in here the design standards for new systems and/or improvements. I'm just wondering trying to improve or replace a tank or doing something in that area and you have a specific amount of property you can't, maybe can't put in ground storage in that area and may be that tank is looped in with other tanks and a tower. Kind of had that as you've seen, which is kind of not the best in the world.

JAKE CAUSEY: Hydropneumatic tanks can have some cumulative affects there too. So you said hydropneumatic tanks cannot be counted as storage? I didn't read that. If you're providing backup power use that as rationale. Certainly I think we would look at storage's cumulative affect regardless where they are located as long as they are connected to that system.

GREG GORDON: And I know we have a lot of single source issues and I don't like them

at all. I really want two sources even though they can be painful for cost prospective. But I guess what I'm trying to get at is that if you're making improvements or doing something you still have say a subdivision with a hydropneumatic tank and you are trying to make improvements to that tank or that system, may be if you're putting in a larger tank, can't do ground storage because the way the property's configured and you can't get any other property because the way the development is configured that would still be allowed. Because we do have as you've seen the secretary came out we have some subdivisions a sliver of property and there's nothing else around that you can get and you can't even find the other property owner, wetlands, or something like that. You can't utilize it and you may want to fit in a newer tank or do some improvements to the system right there, but you wouldn't get shot down from doing that because you would actually to make that improvement to pull out that tank and put on one that's larger, but you couldn't do ground storage because the way the site is configured. We have a lot of tight little pieces of property and that's what I'm worried about.

JAKE CAUSEY: That makes sense. Another thing that we had looked at and considered was some very large hydropneumatic tanks 30, 40, 50 thousand gallon tanks and so we have ground storage tanks that aren't that big. Certainly from my prospective talking tanks that large you get some credit. But I think that's more not intended for new construction, just dealing with what you got.

GREG GORDON: I was going to say too on what Pat mentioned with developers though I think if they are going to, especially like home (inaudible) one point that may come up and I think as a committee we probably need to think that all the way through cause many of us are going to be explaining to developers why this is necessary, why we think it's a good thing. Typically they probably come to a lot of us why are they

requiring this, go to the region and ask them. I am not their boss, please. You get a lot of that blowback and we mentioned other things about fire issue being political. Sometimes development can be political too and they start to wonder why am I required to do this, pricing of lots, things of that nature. If there's going to be points for future development and we all think these are good things like having two wells, elevated storage, standby power, one of those wells we just need to be ready for the blowback from developers and such looking at a price point, not really the water system like we are.

JAKE CAUSEY: I do think that if we're building a new 200 lot development and the intent is we're going to provide fire protection you can't really do that with a hydropneumatic tank and call it fire protection. That's just a fundamental thing.

RANDY HOLLIS: Goes back to people living in that subdivision and what they will pay for insurance rates.

JAKE CAUSEY: Also local ordinances, that doesn't leave it up to those people. Local ordinance says if you build in our parish you got to provide fire protection.

RANDY HOLLIS: That doesn't affect water quality which is what our job is.

JAKE CAUSEY: It does in a sense as far as sizing of tanks and other things, maintaining chlorine residuals. And also if you put a hydrant on a system that serves 20 customers and has a 40 gallon a minute well it's a little tank it's going to affect water quality. And so those are the situations you end up in. Fire protection is not always an option because there are so many places that mandate it locally and if you're going to provide it you have to provide it in a manner that doesn't compromise water quality. You have to have adequate storage. It's definitely a circular issue there.

GREG GORDON: And I would just say we actually have an ordinance like that and there's a massive disconnect between our ordinance, even our own internal approval, DHH

approvable to the point where they all kind of mesh and we're trying to fix them all and it's tough.

RANDY HOLLIS: Let me bring up the last sentence of this paragraph, hydropneumatic tanks. And the last sentence we're here to protect public health and for those operators coming behind us that go in to run a tank, and the last sentence of that, and Dr. Guidry you're the state health officer, are you a mechanical engineer? Because this says non ASME factory built hydropneumatic tanks may be allowed if approved by the state health officer. Now ASME comes with a cost. And the code tank, it comes with a cost. This says you can waive that if you want to. Do we want to waive ASME tanks for hydropneumatic tanks? Should that sentence even be in there? If you're not a mechanical engineer and you have the ability to waive that requirement. I think we ought to take that last sentence out.

KEITH SHACKELFORD: It could be built to the ASME code, but doesn't have to have the stamp on it, a big savings.

RANDY HOLLIS: I understand when we do things, certain tanks with the glass outside and those things that can violate an ASME stamp. So how do we need to rephrase this or is it fine? Pressure tanks shall meet or shall be built to ASME code requirements and then we take out the last sentence. Gives him the authority.

JAKE CAUSEY: I would be curious to know how do you know it's built to the standard if it's not certified or listed to that standard?

KEITH SHACKELFORD: Look at the shop drawings for one thing. It's going to have to do with (inaudible) caps, where they get those, wall thickness.

RANDY HOLLIS: (inaudible) pressure testing. I would like to see shall be built to meet ASME code requirements and we delete that sentence.

PATRICK KERR: Why?

RANDY HOLLIS: It's our duty to protect those operators coming behind you. You've got a shady operator makes (inaudible) blows up on them, then we've allowed him the ability to say he's a good buddy of a certain tank manufacturer, if they build this tank and it blew up now who's responsible?

JAKE CAUSEY: That seems to be a pretty standard requirement.

JIMMY GUIDRY: If you waive something and something bad happens even if it's no fault of your own because you allowed something outside what's required you're at fault. So me I don't want the ability to say, I prefer national standards, I prefer standards we have to live by and we have to say we don't have to meet those standards. The minute I say that all the taxpayers (inaudible).

RANDY HOLLIS: But Dr. Guidry, you may not be here 30 years from now. We're looking at those people down the road and we don't want someone to find a loophole that says you know what, you don't have to put in that expensive tank, I can give you a waiver. And I don't think we should allow that.

JAKE CAUSEY: All right, sounds good. Okay, so really the next two DHH 17 and 18 were just relative to the fact that particular sections were shoulds and enforcement note. And so I guess I'm presuming that we're leaving should and striking the enforcement note. 7.2.2 A and B. The only comment was enforcement note.

CHRIS RICHARD: (inaudible) for enforcement, but it's not enforceable.

JAKE CAUSEY: We'll strike the enforcement notes on those two and then our next section is 7.3.3. You have something before that Randy?

RANDY HOLLIS: No, it pertains to this one. The very first one adequate controls shall be provided to maintain levels in distribution system storage structures. I agree with that. Level indicating devices should be provided at a central location. For big rural systems telephone dialers or something like that is fine. To say we're going to take

every tank level and put it into one central location is a great idea, but it's costly. I guess it says should, never mind, it's not required.

JAKE CAUSEY: A recommendation. The last three were shoulds and enforcement notes.

I'm presuming we can simply delete the enforcement note. I guess we'll provide something that's a little more fine-tuned the next meeting. Okay, part 9 waste residuals. The 9.1 sanitary waste. The last sentence of that section says the appropriate federal, state, and local officials should be notified when designing treatment facilities to ensure the local sanitary sewer system can accept the anticipated waste. So we recommend making that a shall. The next comment, comment 2 was relative to discharge of brine wastes. Except when discharging to large waterways a surge tank of sufficient size should be provided to allow the brine to be discharged over a 24 hour period. And so we propose to make that should a shall. Again, I guess when you're discharging to small waterways, or I guess possibly other facilities that you would have a service tank for your brine waste to discharge over a 24 hour period. Comment 3, so comment 3 is relative to lagoons or flood treatment basically, short term lagoons, long term lagoons. And then it says the design for both short-term and long-term lagoons said should, so we were proposing that these design requirements be shall for these lagoons. They seem to be, I would just say general requirements other than minimum usable depth of 5 feet, freeboard of 2 feet. Unless there was an issue, in my mind an existing lagoon that was causing a plant not to be able to operate properly. Generally speaking I would just say this is new permits. The next section was comment 4, discharge of lime sludge to sanitary sewer should be avoided since it may cause both liquid volume and sludge volume problems at the sewage treatment plant. The last sentence said this method should be used only when the sewage system has the capability to adequately handle the

lime sludge. This method should shall only be used, make that should a shall right there.

PATRICK KERR: Back up for a second. Who's the approval authority in B? Approval from the appropriate reviewing authority.

JAKE CAUSEY: That would be for land application, would be the Department of Environmental Quality.

PATRICK KERR: We should put that in there, right?

JAKE CAUSEY: Yes, I would agree with that.

ROBERT BROU: Go from H, I, to B.

JEFFREY DUPLANTIS: It's A the page before and then it's 1, 2, and 3 A, B, C, D, F, and B from the other.

JAKE CAUSEY: Page 3, comment 5. So the concern was that they struck through the requirement for pilot studies on mechanical dewatering and calcination of sludge treatment process. Those two treatment processes there I believe in several locations reference the need for pilot studies, in particular plant waste. And so the subcommittee report recommended the deletion of all pilot study requirements basically. And really the only pilot study requirements in this part are relative to those two treatment processes only. It seemed kind of, I guess, important or relevant certainly if you're going to design a treatment process you want to be certain it's feasible.

CHRIS RICHARD: A requirement to have experience with that particular, you have numerous plants, you have experience with it and you know the water quality why do you need a pilot test if you know it works? Don't make it a requirement. Somehow make it allowable.

RICK NOWLIN: If they don't do one, they're assuming the risk.

JEFFREY DUPLANTIS: It's a risk thing that if your client says we're going to do this and building a big plant and it doesn't work then they are coming back on the design.

JAKE CAUSEY: Responsibility of the design engineer.

CHRIS RICHARD: The owner may make that decision based on their own experience.

JAKE CAUSEY: So should we just say recommended?

JEFFREY DUPLANTIS: A pilot study is recommended before the design.

JAKE CAUSEY: Instead of required where it says required we'll replace that with the word recommended. DHH comment 6, again lagoons said should be designed to produce an effluent satisfactory to the appropriate regulatory agency/agencies and should provide for location free from flooding, where necessary dikes, deflecting gutters, or other means of diverting surface water so it does not flow into the lagoon. All these other things so I recommended make those A, B, C, D, H shall instead of should. Both of them to shall. I think the subcommittee did recommend the first one to shall, but the second one I think wasn't specifically included. So there was one note in the subcommittee report on 9.4.2B, mechanical dewatering it says shall be preceded by sludge concentration and chemical pretreatment. The subcommittee report they basically said undetermined here, full committee discussion. I guess recommend leaving shall, but I'm not sure there was a particular discussion that someone had.

RUSTY REEVES: Best I remember kind of went back and forth for the group to answer or further guidance.

JAKE CAUSEY: Do you remember why the question came up as far as I don't know that mechanical dewatering treatments that you would run without first sludge concentration.

RANDY HOLLIS: May not need to be concentrated first. Filter bag, if you want to call it

that mechanical dewatering, filter bags (inaudible). To me sludge concentration treatment is specific to the type of dewatering you're doing. (inaudible) I think should is a more appropriate term.

JAKE CAUSEY: There were previous sections where it did say shall that was not reference, wasn't referenced in that section. Page 3 same page second, kind of restated several times.

RANDY HOLLIS: The evolution of belt presses, belt presses originally never had sludge concentration (inaudible) and everybody figured out (inaudible) and you get two for one and everybody's on concentrated belt presses now. That's a standard, but you don't put a concentrator in front of it. There may be other methods that really don't need that. I hate to use the word shall and make it mandatory if you have a device and you don't need that. I prefer to be approved on a case by case basis depending on the dewatering used. If there's a caveat that could be put in based on specific equipment it does not need. I'd hate to see some innovative technology come back to mechanical dewatering and we try to add something on to it that doesn't need to be there. It would actually prohibit us from using that equipment. I had to go out for just a second, mother nature was calling. Under lagoons, how did you handle the first statement lagoons shall be designed to produce an effluent satisfactory to the appropriate regulatory agency. Shouldn't that really say lagoons shall be designed (inaudible) in compliance with (inaudible) permit.

JAKE CAUSEY: Yeah.

RANDY HOLLIS: That's more appropriate.

JAKE CAUSEY: The next section the 9.5.1 sand filters. Really just highlighted the whole section of 9.5.1 just basically said, initially said sand filters should have the following features. Recommended shall. It is a little confusing to me when you say sand filters

should have the following features (inaudible) shall you trump a should with a shall after that. I'm not so certain. I think if we start with shall have the following features and then if there's any specifically that may be shoulds after that or something like that. I think standard sand filter design and operation. Next comment is section 9.6 filter wash water. Disposal of backwash water from surface water treatment and lime softening plants should have suspended solids reduced to a level acceptable to the regulatory agency before being discharged to a backwash reclaim tank. So we just recommended shall instead of should on disposal of backwash water from these plants shall have suspended solids reduced to a level acceptable before being discharged to a backwash reclaim tank and recycled to the head of the plant. Then the last three comments on page 6, one of them the first one DHH 10 was to insert an A I guess there relative to compliance with the filter backwash recycle rule that's in part 12, just to have it there, a good reference. The next one 2 B. It said should, we recommend shall. Recycled water shall be returned in a rate of less than 10 percent instantaneous raw water flow rate at the plants. And then the last one C, recycled water instead of should would be shall not be recycled when the raw water contains excessive algae, when finished water taste and odor problems are encountered, or when disinfection byproduct levels in the distribution system may exceed allowable levels. Particular attention must be given to the presence of protozoans such as giardia and cryptosporidium concentrating in the waste water stream.

CHRIS RICHARD: I'm kind of a little confused on the first section it says disposal of backwash water from surface water treatment 9.6. First words, first one 9.6. Sounds like we're getting rid of it.

JAKE CAUSEY: Page 5. Looks like we're getting rid of what?

JEFFREY DUPLANTIS: Remove the words disposal of. Very first sentence.

CHRIS RICHARD: Says disposal of backwash water (inaudible). The whole chapter on discharge.

JAKE CAUSEY: Not really being disposed, being recycled.

CHRIS RICHARD: For ground water plants. Would you have to get approval, what this is saying for lime softening plant approval to reuse ground water and recirculate back to the plant every time?

JAKE CAUSEY: What section?

CHRIS RICHARD: Number 2, page 6.

JAKE CAUSEY: So certainly any spent filter backwash recycle plant would require (inaudible).

CHRIS RICHARD: This says from the state health officer. Sounds like an exception to me. For ground water plant we have to get Dr. Guidry to approve--

JAKE CAUSEY: No, no, no. That's not what state health officer means there. The way the whole sanitary code is drafted and formatted like state health officer basically small caps a definition that clarifies representative or designee. It's not him acting personally. Wouldn't be anything additional. It would be part of the same permit approval for the plant. Should be called out on the backwash line and all that.

PATRICK KERR: Randy, again here talks about the last 9.8 arsenic removal facilities, arsenic treatment facilities, I guess my question is where there is arsenic in the treated water and you use a lime softening plant there is some removal of arsenic whether it's water quality standards or not. Does this apply to that waste sludge then? Obviously the source waters are above the limit then you might not need plants specifically to remove it, but a lot of these lime softening plants removal of arsenic is through the process so I'm just curious what exactly.

JAKE CAUSEY: It looks like the second sentence says if a level of 5 milligrams per liter

hazardous waste if it exhibits a toxicity characteristic leaching procedure, TCLP.

Result of 5 milligrams per liter so I guess based on how much is in that.

PATRICK KERR: The last sentence doesn't comply to all arsenic. It's just if it doesn't meet the requirement, is that right?

DAVID CONSTANT: Arsenic water treatment facility.

PATRICK KERR: So I have 12 parts per million arsenic and running it through its normal process and it gets down below 10, is that an arsenic treatment facility?

DAVID CONSTANT: I don't know what an arsenic treatment facility is.

PATRICK KERR: Trying to make sure we don't violate this somehow.

DAVID CONSTANT: Waste operating facility, treatment storage disposal and so how specific as something being arsenic treatment facility.

CHRIS RICHARD: I think if you're over 5 you got a problem.

DAVID CONSTANT: You defined it there under the TCLP as 5. That number may change, I would be surprised if it didn't. Been bearing down on us.

RANDY HOLLIS: Put 5 milligrams per liter, that's fine for today, what's going to happen five years from now if it changes?

DAVID CONSTANT: It's going to change.

RANDY HOLLIS: Putting a limit, what if it grows to 2?

ROBERT BROU: The last sentence it does say over 5 have to seek permission. It stands alone. It says you have to get permission (inaudible) any known point.

RANDY HOLLIS: Right, but what if a new act would pass and takes it to 2?

CHRIS RICHARD: Just need to say more generic limit for arsenic in excess of that without putting the actual number.

JAKE CAUSEY: Also says may be defined as hazardous waste if you have a result of this.

CHRIS RICHARD: (inaudible) of the last sentence just says nothing to do with treatment.

If you have arsenic in your waste you must get approval to dispose of your sludge.

PATRICK KERR: Speaking of reference in the last sentence is what I'm concerned about.

Whether it's 5 or 2 it needs to tie into that somehow. Arsenic waste exceeding TCLP requirements can be disposed of only with DEQ approval, something like that. Tie the TCLP to that too.

JIMMY GUIDRY: Recommended size right now .5 or whatever it is, y'all can tell me if it's different, the record is a required level has (inaudible) level this year whatever the record required TCLP is what.

RANDY HOLLIS: But as I understand under the TCLP (inaudible) out of your waste and so the liquid after you've dried it and if you exceed 5 what you can do is you can treat your waste a little more and get it to 3 then you're in compliance. So just because we had 5 doesn't mean you have to notify them. You take additional steps to get it below 5 and then you're okay.

CHRIS RICHARD: But if you have 5 in your waste once you're over 5 today you have a hazardous waste. If you treat that you have to have a hazardous waste treatment permit. We're not allowed to treat, once it's 5 it's a hazardous waste. You're not supposed to treat it after that point. You need a storage treatment disposing.

DAVID CONSTANT: You have to have a permit to do that.

CHRIS RICHARD: Lead paint on a tank is not a hazardous material till you take it off. If you use blastox on it then the process of removing it it never becomes a waste. I had a contractor use a needle gun to take it off against the specifications I said well can I add the blastox and render it not hazardous and they said it will work, but you need a permit. It's a waste now, now you're treating it. End result's the same.

J.T. LANE: Anything more on part 9? Like to invite anybody who attended, do you have any comments? Any other comments from the committee members?

RANDY HOLLIS: Sheree did a great job last time of getting together where we are for every one of the sections. Could you send those out to us? I'd like to find out next time just to see where we are.

CHRIS RICHARD: One more thing, last meeting we sent permits for Florida waterlines on the agenda. Today obviously we didn't have time. Y'all still want to do that? Sent it to Jake as well.

JAKE CAUSEY: Yeah.

J.T. LANE: We'll add it to the next agenda. Any other questions or comments? So we'll go back and bring a cleaner version of both parts for our next meeting. Get them out to you guys five business days before the meeting for review.

SHEREE TAILLON: There was a typo on the agenda for October 23rd. It's actually the 22nd, a Wednesday. Also this week we had talked about extending the hours last month, but this month Jake and I already scheduled a certification class today so a lot of y'all were in there so you cannot actually be here. I just want to do a voting is everybody okay with 10 a.m. on October 22nd?

J.T. LANE: Like 10 to 12 on the 22nd and then take an hour for lunch and 1 to 4 just to cover more ground that day.

SPEAKER: What areas are we going to cover?

J.T. LANE: These two.

SHEREE TAILLON: I just got part 3 from Greg, I don't know what's up next.

RUSTY REEVES: I know a while back about the side by side, the form we went over today I consider that a side by side, works fine for me.

J.T. LANE: Is everybody okay then with just the mark up? We will start at 10:00 on the 22nd, send a reminder. A motion to adjourn.