Water Committee Meeting

3/8/18

JIMMY GUIDRY: Good morning. Looks like our group is still hanging in there after four years of service. I'm really appreciative of you showing up today. We have some things to discuss I know you're going to be interested in. I'm not going to spend too much time. Going to get right into the agenda. At this point I guess what we'll do see if we want to approve the minutes.

CARYN BENJAMIN: Hang on. Let me call quorum and roll call. Then I'll pass it around for everybody to sign. Dirk Barrios, Vern Breland (absent), Ben Bridges, Robert Brou, David Martin, Greg Gordon, Jimmy Guidry, Jimmy Hagen (absent), Randy Hollis, Pat Kerr, Amanda Laughlin, Rick Nowlin, Rusty Reeves, Chris Richard, Keith Shackelford, Cheryl Slavant (absent), Joe Young (absent), David Constant. We have a quorum.

JIMMY GUIDRY: I skipped right into going to the minutes. She kept me on track. Appreciate that Caryn. Do I hear a motion we approve the minutes. First by Robert. Do I have a second?

BEN BRIDGES: Second.

JIMMY GUIDRY: Everyone in favor say aye. Any oppose? The minutes are accepted. And then we'll go right into new business since we don't have any old business. Our old business we achieved getting our rule out and actually will be implementing come August. Our new business we'll talk about our next rule making.

RANDY HOLLIS: I would like to bring up one topic today concerning trench water and disinfection. I asked Caryn and she said we really need to take a vote to add it to the agenda.

JIMMY GUIDRY: Yeah, when you have a public meeting if you want to change the agenda we have to vote to add it. So you make a motion to add-- say it again for the record.

RANDY HOLLIS: A discussion concerning the disinfection of water mains, specifically would call for C651 to be followed. And there's provisions of C651 that I would like to discuss.

JIMMY GUIDRY: Do I hear a section to that the motion?

ROBERT BROU: Second.

JIMMY GUIDRY: Any discussion on that motion? Everybody that approves this to add to the agenda say aye. Anybody oppose? It will be added to the agenda.

Any other additions to the agenda at this point? All right, we'll get started on next rule making.

CARYN BENJAMIN: Why don't I go through the whole rule, the changes and then we can open up for the discussion about the rule itself. Is that good? Amanda did want me to mention-- you're talking about the previous rule. The new design standards has been published in the February 20th Louisiana Registrar and so it will be effective August 1st 2018. We managed to get that in in time and there was no oversight called with the response that we had on the comments. We're good on that rule. Also I guess there was a few typos noticed after the publication and we were able to, because they were just minor technical typos, we were able to have the registrar make those modifications. And the current Louisiana administrative code under title 51 has been updated with those corrections. And I believe it was just three. If you want me to show y'all those I will be more than happy to. It was really correcting a spelling, an acronym, and adding the letter A. We'll move onto the next rule making. Which this rule making was in response to the discussion we had last July regarding making a few more requirements affective for existing water systems by

adding them as a significant deficiency if the system was cited during a survey to I guess lack the meeting those requirements. And making it a significant deficiency would mean the system has to correct, take corrective action to comply with that requirement. Now the preamble of the rule that you see up here will change if there's any changes today. It's not really, it's considered just a preamble and is not necessarily rule content. What's critical to vote on today is the actual rule content. I believe I know Randy had brought up that we missed this in the new design standards. It was in a meeting, I can't recall the actual meeting, the date of the meeting, but one of the meetings last summer that we were going to clarify that the coating, the interior coatings of tanks are not just considered maintenance and it does require a permit. That is what this addition is doing to 105 is clarifying that.

PATRICK KERR: Can I make a suggestion that we put some limit so we can do very minimal touch up. If there's a tank shot and a hole in it you weld it and touch it up. Can we put a percentage of coating in there? Maybe say something like interior coating of more than 5 percent, 2 percent, pick a number, requires

a permit. We go in and fix pits and things like that. What's an acceptable number to y'all? There's a lot of area. We're not talking about much, 2 percent.

AMANDA LAUGHLIN: How would you ever quantify that?

PATRICK KERR: It's pretty easy. There's an area known.

AMANDA LAUGHLIN: No, I mean the submittals coming into us. I don't know that it's 2 percent.

PATRICK KERR: We wouldn't submit if it's less.

AMANDA LAUGHLIN: You wouldn't maybe.

PATRICK KERR: If you submit and it's less, okay. You get a permit anyway. Doesn't hurt anything.

ROBERT BROU: This would allow us to do the type of stuff he's talking about minor maintenance.

AMANDA LAUGHLIN: I don't think anyone's submitting for a permit for minor maintenance.

PATRICK KERR: You're adding it.

ROBERT BROU: He's absolutely right. This changes it that we have to submit to you. And putting a reasonable amount 2 percent, maybe a good one 5 percent. It should be low. You don't want people doing I'm going to paint my interior of the tank and it's going to take me three years.

RANDY HOLLIS: After tanks you put comma more than 5 percent of the interior surface area comma.

JIMMY GUIDRY: If I want to get around this I just need to repair 5 percent of the time.

PATRICK KERR: It would cost you 100 times as much to paint a tank.

ROBERT BROU: This is really for minor maintenance.

AMANDA LAUGHLIN: This is already a process we do. We already require a permit for interior coating. And it comes in as you are painting your tower, your entire tower. No one's submitting a permit for a touch up weld.

PATRICK KERR: So I won't have to with this language?

JIMMY GUIDRY: This is somebody goes do a survey and they say your tank needs to be recoated, you need a permit. It's a significant deficiency. That's what this is. This is saying this is a significant deficiency. They go and they see a touch up that needs to be done, it's not a significant deficiency.

PATRICK KERR: No survey looks inside the tanks.

AMANDA LAUGHLIN: No, but we ask when's the last time it was inspected.

RANDY HOLLIS: You do have tanks that someone shoots a riffle and shoots a hole through it. That does happen and you get water spewing out. So you have to go into that tank and take it down and repair that one small part and disinfect it and put it back in service. The concern was if we're going into a tank to do a minor repair does this apply. And you're saying it doesn't. So we appreciate you saying that. And this is on the record so I guess we'll have this on the record.

JIMMY GUIDRY: Our education of folks who do the survey what to look for for significant deficiency. If a system reports that they had to do major maintenance, it's not maintenance, so we'll correct that. It was a major maintenance of a tank. But it's a discussion like you said. We don't even look. We're going to cite this if somebody says we have to do major repairs or major maintenance.

CHRIS RICHARD: This isn't for significant deficiencies. This is a qualification that was exempted or people weren't submitting plans and specs. It doesn't matter if you come and survey a tank if I'm putting out a project to coat the interior of a tank this tells me not to get a permit. It has nothing to

do with significant deficiencies at all in my opinion. So the issue is if you do periodic maintenance you drain your tank, you wash it, you have a couple nicks and you want to touch it up. This says interior coatings have to be permitted so the concern is are they violating the intent by not getting a permit. So what Pat wanted to do put a percentage to say if 2 percent it would allow you to go ahead and touch up while the tank's down, you notice these things, you take care of it while it's down so you can put it back in service sooner than later. So they just wanted a percent so nobody could write them up cause he didn't get a permit.

JIMMY GUIDRY: I understand where you're coming from and I'm trying to make this workable. But the suggestion was we need to make this more than maintenance. We're trying to make sure repairs to that tank. But if we don't even look at it and we're doing a survey it's based on reporting. It's based on somebody saying we did this, are we going to do this. This is trying to clarify for people if you're going to use coating of your tank you need approval. I can see where we can say a percentage, but that's still left to interpretation. Oh, we just did 5 percent, or we just

did 10 percent. Still left for somebody's interpretation. I guess it makes it easier.

PATRICK KERR: We know the surface area of the tank. We know how much paint we're going to put in the tank. It's very easy to quantify. I will tell you in this room 2 percent wouldn't cover probably that pilaster. And you're right, the honest companies are going to ask for permits and the ones that don't. We can't fix that. But what I'm saying, the companies that I'm associated with before we go interior touch up we come and get a permit. If this changes. And I don't think it's necessary. And I bet everyone at this table would do the same thing.

DIRK BARRIOS: We annually take half of our tanks out of service and we wash them down and get them inspected. Half gets done this year, half next year. By doing that we have allowed our paint systems to last 15, 20 years. But when there is minor touch ups on the interior in particular.

JIMMY GUIDRY: I don't think it's a discussion whether-- I want them touched up, maintained. I'm trying to encourage that behavior. I guess when you put something in rule and you leave it to somebody else's decision making. Here's a significant

deficiency. Is that what the committee wants? We want this to be a significant deficiency.

PATRICK KERR: This is not in the significant deficiency discussion. This is part 12.

JIMMY GUIDRY: I guess I heard Caryn say we're going to talk about significant deficiencies.

PATRICK KERR: First we're going to talk about an addition to part 12.

RANDY HOLLIS: This came from the fact that DHH has requested this for years but it's never really been in writing. So what I was trying to do was to say hey everybody in the state you need to submit. So it was really to help y'all, was to assist you. If you want to quantify the amount that's been done, not a single person in this room can climb an elevated tank or repair it. We're not qualified and our insurance won't let us. If you want to quantify it all you have to do is ask for the contract with the paint person, with the tank repair company of what was required. If you want to quantify if it was 5 percent or more. That's an easy thing to do.

JIMMY GUIDRY: You're the experts and this is your recommendation. So I'm looking for we haven't done it before, has it been a problem. Do you need to fix

something that ain't broke. Do we need to complicate our lives.

PATRICK KERR: What we're complicating is we had a discussion months ago and people said we don't need a permit to repaint tanks. And everybody said actually you do. It's not maintenance, that's a code and system replacement. And people with a straight face said no, it's maintenance. So we chose to add language. And all I'm saying is it's overreaching. This is not in the code right now. It's the way we should do business. But here before there was nothing in the code. If I said it's maintenance you would have to sue me to stop me.

AMANDA LAUGHLIN: We just inadvertently left this out of the original and now we're going back to debate something we've already proved.

PATRICK KERR: All I'm saying is I'd like it to be limited to other than minor. Not pits, but.

RANDY HOLLIS: I think it would be better to go back under interior coating of more than 5 percent of the interior potable water tank is not considered maintenance and shall be submitted. We can argue about how you're going to quantify that. If we're going to do shalls we need to put a quantifiable number.

AMANDA LAUGHLIN: I disagree.

JIMMY GUIDRY: What can we agree to? How can we clarify that minor repairs-- how do we clarify what this means?

AMANDA LAUGHLIN: I disagree because in the sense that you can go in and have to repair it and then recoat it. And that's really the issue. What are you coating the tank with. Even if it's 5 percent. So it's more about if you need to fix something, that's fine, I'm doing a touch up something. But that could also include having to recoat that area. And so that's not the intent. The intent is we just want to know what you're coating it with.

PATRICK KERR: Other parts of the code have NSF requirements.

AMANDA LAUGHLIN: Our prospective is we get stuff all the time in plans review that's like this isn't approved. We have to make sure the interior coatings meet NSF, that they are approved. So whether you're coating at 5 percent or not.

RANDY HOLLIS: Let me ask you this. I think we excluded anything replacement in kind from having to get a permit. If you're replacing a pump in kind you don't have to get a permit.

AMANDA LAUGHLIN: Which is very rare.

RANDY HOLLIS: How do you know that pump meets NSF and everything exactly like it was put in originally without a full submittal? You're relying on the engineer and the operator to do what's right.

PATRICK KERR: I hate to be a jerk, but I would love to call the question. We can argue about it, but we have a difference of opinion.

JIMMY GUIDRY: It's a new year and you just completed a lot of work and so now we're at a disagreement. And this is what I've been afraid of for 4 years that when we disagree and your regulator gets told how to regulate you it's totally not appropriate. And right now with all the water issues I have around the state they would love at the capitol to see us at odds. They would totally love to see that we don't agree. I understand the question. We can vote on it. And we have to. So let's go ahead and take a vote.

DIRK BARRIOS: Before we do anything try to resolve this issue before it becomes an issue. If you would say that we would have to get approval before, preapprove the process.

AMANDA LAUGHLIN: That is usually the case.

DIRK BARRIOS: And I understand, I'm assuming they

do something similar to what we do every year. And we have been doing water tank clean outs and repairs since before I became general manager. I have been general manager for 20 years. And we have noticed because we do that, like I was telling you earlier, we get much more longevity on our paint system because of what we do. We're not having to repaint every 7, 8 years. Most of our tanks don't get painted sooner than about a 15 year span. The question I have is, and I'm sure what they are trying to get at, is how do we make both sides so that we don't have this disagreement Dr. Guidry to where it's compatible for us. You're telling us so I know I'm going to be doing my painting, send it to you and say look if I do have to quote unquote repairs any of these tanks this is the coating system I'm going to have and you can just approve it as such.

PATRICK KERR: Can we do it not on a job specific. Could I send you a list of materials we might use when we're repairing tanks? It would be approved.

DIRK BARRIOS: On an annual basis?

PATRICK KERR: I don't care if it's annual.

AMANDA LAUGHLIN: I don't know why the language can't say general maintenance, or something like that, does not require a permit. That's already what we have

and how we do business.

PATRICK KERR: I'm just concerned this basically says all interior coating has to be permitted. It's an exception to the general maintenance rule the way it's written. And it's taken out of context.

RANDY HOLLIS: Let me ask you this. We issue a contract to a company to come in and inspect the tank. They come in, they wash out the tank, they pressure wash it and they find a couple spots that need to be touched up that were not anticipated. We need to protect the tank. We need to touch those up. Now we have the tank out of service so now all of a sudden we have to get approval of the paint system we're going do use which can take up to 60 days. We can't leave a tank out of service that long. And it's not economical to put it back in service to take it out of service again to do a minor repair to put it back in service.

AMANDA LAUGHLIN: Isn't that what you're already doing now?

PATRICK KERR: We don't have to have a permit to do it now.

AMANDA LAUGHLIN: I don't think we've ever called anyone on that and said you painted that square inch and now you need a permit. I think you're making this

bigger than what it really is. This is just to be like you know you're doing a tank repaint, those require permits. We don't ever come on site and say you fixed your tank today now you're in trouble for not getting a permit.

PATRICK KERR: So what's wrong with putting 2 percent Amanda? I don't understand.

AMANDA LAUGHLIN: Because I know how it's going to end up. It's basically going to be someone's loop hole to not get a permit.

DIRK BARRIOS: Your answer to us we just need to get everything pre approval.

AMANDA LAUGHLIN: If you need to call the office and say we're doing routine maintenance.

DIRK BARRIOS: I'm trying to be the go between.

PATRICK KERR: That's fine, get preapproved.

AMANDA LAUGHLIN: If you called me and said I'm getting my tank inspected we may have to do a little bit of touch up and I would say okay. It's more about we have people do the entire tank and don't get a permit and then we find out after the fact. You can't do that. We don't even know what you used on the interior of your tank. This was put in there to stop the questioning, well we didn't know we needed a permit

for that. We've even consulted with LAPELS on it. I understand you're afraid we're going to be overbearing about paint touch ups.

PATRICK KERR: I'm not afraid you're going to be overbearing.

AMANDA LAUGHLIN: That's not what this is really about. It's not about y'all doing maintenance. It's about getting a permit when you actually have to go in and redo a whole tank.

PATRICK KERR: Could we say replacement of the interior coating of potable water storage tanks. Which is way more than 5 percent, but anyway.

AMANDA LAUGHLIN: I understand your percent thing. Nobody is ever going to know or follow a percent.

JIMMY GUIDRY: You still want to call the question?

ROBERT BROU: Would you be opposed to putting some type of language that specified that maintenance was not included.

PATRICK KERR: That's what it says.

ROBERT BROU: That minor maintenance would not fall under this.

AMANDA LAUGHLIN: It's almost like cause it says submission of plans for maintenance and replacement of

existing facilities in kind shall not be required. It's almost like you need to say...

RANDY HOLLIS: What if you said removal and replacement of interior coatings.

PATRICK KERR: You're still doing this much. I push back just a little bit more Dr. Guidry. I'm looking around the table, there's one person, Amanda I'm sorry to push this way, everyone else is nodding we think this is a problem and I don't know why the department can't understand we're concerned that the honest companies, the companies that apply for permits religiously, and we make mistakes too, I know that. That reads that I need to get a permit to do any touch ups. And I would just like to figure out a way to put language in that says something different. If we could submit a list of materials that we would use for touch up and get it approved. It's not a permit, but it's authorization to use these materials.

DAVID MARTIN: Could we establish a qualified product?

JIMMY GUIDRY: How about just submission of products to be used for minor repairs or to be preapproved.

PATRICK KERR: If you just say that's the way it's

going to work that's fine with me. I think we could do it, it's approved. Right?

JIMMY GUIDRY: We just clarify submissions for pre approval of products to do minor repairs. But you still need approval. We're not saying you don't need approval.

PATRICK KERR: Fine with me.

SPEAKER: Does approval have to constitute an actual permit letter or can it be a verbal?

JIMMY GUIDRY: Email. Document, document. Is that okay?

PATRICK KERR: That's fine.

RANDY HOLLIS: And please understand we're going to use exactly what was put on that tank to do repairs because of compatibility issues.

PATRICK KERR: But not everybody does Randy.

JIMMY GUIDRY: Can we live with that?

PATRICK KERR: Materials for minor repairs. Submission for approval of materials for minor repairs.

JIMMY GUIDRY: Now that gives us an option.

PATRICK KERR: The reason I don't suggest we get a list of approved is because all the paint manufacturers are going to be in his office trying to tell him why the other guys can't be.

JIMMY GUIDRY: Are we going to vote on each one individually or what?

CARYN BENJAMIN: We can vote at the end. Let's just go through and discuss. Now moving onto the chapter three. Originally the plan was to remove duplication and/or conflicts that were in chapter three. However the chapter three currently is applicable to existing systems. And so we really couldn't reference the new standards because they're not applicable to existing systems unless they go through modification. And so we decided to go ahead and just put in the caveat the new design standards supersede chapter threes design provisions for permitting of the new facilities. And that's what you see here for 302.

JIMMY GUIDRY: Any discussion?

RANDY HOLLIS: Let me ask a question. We're going to talk about pressures in a minute. Does that mean that 20 will not apply unless you modify your system? You're telling me 15 would apply until you modify your system or do something to it? Is that the way this reads.

CARYN BENJAMIN: Well 20 is for new systems, but whether or not we apply it to parts of new systems is a

good question. If they put in a booster pump station if they need to evaluate the whole system to ensure that booster pump station will be able to or maintain the 20 PSI at all customer taps at all times that may need to be discussed.

JIMMY GUIDRY: Any further discussion? Okay, keep moving.

CARYN BENJAMIN: Moving onto the significant deficiency section.

DAVID MCCAY: I think I mentioned this. Concerning 302A, and I think I might have mentioned this earlier in a discussion you and I had. It says supersedes certain provisions of this chapter. Is that ascertainable which provisions that is or do we need to tweak that language.

CARYN BENJAMIN: Like you want to include them, list them in here. Is that what you're saying?

DAVID MCCAY: I don't know. I haven't been fooling with this enough lately to know what the intent is. When I read supersede certain provisions the natural question is which provisions.

CARYN BENJAMIN: The design standards. There are some water quality standards that are not related to design in chapter three such as minimal disinfectant

level.

JIMMY GUIDRY: For clarity sake why don't we say supersedes certain design standard provisions.

RANDY HOLLIS: It does say for the design. In this chapter for the design.

DAVID MCCAY: I don't know if I follow that. Certain provisions for the design. Which provisions for the design?

CHRIS RICHARD: The provisions that relate to design are superseded by the new chapter.

PATRICK KERR: Why don't we remove them?

CARYN BENJAMIN: Because they're applicable to existing systems. Whereas the new ones are not. Like removing code that's pertinent.

AMANDA LAUGHLIN: Still exist for majority of people.

DAVID MCCAY: I don't know enough about the context to make a suggestion. When I read supersede certain provisions of this chapter for the design of any new public water system that leads me to believe there are provisions for the design of any new public water system and these provisions referenced in the first line of A supersedes certain of those. I don't know which ones. Maybe we need to consider tweaking

that language to make it clear.

CARYN BENJAMIN: When they go to design a new system they're going to go to 111 through 191 and 201 to 277 to design the system.

ROBERT BROU: Could you say supersedes all provisions for design or are you looking to still apply certain provisions for design from chapter three.

CARYN BENJAMIN: It depends on what it is. There are some provisions in chapter three that apply to not a public water system. So there are some provisions that actually apply to a private water supply.

ROBERT BROU: The fix would be maybe to move those into this document that we've created or at one point and then put all design. That way takes out uncertainty.

AMANDA LAUGHLIN: Can you just take out certain provisions in this chapter and just say supersede provisions in this chapter for the design of any new.

ROBERT BROU: That doesn't fix it if you are still trying to use things from chapter three for new design.

CARYN BENJAMIN: If it's not a conflict there were some things in chapter three that are not in the new design standards and one of them is a check valve, I'm sorry a sample tap prior to the check valve. That's

specified in chapter three that was not covered in the new design standards.

AMANDA LAUGHLIN: Can you say of this part supersede any design provisions in this chapter for new public water systems. Put design provisions in this chapter for any new.

JIMMY GUIDRY: Any further discussion? Move on.

CARYN BENJAMIN: As discussed last July we're adding four requirements as significant deficiencies that are in the new design standards. And that is standby power, flood protection. One thing to note for flood protection currently standby power as it is written in the new design standards only applies to community or non community serving hospital. Flood protection does not. Flood protection appears to be applicable to all new systems. And so I added in for any community water supply to I guess be consistent with standby power and also the secondary source. So that specific component was not discussed in the July meeting. That is something to be discussed for this meeting to consider. And then the secondary source as it's written in the new design standards would only be for community and not community serving hospital. And then we also discussed in July the caveat that if the

system provides an annual public notice to customers that they can do that in lieu of meeting the secondary source. However, the content of the public notice wasn't discussed at that time. It may be something we want to talk about now. And then the fourth requirement is raising the minimum system pressure 20 PSI.

RANDY HOLLIS: I have a discussion on the fourth one on 20. Can we jump into that now real quick?

CARYN BENJAMIN: Might as well.

RANDY HOLLIS: In the packet Caryn has included this front and back and then I have some additional stuff to pass out that goes with this that doesn't counter any of that. I think it would help to explain the situation we just ran into in one of our systems. I'm sorry, an anonymous system. As that's going around if you will look at this first sheet and on the top right hand corner this was an article published in AWWA. A professor did a great job of going through this and he blames premise plumbing pressure almost 100 percent on the distribution system pressure. And I take big issue with that. Because he blames the pressure in your house on distribution. And so if you walk through these charts. Figure four at the top

right shows that almost a significant percent of service lines, we call these plumbing lines now, are 3/4 inch in diameter. And plumbers use those extensively everywhere. It is the standard. If you go to the bottom right you'll see that if we have a 4-inch pipe line 78-gallon a minute you will see the pressure at node one if we assume 30 at node two it's 29.1. And the house with no usage would see a pressure of about 29 pounds in that house. On the top left if we use the minimum fixtures that the state requires in a house, which is a toilet, a washing machine, a kitchen, a shower, and a bathroom sink, all five of those. And that's required by the plumbing code. You get a demand of almost 12-gallons a minute which matches several other states around here. That's considered we're in the ball park. If you apply that demand of 11.8-gallons a minute in a 200-foot long 3/4 inch service line, which is actually very typical in rural areas, then you will see in house one it will have a pressure in that house of -9. In other words, they're going to get a dribble out of their house if they have all five things running. And this actually happens. I was called to a house where they couldn't run several things and they had no pressure in the house. And they

were a couple hundred feet off the main line. The main line had 40 pounds of pressure. And they were complaining every time they try and take a shower and somebody flushes the toilet they get burned or cold water and all that. If you look right below that on the bottom left you will see if we have two houses one directly across the street with a 50 foot line and one that's 200 feet you will see the pressure in house one that we talked about it's still -9, but the house across the street is 19. So now we have two houses right across from each other. One of them with no pressure at all and one of them with 19 pounds of pressure directly across the street. It's directly related to the length of the service line. Now if you flip on the back side what happens if you just spend pennies, and I mean pennies more per foot, and put in a 2-inch service line. What you will find is the plumber could make more money, but not much. All of a sudden you've got pressures in both houses that almost match that of the main line. And so I bring this up for discussion, operators of systems y'all know this better than anybody, we just need to convince plumbers to put in a 2-inch line. The pressure in the house is phenomenal.

KEITH SHACKELFORD: That 2-inch line goes right up to the point where you enter the house.

RANDY HOLLIS: Yep.

KEITH SHACKELFORD: And plumbers are going to run 1/2 inch and 3/4 inch lines under the slab and up to your fixtures. You still have more losses that I don't know are accounted for here. And secondly, and this happened to me on a subdivision here in Baton Rouge, the state insisted that we include the losses to get to the second floor of a two story house. And if you get out in rural terrain where it's hilly you're going to be losing pressure going uphill in some cases to a home.

RANDY HOLLIS: You segued right into my next one. Thank you Keith. Let's go to this handout. Communication to people that don't understand water is so important to get them to understand this. We went to meet with a CEO of a hospital who is a business guy, he had no clue what he was talking about and we presented this to him and it opened his eyes. The first chart I will show you shows if you have pressure to 20, 40 and 60 it's strictly related to under a static condition the height of water. That's exactly what it is. Forty-six feet for 20, 92 feet for 40 and

138 feet 7 inches for 60. The second page is a huge misnomer. People think if you have a larger diameter pipe you've got better pressure. You can see 2-inch, 6-foot, or 1 mile diameter pipe all things being about equal, lets don't get into capital area action and all that nice stuff, you've got identical pressures at the bottom regardless of the diameter of the pipe. The third page the hospital put their surgery on the fourth floor of a building and demanded 20 PSI in surgery on the fourth floor of the building. When we calculated the losses through the meter, the losses through a backflow preventer we assumed losses of only 5PSI in the building. We didn't know what they were, I think that's low, but we assumed it. We assumed an elevation of 40 feet up to the fourth floor and then a pressure minimum of 20 PSI. You can see it takes 135 feet of head on the main to satisfy their needs of 20 PSI on the fourth floor. The next page four well they put dialysis on the third floor, but they needed 30 PSI, not 20. So once you go through the calculations of identical to the first one you'll see we need 146 feet of head on the main to satisfy the needs in dialysis. On the fifth page this is, this unknown name's elevated tank height, which when it's full is 150 feet. Well

for dialysis they need 146. So when my tank is full I have about 4 feet of buffer. And that does not include the losses from the tank in the distribution system all the way to this hospital. Which is probably more than 4 feet. So they wonder why they have low pressures. On page six we have to cycle our tanks to keep the water fresh. We have to turn them over. So if I drop that tank to 9 feet of water that's still in the bowl I've only got 122 feet of head out in the system. They need 146 and 135. So they're not getting adequate pressures in their building on the third floor for dialysis. Third floor. Does that apply here, does that apply to other buildings. If you have to have 15 or 20 PSI to seat a flush type toilet or urinal they're not going to work properly because you don't have that proper pressure against them. The answer was on page seven at the end of it. It doesn't matter what distribution is if we operate with 15 PSI we've got 35 feet of head in the system they need 146 and they need 135. So the solution was to put in a constant pressure booster system in their building to get them the pressure they need on surgery and dialysis. This is exactly what you'll find in a lot of high rise buildings just like this one. Any tall buildings have

to have those constant pressure systems. Anyway, I go through that to say the majority of the problem is not whether you're at 20 PSI or 15. It's really either service lines, plumbing lines, or elevation, or minimum requirements in a building. As we look at 20 PSI a lot of the systems were built with tanks that only give you 50 PSI maximum. When they're full and overflowing that's it. It's 55 PSI. Some of the systems in this state were built with really a very low pressure at their maximum point. When we start raising the lower pressure from 15 to 20 we're really reducing that operating range for that system and it might affect some of those dramatically. I don't have a single one that it affects me like that. But there are some existing systems that operate that way. And you're really beginning to pinch them hard going from 15 to 20. That's it.

PATRICK KERR: This first page we're really just comparing the height of water to the pressure that exerts at the base. He's converting head to pressure.

RANDY HOLLIS: It worked for someone that doesn't understand water. For this CEO it opened his eyes. He said what's the cost of this thing. Mechanical engineer's been telling him 2 300,000 dollars. I gave

him a quote about 16 17,000 dollars.

PATRICK KERR: We faced this a lot with systems during the freeze. The freeze was eye opening for us, probably for all of us. Lots of folks complaining. We've installed unbelievable numbers of backflow preventers in the state and things have changed in their systems since the last big freeze. So there are all kinds of people calling you cause they have no water, and Randy and I didn't choreograph this, I promise, but the fact is they don't have water. They have negative pressure at the second or third floor in that building. Doesn't mean there's not sufficient pressure at the main. I headed down a path, and Caryn pushed back on it, in that I thought it would be telling to know how many of the samples taken after the boil water advisories actually came back positive for coliform. And the department's position is that's really not a good indicator because we flush the systems, we restored the pressures and then we sampled. I'll ask the next question is then why do we have to sample. But we don't need to go there. But the real question is systems that were designed for 15 what benefit do the customers receive increasing the minimum pressure the 20. Is there some public health benefit

to having 20 as the minimum when we're in extremist conditions like that? I sat and listened to one of the regional engineers I was in New Iberia and we were talking about the situation in New Iberia. We had lots of customers with less pressure than we had at the closest fire hydrant we'd go out and check it. We ended up negotiating with them and issuing an advisory to basically any hospital or public health facility that considered itself to have a low pressure. Then you ought to boil your water if you have low pressure. It's not a systemic problem. I'm just afraid we're going to exacerbate this problem if we go to 20. We were on the cusp of 20, 18 in places. And in July wouldn't have thought 20 was a big deal, but it's huge.

JIMMY GUIDRY: I'm sitting here and I'm not a technical expert and everybody knows that, I'm a medical expert, and I thought we had this conversation and we voted on it. I thought this was a recommendation from the committee.

PATRICK KERR: I'm just saying it really refocused me. This freeze changed my perception of the difference between 15 and 20. We can live with 20. I'm just wondering if it's worth the cost to the customers. Is there a significant public health-- is there a public

health benefit at all when we say that...

JIMMY GUIDRY: Why did we come up with the suggested change?

PATRICK KERR: Because everybody else uses 20. Not everybody, but most states use 20.

JIMMY GUIDRY: We're just trying to keep up with the Joneses.

AMANDA LAUGHLIN: And sanitary code was 15 and ten state standards was 20.

RANDY HOLLIS: And the plumbing code is still 15.

JIMMY GUIDRY: We have code out there that people are doing permits on that doesn't agree with our new requirement.

PATRICK KERR: That doesn't apply to the water system though. The building owners have to plumb for 15. We have to maintain 15 now, but it could go to 20. I don't think that matters for our conversation. I would like to know if the department is really set on 20 and you think it's going to provide a significant public health benefit. That's okay. But if it's just that we want to do what Mississippi and Oklahoma are doing.

JIMMY GUIDRY: My question is this because I like to be in sync with the other states because obviously

they came up with that for a reason, but it's probably a recommendation. The issue for me is return on investment. We have so many systems that are failing, little systems that are failing and we're going to put on a requirement that I don't know what it's going to cost to address this. When we need to be addressing things that are much more urgent in my opinion. I don't know how urgent this is to address financially. What does it cost to get the pressure up? Is it expensive?

PATRICK KERR: I think all it's going to do is drive more boil water advisories. They will just fall below 20 more often than they fall below 15. And the systems that didn't report when they went below 15 are still not going to report below 20.

RANDY HOLLIS: I'm afraid you're going to drive more plaintiffs' attorneys to come in, literally, and we're going to be tied up. I do expert witness work. It would be great for me. I think you're going to see more people tied up in litigation than the actual benefit you're going to gain.

RUSTY REEVES: This committee if we change that we already set a precedent we wanted to go forward with 20 and if we wobble back to 15 if somebody does get sick

are we going to be responsible.

JIMMY GUIDRY: Have to prove it was due to the 15. This is the issue, pressure protects you. From a health prospective higher pressure protects you. If you can maintain it. But if you have leaks and you got systems that are deteriorating it's going to be hard to maintain these higher pressures. And that's what we saw in St. Joes. It's very hard to maintain your water system if you have so much of your pipe is leaking.

ROBERT BROU: Every system has leaks and the concern is that you maintain a minimum pressure those leaks flow outward. When you drop below a minimum pressure those leaks can come in. But based on Randy's chart that's 35 feet of head. There's not a pipe in this state that has 35 feet of head on it.

PATRICK KERR: Unchecked facilities have more than 35 feet of head.

RANDY HOLLIS: That's minimum.

ROBERT BROU: But that is minimum. So if you raise up the 20 that much higher what's the head on 20.

RANDY HOLLIS: Forty-six. You only gain 11 feet. But remember 15 PSI is at the very perimeter at the system, it's at the highest point of the system. It's not universal for the entire water system by any means.

It's at the extremities. So 15 PSI is really at the far end. I think to consider the entire system 15. If you have 15 at the plant you'll never get it at the end. You would be in violation. So 15 is really at the very end of the system. If you're compromising you're only compromising those people that are at the tail end of the system. Is it right to compromise anybody, no. But at least you're protecting the majority of the people. It's just the ones at the very end will see the 15 instead of 20.

DAVID MARTIN: If from an EPA standpoint if the EPA recommends minimum pressure 20 (inaudible) for our systems ability to participate in the clean water revolving fund. It hasn't before.

RANDY HOLLIS: It came from ten state standards.

PATRICK KERR: Which is why we're here.

JIMMY GUIDRY: Isn't that ironic.

PATRICK KERR: If you all have a strong rationale for doing 20 I'm fine with it. Like I said, my experience during this freeze working with Louisiana Water Company, Baton Rouge Water Company, Parish of Ascension the difference between 15 and 20 was real for some systems. I never imagined it would be. If you think 20 is the right place to be I would defer. I

don't know what the small systems think.

AMANDA LAUGHLIN: One thing that comes to mind is we're going to have systems in the state that are at 20 minimum and some that are 15.

PATRICK KERR: The newly designed systems?

AMANDA LAUGHLIN: As far as boil advisories go that's impossible for us to track who is on 20, who is on 15.

RANDY HOLLIS: Let me go back to my original question.

AMANDA LAUGHLIN: Now you have two different requirements in the state.

RANDY HOLLIS: When Caryn read the beginning of this and certain things apply and don't apply. If there is an existing system sitting out there, Breaux Bridge for example. Don't mean to pick on you, but I think their tanks are really low. I think they're at 55 PSI. If they don't modify the system or change their system do they stay at 15 until they change something?

PATRICK KERR: This fixes that.

AMANDA LAUGHLIN: If this isn't in there they would stay at 15. This was proposed to be for all systems.

RANDY HOLLIS: Okay.

AMANDA LAUGHLIN: This proposal everyone is at 20.

JIMMY GUIDRY: Does that mean they would have to build tanks that are higher to reach this? What's the expense here to get to 15 to 20.

RANDY HOLLIS: It's almost impossible to raise a tank. People talk about it it cost almost as much to build a new one. You just don't raise a tank to go up with it. I have only known two cases it was ever done. Structurally with higher wind loadings, hurricane loadings, overturning the foundation probably wouldn't sustain a higher tank. You just don't raise them up. You would have to build a brand new tank which can be 3 to 4 dollars a gallon.

PATRICK KERR: But the alternative solution is to maintain a higher minimal level in tank which changes water quality in that you can't turn the water over in the tank as freely. If they have to take their system down, and I don't know what they do to get 80 percent of the water down to 18 pounds at the tank, or whatever it might be, or 20 at the peripheries they're going to be below 20. We're back to this thing, their head range this is the operating range at the tank. And right now they can take it down far enough to exchange

the water so we don't get trihalomethanes and disinfection byproducts, aged water problems. What we're doing is putting that 5 feet at the minimum level of their tank. We're adding five pounds, excuse me, 10 feet to the minimal level of their tank. Is that worth it. I don't know. It's not going to be year round. In the heat of summer when disinfection byproducts are really an issue it's going to be a problem for those kinds of systems. You're going to see trihalomethanes if they have them already.

AMANDA LAUGHLIN: I'm thinking about this is a minimum. So are there that many people operating their systems where they're between 15 and 20 out there.

PATRICK KERR: So my point is if the bottom of bowl at Breaux Bridge, and I don't know what it is, it is a really low tank. But if the bottom of bowl requires they take that at the base of the tank down to 35 PSI. At the periphery they may see less than 20. I'm not saying they have to take the tank down to 20 and you got 10. I'm saying the system is designed to serve an area and if we alter the pressure at the center of the area we're also altering the pressure at the edges.

RANDY HOLLIS: To answer your question, not on a

daily basis. A daily basis static pressures are high.

AMANDA LAUGHLIN: You would have people calling you and us every single day.

RANDY HOLLIS: We're talking about a peak event, a peak day. Not daily basis. You don't have that demand on the system and the friction losses and head losses.

PATRICK KERR: I would defer.

RICK NOWLIN: It can be a problem in a rural area like in Natchitoches Parish when you have a rural water system and they may have a 7 mile radial line, a 4 inch line that runs out there 7 miles with houses on it. They're just barely meeting pressures now. Especially in the summer time.

JIMMY GUIDRY: Where are we measuring pressure in systems?

PATRICK KERR: At every tap. This is every tap. So the minimum pressure in the system at any tap which it's measured has to be 15 today, 20 if this goes through.

RANDY HOLLIS: But where we're measuring today is at tanks and known points where we have pressure indication. Probably a lot of systems that have no clue what their pressure is at the end of the system.

PATRICK KERR: What happened during the freeze is

the regional engineer would call a system and say this customer is complaining about low water pressure and the system would go out and measure as close to that tap as they could and say we got more than 15, we don't need to issue a boil water advisory. They're going out to where the problems are identified and checking the pressures. And if I was talking to a regional engineer and said it's 14 they'd say great, issue a boil water advisory. If you don't Dr. Guidry's going to issue a boil water notice. Which is exactly what should be said.

RANDY HOLLIS: But a number of phone calls where people were without water during the freeze had nothing to do with the distribution system. The distribution system was fine. Forty pounds of pressure, 35 pounds of pressure. It's the fact that their plumbing lines underneath the trailer or in the attics were frozen solid. People had no water, blaming it on the water system when in fact one system had 400 call outs to go turn people off because pipes were burst in their house.

RUSTY REEVES: I think they're going to have that whether they're at 15 or 20. Our people run for three solid days. Especially Thursday and Friday because it

went to thawing out in the pipes. Our system never compromised pressure. Mr. Rick brought up a good point. Especially in Natchitoches Parish, and I'm not going to call the system name, we had a little system there water pressure calls went to coming in we start addressing it and we find out they have been out of water for Thanksgiving almost to Christmas. But nobody had called to report it because they always had low water pressure. Didn't have water pressure in the area to begin with. Really nothing to do with operation or design. The system was designed to have the pressure there, it just wasn't maintained to keep the pressure there.

JIMMY GUIDRY: I guess to summarize we as a group agreed we wanted to do this because of recommendations from ten state standards, in sync with the other states, and it does protect your health to some extent. And the big question to me is what's going to be the push back from water systems that can't achieve it because this is a significant deficiency. Does that mean when they're going to measure their taps where would they measure their pressure if it's below 20 we're going to cite them. And is there going to be substantial costs to correct that where they are today.

Because that's going to be the push back if it cost a whole bunch of money. If it doesn't cost a whole bunch of money then it's the right thing to do in my opinion.

PATRICK KERR: Interestingly though the department has never, to my knowledge, ordered a system to fix the problem if it was related to a freeze. The fix is issue a boil water advisory. I don't think you've ever gone back and said you had low pressure you need to fix the system. We can't design for those, I shouldn't say, it can be designed for, but the cost to design to never have a system drop below. Is it going to be a significant deficiency?

AMANDA LAUGHLIN: Yes, this would be a significant deficiency.

PATRICK KERR: So if any part of your system drops below 20 we have to have a plan to never let it happen again?

AMANDA LAUGHLIN: No. This is more going to be like for systems who have chronic low pressures and it's usually do to infrastructure failures going on. I remember we actually have included this in some of our orders because, let's say St. Joe, when they had an 85 percent water loss they weren't keeping pressure. That's really the intent of this. However, it would

also mean if you dropped below 20 in an event, flood, they happen daily, right, breaking a line basically, the boil advisory would be triggered for less than 20 instead of less than 15. But the whole significant deficiency part of it is mainly because we do have systems they're chronically losing pressure and they do need to upgrade.

BEN BRIDGES: Where does your sanitarian pull the pressure when he does a survey?

AMANDA LAUGHLIN: They're not checking pressure.

BEN BRIDGES: I've never seen one pass the tank. If you look at a tank 60 or 70--

AMANDA LAUGHLIN: That doesn't necessarily mean that--

BEN BRIDGES: I've never had them check that. So let's go to the end of your system and let's see how low it is out there. Ever. Pressure tank or booster pump and your gauge says 60, 80, whatever then everything was good.

PATRICK KERR: That only happens when people start complaining and the department gets engaged.

AMANDA LAUGHLIN: It's going to be like water losses are related to this, customer complaints, chronic boil advisories, if you're issuing a boil

advisory twice a week.

BEN BRIDGES: If you're talking about the rural systems that are continually borderline. I've never heard of anybody going out and checking at the end of the system to verify that you're at least 15. They just check at the source.

RANDY HOLLIS: I know of one case they did that and unfortunately there's no good place to put a pressure gauge out in the system. And so they put it on the residence. They put it on the hosepipe. Now you have the losses as we just went through, the losses through the meter, through the service lines, through house to the plumbing all the way to the hose. If you're reading 14 pounds of pressure there.

BEN BRIDGES: But that's static (inaudible).

RANDY HOLLIS: Well you would hope. But nobody is using water, all that.

BEN BRIDGES: You could compare the meter and see if it's spinning or not, make sure there's no water going through and determine if it's static pressure or not.

AMANDA LAUGHLIN: We do pressure reporters all the time when people complain.

RANDY HOLLIS: But it's supposed to be on the main

and not on the house.

AMANDA LAUGHLIN: We try, it's just really hard to do that. Honestly we try to take that into account when we read the numbers. We realize there's a loss there.

RANDY HOLLIS: Systems that have put backflow checks on their meters that's an extra head loss right there that you have to account for.

BEN BRIDGES: We pull meters and built a device and set in place of a meter with pressure gauge and flow, whatever to prove at the point of me to you we have our minimum pressure. So it's your problem. That has sufficed forever.

JIMMY GUIDRY: I'm not being convinced one way or the other, but it doesn't even tell you where. I don't know if we spell it out where you measure it cause it says minimum system pressure. At all points.

AMANDA LAUGHLIN: Under all conditions.

JIMMY GUIDRY: That is tough.

PATRICK KERR: That's for new systems, that's the language we used.

JIMMY GUIDRY: Seems to me if we're going to require all new systems to get the 20 we should be trying to get the older systems there at some point.

You can't just have two different levels. It's too confusing. Unless y'all have a lot of heartburn I say we put it out there. If we get a lot of heartburn we may revisit it. I think it's what we agreed to and I think we stick with it. Do I need to vote or we already voted on it.

RANDY HOLLIS: This is exactly why I think this committee was formed, for us to discuss these types of items as a group and come up with a consensus. I appreciate the opportunity to discuss these things. And as other things come up we need to discuss them too. I think this was a great discussion. Sorry about the length of time, but I think we needed to delve into this.

CARYN BENJAMIN: Do we want this to apply to all systems or just communities? Cause now we're affecting businesses if we don't restrict to communities. The impact statement changes for me.

PATRICK KERR: Say minimum system pressure of 20 for community systems? So the non community systems it doesn't apply.

CARYN BENJAMIN: Right.

BEN BRIDGES: Public health is your standard so why would it change from one to another.

PATRICK KERR: Private system, your own plumbing, back siphonage you're not going to move water to somebody else's service. If you have an adequate water pressure in an unchlorinated non community system does the state care.

AMANDA LAUGHLIN: I'm worried about if you just limit it to communities we have things in non communities like schools. It's not just like a business, or a restaurant, or something which also would have retail food. Pressure loss there is not good. I think it should be for everyone.

RUSTY REEVES: Those kind of places may have somebody less trained and capable of taking care of repairs.

AMANDA LAUGHLIN: On the flip side of that usually when we have businesses that are having issues with pressure and water loss they can close. As opposed to communities which you need constant. I see it both ways.

RANDY HOLLIS: One of the ways to fix this, like Rick mentioned up in his rural areas, is you can put inline boosters in in a small station. So if you recognize this problem you go out in the system, put in a booster station. Now, 100,000 bucks or something for

a really good system. I assume if you issued a significant deficiency you would give them some time to repair that to fix that.

PATRICK KERR: And that would have to be a chronic deficiency that you'd address and we talked about the acute problems.

RANDY HOLLIS: There are ways to address that.

CARYN BENJAMIN: So the next edit, which just came to me, this is where we're citing 15 PSI as a significant deficiency. So this will be stricken if the 20 is kept. Just wanted to point that out. The rest is really just code clean up. This was just modified to make it clear. And also follow the same format as we have of the other significant deficiencies. Give you a minute to review that.

PATRICK KERR: Using the word in the definition. If it's critical it's critical.

AMANDA LAUGHLIN: Does anyone have any comments on that language?

PATRICK KERR: The definition doesn't need to be in there if we can't define it.

CARYN BENJAMIN: Seem to recall us defining it.

PATRICK KERR: Is it in part one or chapter one of part 12, the definition of critical?

CARYN BENJAMIN: I don't think so.

PATRICK KERR: Isn't part one where all the critical terms are defined.

CARYN BENJAMIN: That's the deficiencies.

PATRICK KERR: Looks like y'all need to put a definition in chapter one of critical if we used it that many times. I would strike that sentence. We didn't define it in any other part, any other paragraph or chapter.

CARYN BENJAMIN: We probably should define it. We could do it here or definitions. Let's agree to the definition and then I'll move it to the appropriate location.

JIMMY GUIDRY: What if you say systems shall ensure that no water system component is in poor condition or defective and indicative of failure or imminent failure. What we want to do is be able to find systems that are failing and the things that are making them.

ROBERT BROU: If you say no system component than it's anything. The idea is that it's something that's going to affect quality or quantity.

AMANDA LAUGHLIN: You could extend the sentence to say indicative of failure or immanent failure and is

expecting to impact.

PATRICK KERR: There's lots of stuff broken in every system that we have redundancy built in. Unfortunately a lot of folks don't fix the broken one and the redundant one fails.

JIMMY GUIDRY: I'm giving me some room here to work with systems to correct stuff without they don't have to define critical.

PATRICK KERR: Somehow we need to tie it back to a component that's necessary to meet the standards, the regulations.

DAVID MCCAY: Would it work if you removed the word critically in the last sentence or does that still leave a question.

PATRICK KERR: Every component affects the quality or quantity. If you lose a pump you can't produce as much water.

DAVID MCCAY: You do need some sort of modifier there. Materially, or.

PATRICK KERR: Would result in a violation.

JIMMY GUIDRY: How about negatively impacts.

PATRICK KERR: Could we say something like jeopardizes the system's capacity or ability to meet water quality standards. Or these regulations.

GREG GORDON: I was looking at definitions of critical online. It's usually tied to in criticism of something. Or an opinion, a book, a movie. There is one in terms of its adjective use is of greatest importance. If something is critical you may want to say if something of great importance to that system operating properly. Instead of something being critical which is someone's opinion about something.

RUSTY REEVES: Also like critical care unit. Go in there to get the care you have to have to recover.

BEN BRIDGES: It's always subjective whether or not it's critical.

JIMMY GUIDRY: Right now what we're saying systems shall ensure that anything that's in poor condition, defective, indicative of failure, immanent failure they have to make sure if they're going to get a negative impact on quality or quantity, which is capacity. So to me we covered pretty much all the bases unless y'all want to get more specific. This is pretty general. If y'all want to add some language to clarify what that means. I like the leverage if we can help the systems decide what they need to be fixing.

DAVID MCCAY: I always say, this is just my view, that writing this stuff on the fly, like I say about

the legislature, could be dangerous because you really need time to digest it. I just wrote this on the fly, which again leads to that caveat. What if it said something like a component shall be considered critical if failure would likely lead to a quantity or quality of produced water that fails to meet the standards of this code. Kind of like Pat said reference it in terms of you expect it to lead to a violation of some standard set forth in the code.

JIMMY GUIDRY: You want to bring that up to Caryn so she can put that up there.

PATRICK KERR: What if we said a component is considered critical if its failure would cause the system to violate any federal or state drinking water regulation. To cause an inability to meet.

DAVID MCCAY: When I say this code this is going to be all part of the sanitary code. And code is actually defined in part one of the sanitary code. I don't think that's too broad. Or you can always say part 12 of this code if you want to narrow it.

PATRICK KERR: If you put that in part one then you would say of the code, but she's putting it in part 12 so it only applies to this part. We're not defining for all the other.

DAVID MCCAY: If you look at part one of the whole thing there's a definition of code and it's state sanitary code. I don't think there's anything else in the code that would even apply. If you guys want to you could say part 12 of this code. If you want to make it clear you're not looking at anything else in the code. I don't think anything else would naturally apply. I see you put requirements of this part.

JIMMY GUIDRY: Does that mean we're going back to the statement with critical, how do we define it.

PATRICK KERR: It's defined throughout the code, the 50 places Caryn found it.

JIMMY GUIDRY: Now that we defined it are we going to put the language back we had previously?

PATRICK KERR: We don't need it.

AMANDA LAUGHLIN: Take out that second sentence that says critical.

SYDNEY BECNEL: What y'all mean by produce water? Should it be drinking water? Are we going to raw water?

PATRICK KERR: You take out everything after defective there, right. System shall ensure that no critical water system component is in poor condition or defective period, right.

SPEAKER: Take the S off of impacts.

JIMMY GUIDRY: Are we good folks? We have a definition.

PATRICK KERR: You have to put critical at the beginning of that definition. I do have one other thing based on what Sydney just said. Is it water delivered to the system that doesn't meet the code? What's produced? That's a great question. Where does this matter?

AMANDA LAUGHLIN: Finished water.

SPEAKER: Why would it be just finished water?

PATRICK KERR: Because the code shouldn't care (inaudible).

SPEAKER: Ultimately all your transfer pumps wouldn't produce.

CHRIS RICHARD: They're a critical component so they affected the finished product. It goes all the way back to the beginning.

CARYN BENJAMIN: This one is also considered clean up. We inadvertently deleted the effective date for this section of the rule and didn't, well C and D was where the effective date of mandatory disinfection was listed and that was deleted. And we did not fix B to include the date. So I believe it was 95, July of 95

for large systems and all the remaining systems had to come into compliance. Or not the remaining, any systems installed after 96, remaining size systems had to meet this regulation. Adding back in 96 which is the ultimate date of when the systems should have installed treatment, disinfection, excuse me. I know David had some additional requirements. He had amended this further. But essentially it applied to new ground water systems as a whole and it wasn't made effective to existing systems that added new wells to my knowledge. That's why if you're wondering why I didn't take your recommendations on that change.

DAVID MCCAY: I think what I was thinking when I wrote the comments what does the word existing mean. I thought it meant existing, when I read it I mean existing as of when.

CARYN BENJAMIN: At that time it would have been 96. But we recommend all ground water systems have this 30 minute contact time. We only hold anybody installing a new system.

DAVID MCCAY: For the ones before 96 we recommend it. Is that correct?

CARYN BENJAMIN: We recommend it period.

DAVID MCCAY: It's required after 96?

AMANDA LAUGHLIN: Yes.

DAVID MCCAY: And for before we just recommended. I thought you could just say it's recommended that all systems existing prior to July 1st 1996 shall provide 30 minutes contact time. When I read existing I don't know what that means, existing as of when. It's sort of implied it's related to July 1st 1996. I thought we could say it directly.

JIMMY GUIDRY: I think it makes sense. It's like you're restating what you put in the first. Okay, all systems after 96 have to meet it. It's recommended all existing systems and clarify prior to 1996.

CARYN BENJAMIN: Before we vote I wanted to cover the impacts. You were provided with a spread sheet, sorry it's not fancy. These are rough estimates of the costs or rule impact costs for adding three of the four deficiencies. Cause I didn't do a cost estimate for the PSI cause I didn't want to go through all that trouble if we were removing it. So if you're looking at your spread sheet the way the fiscal office requires us, the legislative fiscal office requires us to show impacts is to break it down by ownership type. So federal government, local government and private. It's actually local government, private and state

government. They don't really seem to care about the federal, oddly enough. And so for each I've listed out those counts for each requirement. So for single source we looked based our records we looked for the number of systems that only had a single source. And so systems that had a consecutive connection or emergency well was excluded, was not included in this. So we have 161 systems that only have one well. Looking at some of the revolving loan fund projects and also speaking with an engineering firm we did an average cost for a new well at 350,000. That I believe was like a 6 to 700 depth well. With that it looks like it's going to be 56 million impact for just requiring those 161 systems to add a new well. Now of course there is an exception with the way it's written they could do a public notice. That impact is not fully realized. For the generator, the data we had on the generator was very old. But we looked at all the systems that were cited in the past for not having a generator. And so this is a real rough estimate cause we no longer cite that during surveys. I believe we had actually stopped requiring the survey of the generator requirements so systems that were cited were not necessarily required to install them basically

because of act 292. So looking at the using an average cost of 75,000 we had 135 systems in our databases not having a generator. That could be actually less than that now. Based on them being cited to know whether or not they actually comply we did not record that. Because we removed it as a significant deficiency. So the total comes out to be about 10 million for those systems using an average cost of 75,000 for a generator. And that generator would be able to run 100 gallon per minute well.

PATRICK KERR: It says 1,000. A 100 would be great. A 1,000 gallon a minute a well is 10 times more.

CARYN BENJAMIN: It's too much.

PATRICK KERR: A 1,000 GPM well, depending on the lift, has probably got 100, 150 horse power on it.

CARYN BENJAMIN: So do it for 100. That's why I'm covering these. I would like y'alls validation of these numbers.

PATRICK KERR: It would work for 100. Not even be close for 1,000 gallon.

BEN BRIDGES: I think it would be overkill for 100. Turnkey, yes.

PATRICK KERR: It is turnkey. This is the whole

cost to install.

CARYN BENJAMIN: If anybody knows what the cost would be for that that would be great. A lot of our revolving loan projects are really large projects. They would deal with the larger size wells.

CHRIS RICHARD: We did some, just a generator project and some wells.

CARYN BENJAMIN: If you have some cost please send them to me ASAP.

BEN BRIDGES: Is this supposed to be for 1,000 or for 100.

CARYN BENJAMIN: For 1,000. I misspoke. The 75, I believe.

RANDY HOLLIS: Is a small system really going to need a 1,000 gallon a minute well.

CARYN BENJAMIN: Right. I'm just wanting y'all to tell me what y'all think we should use.

AMANDA LAUGHLIN: The majority of the cost is going to be on a small water system. We would probably want to reduce that to what a small rural water system GPM well would be.

BEN BRIDGES: Most small systems, even midsized don't have 1,000 gallon per minute wells. They may have 3, 4, 500 gallon wells, but not thousands.

Talking about cities that are that size.

CARYN BENJAMIN: So 100 would be conservative.

BEN BRIDGES: A hundred would be more representative of a small system. But 75,000 is way over.

CARYN BENJAMIN: I need a new estimate for smaller generator. For the levy system our GIS group had to pull in the wells in all the 100 year flood zone maps from FEMA, I believe it was from FEMA. And I did cost estimate for a levy system that would be 6-foot high for 400 feet. Which is basically a square around 50 foot radius area for a well site. And FEMA had a cost estimate of 195-dollars per linear feet which was the highest I guess they proposed for a levy system. This would also cover the cost if they decided to do flood walls instead.

CHRIS RICHARD: Do you have the cost to get the water out?

CARYN BENJAMIN: No. I did not include the drainage part.

CHRIS RICHARD: When you levy something in you have to pump it out.

CARYN BENJAMIN: Right. I went conservative on the 195 so that may cover the cost for the drainage

system, to be put in for a levy system. That comes out to be a 78,000-dollar cost for each well site at a 50 foot radius. The wells that we estimated to be in the 100 year flood zone area 396, but there was 213 water systems that are going to be affected by this. This was a pretty expensive one. Per well site is 30 million. Cause we don't know whether or not the wells, if they have more than one well per site. We didn't go to that complex of an analysis. If you go by per water system it would be 16 million.

PATRICK KERR: All probably shouldn't be on those. Other than small. All would include small, right.

CARYN BENJAMIN: Small I have to break out with the small business impact statements. So there's actually six impact statements.

PATRICK KERR: Small is included in all.

CARYN BENJAMIN: Yeah, the small is a subcategory. If you look at the top of the 1325 systems 1249 is considered small. EPA defines a small system as serves a population of less than 10,000. I have to go with that as a small business impact. The only thing I ask if you do have I guess a method for cost estimation for increasing the PSI to shoot me an email. I don't know maybe looking at adding a booster station, a stand

pipe. Maybe give me some of those. I'm going to apply it to all systems. As of now I don't know what systems would actually have to install a pressure booster station and/or a storage tank to meet the minimum of 20 PSI.

BEN BRIDGES: You pay for my hydraulic analysis of my system to give you that information back?

CARYN BENJAMIN: Give me an estimate for hydraulic analysis since we'll probably need that as well for this.

AMANDA LAUGHLIN: The total is 83 million. That's without the fourth one.

PATRICK KERR: You guys have a pretty good feel for chronically low pressure systems, right.

CARYN BENJAMIN: Yeah, we can look at the number of systems that have lots of boil water advisories. To get an idea.

AMANDA LAUGHLIN: But that's based on reporting and some people report everything. We would have to narrow it down to people who are having infrastructure failure verses like just reporting the contractor broke a line.

CARYN BENJAMIN: The majority of boil water advisories are usually due to utility crews breaking

lines. So it would be a rough estimate to use.

PATRICK KERR: That's my point. I think all you're concerned about for this is the chronic low pressure systems that need to be modified. The out for a day, out for a couple days because of a break we don't have to repair those. We've already said that's a boil water advisory, make the repairs.

CARYN BENJAMIN: I just may not have that detailed information enough to know. I know right now your system is the number one top of the list for boil advisories.

AMANDA LAUGHLIN: When we get requested, we get a lot of media requests like who has the most. We always include the notes we have like this only affected three homes. It makes a difference. We don't want to put out there there's 35 boil advisories for Baton Rouge Water Company. No there's not, not a system wide. One block in Baton Rouge Water Company. We have that level of detail where we can skim out.

PATRICK KERR: I just think you have some systems have chronic pressure issues and maybe you could identify those and estimate the fix. Like St. Joe.

BEN BRIDGES: It's fixed now.

PATRICK KERR: Next week.

CARYN BENJAMIN: They like to know who it's going to affect and how many. I can say it could potentially affect all systems, but these appear to be the ones that are more likely to affect. One other topic for this rule is the effective date. I have it listed as coinciding with the standards. We can't go any earlier than August 1st, but we can postpone it if we feel, at least postpone adding these as making these effective for existing systems till a later time.

AMANDA LAUGHLIN: One thing to state is when this would be effective. If it was August 1st that means when the department would begin to cite people for this. But that doesn't mean that systems wouldn't be given time to come into compliance with that after the citation.

JIMMY GUIDRY: I guess the question is human psychology. We're coming out with new rules and it's going to get a lot of attention. Do you hit them with the whole thing or do the band aid approach. You give them some to swallow now, some to swallow later. Cause it's really going to boil down to when you look at these cost we've got so many systems that can't even maintain get my attention. I need 5 billion dollars to help with infrastructure on drinking water and some of

these requirements are quite a few million. Do we go with rule making all at one time and say these are the new rules or do we give them the first set and then a second set later. To me, I don't know. Most people hate it when you keep piecemealing stuff. They want to have it all at one time. You're the systems out there. You're going to get some of the criticism as well as we will.

ROBERT BROU: All at once.

JIMMY GUIDRY: When I saw this I thought this was part of our rule. I thought if we voted on this when we did all the rulemaking and this is separate. To me I thought they were all together. That's how I read it.

RUSTY REEVES: If somebody is trying to make upgrades and do improvements if they know all this is coming and they can go back to the drawing board and make it more effective than doing part of it now and a year from now having to come back, hey I need another half a million dollars cause I didn't know I was going to have to do this or that.

BEN BRIDGES: That and they won't know what is coming until it shows up and during that transition period I think it would be better to serve them

everything at one time.

RUSTY REEVES: I realize it's a big number here.

CARYN BENJAMIN: I've been presenting this for a year now. That y'all have wanted to add these.

JIMMY GUIDRY: So it sounds like a consensus what we have just worked on having it come out the same time as what we did before. I guess we need to have a vote on all the things we discussed.

CARYN BENJAMIN: Public comment.

JIMMY GUIDRY: Hearing none. I need a motion that we accept what we've just worked on and release it with an August 1st date, start date. Do I hear a motion?

GREG GORDON: Make a motion.

BEN BRIDGES: Second.

JIMMY GUIDRY: Do I have a second?

RUSTY REEVES: Second.

CARYN BENJAMIN: You got two seconds.

RUSTY REEVES: We'll share that responsibility.

JIMMY GUIDRY: Everybody in favor say aye. Any oppose. Yes. I think next on the agenda was something Randy asked us to add.

RANDY HOLLIS: Water mains. We can cover that real quick. I got two different things. We'll cover water mains first. When we looked at the standards we

kind of came through and said okay AWWA we'll throw them into our standards disinfection of water mains C651. New mains shall be cleaned, repaired and disinfected in accordance with AWWA standards 651. AWWA does a great job on many things. And highly recommended to follow them, but Mike can relate to this. I brought it up for you sir. Part of C651 says that if trench water, it's the second page, if trench water is entered the new main during construction then you now have to take samples at intervals, you shall take samples, shall, at every 200 feet. If you have a 1200 or 1600-foot polyethylene bore and it's 40 feet deep underneath a canal and underneath a levy how are you going to take samples every 200 feet. It's virtually impossible. If you even try and come up with a fancy sampling device and pulling it through the pipe you're going to be pulling water with you. There's no practical way to do this. Whoever wrote this I don't think has ever left their desk and gone in the field. They just don't know how this works. I'm all for attempting to prevent trench water from getting in a pipe when it's built, absolutely. But to put in a requirement of having to test the new main every 200 feet I don't think serves any purpose. Other than

driving up cost and headaches. And putting in an impossible requirement. I bring this up because we passed this and said we will comply with C651, but I don't think we need to comply with this.

PATRICK KERR: So there's no main ever installed that never had trench water in it. This would make sampling every 200 feet required for every main installed.

RANDY HOLLIS: I know there's systems that went in and used bayou water to fill up a crossing and it was horrendous as far as the headaches that were created when they tried to clean it out and flush it out. I just think we need something else. Or else we eliminate this paragraph. We don't have to pass this today. It's really to bring it up to committee to say we got something here that could create a hardship and is really something I don't think we need to include in our standards.

JIMMY GUIDRY: So this would require amending our new rules, is that the proposal?

RANDY HOLLIS: I guess we could.

CARYN BENJAMIN: Debating whether to work it in this one or not.

JIMMY GUIDRY: To me that would be the easiest

thing rather than going back to what we've already published, amending what we worked on today, get some language that would help address this. I guess I'd look for you to help us come up with that language so we can put it in what we did today. Then it can be shared with everyone. Since we're going to be moving fast on this. Have a motion to add that in to remove that piece and then share the language, vote today to accept that as a modification or as an amendment.

RANDY HOLLIS: I can get that to Caryn real quick.

JIMMY GUIDRY: I'm trying to get a vote on your proposal to be added to today's work cause we just voted on today's work.

MIKE SOBERT: My name's Mike Sobert. I'm general manager Consolidated Waterworks. I'm the proud owner of twice having brain eating amoeba in our water system. Also the proud guy that had roughly 5,000 feet of 30-inch HDPE board 35 feet below the swamp. The contractor, obviously we're in lawsuit over that, but anyway the contractor that did that assumed it was okay to fill a 30 foot 30-inch pipe with swamp water to keep it down there. When we found out about it of course it all hit. The big thing, and I do thank Mr. Hollis for this, I didn't realize you were going to do it. That

you can have a passing health sample, but not have a clean pipe. And I have tons of pictures that I will be happy to share with anybody. And the dirt and therefore the ability for amoeba and other stuff to just hang out under the dirt where you cannot disinfect it is evident. You just got to go through it. Like I say, it will be in the court of law and we'll find out. But there is no means, AWWA or the state sanitary code, to enforce a clean pipe. And so I thank Mr. Hollis for his efforts there. It's a nightmare man, I'm telling you. It's a nightmare. And when you try and take that much water, get it up to 200 parts per million to try to do an adequate job you can disinfect the hell out of it and not have any bac t, your plate count, all that can be zero. That does not assure you a clean pipe. Take my word for it. And I got the pictures to prove it. Anything that this committee would do to assist water utilities in assuring safe public water by not having all that crud and stuff in the pipe would go a long way to making all of our lives, eventually, a lot easier.

JIMMY GUIDRY: I guess I'm trying to put the two together. I'm not sure what you suggested addresses his issue.

RANDY HOLLIS: AWWA goes through that if trench water has entered the pipe it goes through the velocities you have to achieve, it goes through picking, it goes through the cleaning and everything. So that's totally separate that if you've allowed it to get in of how you're supposed to clean the pipe. I'm simply addressing the bacteriological test after the fact. Once you have it cleaned then you can take samples at the end of the pipe. But attempting to take samples every 200 feet along the pipeline really serves no purpose and is impossible to achieve. I'm trying to take out that impossible part of this thing. Cause Mike there was no way you could attempt it.

MIKE SOBERT: We required the contractor, he picked that line over 100 times. He used like 300 something million gallons trying to flush a 36 inch waterline. It's phenomenal. We caused a brown water notice. When you push that much water at that velocity through the pipe trying to clean it out you're going to stir up a bunch of stuff. Took a lot of heat over that. I actually drank the water on TV to show it was clear. If you let it get that far you're never going to be assured that it's clean. And so the way not to have that problem is to not have the problem in the

first place.

RUSTY REEVES: Don't allow trench water.

MIKE SOBERT: But you're looking at a 7 million dollar investment for that pipe. If I tell the guy we're not taking it you can assume what happens after that. Just give the water utilities a little bit of teeth to make sure that they follow the rules.

PATRICK KERR: Let me push back on you a little bit. Cause what you put a highlight on here this says shall be disinfected in accordance with. It doesn't say tested in accordance with. The state requires every 1200 feet, right. The state code says, it doesn't say shall be tested. It says shall be disinfected.

MIKE SOBERT: You can disinfect it and have absolutely no bacteria, no nothing, but you are not assured of that clean pipe.

CARYN BENJAMIN: Sampling is covered in the next. It doesn't specify how many.

ROBERT BROU: You didn't bring the entire 651 with you. I thought there were provisions for when you were not able to get the 200 feet spacing that you do it on a timed event.

RANDY HOLLIS: No. This is the only section that covers verification.

BEN BRIDGES: But it says approximately 200 feet. It doesn't take into account this is a bore underneath whatever you can't get to. When I read this it speaks to me it's an open trench that you could get to readily available as opposed to--

PATRICK KERR: No. We never sample an open trench.

BEN BRIDGES: Where you can get back to it. Not underneath the bayou. It's not humanly possible.

RANDY HOLLIS: Ben that's my problem. When you read this it says if trench water has entered the new main bacteriological samples shall be taken at intervals approximately 200 feet. That's it. It doesn't allow if it's a bore, if it's not a bore or anything else. It just says you shall take the samples approximately every 200 feet. Twelve hundred is not approximately 200.

BEN BRIDGES: No, but you could say you're an engineer from Louisiana and you don't have a tape measure and it's approximate to you. I see what you're saying. But it doesn't speak to the point where it's an HDPE crossing. Which I think is the problem. You can't get back to it physically.

PATRICK KERR: Can you change 245 in what we're

doing today or does that have to go to public notice and all that good stuff? Section 245 is what Randy's citing.

CARYN BENJAMIN: You mean add it to the rule. Possibly. It just depends on the timing.

PATRICK KERR: If we just said in the existing language where it says in accordance with AWWA standard C651 could you just put with the exception of or excluding 5113.

BEN BRIDGES: You wouldn't want to exclude it if you could get to it and sample it.

PATRICK KERR: What I'm suggesting is there is no pipe installed in the state that doesn't at some point have water from the trench introduced to it. Never. So we're saying 200 feet.

BEN BRIDGES: I would disagree.

PATRICK KERR: So nobody splashes any water in any part of a pipe.

BEN BRIDGES: Splashing water or filling with swamp water.

PATRICK KERR: Any trench water. If it rains while you're working there's trench water getting in that pipe.

BEN BRIDGES: I disagree.

RANDY HOLLIS: Down here where you have (inaudible) and everything else you're trying to lay a pipe you have water in the trench no matter what.

BEN BRIDGES: I put a lot of pipe together. I disagree. I think it can be done. It can in the hills. Maybe you ought to move.

JIMMY GUIDRY: It probably is not appropriate to vote on something we haven't seen and chewed on so maybe it's going to be an amendment in the future. I'm not sure we're going to solve it today. But I do think it's worth the effort. It would easier to add it, but if you add it to a different section somebody has to be able to find it in the previous. I would rather put it where it belongs.

CHRIS RICHARD: Are there any provisions in the main section that talks about water use for buoyancy in bores. That was his issue. Boring is a lot more prevalent now than it used to be. They have to maybe require potable water.

RANDY HOLLIS: AWWA requires potable water if you're going to fill a pipe.

CHRIS RICHARD: Yeah, but they don't. We don't. That's what I'm talking about.

AMANDA LAUGHLIN: I don't know that we have that

in there. Like a construction type standard.

RANDY HOLLIS: This is our new standard. Says specification installation of main shall incorporate (inaudible) AWWA standards. So using potable water to fill the pipe is referenced. It does say you're supposed to use potable water when you're filling mains during installation. This is specifically if trench water gets in during the installation.

CARYN BENJAMIN: What is the length of a normal section of water pipe?

AMANDA LAUGHLIN: Less than 200.

RANDY HOLLIS: You can put in a mile or whatever, but you have to test it every 1200 feet. Put in a sample tap.

CARYN BENJAMIN: I understand that, but what are the lengths they come in.

BEN BRIDGES: Twenty or 40.

RANDY HOLLIS: And if you have any branch off your main line longer than 20 feet you have to sample that branch also. Assuming there won't be a joint.

CARYN BENJAMIN: They expect you to drill and tap every 200 feet and take a sample sounds like.

RANDY HOLLIS: If you get trench water you have to tap that pipe every 200 feet and take a sample.

CARYN BENJAMIN: What are the valve spacing, was it 1,000?

PATRICK KERR: Way more than 1,000.

KEITH SHACKELFORD: It's 5,000 feet for less than 24-inch.

RANDY HOLLIS: The practical part of it is you can't really tap polyethylene that easily. Secondly, if you have a bore underneath the levy, underneath the bayou and you're 50 feet, 60 feet deep how are you going to tap that. It's the practical part.

MIKE SOBERT: Can't send a retrieval system. There's no way. We tried it all. Don't work.

CARYN BENJAMIN: The only other option maybe just put a new pipe in.

RANDY HOLLIS: Well Chris just brought up if you have a crossing underneath an interstate in a casing you can't get to it anyway under an interstate.

JIMMY GUIDRY: We'll work on that one, right. All right, one more thing you wanted to discuss Randy.

RANDY HOLLIS: The last thing is about chlorine residuals. And I sent something to Caryn. I don't know if you sent it to anyone else or not. I know that this is a sensitive subject that we've raised all chlorine residuals in the state to a minimum of .5

everywhere. Number one there is a significant cost associated with that, chlorine. Chlorine is not cheap. And there is a significant cost to every system providing additional chlorine to reach minimum levels. And I do worry about, I'm not a toxicologist or anything, but I worry about the long term affect of chlorine on our bodies. The chronic effect of it. EPA's already lowered trihalomethanes from 100 down to 80, (inaudible) acids from 80 to 60. Clearly there was a reason they did that. And so does chlorine over time affect us adversely over 40, 50 years. And I don't know that any of us knows that right now. I worry about these higher chlorine levels. Clearly I think they've had a benefit as far as bacteriological samplings. I don't know before and after. Haven't seen the data y'all have to say it's been a tremendous benefit. But I'm wondering for systems that have never tested positive for the naegleria fowleri, the amoeba, if you've never tested positive for it and if you've always maintained minimum pressures in your system could we go back to the trace of chlorine in the system. And then if a system fails to maintain a trace, if you test positive for it, then you're back into the minimum of .5 no matter what until you're

tested again. It's consideration of the state. Can we can back to where we were of a trace of chlorine. And that's the request I have.

JIMMY GUIDRY: I guess I think it's an important question we're still trying to answer. The recommendations came after several months of having multiple meetings with experts from Australia, Pakistan, CDC, ATSDR, EPA. And when you talk about the amoeba that was one thing in that we're the only system in the state that documented that people actually had a brain eating amoeba in treated drinking water. They had it in Arizona in untreated water. Only one's had it in treated. So what it pointed out was not yeah the amoeba's important, it doesn't happen that often, but if you get it in your sinuses, deadly. So we had three deaths. Nobody else has ever reported three deaths from drinking water in this amoeba. What really came to our attention was when you look at systems around Louisiana a huge number of them are large and when you get out to the areas that don't get the chemicals. That literally we had a lot of systems we weren't measuring the chlorine level at the end of the system. And so getting .5, which is really not a high level in my opinion, when you look at some systems that are one.

But still it's higher than what we're accustom to. Definitely higher than in looking for it. When you get to the end of a system having that .5 assures that everybody on the system has a better chance of disinfection. So if you have trace at the beginning of a system and that's accepted at the end of the system they had zero. And the systems that had the brain eating amoeba had zero chlorine. Is it overkill, don't know the answer to that just yet. But it's not just about the amoeba. It's about disinfection, it's about systems that are going to save on putting chlorine in there, get a little trace and are happy with it and people at the end of the system having no chlorine to protect them. So from a health prospective which is a higher risk, the chlorine byproducts that cause cancer over time or the bugs we worry about now that are superbugs that can get into water. And contamination is high risk especially in swamps. As we put the picture together, as we learn more and more the systems that we have seen are usually on surface water, they're usually on chloramines, or have been on chloramines. And that maybe it's not the amount of chlorine as much as the amount of nitrification that feeds this. You get the bio films in the pipes from the nitrification.

And should we be paying more attention to measuring nitrification and doing chlorine burns as opposed to having an elevated chlorine level. To tell you the science right now when I asked CDC to help on this there's not a whole lot of expertise other than what's happening in foreign countries. In Australia they had over 34 deaths. What I can't afford is to have another death. Now we have it in law that it has to be elevated. I would have to go back, I think it's up to .2 is what the law reads. Our emergency rule and then now our rule reads .5. And we've had no deaths. But we've had water systems that have tested positive again. So what we're learning even if you do a .5 doesn't guarantee you won't have the amoeba. And so .5 is probably the lowest level I can accept and say we're protecting ourselves. But we've actually had water systems that with .5 now have brain eating amoeba. I'm not ready to move off that dime until I can prove who is at risk and test every summer so we will be able to have this year after year what's happening. And it might be at the end of the day we're going to decide if a water system is having a real trouble with chlorine byproducts they can't fix that chemically or treatment wise that we might have to be able to say well they're

exempted, but they're going to have to test for the amoeba. Or something in addition to. But so far I'm not aware of a whole lot of water systems-- they're spending money, I know that. But the byproducts I'm not sure how much of an elevation we've seen or how much people have tried to address the elevation. I guess I'm going to look to y'all to help me figure that out. Because if you're on surface water you're definitely at higher risk. That's definitely where the amoeba comes from. If you're on groundwater you may not be as high a risk, but not having chlorine in your water at the end of a system is not acceptable in my opinion. That's what I can't assure. Trace I'm not open to. Lowering less than .5, eventually. But I have to be sure I don't have to explain to people why their kid died because I lowered the chlorine level. Now I also don't want to explain, I won't be here 20, 30 years from now explaining why more people have cancer. But the levels at .5 is an acceptable level as far as exposure, but the byproducts is really what should be driving this as to whether we should lower a system if they have byproducts we can't correct. And what we're finding is systems that have a lot of byproducts they're not managing water treatment

properly. It's not the fact it's a .5, even though they want to blame it on that. They're not managing treatment correctly. Those are my thoughts as state health officer. I appreciate you bringing it up. This is the kind of stuff I stay awake at night thinking about. Am I poisoning people or am I saving people. Anytime anything goes wrong it's our fault, right. All of us. Anyway, that's how we came to the .5. I think it's a safe level from what I can gather. I think you're right, what does it mean years from now. I think what puts us more at risk are people that are not qualified operating water systems because they're not well paid and making chemical treatment decisions that put people at risk. I think we're at much higher risk of when we don't educate folks and they don't do the proper job and then we all look bad when they fail because they didn't do what they should have done. I appreciate your bringing it up Randy. I'm open to more and more science behind it. But when I hear CDC can't tell me what's the right answer because they don't have a lot of experience. I say have you checked Texas, or Mississippi, or Alabama, any southern states in the summer probably have brain eating amoeba in the water. They say no, we don't look for it. And if we hadn't

had people that used it inappropriately we probably would not have known it. The fact they put it up their sinuses and shouldn't have is what got us to where we are today. But what it did shed light on is there are a lot of systems that don't treat their water properly and don't have a booster station at the end of the system people are not getting safe water. That definitely has shown up.

RANDY HOLLIS: Just to clarify, I would never promote no chlorine in the system. Never. I'm talking about the very ends of the system that you always would have a minimum of a trace, at the end of the system. Certainly at the water plant or at the beginning of the system you have to have more than that. You can't even have .5 where you're producing the water. Has to be much higher to maintain a minimum. I would never promote no chlorine.

JIMMY GUIDRY: I'm generalizing. We don't have enough data to say it's statistically significant. It's usually found at the end of the system. It's where the chlorine is zero. It might be we have to if we accept a lower level we have to make sure that .2, or whatever that is when we decide, that it is throughout the system and there are boosters.

RANDY HOLLIS: That's why we have the sampling points at the ends of the system to prove we do maintain minimum levels at the ends of our system. We have those today.

JIMMY GUIDRY: But .5 is what we came up with all the experts around the country in the world. They're still using one in Australia cause they had so many deaths. But they have a lot of pipe over desert. A lot of pipe to hot, hot areas.

DAVID CONSTANT: We had some sediment from the St. Bernard tank and measured the chlorine diffusion in that sediment in small tanks simulating the flow through those big tanks. So there's not a lot of flow cause it's so big. It takes years extrapolating those results out. It takes years for the chlorine to defuse into real thin layers, fairly thin layers of sediment. So bringing that full circle if you have sediment in your system from people putting trench water in or whatever, or you just have it built up in the system, half of PPM of chlorine gives you a backup for the amoeba which can hang out in that sediment and goes into a cyst stage if I remember right. It can just hang out there and if it gets lose, if you knock that sediment lose it gets out there running around it's

good to have that half a PPM in that system to back it up. Now half a PPM, quarter of PPM, I don't know. Trace makes me nervous. Some kind of number. I don't know from what we studied. We used an elevated concentration because we couldn't see chlorine and the fusion was too slow. So we increased it to 5 to 10 PPM. Still slow. Like when you would burn a tank.

RANDY HOLLIS: I just don't want to lose site totally of chronic effects of chlorine as we elevate these. That's what concerns me.

MIKE SOBERT: You basically described my water system to a tee. What Randy you may not know of we are fortunate enough to be part of RARE, I think the acronym, where the EPA has come in and testing basically on chloramines. I didn't know that you can have an organic chloramine of .3 which has no disinfection properties at all. If you had .5 and you at .3 organic, guess what, you at trace. And I think not the first time, but certainly the second time that we found amoeba just like he said we were at .5 all the time, or at least all the times the analyzer was taking the sample. But again, if .3 is not doing you any good .5 is not high enough. You need to go to .8 or one. We're spending 2 million dollars a year flushing, on

boosting stations and other things. I can tell you more of what not to do to be successful than what to do. Cause we fight it every day. First time in our history, first time we busted disinfectant byproduct in the coldest part of the fricken year. You can imagine what kind of summer I'm looking forward to. But we're not giving up, got some good help. John Williams and the group. They're helping us. We're learning as we go. But there's no book to go to for naegleria fowleri. Fowleri is with a small F. To see how to solve it. Keep the pressure on Doctor. We'll figure it out.

JIMMY GUIDRY: Do I hear a motion we adjourn.