

Water Meeting

4/17/15

J.T. LANE: If everyone could please take a seat. Sheree, if you would please start with the roll call.

SHEREE TAILLON: Dirk Barrios, Vern Breland (absent), Ben Bridges, Robert Brou, Jeffrey Duplantis (absent), Greg Gordon, Jimmy Guidry, Jimmy Hagan, Randy Hollis, Patrick Kerr (absent), J.T. Lane, Rick Nowlin (absent), Rusty Reeves (absent), Chris Richard, Keith Shackelford, Cheryl Slavant (absent), Joe Young (absent), and David Constant. We do have a quorum. Two things, Rusty had a perfect attendance until today. The only one and he is very, very sad that he could not make it. And Ms. Cheryl has called and she had eye surgery and she's not able to drive. But she will be coming back shortly.

J.T. LANE: I would like to thank everybody for coming out on a Friday. Just so y'all know why, Friday is usually the best day to schedule meetings that we know we can commit to. Monday through Thursday during session it can be at any moment myself and Dr. Guidry or both of us could be called to the capital during those four days. Fridays are typically the best days for us to schedule meetings so we have a low chance of being interrupted. That's why we're meeting today, so thanks. We did meet this morning. We'll get into this when we discuss part 5 with the Liquefied Petroleum Gas Commission to get more information and talk with them about the anhydrous ammonia issue that we talked about in our last part 5 discussion. Jake will fill us in on that when we get to that. With that I'll move on to does anybody have any questions about the minutes from last meeting? With that do I have a motion to approve them?

ROBERT BROU: I make a motion.

JIMMY HAGAN: Second.

J.T. LANE: Thank you. So on to old business, Pat Kerr was unable to make the meeting today and he actually requested that we delay the side by side discussion for the next meeting. And so I want to

just ask the committee are there any objections to altering the agenda to discuss the part 10 side by side in our next meeting in May? All right, thank you. So with that we will move on to discussion of part 5.

JAKE CAUSEY: You may have two copies of part 5. One has the highlighted, sort of the highlighted slash clean cut version. The other I think is a straight up clean cut version with only a couple comments. A lot easier to use the highlighted so just wanted to make sure everybody had that. So I'll go through, the first comment on page 1 was with regard to creating a definition for ANSI accredited testing agency. We didn't insert the exact definition here, but I think we're just noting the definition will be created. I think that's pretty straight forward.

DIRK BARRIOS: I think we refer it was a requirement four times in here. Neither one of them is exactly the same. When it talks about using NSF requirements verified by ANSI then you come back on page 7 and I think it says ANSI AWWA standards and/or ANSI NSF standard 60. A little while later it's a slight different version. And I think you're trying to say the same thing all four times.

JAKE CAUSEY: Yes. Generally speaking, yes.

DIRK BARRIOS: The only thing I'm saying could we be consistent and say the exact same thing all four times?

JAKE CAUSEY: The standard is the only thing that's probably changing in those.

DIRK BARRIOS: Someone that might not understand exactly what you're trying to say.

JAKE CAUSEY: Oh, you mean like here where it says shall meet NSF 60 requirements as verified by an ANSI accredited testing agency and then elsewhere where it says meet AWWA or ANSI NSF blah which would say or NSF as verified by. But just be more consistent in that. We'll do that. Good point. On page 2 we had discussed the chemical feed rate shall be proportional to the flow stream being dosed. So the language that was proposed we removed. We discussed item A above that addressed that manually or automatically controlled are both covered and available. And then comment 3 at the bottom shall not be required, I guess reworded this, shall not be required for chlorine gas

cylinders when used as a backup or standby source of chlorine gas. I think we agreed, but reworded. C devices utilized to readily, we had it and shall be provided at the end of this sentence. Page 4 comment 5 we added the supply and storage of chemicals to that title. Deleted A space and then I guess reworded A to use the committee language or subcommittee except use 10 days instead of 7. And then 3 comment 8 we added can only be made by truckload lots like we had discussed last meeting. And then comment 9 we had just added the word readily. Have a means to readily determine the volume of liquid retained in the storage tank. On page 5 comment 10, so this was where we had left it as federal primary drinking water standards, but then added state drinking water regulations shall be provided while servicing a liquid storage tank so we wouldn't necessarily pull in the (inaudible). Comment 11, again we just added the word readily. Kept the language, but just used the word readily. A means shall be provided to readily measure the liquid level in the liquid storage tank. DHH comment 12 talks about valve drains on liquid storage tanks. We kept shall there. Then we get into comment 13 and 14 regarding day tanks. We had added an exception this requirement can be made for new and existing systems under the following condition except in the case of fluoride. And it said when an approved alternative means to provide chemical overfeed protection that provides at least the same level of protection as a day tank in addition to the requirements of section 5.5 siphon control or where chemicals are fed directly from shipping containers no larger than 55 gallons. This was something a lot of folks had questions on. So again, if you're feeding from a drum that's 55 gallons or less there's no day tank required. And then for other chemical feeds we're looking at the day tank sort of is at a baseline. It's providing some means of overfeed protection. It doesn't absolutely prevent overfeeds, but it limits the amount of overfeed. But we feel like the wording leaves it open enough that if there are other options that a water system or engineer want to pursue to provide overfeed protection in lieu of a day tank we have the ability to accept that. I know I had gotten some emails about different scenarios with meters and monitors and switches and what have you. A lot of that I think you can create a system that provides

more protection than a day tank as well, but so we're just kind of looking at that as a baseline.

BEN BRIDGES: So if we're able to add automation and prove that we can do even better than just a day tank we can forgo the day tank and just come right out of a bulk tank. Good deal.

JAKE CAUSEY: On page 6 DHH comment 15 subcommittee's language suggested means to prevent an overflow inserted and then we added I guess automated as discussed by the committee during the last meeting. I guess it will read except for fluorosilicic acid hand pumps may be provided for transfer from a shipping container. A tip rack may be used to permit withdrawal into a bucket from a spigot. Where motor driven transfer pumps are provided an automated means to prevent overflow shall be provided. Then the second continuous agitation shall be provided to maintain chemical slurries in suspension. On page 7 DHH comment 17. There was I guess some language inserted in here about if rooms are provided as deemed necessary and so we did not include that. I think the rooms are addressed later. And I think Randy just mentioned that was the first time rooms come up. DHH comment 18. Chlorine gas, chlorinators. So this was chlorinators should be housed in a room separate from but adjacent to the chlorine storage room. Now I think this specific A right here they're talking about the feed equipment, not necessarily the storage equipment in that it's preferable to install the feed equipment in a room separate from the storage equipment but it's not mandatory. But later I guess in the section I think it's actually C. D actually. D says chlorine gas feed and storage shall be enclosed and separated from other operating areas. So basically we propose to leave the language like it is, but provide an exception for existing systems who chlorine gas is protected from sunlight, but so that new permits would be required to provide the enclosure, but existing systems would be grandfathered in. So that would be part of the grandfathering. On page 8 of 13 about provisions. Maybe originally said must be made to chemically neutralize chlorine gas where feed and/or storage is located near residential or developed areas. We left it as should recommended by the subcommittee. I think it would be difficult to develop specific criteria about when you have to install scrubbers or not as far as location of residences, population numbers with

distances, and what have you. I think that will just be more up to the owners and engineers to determine if that's necessary. So the bottom of page 8 number 4 stored in locked and secure rooms. I think there was a change to say something about upright position or something. We just left the language. Next was on page 10 of 13. DHH comment 25, sodium hypochlorite. I think we had just I think agreed on the intent, but reworded it to add the word when enclosed at the end of the sentence. And then DHH comment 26 it was proposed to delete and shall not be rinsed out or otherwise exposed to internal contamination but we reworded it to say and shall not be exposed to contamination. So you could clean it just in I guess a sanitary fashion. So DHH comment 27 positive displacement pumps we retained that. Then on comment 28 or mass flow monitors left that as an option. Comment 29 was about I guess ammonium sulfate, but liquid ammonium sulfate as I can tell really doesn't need any special provisions. It would just follow standard bulk storage liquid chemical. Nothing added for liquid for LAS. And then for aqua ammonia basically we propose to treat that the same as the chlorine gas that we would retain the language and that it would be mandatory enclosure on new permits, but that there would be a provision added to the grandfather section for existing systems. Comment 32 was to I guess maintain this provision in 10 state standards about bulk liquid storage tanks of aqua ammonia shall be designed to avoid conditions where temperature increases cause the ammonia vapor pressure over the aqua ammonia to exceed atmospheric pressure. I don't know that we're having that particular issue, but it's one of the ones we want to make sure we don't have. DHH comment 33 we just deleted the language if a room is constructed. And DHH comment 34 we just left the language from a day tank. I guess in that section we may since we do have the exception for day tanks as far as if we provide some other means of overfeed protection I don't know we may need to look at that language from a day tank just put if required by this code or if you don't have an exception or something like that. Putting a note by that. So the next is the anhydrous ammonia. And so as J.T. had stated we met with three or four folks from the Liquefied Petroleum Gas Commission John Alario, maybe Paul Schexnayder may have been their

attorney, two of their inspectors. And I guess maybe to recap at least on the St. Bernard permit we had provided everyone pictures of last meeting they did not issue a permit for that facility. I know they passed them out this time, I think I referenced this standard in the handout last meeting. CGA 2.1 I think is also referenced as ANCK 61.1. But what they had determined for St. Bernard is that in the standard the table starts at over 500 so their view was they only regulate 501 and greater and so 500 fell to the local jurisdiction which was the parish government. And so basically St. Bernard installed a 500 gallon tank so it didn't fall under their regulations was their prospective. So that's what they have one 500 gallon tank.

DIRK BARRIOS: What if you have bulk (inaudible)?

JAKE CAUSEY: Then you've exceeded 500 gallons. The question was asked, I assure you. Cause you got to ask the question, right. We certainly pointed out and they acknowledged and certainly their standard and rule does say except for buildings designed for that purpose and they tended to characterize that as more for that's kind of like just for small day tanks and what have you. Although it doesn't necessarily say that. But their view was that they do not intend on issuing permits to storing anhydrous ammonia inside a building period. But that would only apply to greater than 500 gallons. And their biggest concern was the ventilation if there's a leak the buildings are ventilated, but none the less. So our discussion was, and frankly even when we spoke to St. Bernard we felt like, and certainly I think the Gas Commission folks felt like liquid form is an inherently safer technology. I think we provided the numbers last meeting. Maybe roughly a 100 systems using ammonia, at least half of them are using liquid ammonium sulfate. Some using ammonium hydroxide. Less than 30, maybe closer to 20 maybe using anhydrous ammonia. I guess what we're proposing and what we had discussed with the Gas Commission was basically to kind of like everything else is kind of grandfather in what's in, but going forward we want to propose to mandate the use of liquid ammonia. There's risk with a system with gas inside and outside and basically the conversation led to you don't have to use gas. We can eliminate the risk all together from that

prospective, but not to impact existing systems. I think we just had one new permit we issued for chloramines. It was LAS. Other than St. Bernard building their brand new plant we don't have many systems coming in for chloramine permits at all and when they do they are using liquids. What we also thought about is as Dirk keeps talking about this new plant or an expansion was that even for existing systems if they add some filters, add a clarifier what have you, if they are using their same anhydrous ammonia feed system not impacting that at all you wouldn't have to convert. If you literally are going to a new piece of ground somewhere and you got to get new permits and start from scratch then it would apply to you. But if you're just upgrading where you are and using your existing feed system then it wouldn't be a requirement at all. I think that's where we ended the conversation there with those guys. That's what basically we said we would come and present to the committee. I think we just kind of have a comment in here about using liquid forms of ammonia, but we haven't actually modified this part 5 to reflect any of that language. We just kind of wanted to bring it up. We certainly don't intend on voting on anything. We'll come back with a new version at the next meeting. That's where we left that.

J.T. LANE: What we did also is just discuss the risk of having it in a building verses not. Just try to weight the risk of both scenarios and that's ultimately what led us to well since we thought anhydrous ammonia was the least seg-way for treatment that since we had such a low number going forward is it something that we could just look at potentially not using anymore in the state period for newly permitted systems. And so that sort of mitigated both the risk discussion and also preserve the authority for the commission to oversee regulation of it. And that was sort of the genesis of the conversation and certainly just a suggestion sort of where we ended. With that just so y'all know that's how we sort of ended up at that spot. With that let's have a discussion about that. Eager to get everyone's feedback on that issue.

DIRK BARRIOS: The only question I have is, and I understand what you're saying if it's a completely new facility, and I'm not saying we're doing this cause I really don't know what the intention is.

Existing facility and you're doing some revamping and you decide you're better off moving your feed equipment to another location. Would that constitute not being able to use what you're already using?

JAKE CAUSEY: I don't know. You're talking about moving it a 100 feet?

DIRK BARRIOS: I'm not saying we will, I'm just saying if we do. I really don't know. We haven't gotten to that point yet. When you're expanding a facility the way ours is constructed right now we're going to be expanding towards the back of the property. Might be more advantageous to move your ammonia feed more centrally located than where it is right now.

JAKE CAUSEY: Yeah. I don't know, I mean I think if you're still using--

DIRK BARRIOS: All the other equipment would be the same.

JAKE CAUSEY: If you're still using the same clarifiers, the same filters in that sense and you're just maybe adding one new bank of filters and re-pipe something for treatment so you're just going to put it over here. I think it's still the same facility.

DIRK BARRIOS: I don't think that we are, you just never know what's going to come up when you're planning these additions. Completely new I can understand that.

CHRIS RICHARD: The only thing is I understand what you're saying. I'm not disagreeing with you, but it is new construction and it does require a permit so I don't see how you can grandfather new construction.

JAKE CAUSEY: If you're going to move the anhydrous ammonia.

CHRIS RICHARD: It requires a permit for you to construct it.

BEN BRIDGES: But J.T.'s last comment was we're trying to get away from the gas so why would you not take this opportunity to do something alternative.

JAKE CAUSEY: I think that you make a good point. You have to have a permit at that point for that anhydrous ammonia storage and feed system.

ROBERT BROU: To Ben's point there are huge differences between using aqua ammonia and

anhydrous ammonia. There's a whole new learning curve to be put into place. And because you add a new bank of filters and you want to add three more ammoniators and you have to completely swap over your system that's bad business. The fact to not allow it as an option is bad news. I think you could do it and still accomplish what you're wanting to do with if you need to mandate new construction's inside one option stay below the 500 threshold. There's ways around it and still allow people options to treat the water in the manner they see fit.

JAKE CAUSEY: That was one question that came up if you got a 500 gallon tank how much water are you going to treat one period of time.

ROBERT BROU: Our 1,000 gallon tank we get about a four to five month supply, maybe a little more than that. That's at about three and half million a day, four and a half at the top. Still a lot of water.

JAKE CAUSEY: It is. It is different, but I know that I've heard from some that feeding the liquid they had a much more consistent application.

ROBERT BROU: I don't believe that. Easier to control with the 100 percent. You don't have degradation of your chemical.

BEN BRIDGES: My point was if you're swapping to a safer with less inhalation problem that would be the time to do that. Not anything against the gas. If you're set up with gas feed and you know what you're doing I don't think there's a problem. But inherently it's safer for the LAS than for gas ammonia.

RANDY HOLLIS: Again, our goal is to produce the best water quality for the public. That's our goal to produce the best water quality and you can't get any better than liquid ammonia. Not aqueous, gas ammonia. That is the best quality you can get and once you compromise on that, sure you can compromise water quality. So our goal is the better water quality. To exclude the use ever of gas ammonia I think is a mistake.

ROBERT BROU: I think it's a huge mistake.

RANDY HOLLIS: Cause aqueous ammonia does degrade.

BEN BRIDGES: LAS does not.

RANDY HOLLIS: Correct.

ROBERT BROU: What you buy is what you have when you go to feed.

RANDY HOLLIS: I hate to see us exclude that forever.

BEN BRIDGES: Not excluding forever, I'm just saying if you're going to change from one technology to another that would be a good time to go to the safer environment if you will or the perceived environment that is safer.

J.T. LANE: And the feedback from the commission this morning though is enclosing it created more of a risk and so that's what we were trying to, and literally we talked about different ways to enclose it and what not. But that was their concern with the national standards they use and they brought the book and we have a copy of it. We're open-minded. Just trying to balance again the regulatory authority, what would meet our needs.

RANDY HOLLIS: Are we a 100 percent confident they will not come back at some time and will regulate gas chlorine? That's a question I would have for them is are they going to step in because it's a liquefied pressurized gas. Are they going to step in sometime and start regulating chlorine? Now we've built all these facilities that by no means met their requirements.

JAKE CAUSEY: Their concern is they consider it if there's a leak it was all about the ventilation. If you get X percent in there it was (inaudible). Everything else they regulate certainly is that, but ventilation was I think their biggest issue. Even though we pointed out we have professional engineers designing these buildings their code clearly says that they are just not terribly interested. That's kind of where we left it. We have systems chloraminating now, we've had one or two permits recently for chloramine systems. I don't see more permits for chloramine systems coming. In fact, I think that you're going to see probably a trend getting away from chloramination. Certainly water systems can treat water without ammonia. Systems that do it really well can do it effectively and make really good water. That's a very small number. I think that's pretty much the guys who are

doing it already now here. We're talking about future permits. I think it's a lot of risk we don't have to have, frankly. I think you can make great water either way.

CHRIS RICHARD: One question back to Randy's point on the chlorine. What is the real driving force behind wanting to enclose this because I guess what I struggle with if you're making a case for safety then how do you make the argument you can grandfather in all the systems that have it outdoors already? It's either dangerous and we need to put it in a building or we don't. All the things we're talking about grandfathering don't affect water quality. If they do affect water quality we won't grandfather them in. So if this is truly a safety issue, a health issue it conflicts with the grandfathering in my opinion.

J.T. LANE: The thing is when we talked about it it ended up starting out we found safety issues for either. For either case. Whether you enclose or not. All the different scenarios that a bunch of really smart people in a room can come up with then you end up getting in a debate what is most likely to happen. That's kind of how we ended up with it because I didn't want us to get stuck with having to decide without any clear data or studies we could find at the moment in which which scenario would pose a greater risk. Which is why again ended up well if the substance itself is of high risk and not used by a good number of systems now, but they have used it so why not just grandfather the ones that are using it with the way they are currently permitted and then going forward we would transition to not using it at all. That's where we were this morning and we've had a lot of feedback and this is good, but that's sort of where we were.

CHRIS RICHARD: I'm talking about chlorine too though which is used by everybody and safely outdoors. It's covered and protected from the weather and things like that. I'm just trying to reconcile that in my mind if it's not affecting water quality and if we're bringing in other issues then safety of a neighborhood how do you reconcile it's okay because it's there, but it's not okay in the future? If I build it in the middle of the field and there's nobody within a 100 miles I got to put it in a building. If it exist next to a school, but it's already there I'm okay.

J.T. LANE: You could ask that about a lot of things going into the grandfather clause I suppose.

CHRIS RICHARD: I thought we're not going to grandfather things that affect water quality?

RANDY HOLLIS: Chris, I look at this as DHH at least being reasonable with us and I do appreciate that tremendously. St. Tammany you're looking at over 40 million dollars if you enclose the chlorine today. Baton Rouge Water you're looking at 60 million dollars. That's a huge economic impact of attempting to regulate something immediately. We can't afford that.

CHRIS RICHARD: No, I agree.

RANDY HOLLIS: So I appreciate DHH at least be willing to grandfather what's there right now until we have time. We've built several new facilities recently. Every one of those new facilities has chlorine rooms and ammonia rooms. We have complied with 10 state standards, the new ones have. And we can absorb that cost as we go forward, but to attempt to go retroactive and do everything immediately yes it is a safety hazard, but we can't afford it. The population can't afford it. So I appreciate DHH at least working with us on that. I've got some options I waited, I am going to let Jake get through and then I'll give you some of my opinions on these things.

JAKE CAUSEY: There's only one left. So this was the scrubbers for anhydrous ammonia rooms. It says shall consider, propose should, so we left it as a should. And I'm done.

RANDY HOLLIS: I've only got a few comments actually going back through this and really trying to study it and figure out where we're going with this if y'all will bear with me. Four major points that I have. One is we have a request from Dow Chemical on manufacturers that at least they be exempted from complying with all of this because they pull chlorine from their manufacturing process to use for water treatment. And they did not want to all of a sudden extend all the way back into their chlorine manufacturing and having to enclose everything in the manufacturing process. So for any manufacturer that generates the product that's used to treat water I think we had recommended as a committee that they be exempt from these regulations so we stay away from the process.

JAKE CAUSEY: Good point. And on that note I did receive an email from Will who was here earlier this

week I think somewhat to that effect. And so I actually had a conversation with him just before this meeting and asked some questions about some of the information provided. And basically what I asked him if we could meet between now and the next meeting to look at what some of the plans and things are they have in place. Talking about industrial, we have probably 200 industrial public water systems. I don't know if they realized that. Talking about manufacturers and talking about other permits and plans they have in place. I don't have a good grasp on all of those. So that is still an item. That's something that maybe we get a couple other folks and talk more.

RANDY HOLLIS: Let me hand out, I was asked last time to prepare some language when we were talking about day tanks. So I'll hand this out if y'all pass that around. It's just one page. It's on day tanks, chlorine gas, and anhydrous ammonia. We've talked about anhydrous ammonia, but we'll talk about day tanks first. Day tanks the first thing I would like to really discuss and this is 5.1.11. I really want to make it clear day tanks will not prevent an overfeed of a chemical. They won't. Day tanks will only provide protection from feeding more than a 30 hour supply. You could feed that 30 hour supply in 5 minutes and kill people. Fluoride you can kill them if you put too much in the water at one time. So a day tank is not going to protect the public health. And my concern about that is that we're relying on these day tanks. The second thing that day tanks do day tanks require you to go to every site every day. You can't have more than a 30 day supply. We've got 50 sites in Baton Rouge with telemetry, with T1 cables coming in, with cameras, with SCADA systems we know everything at every site. And on weekends we do not visit those sites because we're comfortable enough with the telemetry coming in we know exactly what's going on at every one of those sites. A day tank, because we're feeding aqueous ammonia, it would require every single operator to go out there, or every site to be visited every single day. So the proposed language that I've got in here is that when systems can demonstrate that pumping systems can limit the application of the chemical such that the MCL tied to that specific chemical if it's applicable will not be exceeded, then the requirement for a day tank for that chemical will be suspended and that specific chemical can be fed directly from

bulk storage regardless of the bulk storage size. For chemicals that have no MCL direct feed will also be allowed from bulk storage if the system can prove the pumping limitations will not cause an upset to the treatment process. Now to follow up on this we said it's okay to feed from a 55 gallon drum. What if that drum last you 6 months? What good did that do if you fed the drum in one day? We're under this misnomer that the size for some reason of a day tank or even a bulk storage tank of 55 gallons protects you. It doesn't. So what I'm trying to do is put in here language that really protects us that says if you can limit what you're feeding by using your pumps that's the true protection that we will not have an overfeed. And so that's the suggested language that I've got.

JAKE CAUSEY: Are you proposing that as the exception to the day tanks?

RANDY HOLLIS: Yes. If you can do this then you don't have to have a day tank. Yes, it's an exception.

Under 5.1, well let me go through I was making notes to make sure we were okay here. Under the supply and storage of chemicals under the 5.1.9 3 which was on page 4. We did put in provide a minimum storage volume of 1.5 truckloads where purchase can only be made by truckload lots. We've only gotten out of our 60, 70 some odd feed systems out of all of ours we've only got anhydrous ammonia at one location. I didn't look this up, Dirk maybe you or Rob can tell me this, how do you buy that in a truckload, your anhydrous ammonia?

ROBERT BROU: With a truck usually feeds both of my sites with one truck.

RANDY HOLLIS: But if you have to have 1.5 times the truckload what size tank are you into now?

ROBERT BROU: I can buy it in different size trucks. I can buy it where I'm buying a quarter of a truck.

I think it's redundant to say 1.5 does that change the 10 day minimum to increase it or decrease it? What's a truck and a half if you use a truck a day?

JAKE CAUSEY: You got 10 days you got 10 days.

ROBERT BROU: That's what I'm saying. I think the 10 days should be all. We should lose the 1.5 altogether. It doesn't matter if you're buying about 5 truckloads or 55 gallons.

RANDY HOLLIS: If a truck comes in with 3,000 gallons now you got to have a 4500 gallon anhydrous

ammonia tank. I don't want to get caught with that. I didn't want this to be used to say you have to put a bigger ammonia tank. We don't need it. I'm pointing that out as a possible conflict in here that the tank that we specified in this section doesn't apply to anhydrous ammonia. Day tanks on page 5 I just covered that of what I feel like under the exception we should do there. Over on page 11 of 13 under the anhydrous ammonia or aqueous ammonia, I'm sorry. 5.4.5.2 it's on paragraph C on 11. And what we state here the bulk liquid storage tank shall be designed to avoid conditions where temperature increases cause the ammonia vapor pressure over the aqua ammonia to exceed atmospheric pressure. That means at any time. By experience we know that if you keep about 2 pounds of pressure over the top of an aqueous ammonia tank you will form an ammonia blanket. It's exactly what comes in the trucks when they deliver. You've got an ammonia blanket there. If you do that you get no degradation of the aqueous ammonia. What I would like to see is under paragraph C is that we change that or add to it to say the bulk liquid storage tank shall be designed to avoid conditions where temperature increases cause the ammonia vapor pressure over the aqua ammonia to exceed atmospheric pressure by 5 PSI. In other words, if it goes over 5 PSI okay, we won't go over 5, but at least it gives us that buffer between atmospheric and 5 to allow an ammonia blanket on top of it. In reality you already have a little bit of pressure on top of it because you've got on inert gas trap on the vent, it requires that, so technically you already got a slight pressure on the top of it anyway because you've got the inert gas trap. We're just getting this up to 5 PSI to allow that to happen.

ROBERT BROU: That's why we suggested removing that language all together initially.

RANDY HOLLIS: Right, but we need that buffer to prevent the degradation of aqueous ammonia.

We're not asking for much. Just five. That's it.

JAKE CAUSEY: Didn't we also change they had I guess stated that unpressurized tank to pressurized.

RANDY HOLLIS: We did.

JAKE CAUSEY: This kind of speaking to the same.

RANDY HOLLIS: Well, this is it won't exceed atmospheric pressure.

JAKE CAUSEY: Pressure tank above atmospheric pressure it's pressurized.

RANDY HOLLIS: Right, but at least this gives us the limit of up to 5 PSI.

ROBERT BROU: Under A we added pressurized. Two above that. 5.4.5.2 A

RANDY HOLLIS: Once you start getting above 5 you're starting to get into an ASME pressurized tank or design of the tank and everything else we don't want to go above that. The last thing I think I have--

JIMMY GUIDRY: Is that routinely monitored?

RANDY HOLLIS: No, sir. What we have is we have an inert gas trap. We have actually a P trap on the vent that's full of water. That P trap really regulates the pressure on top of the tank. If it goes above that the gas will go out and go through a scrubber and then the system. So that just gives us the limit of the pressure on the top of the tank to 5 PSI. It's not monitored because that trap will allow it. It's a relief.

JIMMY GUIDRY: When you're saying above five becomes risky?

RANDY HOLLIS: Yes. We don't want to go above five because now you're into a pressurized vessel. It's more than what we normally use for anhydrous ammonia.

JIMMY GUIDRY: When I think of limits I don't think of going to where the risk is, I think of getting, and I'm not why we came up with five I understand your argument, but if right above five is dangerous and you let it get to five you're pushing your luck in my opinion.

RANDY HOLLIS: The five will regulate the design of the tank so that will relate to cost and the cost of the tank. Five is the maximum, two works perfect. I want to give myself a little buffer, that's all.

JIMMY GUIDRY: We're not trying to get to five?

RANDY HOLLIS: No, we're not. So the last thing I have is on section 5.4.1 chlorine gas and what I've done here is added in a section that's an exception. There's a better mouse trap than a chlorine room, a lot better mouse trap. And it's a secondary containment around the cylinder. Secondary containment around the cylinder is a pressurized cylinder made to ASME code. You put the chlorine

cylinder inside it and close the door and then you feed and you've got perfect secondary containment. They are expensive. But what I'm asking for is if a system wants to use secondary containment for chlorine cylinders there is no reason to have a chlorine room that I do say it needs to be protected from sunlight, needs to be shielded from public view, it's inside a fenced and secure area, and it will be secured in place so that it won't float off in a hurricane. And then all chlorine pipelines outside your regulator is inside that secondary containment. So your regulator is on the cylinder, it's inside, and then the tubes go to the wall of it and everything outside of there is vacuum. There is no pressure leaking whatsoever. If you have a leak in the cylinder you just feed the chlorine like you normally do until you exhaust every bit until your chlorine is gone. That's the perfect way to handle a chlorine leak. So to me it is a much better mouse trap and if we do that why require everything else in the chlorine room?

JAKE CAUSEY: I guess one other question I would have is about protection from like also windblown debris and maybe some of those things. I guess we've seen protection from sunlight that's not much protection from sunlight. I think we had talked about it you and I just wanted to make sure we have some of those other caveats so that it's truly protected the way you're describing.

RANDY HOLLIS: Normally Jake on these the chlorine cylinder is designed for about 250 pounds or so pressure. You've got a fusible plug on it. If the temperature gets to be about a 145 temperature degrees Fahrenheit the fusible plug melts so that gas is coming out of the cylinder. On every one of these containment devices we've seen, secondary containment, there is no fusible plug and they're designed for about 500 PSI. So your protection is built into the structure of the unit itself. And so to me it's a really good device to put around. If you're going through that expense there's no reason to have a big chlorine room. You need the space for the ramps to get the chlorine cylinders in and out. Put it inside a room can really hurt you.

JAKE CAUSEY: I think what we're talking about as far as away from public view, from indirect sunlight probably need some kind of side walls so you don't have, but still, but not enclosed.

RANDY HOLLIS: Sure. I would suggest that as an exception to chlorine rooms. If we're going to go to that expense it's really better than we allow systems to be able to do that. The last comment I had I had written up earlier was on ammonia. I know we covered that. I just don't recommend we put ammonia inside. I had looked at the regulations for ammonia in addition to what you've got and that is when you look at the true regulations of ammonia a cylinder of ammonia is only a 134 gallons. That's a cylinder. Those are the ones that you find that have screw tops on them and all that stuff. A container is anything larger than that and those are the bulk storage units we see outside. And so really when you look at these regulations of cylinder it's only a 134 gallons, not 500 on these regulations. I just don't recommend ammonia being placed inside. I think if we can figure out a way to feed ammonia directly from bulk storage to the system without a room would be very good. That's all the comments I have. I go back Dr. Guidry I do appreciate you pointing out the grandfathering, I really do, but as systems improve and make corrections yes they'll have to improve.

JIMMY GUIDRY: I'm not a big fan of grandfathering because what we're saying is we know better, but we're willing to accept the risk because it cost too much. And we live in a state where we tend to put our money on things and then decide what's important. And to me some of the things we decide to cut corners on I'm dealing with it in the session. We're willing to cut corners on things because of our principals and because of what things cost. It makes sense to say over time we want to get what we should do so you have to kind of meet and agree. So I appreciate the kudos, but I don't feel good about it.

RANDY HOLLIS: I understand.

CHRIS RICHARD: A lot of the grandfathering that you have though is because times have changed, people have learned how to do things, but there's certain ways that you design something and build something today that you can't actually go fix. You can't change without blowing up the plant and starting over again. The quality of the water coming out is fine so you're not really compromising anything. You're just saying from this point forward this is the way we need to go to do things. Not all

grandfathering is bad.

KEITH SHACKELFORD: And corners weren't cut to begin with necessarily. The plant was designed and built to the standards in place at the time.

JIMMY GUIDRY: But we were willing to spend billions of dollars changing this out every two years because it becomes obsolete.

DIRK BARRIOS: Not willing, forced to.

JIMMY GUIDRY: This here technology can do a lot of the work that protects us. But again, we make stuff that doesn't last anymore.

DIRK BARRIOS: The federal government has been giving us unfunded mandates since this country began. Why should we start giving everybody unfunded mandates on our own self? If we're already meeting the quality of drinking water and what we're doing is fine. A lot of unfunded mandates. Not only is the state in a financial pickle, but so is everybody in this state.

JIMMY GUIDRY: Believe me, everything weights in as far as what does it cost, how important it is. And we get a lot of mandates from the federal government that we have to put in place. We don't understand why they are taking it so far. So it is a discussion between the experts who really know what they are doing. What I can tell you is this, we have a lot of old systems and we are at risk. And the amoeba taught me that. Not because of the amoeba's risk, because the likelihood of that amoeba is not high, the likelihood of a compromised system because there's not enough disinfectant is very high. And we don't have a clue as to how many people get sick because they're drinking water that's not properly treated. We can say we do a good job, but we don't know because nobody is measuring how many of our folks with diarrhea or vomiting or the virus is from the drinking water. Nobody knows that question. My job is whatever the public can bear make it as safe as possible. We had the same issues with sewage. For years we don't want to spend the money it cost to treat sewage. We started having high coliform counts in our lakes and our streams and our rivers. There's a price to pay when you won't spend the money. Our roads there's billions of dollars right

now people don't want to pay to repair them. No more taxes, but they don't want to drive in a pothole. Again, we got to figure out what the market will bear. And Randy I appreciate acknowledging that we are working with everyone. But we will push the envelope to make sure we do everything we can afford. Thanks for reminding me of the mandates cause our job is frustrating. As regulators you are not liked for enforcing people what to do. My biggest headache for about 10 years now has been sewer plants that are not properly maintained that are put in the ground and raw sewage is coming out of them. And it's been really hard to get around because it's costly to treat sewage. And so over and over again we have camps that are built right along the waterways dumping raw sewage into our waterways and we accept that until we smell it. It's bad news way before we smell it. I appreciate the work that y'all have brought to the table and force us to think about things a little more and your expertise, but I can't tell you this has been pleasant. I can't lie, but it has been very educational. I just wish the public would see your passion and see how serious you take your jobs. Cause they think they drink the water, they don't think about it. For the record, that water you drink out of the bottle you're paying a 1.25 for is not protected like the water coming out of the tap.

ROBERT BROU: I did have a couple comments on the bottom of page 8 of 13 under G. It's full and empty cylinders of chlorine shall meet the following requirements. Number 4 says it should be stored in a locked and secured room separate from ammonia storage. I would suggest striking out locked or putting and/or secured rooms. Even if you're in a fully operated treatment plant that's manned 24 hours a day and you have a chlorine room you're probably not having it locked, but it is certainly secured. I do understand the concept of locking if it's a remote site, but either the word locked needs to come out or it needs to say and/or secured. I don't know which would be preferable to the committee.

JAKE CAUSEY: Noted.

ROBERT BROU: And on 11 of 13 we talked about this at the last one. It's 5.4.5.2 D talks about the exhaust fan shall be installed to withdraw air from high points in the room and makeup air shall be

allowed to enter at a low point. Under 5.4.5.3 B it talks about an elevated intake as just the opposite of D above. The intake needs to be at the low point in the room. The exhaust fan needs to be at the high point, which is what we attempted to change a while back. Under B an elevated intake needs to be at the low point. Exhaust fan needs to be at the high point. Just the opposite of chlorine. That's it.

J.T. LANE: Any other comments, questions? We will take all that feedback and get the language near final. With that is there anything else related to the business we've discussed today anhydrous ammonia, et cetera? Is there any comments from any attendees in the meeting today? All right. With that do I have a motion adjourn? Randy. Ben seconds.