### Chamber and Bundled Expanded Polystyrene Technical Advisory Committee Virginia Department of Health April 23, 2013

### List of Attendees at Central Location

### Technical Advisory Committee Members

Jeff Walker – VAPSS	Pam Pruett – VOWRA	Brian Parker – Eljen
Bob Savage – Eljen	Terry Nielson – ICC Flow Tech	David Lentz – ISI
Dick Bachelder – ADS	Damon Hunley – ADS	Dan Richardson – VDH
Rick Blackwell – VSPE	Joel Pinnix – ACECVA	Sandra Gentry - Installer

### VDH

Dr. Marcia Degen

Lance Gregory

Dwayne Roadcap

### List of Attendees at Remote Locations

### Technical Advisory Committee Members

Bill Southerland – PE Scott Honaker - VDH

## 1. Administrative.

## Welcome

Mr. Gregory welcomed members and reviewed the guidelines for CBEP TAC. Mr. Gregory reminded everyone that if the TAC cannot reach consensus, then VDH would present different options to the Board of Health and agency management. The goal is to have draft regulatory language available at the next TAC for review.

Mr. Gregory stated the purpose of this meeting is to discuss the options that have been presented to the TAC; what do TAC members like, what do they dislike, and are there other ideas.

## Approve Agenda.

Mr. Gregory asked for additional agenda items or revisions. No one offered new items or revisions to the agenda.

The agenda was broken up into specific items required by HB 1726 to be covered in the emergency regulations.

## 2. Overview of April 16, 2013 meeting.

Mr. Pinnix commented that the initial draft minutes sent to TAC members should include professional designation and the organization that they represent. It would helpful if the member making a specific comment is noted.

Mr. Walker agreed.

Mr. Nielsen suggested that edits be given to VDH on the notes cards provided to members.

Mr. Lentz comment that he noticed a few edits and asked if edits should be red-lined and give to Mr. Gregory.

Mr. Gregory asked members to provided edits either on note cards on by track changes in the document. He added that the minutes would be posted on the Townhall website as draft minutes and that after the TAC reviews and approves the minutes they will be posted as a final.

Next Mr. Gregory outlined the discussion topics prioritized by the TAC during the April 23, 2013 meeting.

# 3. Criteria for determining minimum area/criteria for substitution.

The top priority selected by the TAC during the April 23, 2013 meeting was "What should the area/loading rates and requirements be". This discussion topic included thoughts on a 25 percent reduction, finer texture soils, a small flows article from NOWRA, and 15 percent reductions for texture group four soils outline in GMP 135. Other related topics included design authority, and "double-dipping" for AOSS utilizing gravelless technologies. The TAC was asked for their comments on possible options for determining minimum area requirements and setting criteria for substitution.

Mr. Walker commented the TACs previous discussion was what happens if the product is equivalent to gravel as sized, and you choose to use TL-2; doesn't that mean you are taking a stacked factor. He noted that the minutes from the previous meeting bear correction.

Mr. Lentz stated that ISI would view this as a stacked reduction and that IS does not advocate for stacked reductions. He noted that this is not used in other states. Representatives for ADS, Eljen, and ICC Flowtech all agreed.

Mr. Pinnix commented that the TAC should come to agreement that the discussion for the emergency regulations is about septic tank effluent. He added that for secondary effluent there is greater flexibility given to the designer in the Regulations for Alternative Onsite Sewage Systems (AOSS Regulations) when determining loading rates.

Mrs. Pruett asked if the TAC should only specify residential strength wastewater.

Mr. Pinnix commented that the TAC should agree on only septic tank effluent, 1,000 GPD or less, to narrow the discussion.

Mr. Lentz stated that designers have latitude to do what they want. However in a design manual manufacturers will set limitations that designers only take one reduction. It would be the designs choice to take one reduction or the other.

Mr. Walker asked how the Sewage Handling and Disposal Regulations (SHDR) inform the AOSS Regulations. Don't we get loading rates from the SHDR.

Mr. Pinnix commented that designers can use the SHDR, but AOSS Regulations govern where there is conflict or the SHDR are silent. He stated that designers cannot exceed the loading rates in the AOSS Regulations.

Mr. Richardson commented that for the purposes of proprietary products, sizing should be based on septic tank effluent for residential strength quality only. He added that wording should be included that there is not carry-over to AOSS Regulations.

Mr. Walker asked how the TAC would introduce these into the regulations so that products are no longer proprietary. He stated that the TAC should drop the word proprietary.

Mr. Pinnix again asked the TAC if they agree the focus of the emergency regulation is for septic tank effluent; that secondary effluent is based on loading rates in the AOSS Regulations.

Mr. Walker and Mrs. Pruett agreed.

Mr. Blackwell commented that he partially agreed with Mr. Pinnix. He stated that the goal of any onsite sewage system is to reduce the pollutant load of wastewater to a specific level before it reaches a certain depth. With septic tank effluent the soil column must finish the treatment; treatment cannot be ignored.

Regarding minimum area requirements, Mr. Pinnix stated that he thought the sizing table Mr. Lentz had provided was much clearer.

Mr. Walker asked if research supports the proposed table.

Mr. Gregory commented that a second option provided to the TAC converts Table 5.4 from square feet per 100 gallons and square feet per bedroom to a hydraulic loading rate of gallons per square foot. The table included separate loading rates for gravelless products with a break to a 15 percent reduction for texture group four soils.

Mrs. Pruett commented that when talking about LPD loading rates, it's based on septic tank effluent.

Mr. Lentz commented on a graph provided to TAC members and stated that it shows with loading rates in Virginia, for texture group four soils, we are adding progressively more area for each additional increase in MPI. He added that he had not seen the NOWRA paper, but would like to know the justification for changing from a 25 percent reduction to a 15 percent reduction.

Mr. Lentz commented that Ontario has a linear relationship while Virginia has log relationship, adding the same incremental area regardless of the soil type.

Mr. Walker commented on the need to identify a better sizing factor besides trench bottom area. He commented on the need to incorporate soil structure, biomat accumulation, and the mass of waste into design.

Mr. Nielson commented that there are currently three sizing options; GMP 116 allows 50 percent reduction, GMP 127 is 1 for 1, and GMP 135 allows 25 percent.

Mr. Richardson stated the emergency regulations should be confined to septic tank effluent at residential strength.

Mrs. Gentry stated that while reading over some of the regulations from other states, at least a couple of states disallow gravelless systems when there is a high level of fats, oils, and greases. She asked if that should be considered.

Mrs. Pruett comment that this falls back to residential strength.

Mr. Pinnix stated that the AOSS Regulations give designers a lot of latitude.

Mr. Lentz commented that designers should not be prohibited from using gravelless systems on a restaurant or commercial facilities. He added that controls should be in place, like grease separation, to assure that wastewater is handled appropriately.

Mr. Parker asked if it is VDH's intent to remove the GMPs.

Mr. Gregory stated that is one of the discussion topics. Can we eliminate the GMPs or is there still a need.

Mr. Parker asked what is the intent of House Bill 1726.

Mr. Lentz stated that the initial draft of the bill made reference to GMPs, but references were removed because law cannot reference policy.

Mr. Pinnix commented that it is important to understand the process. The emergency regulations will go in effect and be in effect for 12 months with a 6 month extension. The health department has to go to Governor to file a NOIRA to write a final regulation. The emergency regulation is step one in a two step process. The difference between the emergency regulation and the final regulation can be substantial.

Mr. Parker stated that Eljen has products listed under the GMPs and that if the GMPs are no longer in effect Eljen will have different comments.

Mr. Richardson stated that he would like to remove the GMPs.

Mr. Pinnix suggested a point of order as he felt the discussion was not focused. He asked that agenda item for "What happens to the GMPs be moved up to the current discussion. He stated that it is critical to understand if the GMPs are going away or will we have cumbersome regulation with GMPs. There was no opposition to Mr. Pinnix's suggestion.

# 4. What happens to GMP's

Mrs. Pruett commented that the GMPs should go away; don't regulate by policy.

Mr. Walker stated that policies have beneficial information and that policies have been rescinded that should not have been rescinded.

Mr. Blackwell commented that the bill requires the Board to write a regulation that incorporates gravelless technologies. That is something that will happen, the question is what happens to the GMPs. He stated that VHD must answer that question.

Mr. Parker stated the bill was for two types of technologies, chambers and polystyrene, and rolling them into the code. If the GMPs are going to evaporate, then that is a concern for him. Eljen does not want to go to a 25 percent reduction because the technology is for a 50 percent reduction.

Mr. Pinnix asked for clarification. There is one Eljen product, an in-ground sand mound with attached growth; that's a treatment unit rather than a distribution system as outlined in this code.

Mr. Parker commented that the Eljen GSF product is a treatment level two product but that Eljen has another technology, the Mantis, that is not approved for treatment level two but is approved under GMP 116.

Mr. Lentz stated that he is in favor of eliminating the GMPs; designers would prefer to specify designs from regulation. ISI has the same 50 percent reduction for their products sizing but recognized that products are either in the regulations or in the GMPs, not in both.

Mr. Walker commented that he felt the TAC is in favor of doing away with GMP #116, but asked if there is information in the GMP that can be carried forward.

Mr. Pinnix stated that he has issues with the GMPs, specifically the terminology about waivers, and questioned VHDs authority to grant a waiver from the regulations to a manufacturer. He stated that in his opinion moving away from GMPs would put VDH on more solid legal footing.

Mr. Pruett asked how new technologies would be approved.

Mr. Pinnix commented that the regulation provide a roadmap for product approvals. There are experimental and provisional approval requirements. He was also shocked that Eljen received a product approval. He had never heard about it and it had not been discussed with the advisory committee. He stated that part of the NOIRA would be to revisit the product approval arena.

Mr. Honaker commented that the general idea is to move policy into the regulations, to reduce policies. He stated that portions of a policy could move into the regulations and the policy could be modified and updated.

Mr. Bachelder stated the task dictated by bill is large, and suggested the group focus on the bill and leaves the Board to work on other distribution technologies.

Mr. Parker agreed.

Mrs. Pruett stated that during the legislative process VOWRA agreed that if the GMPs became law they cannot remain. VDH should not regulate by policy and should not give one manufacturer an advantage over another.

TAC members were asked to vote on whether the GMPs should remain.

Mr. Walker commented that designers and installers always want a clear mandate, no conflict, to know what is expected.

Mrs. Pruett stated the GMPs need to go.

Mr. Parker re-iterated that he is happy to stay with GMPs while rolling other products into the regulations. Eljen does not want to give up GMP 116 sizing as they worked hard to get that approval.

Mr. Savage stated VDH needs to incorporate other technologies in the regulations or provide a GMP for each new technology.

Mr. Nielson commented on building a base line using GMP 135 before talking about GMP 116;

Mr. Lentz's understanding from the start was the policies would be moved into regulation.

Mr. Bachelder stated that he is not opposed to phasing out the policies. The progression of product approvals is usually accompanied by a history of performance which brings credibility. Designing to a regulation is different from designing to a policy. The process is running its course in Virginia.

Mr. Hunley agreed; not opposed to getting rid of GMPs.

Mr. Richardson commented on the need to move forward and write a regulation.

Mr. Blackwell stated the policies can be eliminated.

Mr. Pinnix stated the GMPs needs to go as they are not enforceable the way they are written. The enactment clause provides broad authority to address these issues. Mrs. Gentry felt that the bill showed favoritism to particular product. Her understanding of the policy that it is a temporary fix until products could be proven and put into regulation. She stated that the GMPs should be eliminated or combined and rewritten GMPs to address issues not covered by the bill.

Mr. Honaker stated the GMPs should move into the regulations and allow new technologies to be approved by policy.

# 5. Requirements for permeable interface.

Mr. Gregory suggested that the TAC move discussion on the requirements for a permeable interface forward in the agenda. There were no objections to this suggestion.

Mr. Gregory stated that this item is specifically required for inclusion in the emergency regulations under part one, section two. He commented that options for proposed language to address this requirement are very similar, and essentially pull directly from the language in the bill.

Mr. Lentz asked if VDH would be getting out of business of reviewing products. He noted that in some states if a product complies with the regulations then you can use it. The state doesn't review the product. His understanding is that VDH would compare product against what is in the regulation and determine whether the permeable interface is suitable.

Mr. Pinnix asked what is "suitable".

Mr. Blackwell asked why there would be mention of a specific technology.

Mr. Gregory state that another option would be to use a generic term for all gravelless technologies, and noted that the language for a permeable interface could be similar regardless of the terminology used for gravelless products.

Mr. Blackwell stated that the term gravelless would be inclusive.

Mr. Blackwell asked about the treatment aspect when compared to gravel systems, stating that. gravel is a fixed film process and provides biological activity, providing treatment before the soil interface. He added that if you take the stone out of the system you still need to achieve the treatment; chambers place effluent directly on the soil interface; polystyrene is attached growth. Mr. Blackwell commented that gravelless products still have to achieve treatment; if they don't then soil pores will be plugged with FOGs, soaps, etc.

Mr. Lentz asked if Mr. Blackwell's comments were based on studies by Metcalf & Eddy. He commented that the information he had seen does not show fixed film treatment in the trench; the heavy lifting is done at the biomat, infiltrative surface and unsaturated zone.

Mr. Walker commented that the TAC should looked at clogging mechanisms, wicking, bioformation, microbial changes in response to loads, and maintaining natural soil and pore

space. He stated it is critical that the SHDR assume secondary effluent 18 below the trench bottom.

The TAC was asked if they are supportive of a 25 percent reduction across the board.

All manufacturer representatives on the TAC and one additional TAC member were fully supportive.

Two TAC members were somewhat supportive.

Two TAC members were not supportive.

Mr. Parker noted that the decisions on how the GMP's would be handled would impact his vote.

Mr. Pinnix suggested a point of order that where multiple individuals on the TAC represent a single manufacturer or organizations the vote be counted as one.

The TAC was asked if they are supportive of a 25 percent reduction for texture group one, two and three soils and a 15 percent reduction for class four soils.

Five TAC members were fully supportive.

Five TAC members were somewhat supportive.

One TAC member abstained.

# 6. Break for Lunch

# 7. Criteria for determining minimum area/criteria for substitution.

The TAC resumed discussion regarding criteria for determining minimum area requirements and criteria for substitution.

Mr. Gregory discussed a concept that would use two different equations to calculate minimum area requirements; one for required footprint and another for absorption area design. The footprint area concept would be a new table with a minimum footprint area requirement based hydraulic loading rates within the footprint area. Mr. Gregory explained that once the footprint area is delineated that a second table would be used to determine trench bottom loading. Trench bottom loading would have two separate categories; one for gravel trenches and a second for gravelless dispersal materials. The footprint area would be the same regardless of the trench material used, which would allow the option to modify designs from gravel to graveless or from gravelless to gravel.

Mr. Walker asked who would make the choice for materials.

Mr. Gregory stated the concept is silent on who makes that decision. The idea is a general concept to promote discussion.

Mr. Lentz stated manufacturers do not intent to have installers perform substitutions on PE designs. He suggested that one way to address the issue would be for VDH designers to show all dispersal material options on their permits and allow the owner or installer to make the call.

Mr. Blackwell commented on the exemption to the practice of engineering that allows OSEs to design and stated that as a designer OSEs must specify the materials. They can't just provide an open blank check.

Mr. Lentz stated designs would specify all materials allowed in the regulations.

Mr. Bachelder commented that a major issue is liability; VDH is liable for three years. He asked about the liability of private OSEs and stated that Mr. Lentz's proposal speaks to the difference between private and public designs.

Mr. Pinnix stated the issue is more tied to responsibility; VDH doesn't have liability, they have responsibility.

Mr. Bachelder commented the proposal would then give VDH the responsibility to tell applicants the options.

Mr. Walker commented that applicants typically make decisions based on financial consideration and license holders have to decide what is best for client and community. He added that the only ones who can design systems, per the Code, are PEs and OSEs.

Mr. Gregory stated he has heard that another option would be only private sector design of gravelless systems.

Mr. Pinnix commented on restriction of products by local ordinances, and that this fact should be recognized. A reasonable solution will avoid potential prohibition of products at a local level.

Mr. Richardson stated that VDH designs have always been based on gravel.

Mrs. Gentry outlined the indemnification fund process for the TAC; system fails within three years, owner makes application to VDH for the fund; may go to the appeal board and possibly to circuit court. There is process that state is held responsible.

The TAC presented three options for designing and installing gravelless systems.

- 1. Include all systems allowed by the regulations on VDH permits.
- 2. Only private sector designs gravelless systems.
- 3. It is up to the designer, private or public, based on discussion with the owner.

Mr. Walker asked if there is a link between design of gravelless system and failures in regards to the indemnification fund and warranty claims.

Mr. Gregory commented that with indemnification claims VDH is looking at negligence on the part of the department.

Mr. Richardson asked the TAC to put other issue aside for a moment and discuss an option he created for minimum sizing. The option used the following equation:

[S + T + B] (.005) (STE =1) = Application Factor S= Side T= Top B= Bottom .005 = constant STE (1) = treatment factor

Using this equation the "Application Factor" would be equal to 75 percent of a gravel trench design under Table 5.4. Using this equation if the side and/or top of a product is at least 25 percent open then S and/or T would equal 50. If the trench bottom is open then T would equal 100. If a product produces less than 60mg/l of BOD then the (STE =1) factor is changed to a factor of 0.8, given additional reduction for systems providing some level of treatment.

Mr. Nielson stated there may be arguments about the open sidewall and trench bottom factors. He commented that reductions would need to be cap to avoid arguing over a slightly larger reduction for one product. He also noted that other states have attempted similar process which resulted in lawsuits.

Mr. Walker felt the equation provides a simple solution.

Mr. Blackwell liked the concept and stated it takes treatment into account.

Mr. Richardson stated that in the equation a product that provides 25 percent open sidewall space gets a 50 percent credit.

Mr. Lentz commented that he would need to think about this option and noted that the minimum sizing chart he provided has been used in multiple states and used successfully.

Mr. Walker commented on the logarithmic equation currently provided in the SHDR and stated that he would like a simple factor. He like the ability of Mr. Richardson's calculation to also take the level of treatment provided into account. He commented on the need to incentivize product treatment improvements.

Mr. Gregory noted that three options for sizing were presented.

1. Expansion of the existing table.

- 2. The footprint concept.
- 3. Proposed equation.

Mr. Gregory if there were other thoughts and options to go forward.

Mr. Pinnix liked the third option, but stated the equation should include a factor for depth of installation, noting that at some point in the soil column you stop getting oxidation.

Mr. Parker stated the EPA says 3 feet, but ask what happens if you vent the system. He also commented that someone will try to take advantage of the equation.

Mr. Lentz agreed that a shallower installation is better.

Mr. Blackwell commented on a number of factors that affect sizing including infiltration, treatment, depth of burial, and landscape and slope. He stated that as long as design features are addressed to make sure the right size units are going then the TAC can create and accurate equation.

Mr. Parker, commenting on waste strength, stated that you never know how a system will actually be used.

Mrs. Gentry asked which proposal is the easiest one to use and not make mistakes. She also commented that PEs still have an option to do something else.

Mr. Honaker stated that Mr. Richardson's proposal provides an additional reduction for GMP 135 with some level of additional treatment where as revisions to Table 5.4 are just a set reductions from conventional aggregate.

TAC members were asked for a show of support for each of the three options.

1. Minimum area requirements, expanding table to include non-gravel.

Three manufacturers represented on the TAC were fully support of this option.

Six TAC members were somewhat supportive of this option.

Two TAC members did not support this option.

2. The footprint concept.

This option was not fully supported by any TAC member. Three TAC members were somewhat supportive of this option Ten TAC members did not support this option at all.

3. Mr. Richardson's equation concept.

Six TAC members were fully supportive of this option.

One TAC member was somewhat supportive of this option.

Two TAC members did not support this option.

The TAC showed more general support for the equation concept prompting Mr. Gregory to ask for a greater exploration of how that concept would work.

Mr. Richardson stated the three factors are air movement through the sidewall (S), air movement through the top of the product (T), and effluent movement through the trench bottom (B). He noted there is also a constant factor of .005 which gives you the 25 percent reduction. There is also a strength of waste factor. For septic tank effluent this factor is 1.0, for additional treatment (60/60 BOD and TSS or greater) this factor is 0.8.

TL-2 and STE (60,60 BOD/TSS) = .8 constant factor

Working through the equation Mr. Richardson explained that (S) contemplates venting, air transportation, and void space. Products with 25 percent movement are assigned a value of 50. This number was not based on a minimum sidewall or product height.

Mr. Bachelder commented that without running through the math, a product with voids on the roof would get a better number than one that does not.

Mr. Richardson commented this would be offset because if the bottom is open, then the product gets assigned 100 for B.

Mr. Lentz asked if any product with 25 to 99 percent void space in the trench bottom gets a 50 for the equation value. He also asked how a value would be assigned below 25 percent on sides or top.

Mr. Richardson stated that the value would be zero.

Mr. Blackwell stated that the math is trying to offer a 25 percent reduction.

Mr. Lentz asked how oxygen gets to treatment. On the top for instance, that would block oxygen, the treatment is on sidewall and bottom. He asked how these factors get us a better outcome on product design.

Mr. Nielson asked if the proposed equation could be added as part of the product approval process rather than an equation for design. He reiterated his comments that the proposed equation could generate a number of issues.

Mr. Blackwell stated that he liked the equation option but noted issues with the math, specifically the 0.005 constant.

Mr. Bachelder commented that establishing an equation that works for VDH would be a daunting task. The limited time frame to promulgate the regulations would make that work especially difficult.

Mrs. Pruett commented that she is not sure an equation can be achieved.

Mr. Blackwell stated that an equation would not be hard. He agreed to work on the equation to present to the TAC at the next meeting.

Mr. Pruett asked Mr. Lentz how his proposed table works with LPD.

Mr. Walker asked if an engineer would be involved.

Mr. Lentz stated that LPD is always engineered design.

Mr. Parker asked if to absorb GMP 116 a column could be added for products that produce higher quality effluent.

Mr. Bachelder stated that VDH needs tools to make a decision that is not arbitrary.

Mr. Honaker asked about the risk for a reduced footprint for systems providing 60/60 effluent.

Mr. Bachelder stated the bill is about effluent distribution systems, as soon as you talk about 60/60 effluent, you are talking about treatment.

Mr. Blackwell comment that the issue has to be in the discussion.

Mr. Honaker stated that if a product provides 60/60 effluent it might not be a conventional system.

## 8. Physical construction criteria.

The TAC was asked for comments on options for language regarding physical construction criteria such as exterior width, storage capacity, height, etc.

Mr. Walker and Mr. Blackwell asked about minimum trench length for gravelless products.

Mr. Lentz stated the intent would be to tie into the current regulations.

Mr. Pruett asked if all bundled system are all polystyrene materials.

Mr. Nielson and Mr. Lentz both commented that economically polystyrene is the only material that makes sense.

# 9. Next Steps.

Mr. Gregory reminded members of the final meeting date and noted that additional information will be provided to TAC member prior to the meeting.

# 10. Adjourn.

### Appendix 1

#### Chamber and Bundled Expanded Polystyrene Technical Advisory Committee Meeting Meeting Agenda (As Amended)

Date:April 23th, 2013Time:10:00 am to 4:00 pmLocation:MezzanineVDH Main Conference Room109 Governor's Street, Richmond, VA 23219

- 1. Administrative.
  - A. Welcome.
  - B. Approve Agenda.
- 2. Overview of April 16, 2013 meeting.
- 3. Criteria for determining minimum area/criteria for substitution
- 4. What happens to GMP's
- 5. Requirements for permeable interface
- 6. Break for Lunch.
- 7. Criteria for determining minimum area/criteria for substitution
- 8. Physical construction criteria.
- 9. Discuss next steps.
- 10. Adjourn.

## Appendix 2

## Chamber and Bundled Expanded Polystyrene Technical Advisory Committee Guidelines April 23, 2013

The creation of a TAC is the creation of a public body. TAC meetings are open to the public, and are subject to the provisions of the Virginia Freedom of Information Act. Meeting minutes are taken and posted on the Virginia Regulatory Townhall website (www.townhall.virginia.gov/).

Meetings are noticed at least seven (7) working days prior to any meeting.

Agenda's are posted on Townhall at least 3 days prior to the meeting.

Draft of minutes must be posted within 10 days after the meeting with a final posted within 3 days of approval of the minutes.

The purpose of the TAC is to assist in the development of proposals to address the emergency regulations as required by Chapter 202 of the 2013 Acts of Assembly. The TAC has been formed to help the Department balance the concerns of all those interested in these emergency regulations. All such concerns will be addressed by the TAC, and any member of the TAC is free to advance any opinion.

The role of the TAC is advisory only. The TAC's primary responsibility is to collaboratively contribute to the development of proposals to address the emergency regulations in the best interest of the Commonwealth as a whole.

The goal is to reach a consensus on how best to address development of the emergency regulations in a manner that will be protective of human health and the environment.

**Consensus** is defined as a willingness of each member of the TAC to be able to say that he or she *can live with the decisions reached and recommendations made and will not actively work against them outside of the process*. This is not to say that everyone will be completely satisfied by the result of the process. It is necessary; however, that each participant comes prepared to negotiate in good faith around complex and sensitive issues.

Also, because the group represents many different interests, all members should expect to **compromise** in order to accomplish the group's mission. If the TAC cannot reach consensus, the Department staff will present the differing opinions to Department management and the Board.

Because TAC meetings are public meetings, any member of the public may attend and observe the proceedings. However, only TAC members have a seat at the table and participate actively in the discussions. Those persons not on the TAC are encouraged to work with and through the TAC members that have common interests to ensure that their concerns are heard. As warranted, the Department will provide access for non-TAC members to make their concerns known to the TAC during meetings, to ensure full consideration of all issues surrounding the emergency regulation in question, provided it is not disruptive or does not inhibit the advancement of the work of the TAC. Time limitations may be necessary in order to ensure that all persons have an opportunity to address the group.

- Please mute or turn-off your cell phones to minimize interruptions. You can reconnect during the breaks.
- Listen with an open mind and heart it allows deeper understanding and, therefore, progress.
- Speak one at a time; interruptions and side conversations are distracting and disrespectful to the speaker. "Caucus" or private conversations between members of the audience and people at the table may take place during breaks, not during the work of the group.
- Be concise and try to speak only once on a particular issue, unless you have new or different information to share.
- Simply note your agreement with what someone else has said if you feel that it is important to do so; it is not necessary to repeat it.
- If you miss a meeting, get up to speed before the next one, as the TAC cannot afford the luxury of starting over.
- Focus on the issue, not the speaker personalizing makes it impossible to listen effectively.
- Present options for solutions at the same time you present the problems you see.