

MINUTES OF MEETING  
TECHNICAL REVIEW AND ADVISORY PANEL (TRAP)  
August 27, 2009

Members present were:

Robert Harper III, Florida Home Building Industry, Chairman  
Scott Johnson, P.E. (representing Clay M. Tappan, P.E.) Florida Engineering Society  
Greg Liskey, Septic Tank Manufacturer  
Russell Melling, County Health Department  
Patti Sanzone, Florida Environmental Health Association  
Paul Steinbrecher, Local Government  
Scott Franz, Soil Scientist

Alternate members present:

Roy Pence, Florida Home Building Industry  
Pamela Tucker, Real Estate Professional  
Gerald Prescott, Septic Tank Industry  
William Sirmans, County Health Department  
Ellen Vause, Septic Tank Manufacturer

Department of Health staff present:

Dale Holcomb, Environmental Administrator  
Paul Booher, P.E., Professional Engineer III  
Ed Barranco, Environmental Administrator  
Kim Duffek, Environmental Health Program Consultant  
Shirley Kugler, Administrative Assistant

Absent members and Alternates:

Edward Cordova, Local Government  
Tony Macaluso, Real Estate Professional  
Raymond Collins, Florida Environmental Health Association  
Ted Kirk, Septic Tank Industry  
Ken Odom, Florida Home Building Industry  
Frank Dragoun, Consumer  
Jim Peters, Florida Engineering Society  
Dikran Kalaydjian, Home Building Industry  
Oren Reedy, Soil Scientist

Speakers:

John W. Campbell, Highland Tank & Mfg. Co.  
Gary S. Duren, Code Compliance, Inc./Highland Tank & Mfg. Co.  
Michael Gauthier, P.E., Highland Tank & Mfg. Co.  
Mark Repasky, P.E., Wastewater Technologies  
David O. Scharr, P.E.

Others present:

Numerous interested persons including representatives from:

County Health Departments  
Florida Onsite Wastewater Association  
Industry Representatives

Chairman Harper welcomed the panel and audience as he called the meeting to order at 9:10 AM. Beginning with the panel he asked each person in the room to stand and introduce themselves. A review of the minutes from the February 19, 2009 began. Referring to page 3, Mr. Harper asked department staff about the inventory of onsite systems. According to the department, the inventory is ongoing and should have been completed by June 30 of this year and he wanted to know if the inventory is complete. Mr. Holcomb said that he understands that project has concluded within the limits of the contract. Mr. Harper then asked the purpose of the inventory and its results. Mr. Holcomb understands that the inventory exists in the form of data bases and reports with the purpose being to try to identify to the best degree possible all of the existing systems in the state as well as to create a model for collecting that information on the counties where less information is available. There is a listing of systems but our quality of knowledge on those varies. Some counties are better inventoried than others. Elke Ursin, absent from today's meeting, managed that contract. Mr. Harper would like the panel to receive a summary of that report if one is available. Mr. Prescott asked if that information would be incorporated on the Carmody System. Mr. Booher was uncertain if the format is the same to enable incorporation of the information but he will look into that possibility. Mr. Holcomb said there are discussions about making the data dovetail with the Environmental Health data base system. The Carmody System enables contractors to store report data. There is discussion about moving these data around into various systems so that the data are available and so that different systems can talk to each other. There is also discussion about making sure that the inventory system can be updated by the ongoing environmental health data base system so that it does not fall behind. Mr. Harper talked about the \$150,000 spent from research funds and stressed the importance of the TRAP's knowing the details of the study. What is planned in the future from that inventory? Mr. Holcomb replied that one of the purposes, other than just to have available data, was the idea that in moving forward with talking about statewide management of systems and maintenance of systems that knowing the location of those systems is an important first step in that process. Mr. Harper asked if that report dealt with the failures across the state or the concerns of areas of installation or just a report of the systems. Mr. Holcomb said it was just a report of the systems and reiterated that he did not believe the inventory project looked at failure modes. Mr. Harper was adamant that the panel receive information in report form, if available, about the failure rate of systems in counties across the state. Mr. Holcomb replied that he personally keeps ongoing statistics on failure rates and he can provide that information. Ms. Tucker said the request for the inventory study was part of the previous legislative appropriation made to identify all the systems in the state in order to start the foreground for the five year inspection and permitting. The RRAC was part of overseeing that study and the end results were inconclusive. Not all counties were able to provide the information being sought. She thinks efforts are still in progress to get funds to extend the study to get more accurate information from some of the counties that were unable to report everything. Mr. Harper referred again to page three and asked about the million dollars that was tasked to be spent by June 30, 2009. He wanted to know if anything is left from the million dollars. Mr. Booher said the contract has ended and he does not think there is any money left in the contract.

Continuing with the review of the minutes, it was noted that pages 5 through page 20 were devoted to verbatim comments from concerned citizens about the Wekiva Study Area. There were no comments through those pages. Mr. Steinbrecher, referencing the Wekiva issue, noted that the department indicated at the February meeting their intentions to proceed with rule making. Mr. Harper replied that the Wekiva issue was addressed by the Legislature and has been put on hold. Mr. Holcomb added that the Legislature ruled to not go forward with rule making related to nitrogen reduction until the passive nitrogen study is complete. At that point, considering the number of questions about facets of various research projects, Mr. Harper temporarily stopped review of the minutes and asked Mr. Booher to proceed with research updates.

Mr. Booher referred to a two page summary of the status of research projects as of August 2009, copies of which were furnished to the panel. He observed that most of the projects are near completion and in the process of drafting final reports or taking final samples. Mr. Booher reiterated, on the issue on nitrogen reduction, that the department, following the dictate of the Legislature, will defer development of language for the Wekiva area pending results from some of these studies, basically the passive nitrogen study. In looking at some of the current issues one can see that we are trying to close a few links. For example, NSF 245 versus NSF 40 and how that plays into the eventual development of a rule or process by which we can address nitrogen reduction. Moving down the list, Mr. Booher noted the following:

- The town of Suwannee is looking back at what happened when we they went on central sewer. That information is not available as yet. The final draft is due but that will not impact the Wekiva issue.
- Manatee Springs is a follow-up on the effectiveness of ATUs or nutrient reduction systems around Magnolia and Hickory that will have interest but won't necessarily modify anything that has been done so far.
- Monroe County is in the process of writing a report from final sampling. The 319 Project on the Performance and Management of Advanced Onsite Systems is to assess the water quality protection by advanced onsite sewage treatment and disposal systems throughout the State of Florida. Data from this project is still being collected.
- The Optical Wastewater Tracers Study is intended, by using optical wastewater tracers, to identify certain kinds of effluent that would be picked up as evidence of human waste such as detergents.
- The Columbia County Nitrogen Well Sampling Study is to determine what kind of nitrogen is in the wells. Current progress is to obtain a purchase order with a lab that is able to do the sample analysis and also to coordinate with Columbia CHD staff to conduct the sampling.

Mr. Booher stated again that most of these projects are near completion. Mr. Harper requested that the TRAP be furnished a full copy or at least a summary copy of each of these project reports as they become available.

The research update concluded and review of the minutes resumed. Mr. Harper needed clarification about the status of Issue 08-12, Drainfield Loading Rates. Mr. Holcomb explained that the issue was reviewed by the Variance Committee and those comments were brought back to the TRAP at the February meeting for discussion; after which the issue went to rulemaking. In further

clarification Mr. Holcomb said Issue 08-12 amends table III for sizing of drainfields other than mounds and also changed the table to the loading rate in 64E-6.009 thus increasing the loading rates for the sandy soils in both mounds and standard subsurface drainfields. Ms. Vause expressed concern with this particular section in that it was passed without any grandfathering clauses for permits and existing systems. She has encountered situations where houses aren't completed, the permits expire and renewal attempts might require upgrading to a larger size drainfield but then the situation becomes more complicated because the larger drainfield may not fit on the lot. She thinks the omission of a grandfathering clause constitutes consideration of adding to the language. Mr. Liskey said he, too, recognizes that problem which is compounded by poor economic times of the recession. At present the only solution is to update the permit to current standards, expand the drainfield according to the new requirements or when necessary address the problem through the variance process.

Mr. Liskey referred to the second to the last paragraph on page 24 of the minutes and said that he had spoken incorrectly about the testing and research done on performance based systems in the Keys was on the older systems. For the record he wanted the minutes to reflect that the systems being tested in the Keys are updated systems and are not the older systems. Mr. Liskey motioned to approve the minutes with that one correction. A second was called to the motion and unanimously approved by the panel.

Mr. Booher introduced Dr. Dan Smith with Applied Environmental Technology who gave a power point update on the Florida Onsite Sewage Nitrogen Reduction Strategy (FOSNRS) study. Accompanying Dr. Smith was Josefin Edeback from Hazen and Sawyer. Dr. Smith noted that Hazen and Sawyer is the prime contractor. Sub contractors include the Colorado School of Mines, Applied Environmental Technology, and Otis Environmental Consultants. Dr. Smith was filling in for Damann Anderson of Hazen and Sawyer who was unable to attend today's meeting. Dr. Smith said the FOSNRS summary project is a multi pronged project to reduce nitrogen from onsite treatment systems in Florida. The project consists of a number of integrated tasks of treatment technology evaluation including new passive systems, full scale field testing of treatment technologies, monitoring of nitrogen fate and transport in the subsurface and modeling to support regulatory decision making. He talked about recent concerns over impacts of nitrogen from onsite systems in Florida. The Florida Keys was the site of a big project several years ago and more recently the Wekiva Study Area, as well as Wakulla County and Manatee Springs State Park. Laws of Florida, 2008-152, Specific Appropriation 1682 directed the Department of Health (DOH) to conduct a study to further develop cost-effective nitrogen reduction strategies for onsite sewage and disposal treatment systems. DOH identified four primary tasks for the study to be controlled by the Research Review and Advisory Committee. The 2008 Florida legislature appropriated \$900,000 for Phase 1 of a multi-year project. As of June 30 approximately \$262,000 of the money had been expended but there was a carry over to continue the project that is currently being done. Dr. Smith continued by delineating specific tasks and strategies in progress. (A copy of Dr. Smith's presentation is attached.) He talked about challenges, one of the major ones being to find a place to do this kind of work. The Gulf Coast Research and Education Center (GCREC) in Hillsborough County was identified as being a very desirable place to do this work. GCREC is a branch of the University of Florida's Institute of Food and Agricultural Sciences. He described GCREC as being located on 475 acres in a fairly isolated area in southwest Hillsborough County. The facility encompasses research trials for vegetables, small fruit and ornamental plants and houses 16 laboratories including one water quality lab. A ranger or manager who oversees the facility lives there and has his own onsite system which could be used for testing. The facility employs many with some students and researchers living on the compound thus creating a lot of wastewater that can be intercepted and used for testing various treatment processes. Dr. Smith said some soil testing has been done as well as observation of ground water levels in trying to get background

information on the site for the subsurface fate and transport studies. He continued with specifics of the desirability of the site. Mr. Harper asked about the soil type at this test site considering the wide variety of soil types in the state. Ms. Edenbek said it is predominately really fine sand throughout the site. Dr. Smith said the soils represent about 60 percent of Florida making this a good site for concentrated testing. Other individual sites will also be implemented to round out the numbers to get a broader variation. Ms. Tucker and Mr. Franz asked more questions about the soil testing. Dr. Smith continued with a work plan overview of the Passive Nitrogen Removal Study II (PNRS II) delving into different aspects of passive nitrogen removal. He described an in-vessel system and different sources of nitrification and de-nitrification media. He also described passive nitrogen removal using in-ground engineered media as well as application of these technologies. He talked about different ways of applying these passive nitrogen removal technologies to existing systems. A questions and answer session followed Dr. Smith's presentation. Mr. Prescott mentioned a recent newspaper article stating that UCF has come up with some kind of cut-up tire chips that will supposedly do the same thing as Dr. Smith described. Dr. Smith was knowledgeable about that particular media described in the article that is known as Black and Gold. The black is crushed recycled tires or tire crumbs with the active ingredient being lignocellulosics mix materials. Ms. Vause asked if the foot print in the in-ground passive systems would be larger than a common mound system or perhaps smaller. Mr. Liskey wanted to know the expected length of time these media materials will last before needing to be replaced. Dr. Smith could give no definite answer but said, in theory they should easily last for the length of a treatment system. Mr. Scott Johnson asked if testing includes other biological parameters other than the nitrogen removal. Many other parameters, TSS and BOD are monitored as frequently as the nitrogen. Phosphorus and others as well as the basic field parameters...PH, alkalinity, etc. are also monitored. Mr. Johnson also wondered about the adverse effects of chemicals or caustic substances to the media. Ms. Tucker described the onsite system at her home site and asked if it can be converted to a passive nitrogen reduction system by adding a pump, or possibly some other component, etc. Dr. Smith replied, "Yes, if you have a conventional system which is a septic tank with gravity flow to a drainfield." Mr. Liskey and Mr. Steinbrecher had more questions and comments about the funding. Mr. Steinbrecher wondered if the funding is limited and if moving forward is a continuing question and concern, he recommends that in addition to the original research, prioritizing the testing of existing systems. Mark Repasky asked about the potential to clog using some of the drainfield media described by Dr. Smith. Dr. Smith continued with more, detailed scientific information and reiterated that the current focus is on nitrogen removal emphasizing that one way or the other the goal is to get it out.

Issue 07-23 – Subject: Performance-Based Systems-Standards  
Rule Sections: 64E-6.025

Mr. Booher explained the most recent changes to the proposed language for this issue as requested by the TRAP at the February 19, 2009 meeting. Most of the old wording on performance based systems and advanced secondary systems listed in the rule have been removed and replaced by two pages of revised language plus a chart. NSF Standard 40 was used for years to qualify these systems and it only dealt with BOD, TSS, PH, etc. but it did not touch the nutrient pollutions which are the nitrogen and the phosphorous that recently come into play. NSF Standard 40 allowed people to get an increased percolation by cutting down on some of the solids, i.e. the drainfield clogging issues which are BOD and TSS, not nitrogen and phosphorous. He briefly went over different definitions delineated in the proposed language and noted that the verbiage in (3) "Effluent" would be removed and that a better option would be to break (3) into two categories, i.e. treated sewage at the discharge point at the end of the drainfield and then whatever benefits can be obtained from the drainfields. He talked further about ongoing studies in that area. In the meantime, NSF has added nutrients to their requirement for qualification. He said

most in the industry are looking at NSF Standard 245 as opposed to NSF Standard 40. NSF Standard 245 is only part of what is going to be required to answer the nitrogen and phosphorous issues in the state. Mr. Harper asked if this will be a disruption to engineers in the design of these systems. Mr. Booher replied that this will help their efforts. Mr. Harper asked how many performance based systems are installed in a year in Florida. Mr. Booher called on Mr. Rapasky and Mr. Averett to estimate that number. Mr. Rapasky answered at least hundreds and Mr. Averett concurred. Many questions erupted with certain amount of skepticism expressed. Mr. Harper said he has not a clue about NSF Standard 245 and that it appears the panel is relying on the information presented today to make a decision about whether or not to pass this issue that would then go forward to rulemaking. For clarification, Mr. Liskey explained that 245 is an NSF standard that relates to nitrogen; however, Standard 245 does not state an actual number to get the nitrogen down to. Instead a percentage is given which is 50 percent reduction of the load from the influent to the effluent pipe. At that point, most approved technologies today will accomplish that. The 10 mg/L may or may not be accomplished but it is confidently felt that the 50 percent reduction will be met. More conversation and questions ensued about the Standards 40 and 245 and the time frame for meeting the requirements of Standard 245 as well as the costs involved. Mr. Hetrick expressed his opinion that the timing for this particular issue is not appropriate considering ongoing studies as well as the fact of trying to get cost effective systems underway. At some point maybe we will want to get some certification with NSF. He also said the NSF testing process may not be appropriate at all right now. He expressed apprehension about possibly committing to an NSF testing protocol and process which he knows the Homebuilders are concerned about. He talked further about the \$100,000 NSF testing cost that many manufacturers cannot afford especially when they already have a perfectly good system that works. He said maybe if the DOH would like to pay for those systems to all get tested by 2011 or the state would like to cover those costs that would be a different issue. Mr. Steinbrecher stated that he understands and is sympathetic to the cost issue but he also wants to make sure that we have some basis for measuring the effectiveness that goes beyond a manufacturer saying "trust me". We are struggling with the proliferation of some systems that don't do much. He is interested in understanding what kind of process or system we can put in place so that when things are marketed here we have reason to believe they are going to be reliable. Mr. Booher recognizes NSF as being expensive and talked about looking at other ways to approve products that go around NSF. He referred to Issue 08-09 on today's agenda that addresses required innovative systems test data and proposes ways to get a qualified system outside of NSF Standard 40 or 245. We are not saying that everyone has to have NSF 40 or 245 and referred to another proposed issue on the agenda, Issue 08-09, that speaks to different techniques for approving a product that are not NSF standard costs, but nevertheless, still expensive. Mr. Harper said there are a lot of systems out there and a lot of unknowns and stressed the need to understand more about what is going on with the existing systems that are in place. Many comments and questions continued. Ms. Vause said she realizes this issue has been on the table since 2007 but the language presented today is brand new and she feels folks in the industry need time to digest it and be able to comment. She suggested tabling the issue and proposed that an ad hoc committee be formed to work with Mr. Booher on crafting different language. Mr. Prescott, seconded by Ms. Sanzone, motioned to table the issue and the motion carried. Ms. Tucker thought the motion should speak specifically to the reason for tabling. Mr. Prescott then called another motion to table so that industry reps can meet with health department staff to craft viable language that includes research data. Ms. Sanzone called the second. The motion carried. Mr. Booher reminded the panel of the Sunshine Law requirement that limits only one member from the TRAP to serve on an ad hoc committee. Mr. Steinbrecher said he wished to assure that we capture the objectives to ascertain the department's need for a methodology to evaluate these technologies as well as alternate, lower cost methods for meeting the department's criteria.

Issue 08-09 – Subject: Innovative Systems-Test Data Required  
Rule Sections: 64E-6.004, 64E-6.026

Some discussion about this issue took place during review of Issue 07-23. Deferring further discussion, Mr. Liskey motioned to table the issue. Mr. Prescott called the second and the motion passed.

Issue 08-10 Subject: When Engineer or Master Contractors are Required  
Rule Sections:

Mr. Holcomb explained the progress of this issue that would allow master contractors versus engineers to do more complex work in the designing of various systems. The issue was tabled at the February 19 meeting awaiting the Engineer's Governing Board to provide an opinion. Mr. Scott Johnson representing the Florida Engineering Society stated that the Engineering Society would like to see the rules stay as they are stating reasons why. He said this is not a turf battle because he knows no engineers getting rich from the fees of between \$500 and \$1500 for their services to draw, design, calculate, make site visits, go to the health department, make a site inspection during construction, etc. He feels engineers are better educationally equipped to handle the wide variety of problems. He cited examples of different problems and talked about complexities of drip irrigation systems. He wondered how many master contractors understand pump curves, head losses through pipe systems and those types of things. Mr. Prescott responded in favor of master septic tank contractors being allowed to do design work stating that a part of their testing is on low pressure systems, pump curves, etc. underscoring the fact that they do take knowledge of their work seriously because it is their livelihood. He said master contractors have experience; they are licensed by the state and carry liability insurance. If he has designed and installed a system and something goes wrong then he is responsible for fixing it and has the equipment to do so. He sees no reason why master contractors should be excluded from designing systems that they install all the time. From a national perspective, Ms. Vause said other states have a designer category which is very similar to the Master septic Tank Contractor and they are allowed to do design work and not have to use an engineer. Mr. Rapasky commented that he understands both sides of the dilemma and wished to echo comments made by both Mr. Peterson and Mr. Prescott. He said that going by the 80/20 rule, 80 percent of the time it is pretty easy but it is the 20 percent of the time that costs somebody a lot of money; and usually it is the owner. He thinks the current rule is good. He agreed that the larger systems or the more complicated commercial drip irrigation systems are very technical. Mr. Averett echoed agreement with all three speaker comments. By all means the larger complex systems need to be designed by an engineer as well as commercial systems and systems over a thousand gallons of flow. The smaller three bedroom homes, after it goes through a quality aerobic treatment unit and quality filtration could probably be designed by a master contractor. Master contractors have to have 18 hours of continuing service per year and are qualified as master contractors to do these smaller units. Mr. Liskey, speaking for the industry, said that he is aware that industry folks would like to be able to do certain design criteria. He agrees with Mr. Averett that there are parameters that probably should be developed further than is in this proposed language. Mr. Liskey motioned to table the issue to give FOWA the opportunity to work with its industry folks to develop proper wording and proper parameters. Mr. Prescott called the second and the motion carried.

Issue 08-15 – Subject: Bedroom Definition  
Rule Sections: 64E-6.002

Ed Barranco, Environmental Administrator with the Bureau of Onsite Sewage Programs

presented the panel with the latest proposed language for the Bedroom Definition Issue. Mr. Barranco has worked closely with Eberhard Roeder on this issue of estimating residential flows using rooms as opposed to bedrooms. At the February TRAP meeting Dr. Roeder presented to the panel background information gathered from work group meetings, some points of which Mr. Barranco reprised during his presentation. He talked about the definition they crafted and the testing of this definition through a survey of the county health departments conducted by the Bureau of Onsite Sewage Programs. This issue initially originated through the Florida Building Commission who in turn established a work group to analyze the complexities of defining a bedroom. Continued consistency issues remain determining bedroom definition especially when sizing very large homes. The current sizing methodology brings us into the square footage that results in very large flows. Mr. Harper interjected that the question involved with both the Department of Health and the Florida Building Commission is interpreting the definition of a bedroom. For example he talked about rooms such as a game room, billiard room, workout room, media room, etc. and said that there is disparity in some health departments calling those rooms bedrooms while others do not; so, the definition is not clear. The driving force now is to try to find criteria to get to a universal bedroom definition that would enable building departments and county health departments to be able to work through and see the same thing on a given floor plan. The Department of Health has introduced the concept of estimating residential flows using rooms instead of bedrooms. Dr. Roeder perused information for definition of bedrooms and rooms taken from the survey sent to the county health departments. He quickly realized there is a good correlation among the conversion of rooms to bedrooms of approximately two to one rooms to bedrooms with an equivalent flow of about 50 gallons per room to 100 gallons per bedroom given one occupant per room. That information provided the framework for looking at rooms and we proceeded from there. Looking at rooms eliminated the need for the main distinctions between what a bedroom is and what a bedroom is not. Flexibility could be attained by converting dens, etc without impacting the sewage flow. Mr. Barranco continued with his power point presentation illustrating the rationale used in crafting the proposed language presented in this issue.

During the presentation Mr. Barranco talked about specific information determined from the department's review of 60 Lee County floor plans, 16 popular house plans, a sampling review of 11 variances for very large homes and information found in permits from Northwest Florida homes where less than 1 percent of permits are greater than 600 gallons per day. Mr. Barranco said they also reviewed flow estimates; they know that flow is variable but they also know that it correlates well with numbers of people, social economic factors, size of homes, etc. Census data collected in 2000 revealed that about 94 percent of occupied housing units have one or less persons per room so that again supported that 50 gallon per room versus 100 gallon per bedroom. Mr. Barranco spoke of many variables to be considered in finding resolution to this issue. He illustrated scenarios of different types of homes such as duplexes, mobile homes, two and three level homes and others, generally finding greater deviation for room count and less deviation for bedroom count. In terms of flow, the majority of the time very little deviation was found in the proposed flow and the current flow. The county health departments were asked to provide their comments. Of the respondents 68 percent were opposed to this proposed definition. He quoted some of the opposing comments from the counties; "we have no problems with the bedroom definition," "the proposed room count is confusing and subject to misinterpretation," "the proposed room count creates problems calculating large 10,000 plus sq. ft. homes," "provides for inconsistent results," "it's complicated," "it requires longer review time," "liability for the reviewing authority," and more.

In closing Mr. Barranco talked about options considered by the Florida Building Commission Universal Bedroom Definition Work Group during their first couple of meetings. Option 1 is the one they liked best, i.e. defining a bedroom as a room with a minimal size of 70 sq. ft. with a means of escape and rescue, ingress and egress, a closet and a door.

A lengthy debate began. Mr. Harper read the definition of a bedroom from page 3 of Chapter 64E-6...“a room designed primarily for sleeping or a room which is expected to routinely provide sleeping accommodations for occupants.” The reason the Florida Building Commission brought this forward is the disparity that exists in the county health departments interpreting bedrooms from the same set of floor plans. That interpretation directly correlates to the determination of installation of a proper size drainfield for that home, or no drainfield at all on some of the larger houses on a medium size lot. Ellen Vause sees counting rooms instead of bedrooms as leading to a bigger nightmare. Mr. Harper reiterated the problem is identifying those rooms such as a game room having no closet but interpreted by some as a potential bedroom, thereby creating a sizing that increases the gallons of flow that increases the drainfield. It is a matter of interpretation. Initially, Option 1 provides acceptable listed standards by most of the members of the building commission but further changes and options are presented today, and many discrepancies continue among the county health departments in determining the number of bedrooms in a home. Mr. Melling cited an example of how complex this bedroom issue can become. The health department in his county approved a house plan as a three bedroom home, their building department said it was a three bedroom but then someone at the local city level called it a four bedroom in order to get more impact fees. The system failed early and now the homeowner claims that an undersized system was approved for the home. He fears greater subjectivity from this new definition than presently exists. Mr. Harper commented that the parameters of Option 1 would remove some of the liability and would not be subject to a matter of interpretation like some of the other options. Mr. Steinbrecher stated that he is concerned on the other end of the spectrum; he thinks perhaps the smaller systems should be conservatively sized by DOH because the average home ownership is around 5 years which likely changes the ratio of occupants in a home when sold. He expressed that we need to make sure we have conservative designs to count for the wide variability. Ms. Tucker wanted to know why the ‘Keys only’ for the unenclosed area was removed. She also commented that in looking at the numbers she can see the benefit for flow on the larger homes but feels the curve is too wide. She expressed her opinion that this proposed language is too complicated for the average person. Ms. Sanzone suggested in view of trying to flatten the curve for large homes, asked about keeping the bedroom definition as is except perhaps drawing a line for certain size larger homes and then take over with this proposed room definition or some other way of determining the flow. Mr. Holcomb talked about recent work on the curve of the square footage and by using a square root factor which gives you a flattening effect but never caps. We get into some better numbers that are better than just going with a straight line. Mr. Melling talked about two more situations of homes of extreme opposites in his county. One being a 30,000 square foot home owned by a major corporation but used primarily for entertainment. There are only 5 bedrooms in the home but commonly occupies 100 people creating sewage. An example from the extreme opposite, he said there is a 20,000 square foot home occupied by a family of four who only live in it part time. A large aerobic system was designed for the home that has a hard time functioning correctly because there are not enough nutrients going in. Mr. Harper reiterated that to stop the confusion across the state the Florida Building Commission would like to have uniformity with the Department of Health on defining bedrooms. Mr. Sermons speaking as a county health department employee said he basically feels that the present rule language works fine. Those people building tremendously huge homes need to go to the Variance Board to obtain exceptions to the rule. Ms. Vause thinks the code that is in effect now is working fine and noted that these larger systems are not failing. She also observed that these larger homes can be sold with more people moving in. If, by a new rule, a smaller system is in place there probably won’t be room for a larger system when it needs to be repaired. She strongly cautions not to flat line the curve too terribly much on these larger systems. She emphasized that we have finally got the standards up in drainfield sizes and in tank sizes resulting in a very small failure rate. Mr. Franz agreed that the larger homes should be dealt with through

the variance process. He said we have just adjusted the load rates to try to prevent premature failures and now if we end up backing down on our sewage flow, we are backtracking what we have already done. Mr. Barranco acknowledged that this proposed definition would address the bigger homes but acknowledged that the large homes create less than one percent of our problem and maybe going to the Variance Board is the way to deal with the issue of the larger homes. Mr. Harper suggested that a letter be written to the Florida Building Commission stating that the TRAP has thoroughly reviewed this issue and we may need to keep the same situation that we have now with the larger homes continuing to make application through the variance process to change the drainfield size. Mr. Barranco asked if there is still a need to change the lower end. Mr. Harper thinks it is up to individual health departments across the state to make that interpretation. He thinks there is a problem in the health departments if some are being too rigid with causing more bedrooms to be considered than what should be. Mr. Holcomb, in defense of the health departments, said it is tough to maintain uniformity in an environment where some health departments face the challenge of dealing with contractors who are not opposed to manipulating the system to their advantage. Mr. Barranco favors Option 1 and feels that most people would also favor that option if there was some kind of assurance that it would be used as intended. Mr. Harper said, "But we can't police the world." There is the matter of those who cheat the system in all facets of life and we just can't control that. He maintains that a stronger definition would take the liability off the health departments. Mr. Melling spoke of the small percentage of exceptions that happen and feels that rules should not be written expressly for those few exceptions. He expressed that what his county is doing now works very well. Mr. Prescott noted that on the application form when applying for a house the number of bedrooms is declared. When the building department looks at the application, they make sure that the bedrooms match with their building design and then it goes on to the property appraiser. He asked, "How can the health department be liable?" A system is sized according to the information on the application and the application has been recorded in three places.

A lunch break was called at 12:45 PM with discussion of this issue to be continued following lunch.

Returning to the meeting, Mr. Harper expressed his opinion that there probably would be no consensus with the bedroom definition at this meeting. Despite about 10 years of various attempts to craft better language it has remained unsolved and still appears to be unacceptable as presented today. He requested tabling this issue and sending a letter to the Florida Building Commission that it remains a work in progress. Mr. Franz motioned to table and Mr. Prescott called the second. The motion to table passed with no opposition. Mr. Harper stated that he would take the responsibility of writing the letter to the Chair of the Florida Building Commission task force explaining that the TRAP met on this date and debated revised proposed language. However, the panel was unable to reach any conclusion and that the issue was tabled pending further consideration.

09-14 – Subject: Protected Steel Treatment Receptacles  
Rule Sections: 64E-6.013

Mr. Gary Duren, Code Compliance, Inc. introduced himself and stated that he has been involved with grease disposal issues for over 20 years. He and John Campbell, Highland Tanks, Inc. brought to the table this issue that proposes changes that allow and create standards for treatment receptacles made of protected steel. He said they have attempted to write language that covers the performance minimums that would be expected for coated steel products. He understands that the TRAP's input is very critical to accomplishing this. He also introduced engineer Mike Gauthier, Highland Tanks, Inc. who is very knowledgeable about treatment

receptacles made of protected steel. A handout packet of information from Highland Tanks, Inc. containing specifics related to this proposed issue was distributed to each panel member as well as small samples of coated steel from which their tanks are constructed. Mr. Campbell explained aspects of the distributed information and the samples. He noted that Highland Tanks, Inc. is one of about 85 steel storage tank manufacturers that are members of the steel tank institute. He said the technology of the corrosion protection coating on the distributed samples is available and is not unique just to his company. He explained the difference between the green coating and the blue coating that appears on the samples. The green coating is a highly molecular chemical combination of components that when mixed and coated onto a properly prepared steel surface bond, provides the corrosion protection, the isolation of a steel vessel in the rigors of the below ground environment. The blue coating is a high temperature epoxy that is used inside grease interceptors to provide internal corrosion protection and long term durability. Tanks with these types of coatings are warranted for a minimum of 10 years. His company, for a few extra dollars will extend the warranty up to 20 or 30 years. He said these tanks are used all across the country and the world to protect structural strength steel vessels storing water, chemicals, processed water, wastewater, all types of applications for corrosion. Currently the protected steel tank is not stated or listed as an acceptable product in Florida's rules and the reason for their appearance today is an attempt to expand the playing field to include protected steel tanks. Mr. Gauthier added comments regarding technical aspects of the durability of these coated tanks and the unique design of their grease interceptors. Mr. Prescott asked if these passive grease interceptors are being used now in plumbing. Mr. Gauthier said some of these have been installed at private utilities. Mr. Steinbrecher asked about steel coatings other than the coatings used by Highland Tanks. Mr. Gauthier said there are thousands of coatings, identifying several. Mr. Steinbrecher also asked if there are specific recommendations for what is on the list of coatings that the TRAP should recommend to DOH or if these two are just two of many that could be on a list. Mr. Duren responded for any code they write, that they try to establish a minimum performance basis that is not meant in any way to exclude alternates; but by citing these materials, they know the track record of these materials and they know that they are suitable for the intended purpose. He said it is never the intent of the code to eliminate or blackball any alternate as they can serve the unique standard that is intended. Mr. Steinbrecher also asked questions about the specifics of constructing the tanks. Mr. Booher talked about these hard coatings and wondered about the thermal coefficient of the expansion of the steel. Mr. Booher also asked about tests against cracking of these very hard surfaces that might allow seepage behind the undercoat that could result in peeling. Mr. Harper ascertained that this proposed language was written entirely by Mr. Duren and recommended that the department review the dialog for their input before presenting the issue to the panel. Mr. Prescott, seconded by Ms. Sanzone, motioned to table the issue pending the Department's review. The motion carried.

Issue 09-02 – Metered Water Use Records  
Rule Sections: 64E-6.015(6)(d)

This proposed issue is one of several brought forward by Mr. David Scharr, P.E. The current rule requires that when looking at metered water use flow to take the highest flow from an 18 month review. Mr. Scharr seeks to take an approach that would allow throwing out obvious outliers in that group such as leaky pipes, etc. Mr. Scharr is not pleased with the option presented in this proposed language. Mr. Scharr talked about specifics of his displeasure with this language. Comments and opinions were expressed by several TRAP members. Mr. Holcomb suggested trying language that would completely disconnect obligatory use of metered flow for repairs, etc. Mr. Franz motioned to table the issue so new language can be crafted. Mr. Liskey seconded the motion and the panel concurred.

Issue 09-01 – Subject: Non-Transient Recreational Vehicle Space Flow  
Rule Sections: 64E-6.008 Table 1

Mr. David Wolfe in the Mobile Home Park program in the Division of Environmental Health proposed this issue that would provide an estimated daily sewage flow for non-transient recreational vehicle spaces that is the same as the flow for mobile home spaces. The current rule makes no distinction between spaces used for transient recreational vehicles and non-transient recreational vehicles. Ms. Vause said an RV is much smaller than a mobile home and cannot generate the same amount of flow. In her opinion jumping all the way up to mobile home standards is too much of a jump. Mr. Melling said this could also be dealing with park models which have become very popular in some areas. People live in park models year round and he thinks Mr. Wolfe is probably going after the park model situation. Mr. Harper suggested bringing this language back with that definition for clarification. Mr. Pence motioned, seconded by Mr. Franz, to table pending revision of the proposed language. The motion carried.

Issue 09-03 – Subject: Requiring ATU's to be installed by the maintenance entity  
Rule Sections: 64E-6.012

This issue was originated by Chris Brown with Metro Environmental. The proposed changes would require that aerobic treatment units be installed by approved maintenance entities and that the installer provide the initial two-year maintenance contract. Mr. Prescott spoke up to say that this issue needs to be tabled to be sent to FOWA to hash out issues of concern. FOWA is very concerned about making sure these ATUs are properly maintained. So stated, Mr. Liskey motioned to table pending FOWAs review and input. Mr. Prescott called the second and the motion carried.

Issue 09-04 – Subject: Portable restroom cleaning requirements  
Rule Sections: 64E-6.0101

Eric Anderson, Anderson Rentals Industry originated this issue that proposes the requirement that portable restrooms to have waste removed, disinfectant added, interior surfaces cleaned and toilet paper replaced on each service visit. General discussion ensued with comments and opinions expressed by several of the TRAP members. Mr. Liskey, seconded by Mr. Prescott, called a motion to approve the issue. The motion carried with a vote of 5 for, and 4 against.

Issue 09-05 – Subject: Fill between drainfield chambers  
Rule Sections:

Mr. Holcomb gave a brief explanation of this issue that is one of 8 issues originated by Mr. David Scharr, P.E. The proposed change requires drainfield sizing to be based on the most restrictive soil type adjacent to the sidewalls or within 24 or 36 inches below the bottom of the drainfield. Mr. Scharr expressed his opinion that this particular proposed language does not do the job because of timing and inspection procedures. He wants the language in the inspection section expanded. Considerable discussion followed with explanatory remarks made by Mr. Franz. Mr. Prescott called a motion to table pending revision of the language by department staff. Mr. Steinbrecher seconded the motion and the panel concurred.

Issue 09-07 – Subject: Low pressure design  
Rule Sections:

This issue is another proposal by Mr. David Scharr and would allow a drainfield between 1000 and 2000 square feet to be split into two drainfields, be lift dosed, and not have to be low-pressure dosed. Ms. Vause voiced concern that in large drainfield systems with gravity flow that we are not utilizing the drainfield like it should be used. How could one verify that equal amount is diverted into each drainfield. Mr. Scharr responded that there would be two pumps and an alternating panel that would be basically one set of floats that would give equal flow into each drainfield. Mr. Prescott, seconded by Mr. Liskey, motioned to approve the issue. The motion carried and the issue was approved.

Issue 09-09 – Subject: Spodic Horizons  
Rule Sections:

This is another issue proposed by Mr. Scharr that would allow spodic horizons to remain in place if friable or if deeper than 24" or 36".

Mr. Franz talked about earlier attempts by Mr. Schuster to craft language to umbrella a broad range of soil conditions so the health department could use some sort of a standard. That broad umbrella encompassed soils that were included just because they were dark. Mr. Franz feels this proposed language needs better clarity of definition. He also feels that other than the .35 to be used as sizing that should go back to the professionals, i.e. the engineer or the certified soil scientist to make that determination. Mr. Franz called a motion to table giving department staff opportunity to craft better interpretative language to bring back to the TRAP. Mr. Prescott seconded the motion and the panel concurred.

Mr. Pence called a motion to adjourn the meeting leaving the remaining issues on the agenda to be reviewed at a future meeting. Mr. Prescott called the second and with concurrence by the panel the meeting adjourned at 3:30 PM.

DRAFT