

READINGTON TOWNSHIP BOARD OF HEALTH MEETING

December 16, 2009 7:00 pm

Chair William C. Nugent called the meeting to order at 7:10 pm and announced that all laws governing the Open Public Meetings Act have been met and that this meeting has been duly advertised.

Attendance Roll Call:

Christina Albrecht	present @7:20	William C. Nugent	present	Wendy Sheay	present
Jane Butula	absent	Tanya Rohrbach	absent	Donna Simon	present
Beatrice Muir	present				

Also Present: Board of Health Attorney, Stanley T. Perlowski, Esq.
Board of Health Engineer, Ferriero Engineering, Inc. representative, Joe Kosinski
Hunterdon County Dept. of Health representative, Debra Vaccarella - left @ 10:40

A. APPROVAL OF THE MINUTES

1. **Minutes** of November 18, 2009. (*-Albrecht vote*).

The approval of the minutes of the November 18, 2009 Board of Health meeting is deferred.

B. CORRESPONDENCE

1. **NALBOH – Newsletter, 4th quarter, 2009.**

Chair Nugent noted on page 7 there is a noteworthy article about e-cigarettes.

2. **Suspected Hazardous Discharge Notification** letter dated 11/12/09 regarding oil heating #2.

3. **Suspected Hazardous Discharge Notification** letter dated 11/12/09 regarding oil heating #2.

4. **Suspected Hazardous Discharge Notification** letter dated 11/26/09 regarding oil heating #2.

5. **Block 68/Lot 5.16 – NJDEP** - no further action letter.

6. **Block 21/Lot 19.07 – NJDEP** - no further action letter.

7. **NJDEP** letter regarding Notice of Deficiency – Mohawk Mfg.

8. **HCDH LINCS –** dated 11/20/09 – Public Health UPDATE -MMWR Week 45.

9. **HCDH LINCS –** dated 12/2/09 – Public Health UPDATE -MMWR Week 47.

10. **HCDH LINCS –** dated 11/23/09 – Public Health ADVISORY- H1N1 Influenza in domestic companion animals.

Chair Nugent noted this advisory. Ms. Simon asked if this is distributed to local veterinarians.

Ms. Vaccarella stated yes, as per the distribution list on the cover page.

11. **HCDH LINCS –** dated 12/1/09 – Public Health INFORMATION - NJ Rabies Cases 2009.

The board discussed the charted rabies cases.

12. **NJDEP –** Notice of Approval of Extension Request.

13. **NJLINCS Health Alert Network 12/15/09 –** Non-Safety Related Voluntary Recall of certain lots of H1N1.

Chair Nugent noted that they were not recommending re-vaccination, just recalling the stock.

14. **NJDHSS – 12/16/09 -** Health Care Providers Can Now Offer H1N1 Vaccine to the General Public.

Ms. Vaccarella stated that she has an update to this, the specific days that the County is opening the clinics to anyone age 10 or older. The dates are 12/20/09, 12/28/09, 1/4/10. Pre-registration is required.

Ms. Sheay stated that the press release from the NJDHSS was that the providers can open up the vaccination to anyone, it is up to the providers to limit the vaccine to priority groups if they wish.

C. SEPTIC REPAIRS (*HCHD status in italics*).

1. Septic System Repair Approval from HCHD, B 45/26.04. *Final field 11/13/09*

2. Septic System Repair Approval from HCHD, B 48/1. *Final field 12/3/09*

3. Septic System Repair Approval from HCHD, B 67/32. *No work done as of 12/9/09*

4. Septic System Repair Approval from HCHD, B 50/5. *Final field 11/23/09*

5. Septic System Repair Approval from HCHD, B 51/24.01. *No work done as of 12/9/09*

D. OLD BUSINESS -

1. **PH Annex –** update.

Chair Nugent asked if the annex had been forwarded to OEM. Ms. Petzinger stated that she had just received a copy of the partially signed contract today from HCDH, so the annex will be forwarded shortly.

E. NEW BUSINESS

1. **2010 appointments.** Jane Butula, Wendy Sheay, Christina Albrecht.

Chair Nugent stated all members have chosen to renew their contracts, with the exception that Ms. Sheay would be renewing as an alternate.

2. **January 2010 meeting date.** Confirm 1/20/10 with board members.

The board members agreed that this date is acceptable.

F. APPROVALS

Category A. – Single Lots

Heard @ 7:30 p.m.:

1. **Block 69/Lot 13.21 – Heritage, Szulc, Logan Way.**

Escrow fees paid 8/21/09, Ck# 383, \$750.00

Mr. Robert Lorenz, Heritage Consulting Engineering, licensed engineer in NJ appeared before the board.

Mr. and Mrs. Szulc were also in attendance.

Mr. Lorenz stated this is an alteration of an older system, approximately 30 years old, installed in 1977, which has exhibited some sporadic problems. Testing was done in the rear of the house where the existing system is. Soil log 1 was done in the vicinity, without disturbing the system. A perched situation was exhibited in that area, and not a regional ground water. An alternate location to the rear of the property between two swales is a slightly mounded area where tests were done. There was no mottling, no perched condition. Ground water was encountered at some depth, approximately 6' in one soil log and approximately 90" in the second. They are proposing a slightly elevated system a foot or two above grade to the crown of the system, it will be necessary to pump up to the system. The homeowners are aware of the deed restriction and maintenance requirement.

Chair Nugent asked what the distance is from the proposed be to the easement in the back of the property.

Mr. Lorenz stated it is an existing easement, which currently was intended to have a slightly graded swale from one property, across this property. The swale is not within the easement, they are proposing to move the swale into the easement, therefore further away from the proposed septic area.

Mr. Perlowski stated referring to Note #9 on the drawing, there is a description of the swale in question, is it possible from the information provided in this drawing, what is the distance between the drainage easement and the proposed system ?

Mr. Lorenz stated the edge of the easement is about 25' from the edge of the proposed disposal.

Mr. Perlowski asked if it was possible from the description on Note #9, referring to these external documents, to determine the distance between swale and the system ?

Mr. Lorenz stated not from Note #9, but the drawing depicts the relocated swale.

Mr. Perlowski asked if Mr. Lorenz had provided the substance of the documents ?

Mr. Lorenz stated the documents in Note #9 are of record, which is the filed subdivision plat, which does not show the physical location of the swale, but merely the easement itself. They are proposing the location of the easement as per the filed subdivision map, and the center line of the existing swale that is not within the easement. Also the location of a proposed relocated swale within the easement.

Mr. Perlowski asked if Mr. Lorenz would say that the drawing reflects all of the information referred to in Note #9.

Mr. Lorenz stated yes.

Chair Nugent asked if the contour lines are accurate as of today, or as of the proposed regarding #9.

Mr. Lorenz stated the dashed lines are existing, the solid lines are proposed.

Ms. Muir asked how many bedrooms are in the house, what the size of the property is, are the surrounding lots of comparable size, and are the wells in excess of 100' from the proposed system.

Mr. Lorenz stated there are no other wells within 100' of the boundary, there are 4 bedrooms, the lot is 1.78 acres, the adjoining lots are of comparable size.

Chair Nugent asked if the existing system as depicted on the map, scaled from the design plans on file seems huge, is that accurate ? How could such large system fail ?

Mr. Lorenz stated they found nothing to indicate that what is out there is exactly what is shown on this drawing. The well is shown about 15' from the house, and is actually out by the road. The septic tank is located at the approximate location. There are three distribution boxes in the system.

Ms. Vaccarella stated there is not a disposal bed, but a series of 6 trenches, 12' center to center.

There was some discussion of the township regrading the adjoining property.

Ms. Albrecht asked if there were any wetlands on the property.

Mr. Lorenz stated that there were no wetlands conditions on the property or on the property nearby.

Mr. Perlowski stated that there is a copyright legend on the drawing, and asked if the restrictions applied to the Board of Health, and also Note 2. states the design engineer's liability to this design terminates that acceptance or certification by the administrative authority unless the engineer is retained to inspect the installation of the system. Is that binding on the Board of Health ?

Mr. Lorenz stated he didn't believe so, it is presented on behalf of the client to the BOH for their use.

It is not extended to the BOH, it is more for the client. The intent was to relieve Heritage for responsibility for what occurs during construction, unless they are present during that activity.

Mr. Perlowski stated if the copyright note doesn't pertain to the BOH and if this limitation of liability does not pertain to the BOH, then could the note be clarified, or modified to so indicate. The board should not be giving away any rights that it may have through limitations of the engineer.

Ms. Vaccarella asked if Mr. Lorenz would have to argue that at the advice of his own personal attorney as to removing those notes ? They may be something that pertains to work management and other situations such as that. The County Health Department recognizes copyrights of engineers works in that until a certificate of compliance is issued, they do not allow someone to copy an engineer's sealed plans. These are all part of work practice that have already been recognized. That is why he was going to go to the liability under tort law you are not liable.

Ms. Muir stated it was her understanding that once is was before the board, it becomes public, she did not see that there is a problem.

Chair Nugent stated this concern of counsel's was discussed at another meeting, and perhaps could be tabled and addressed after discussed with some engineers. Chair asked if Mr. Lorenz was willing to revise the statement.

Mr. Lorenz stated yes.

The board determined that if Mr. Lorenz made an amendment to both statements on the plan that would be sufficient.

A **MOTION** was made by Ms. Sheay to approve the application for Block 69/Lot 13.21. This is an application for Andres and Mary Szulc, 4 Logan Way, the engineer is Robert Lorenz from Heritage Consulting Engineers.

The survey was done by Patrick Fatton, Heritage Consulting Engrs., 8/2009. The applicant's engineer will provide a signed and sealed copy of the survey to the BOH secretary within 5 business days. This is an alteration with no expansion for a malfunctioning system, pressure dosed soil replacement fill enclosed disposal bed, 1300 gallon pump tank. There is a deed restriction which will have

to be filed with the County Clerk, a copy provided to the BOH secretary within 90 days and recording and maintenance requirements. There is a map entitled Septic System Plan for Andres and Mary Szulc, dated 9/3/09, revision 9/14/09, noted revision per HCHD letter. There is correspondence from HCDH dated 9/11/09, 10/13/09, and also from Heritage Consulting Engineers dated 10/6/09. The soil logs were done 8/31/09, soil log 2, 120", hydraulically restrictive horizon @ 13 – 52", seepage @ 90", 24 hour static water level @ 57". Soil log 3, 122", hydraulically restrictive horizon @ 13 – 54", seepage @ 76", 24 hour static water level @ 53". The regional water level is set at 53" in soil log 3. Permeability test was pit bail PB1 in soil log 3, 9/9/09, 122", result 12.82"/hour which is a K4 rate.

This motion was seconded by Ms. Albrecht, on roll call vote the following was recorded:

Ms. Albrecht	Aye	Ms. Sheay	Aye	Chair Nugent	Aye
Ms. Muir	Aye	Ms. Simon	Aye		

Heard @ 8:10 p.m.:

2. Block 59/Lot 2 – Hoffman, Sentner, Lilac Drive.

Escrow fees paid 7/14/09, Ck# 1077, \$750.00

Data mailed with 10/21/09 packet.

Mr. Kurt Hoffman, Kurt Hoffman Engineering, licensed engineer in NJ, appeared before the board. This is a .206 acre lot, there is an existing 6 bedroom dwelling that has an existing cesspool. They are proposing a pump system, which the homeowner is aware of the requirements, to a sized for 3 bedroom septic field. They are sealing the existing well and drilling a new well to achieve the maximum distance of 81'. They are asking for a waiver from the required 100'. They are not 15' from the property lines with the septic field, it is only 10', so they are asking for

a waiver for that requirement also. They are reducing the number of bedrooms from 6 to 3 bedrooms, and have provided drawings from Mr. Sentner which indicate how that will be accomplished.

Ms. Muir stated that the BOH doesn't approve design applications, and the plans are for an existing 6 bedroom home going to 3 bedrooms. This board does not have any way of enforcing or approving that once it has been done, so it is not clear how the plan can be approved on a proposed change on the structure itself in regards to bedrooms. Perhaps the Chair can address this.

Ms. Vaccarella asked Mr. Hoffman if he had gotten a construction referral permit approval from the HCDH for this plan.

Mr. Hoffman stated he hadn't because they were awaiting this approval.

Ms. Vaccarella asked if Mr. Hoffman was planning on going ahead with that if the approval was given for the septic design.

Mr. Hoffman stated his thought was that there would be a deed restriction on this parcel. This will be a 3 bedroom dwelling until sewers are put in, or until technology allows a septic design for a 6 bedroom.

Ms. Vaccarella stated that the HCDH does review house plans like this through the construction referral process. The building inspector is the one who confirms that the construction is done. The plans come into the HCDH in the beginning stages, the architecture plans are then presented to the building inspector based on the HCDH approval, which is given to the building inspector as a part of the building jacket. There are policies online to show that the HCDH has reviewed them since 1988, regarding the sketch which is presented today, Ms. Vaccarella has reviewed it, and it clearly shows that it is going from 6 to 3 bedrooms.

Mr. Hoffman stated that note 7 on page 1 also notes that the plan cannot be implemented until such building approvals are in place.

Chair Nugent stated to paraphrase Ms. Vaccarella's testimony, if the BOH grants approval condition on it being reworked into a 3 bedroom home, that wouldn't happen unless that was done.

Ms. Vaccarella stated correct.

Chair Nugent stated that it is understood that Mr. Sentner supports the idea that the 3 bedroom classification be indicated in the deed restriction.

Mr. Sentner stated he is the homeowner, and yes, they can put that information in the deed restriction.

Ms. Muir stated that she would feel comfortable with this as long as within the motion the various offices within the township are included, and the county restrictions which will apply to any conditional approval.

Ms. Albrecht asked in regard to the floor plan, if the requirement for a bedroom included a closet?

Mr. Hoffman stated the requirements are a closet and privacy, meaning a door. The door has been removed and a second opening created, so there is no privacy, and the closet is remaining.

Ms. Muir asked how far the proposed septic bed will be from the house.

Mr. Hoffman stated approximately 26' from the house.

Mr. Perlowski stated that he would suggest the following to the board. The resolution should be amended to add "whereas septic systems can be designed to function properly, only by taking into account the limitations imposed by the soil conditions and space available on the subject property and within the constraints of the governing codes and regulations and whereas due to poor soils conditions and limited space available to support a septic system on the subject premises, the applicant proposed to reduce the number of bedrooms permitted on the premises to 3, down from the existing 6 bedrooms, thereby reducing the requisite size of the disposal field. Whereas the board is concerned about other applicants possibly abusing the approval process and therefore it makes the approval of subject conditional as stated herein, now therefore, the following conditions are imposed as part of this approval. In the case of any material noncompliance with any of the conditions herein after set forth, the occupancy permit, and the permit to construct and maintain the septic system shall be immediately revoked, and shall not be reinstated until all other compliance issues have been fully rectified. The representatives of the board shall be provided by the applicant with immediate access to inspect the applicants residence and septic system for compliance with the terms and conditions hereof. Such access shall be in accordance in addition to and not in lieu of the access provided by N.J.A.C. 7:9A-3.20. The term bedroom is defined in the state code as meaning any room within a dwelling, furnished or unfurnished which may reasonably be expected to serve primarily as a bedroom or dormitory. The purpose of providing a more objective standard for the bedrooms which are the subject of this resolution. The daily volumes of sanitary sewage from all sources within the residence shall not be allowed to exceed 550 gallons per day, the standard set forth in N.J.A.C. 7:9A-3.4. The septic system shall be provided

with such monitoring devices and shall accurately measure the volume of sanitary sewage entering the septic system which shall be equipped with visual and audible high level alarms. The applicant is advised to install water saving plumbing fixtures wherever economically feasible. The terms of this resolution shall be added to the provisions of the pump resolution to be filed with the County Register of Deeds.

Mr. Perlowski stated the key to this is whether a limitation can be put on the sanitary sewage that can be put into the system on any given day, and have it metered to accomplish that.

Chair Nugent stated that the question is to Mr. Hoffman, that is would the ability to meter the quantity of effluent or to limit the quantity in any way be something that could be engineered ?

Mr. Hoffman stated yes, that could be done, the alarm is already there with the pump. The issue would be with Mr. Senter. The design is based on 500 gallons/day.

Chair Nugent stated the first question is whether or not it could be engineered.

Mr. Hoffman stated yes, it could.

Chair Nugent stated the second question is whether the board members would want to include that in any motion that is made.

There was some discussion of the options for the alarm system.

Some concerns raised were the fluctuations in the amount of effluent, such as during family festivities; setting a precedent for other applicants; the follow through and details for the homeowner.

Some benefits discussed were the protection for the homeowner, considering the size of the lot.

Mr. Hoffman stated this proposed system is 100% conforming per State septic code, other than the well, and Readington Twp. ordinance, so in another township this wouldn't even need approval.

Ms. Vaccarella stated if a new homeowner wanted to increase the number of bedrooms beyond 3, they would have to come back before this board.

Mr. Perlowski stated that a formula for the average over the course of a month could be used to determine the loading on the system, which is the primary concern.

Chair Nugent stated that that issue would be revisited, in the meantime, noticing had been done for this application, and was there anyone present who wished to address the application.

There was no response from the audience.

Chair Nugent stated in summary, we have a challenging application, the applicant has in conjunction with the engineer come up with a proposal that makes it work, and is very challenging at best. A few of the board members are not in favor of trying to control the effluent flow as a way of assuring compliance, but there are assurances from the HCDH that their processes assure that the bedroom limit is enforceable. That being said, are there any further thoughts or comments from the board ?

Ms. Muir asked Ms. Vaccarella, under #7. any and all building permits shall be obtained prior to the start of any septic work, are they submitted to the HCDH, and when the permits have been completed, does the HCDH received notice from the construction office ?

Ms. Vaccarella stated yes, it's the construction referral application which ends up being part of the building approval process. The building inspector wants to be assured when the permit is issued that the application has been reviewed by the HCDH. The certificate of compliance is sent from the HCDH to the construction office prior to issuing the CO.

Chair Nugent asked Mr. Hoffman and Mr. Sentner if they were comfortable with the wording as discussed.

Mr. Sentner asked the timeframe in which the board would have access to inspect the residence.

Mr. Perlowski stated that the wording could include the following : "the board shall be provided by applicant with immediate access at all reasonable times".

Chair Nugent asked Ms. Vaccarella if a complaint gives HCDH access to the property and the home as well?

Ms. Vaccarella stated yes to the property, and usually when the homeowner is approached, they generally willingly let the inspector in.

Chair Nugent stated that issue may need to be explored at a later date, not necessarily with this application.

Would counsel agree to striking that portion of the wording ?

Mr. Perlowski stated the following would be included "whereas septic systems can be designed to function properly, only by taking into account the limitations imposed by the lot size available on the subject property and within the constraints of the governing codes and regulations and whereas due to poor soils conditions and limited space available to support a septic system on the subject premises, the applicant proposes to reduce the

number of bedrooms permitted on the premises to 3, down from the existing 6 bedrooms, thereby reducing the requisite size of the disposal field. Whereas the board is concerned about other applicants possibly abusing the approval process and therefore it makes the approval of subject conditional as stated hereof now therefore the following conditions are hereby imposed as part of the approval ”

A **MOTION** was made by Ms. Sheay to approve the application for Block 59/Lot 2, located at 1 Lilac Drive. The following provisions are incorporated by reference, those whereas clauses which were read previously into the record and the provision stating the terms of this resolution shall be added to the provisions of the pump resolution and be filed by the County with the registrar of deeds. The applicant is Mr. Mike Sentner, the engineer is Mr. Kurt Hoffman, surveyor is Nicholas Lebo, survey date 11/20/08. This design is a soil replacement fill enclosed, 1000 gal. tank and 1000 gal. pump tank. Correspondence includes Ferriero Engineering dates of 10/20/09, 12/15/09; HCDH dated 12/1/08, 2/9/09, 10/7/09; floorplans for the proposed 3 bedroom home drawn by the applicant were received 12/1/09 by the BOH. The map is entitled Septic System Design for Mike Sentner, Block 59/Lot 2, 11/20/08, revision 11/20/09 noted per Readington Twp. Two soil logs were done on 9/25/08, soil log 1 @ 126”, no mottling, no ground water. Soil log 2 @ 122”, no mottling, no ground water. Permeability test was basin flood 1.1, soil log 1, 9/25/08, passing. A wetlands investigation from Jeff Tariela dated 11/10/08 states there are no freshwater wetlands, wetland transition areas, or state open waters within 150’ of the proposed replacement septic system. There is a deed restriction to be filed with the County Clerk, maintenance agreements to be complied with for the pump tank. It will also include that this is for a 3 bedroom house. A copy of the deed restriction is to be filed with the Board of Health secretary within 90 days of installation of the system. The Board is granting variances for the distance of 10’ to the nearest property line instead of the required 15’, and the septic and pump tanks are less than 100’ from the proposed well which will be drilled, and will be 57’ and 61’ from the proposed well which will be 81’ from the disposal bed, instead of the 100’ requirement. There will be 69’ of casing on the new well. The HCDH will enforce the 3 bedroom design restriction.

This motion was seconded by Ms. Albrecht, on roll call vote the following was recorded:

Ms. Albrecht	Aye	Ms. Sheay	Aye	Chair Nugent	Aye
Ms. Muir	Aye	Ms. Simon	Aye		

Heard @ 9:05 p.m.:

3. Block 66/Lot 27.01 – Bayer Risse Engr., Burns, Hillcrest Rd.

Escrow fees paid 11/19/09, Ck# 6267, \$750.00

Mr. Bill Jupinka, Bayer-Risse Engineering, licensed engineer in the state of NJ appeared before the board. This application is an alteration for an existing 3 bedroom dwelling. There is no expansion or change in use, the home is about 40 years old, as is the septic. The malfunction to the system is due to lack of maintenance. There are three clay tile laterals, two are packed with sludge. Eight soil logs were done, soil logs 1 – 6 were tight, fractured rock, high mottling, 13 – 28”, not suitable for placement of the septic. The eastern portion of the property where pit bail and soil logs were done showed loose decomposed gravel with mottling at 36” and ground water within the shale at 54” being the highest. Pit bail 1103-2, is used for the mounded soil replacement system was at 106” static water level of 76”, result of 1.4”/hour. This is a mounded system because of the elevation of the system, gravity flow can be achieved without a pump. A new tank with 2 compartments is also being proposed, and an effluent filter which will require maintenance. There are no wells with 100’ of the system, no neighboring fields within 50’ and no wetlands or transition areas on or around the property.

Chair Nugent asked why they were proposing a 2 compartment tank as opposed to 1, and were any of the pumping companies failing to realize that there were two tanks ?

Mr. Jupinka stated that they are finding that the two allows for more separation of the solids, and less time of cleaning between the cycles of the filter. Yes, years ago, but most of the companies now know that the lids are to grade, the old ones were buried, and once they found one lid, they didn’t check for another.

Ms. Simon asked what the maintenance difference would be between 1 and 2 compartment tanks?

Mr. Jupinka stated the pump out should be the same, every 2 years, it is just another factor of safety to have the compartment between the two.

Chair Nugent asked if there were any further questions from the board.

There was no response.

A **MOTION** was made by Ms. Sheay for approval of Block 66/Lot 27.01, 129 Hillcrest Road, the applicant is

Joseph Burns, the engineer is Stephen Risse, surveyor is Charles E. Saladin, survey done 11/19/09. There was a survey done by Richard Titus done 11/3/94. The map is entitled Septic System Alteration Design Existing and Proposed Conditions for Block 66/Lot 27.01, dated 11/19/09, sheets 1 – 10. This is a design for a mounded soil replacement system, alteration with no expansion for a malfunctioning system. There is an installation of a 1000 gallon, 2 compartment tank with an effluent filter. Correspondence from the HCDH dated 12/3/09. Soil log 1103-7, done 11/3/09, @ 106", seepage @ 54", mottling @ 36", 24 hour static water level reading of 76". Soil log 1103-8, done 11/3/09, @ 107", seepage @ 60", mottling @ 36", 24 hour static water level reading of 76". Permeability test was a pit bail 1103-2 done in soil log 1103-7, 11/3/09, results 1.4"/hour. The regional zone of saturation is set at 36" due to mottling in both soil logs.

This motion was seconded by Ms. Simon, on roll call vote the following was recorded:

Ms. Albrecht	Aye	Ms. Sheay	Aye	Chair Nugent	Aye
Ms. Muir	Aye	Ms. Simon	Aye		

Heard @ 9:20 p.m.:

4. Block 96/Lot 1 – Whitestone, Wawa, Route 202.

Escrow fees paid 6/9/09, Ck# 3794459, \$2000.00; Data mailed with 10/21/09 packet.

Septic repairs before board 9/2004, 6/2007, 2/2008, HCDH Notice of violation 10/2003, 2/2007, 3/2007.

Mr. Timothy M. Prime appeared before the board representing Wawa, and is a licensed New Jersey attorney. This application relates to the Wawa convenience store on Route 202, they are proposing to repair and upgrade a malfunctioning septic system at that location. There is no expansion of use, or addition of store space. The system will be adding aerobic treatment with drip dispersal, this is an alternate system and notice has been provided to everyone within 200'. A proposed deed restriction has been provided so that if the board acts favorably on this application, it will be recorded. An indemnification agreement has also been provided, and relates strictly to the wetlands, however the County has indicated that they would like a broader indemnification to indemnify both the Board and the County against any liability against malfunctioning of this system. Counsel has already had contact and they have agreed that the agreement will be expanded. Also provided was information from Bohler Engineering, the site engineer, Whitestone Associates, Inc., is the environmental engineer and will be testifying tonight. Bohler proposed the landscaping plan and investigated the wetlands, their 12/1/09 letter concludes that there are no wetlands on the site, or within 150' of the site. This is an alternate system, and Mr. Jeff Houser, the design engineer will testify. Mr. Perlowski raised the concern of the noticing statement "applicants reserve the right to amend the application at any time in the future without additional notice, this notice is a continuing notice and the application may be postponed or adjourned to another meeting of said Board of Health without any further notice being required."

That seems too broad, and perhaps should say that at the prior meeting, the subsequent meeting was announced. That is a necessary condition that it be announced at that meeting.

Mr. Prime stated that is standard language that has been used in his notices for years, and it alerts the public to the fact that the meeting may be postponed or adjourned to another date, or the applicant may amend the application, and they may not get future notice.

There was a brief discussion of the land use law.

Mr. Perlowski stated it seems in all fairness and common sense that the condition to waiving the right to any additional notice should have been announced at the prior meeting that there would be a subsequent meeting.

Mr. Prime stated as a factual matter, an adjournment didn't happen yet, but it is on record that if it did it would be taken care of.

Mr. Jeff Houser introduced himself as a licensed professional engineer in the state of NJ, currently is an associate project manager at Whitestone Associates. They are presenting the Wawa application to the Board. This is a 2.855 acre developed commercial site with an approximate 5,000 sq. ft. convenience store, located at the southeast intersection of Route 202 and Summer Road. The site was developed in 1997. The original septic system has 2 discharges from the facility, the sanitary line, and the gray water. The gray water pipe enters a 1250 gallon two compartment grease trap, the sanitary line bypasses that line and enters a 2,000 gallon 2 compartment septic tank. The outlet of the grease trap also enters into that 2,000 gallon septic tank. All the effluent overflows to a 2,000 gallon Pump tank which doses a 3,000 square ft. pressure dosed mounded soil replacement system. It is not mounded out of the ground, it was regraded. The original application sited a design flow of 625 gallons/day, based on the 5,000 sq. ft. store at 1/8 gallon/sq. ft. which is consistent for convenient stores, based on NJDEP flow factors. The components as described were actually sized for a flow of 1600 gals./day. Despite this, the system has malfunctioned. The disposal bed was removed and

replaced about 4 – 5 years ago, and within 2 years malfunctioned again. The reason why it is malfunctioning is that there is a significant difference in the discharge from a home to a convenience store, primarily, the organics and solids within the waste stream. Two of the constituents that they are concerned with in the waste water are biological oxygen demand (BOD) which is simply a measure of the organic material in the waste stream, and total suspended solids (TSS). For a normal residential house, the discharge comes out of the house at about 200 – 250 PPM BOD. At this site, it is coming out at 800 PPM, almost 4 times residential strength, the same thing with the TSS, in a residential house it comes out a approximately 200 – 250 PPM or MPL (milligrams per liter) but at this facility it is coming out at 450 PPM, almost double the amount of solids. The standard septic system which consists of a septic tank and perhaps a pump tank and disposal bed works by the wastewater going into a tank, every gallon that goes into the tank is displaced out of the tank and within that tank there is a settling process with the solids there is also a biological process, anaerobic bacteria help break down that waste. In that septic tank anaerobic bacteria is efficient in a residential property, but can only do about 30% of the treatment. The effluent that comes out of a normal tank is about 100 – 180 PPM BOD and about the same for TSS. With this same disposal bed, you are relying on the remaining disposal bed to do the remaining 70% of the treatment, you are relying on the soils. In this area there are difficult soils, silt loams, underlying shales and high water tables. In the DEP regulations you have to provide a 4' zone of treatment and a 4' zone of disposal. The reason you have to do that and identify the water table is that in that soil is aerobic bacteria, that is why you only have 9 – 18" of cover over the disposal bed, you need air to get down there and provide aerobic bacteria to treat the remaining 70% of the wastewater. The combination of that treatment and passing through the 4' of sand in the zone of treatment cleans up the effluent to a point where it is clean enough to mix with the ground water and there is not a significant impact on the environment. The problem with this facility with elevated wastewater strengths, you still get the 30% reduction in the tanks, but it isn't going out to the fields at 150 – 180 BOD, it is going out at 600 BOD. The effluent samples were tested in a laboratory to determine what was going out to that field. All septic systems have a limited life, 20 – 30 year period, eventually all the solids and BOD that made it out to the bed clog up the soil pores, and the bed will fail. When you have 600 PPM going out to the field, the bed will only last about 25% of the regular design life. What is proposed here is different design elements to combat this waste strength and also provide a more efficient means of dispersing the effluent once it is treated. They have also introduced a flow equalization tank to help equalize the flow, to store the surges. The proposed system is designed, sized, for 1600 gals./day, every 400 gals. used gets dosed to the bed. To further compound the problem of elevated wastewater strength, sending all that water out to the field at once, it is not going to be uniform, every 6 hours like a residential system. This site has had some breakout into the field, and the facility has been diligent about pumping this down to minimize the water to the field, which really should only occur for a 180 day period. A permanent solution is needed for this site. Mr. Houser referred to the map, pointing out the existing system is in the north section, along Route 202. During the 1997 construction and approval, a reserve area was identified. This proposed system would like to use that reserve area, and utilize the grease tank and septic tank to provide the primary settling, but then bypass the existing pump tank and go into a flow equalization tank. That flow equalization tank is set to go off every 36 – 60 minutes depending on the flow coming into it. Referring to sheet 3 of the plan, on the far right side out of the existing septic tank, they will have an outlet, penetrate that tank at a lower elevation so the water will no longer to the pump tank, it will overflow, cross over the paved roadway, and go into the new treatment area, which is an existing landscape area and will enter the 2,000 gallon 2 compartment flow equalization tank. There are two pumps in that system that will alternate equally every 36 – 60 mins., the whole purpose of that tank is to equalize the surges that occur in the morning and get a nice steady flow to the downstream treatment process. There are two duplex pumps alternating to get even wear. In the event one fails, an alarm will go off and the other one picks up for every dose. It pumps to the fast 4.5 high strength aerobic treatment unit. In that tank, the BOD that has come through all of these at 600 PPM will be knocked down to 30 PPM which is better than what is going out to a residential house which is 150 – 180. Out of the treatment unit which is gravity, aerated, rigorous, some of the stuff can be suspended in there that can pass through, there is an extra tank to let it settle out again. From there gravity flows into the dosing tank, which is similar to a normal pressure dosed system and moves the effluent, which is now treated, into the dispersal. That is where the similarity stops, these are turbine pumps, and are a little different than regular standard submersible pumps in that they are high head low flow pumps to provide a more appropriate means of pressurizing the drip distribution system.

Ms. Muir asked Ms. Vaccarella if she was familiar with this type of system, and if there were one installed anywhere in Hunterdon County.

Ms. Vaccarella stated regarding the dispersal area, there are several of them in Hunterdon County, she had just inspected one in East Amwell on Monday. The FAS system, to the best of her knowledge has not been installed in Hunterdon County.

Mr. Perlowski asked if either of those systems in Hunterdon County are experimental ?

Mr. Houser stated no, they were approved by the DEP. Last January the DEP issued Guidance Documents allowing local administrative authorities to approve such a technology.

Ms. Vaccarella stated they are not experimental systems. There is one aerobic system in a bed & breakfast place in Lebanon.

Mr. Perlowski asked how long that approval has been in effect.

Mr. Prime stated January, 2008. That was the dated the DEP allowed the administrative authorities to approve such a technology.

Mr. Houser stated that the dosing tank sends the effluent through a hydraulic unit which is basically a series of piping and valves that is controlled by a control panel that sequences the closing and opening of the valves to distribute the effluent to 3 different locations, 2 of which are 2 new drip dispersal zones that are proposed on the southern portion of the property and the third zone is actually the existing pump tank and disposal bed that are there. The two drip zones have been sized to handle the full amount of effluent that the store generates, the 1250 gallon expected effluent, however, recognizing the challenging soils in Readington Township, they wanted to maximize the life expectancy of the system, they will put the two drip zones on line first, let that bed rest, dry out, and then if they feel that that bed can handle something, switch essentially, and have some effluent distributed to that location. Zone 1 is located below Zone 2 on the map, and is indicated on sheet 2 of 11. This system was designed with full compliance to the 2008 DEP aerobic treatment unit guidance document and also the drip dispersal document.

Chair Nugent asked why drip dispersal as opposed to a conventional bed?

Mr. Houser stated the drip dispersal is much more efficient at providing uniform distribution in a controlled manner across the entire disposal field. In the situation here, where you have shallow shales, loams, silt loams, machine refusal at 8' below surface, mottling was identified, uniform distribution across the whole entire bed as opposed to a single pipe and lateral system, when that pump goes on and runs for 1 – 2 mins. Relies on the gravel which is totally saturated, needs to percolate up. With the drip dispersal, the rate at which the effluent is going out there maintains a constant state of unsaturated flow, relying on capillary action from the soil pores to pull the water away, as opposed to the pressure dosed system, you are saturating it and expecting gravity to push it down. With silt loams like this it is certainly beneficial.

Mr. Prime stated that he would like to introduce their representatives from American Dispersal Mfg. and Bio-Microbics.

Ms. Allison Blodig, Biologist and Regulatory Affairs Coordinator for Bio-Microbics, Kansas City appeared before the board. Ms. Blodig presented a power point presentation on the high stream FAST (fixed activated sludge treatment) unit. The following points were covered in the presentation:

- 10,000 units installed worldwide.
- FAST - fixed activated sludge treatment, fixed component is a media component that improves treatment, holds bacteria inside for treatment levels.
- Originally used in the marine industry, then industrial, municipal applications, then the on-site market.
- Single family dwellings is the biggest market, and a lot of clustered subdivisions, also a lot of high strength commercial waste.
- Failed system renovation product – rejuvenates failed fields.

In general, all of the FAST wastewater treatment systems work the same:

- There is an area in the beginning where there is settling.
- The treatment area, where the module made by Bio-Microbics goes into.
- There is one moving part, the blower, there are no moving parts in the sewage.
- The outlet leaving every FAST system is connected to the treatment unit, nothing can get out that hasn't been treated.
- BOD's easily 30 when designed properly.
- TSS is 32.

So the general concept is the same whether the system is 250 gallon/day or a 320,000 gallon/day system.

Chair Nugent stated that it appears the blower pumps air down into the middle of the chamber.

Ms. Blodig stated that is an air lift, it's a pipe inside a pipe the thinner pipe extends in the wider pipe, pulls wastewater from the bottom and recirculates down and out. In these commercial applications can be dosed 1 gallon in/1 gallon out of the treatment unit. The airlift that is proposed for this application is very vigorous, very large, its meant to aerate and keep the media (honeycomb shaped plastic) clean. This is an accepted technology with NJDEP, originally their aerobic treatment guidance was done back in 1997, and was just redone. Ms. Blodig stated that as Mr. Houser touched on, most residential systems are sized by flow alone, but high strength waste determines that the biological and hydraulics have to be looked at as well. There are calculations and formulas that determine how much wastewater and pounds of BOD have to be treated, our units are sized for certain pounds of BOD's. Other considerations are the source of the waste water, the facility practices, flow patterns, effluent requirements. Operational and management resources to take care of these systems, they recommend every 6 months. The FAST process has very low maintenance, very little mess, pretreatment, in this case will be complete treatment onsite. The maintenance requirements are very simple, for all systems, basically to keep the blower running, there is a steel air filter to blow out, the air has to make it to the unit, the growth on the media, the effluent should be clear and odorless, the sludge needs to be pumped out as needed.

Chair Nugent asked about the systems being robust, and any quantity of effluent can be handled, what is the primary difference between one that handles 500 vs 1500 gallons of effluent, just the size? And is there any odor? Ms. Blodig stated it is the size, the amount of media in the units, and also the blower size. If there is any offensive odor, there is something wrong. Generally, there may be a mild odor like a musty basement.

Mr. Eric Valentine, National Sales Manager for American Manufacturing Co., stated that he had one installed at his home, and he has never noticed an odor. Their company is strictly a process company, combining all of this technology. Two premises are that aerobic treatment is good, air is needed to treat wastewater, and saturated soil with no oxygen is bad, then the drip is a good technology, their entire goal is to not saturate the soil. It is a way of putting wastewater back into the environment. Drip started out as an irrigation technology, an emitter regulates how much water is put into every square foot of soil. Drip irrigation is used for systems anywhere from their smallest system which is on a mausoleum to the largest, which is about 1 million gallons/day. Drip is used for not only human waste, but stormwater infiltration, landfill leaching, any type of processed water, so the water from this Wawa will not be a big deal. The emitter inside of the tubing regulates the flow if the pressure is between 7 and 70 lbs. it will put out the exact same drip of water from every hole in the system.

Chair Nugent stated so paraphrased, there is constant pressure of effluent liquid inside the pipes, and the emitter regulates the amount of fluid that escapes.

Mr. Valentine stated when the pumps are on they have a constant pressure which will be variable along the length of the system. One of the other advantages to a drip dispersal system is that they can easily utilize multiple areas. Some of the components to the system are the front end – a house, or business, something generating the wastewater, something to pretreatment – clean up the waste before going into the soil (FAST unit), flow equalized, dosing, pumps, screening and filtration, flow meter to measure volume, force mains, zone valves in field, supply manifold, drip tubing, vacuum breakers and return line in field.

Mr. Valentine stated that there is a heater to prevent freezing, the system is wired around the processor to prevent computer error.

Mr. Perlowski asked if there were any provisions of the guidance documents that the applicant did not agree to ?

Mr. Valentine stated no, they were very involved with their client in deciding that they would follow all of them. There are specific things to do in the design *inaudible* phase. The important thing is that there are two ways a drip system can be installed, in the subsurface native soil if there is enough soil, or there is criteria for the soil replacement system – minimum soil depth of 18", maximum of 30". A big advantage to the system is automatic flushing, it is a closed loop, comes back to a valve, and flushes everything out of the system. There are pressure compensating emitters, they open and allow the tubing to drain air release, in the field air release valves or vacuum breakers allow air back into the system. Valve boxes and heaters will be installed. A turf cover is maintained over the drip field.

There was some discussion of weed control.

Mr. Valentine stated the valves at the end of the tubes take care of root growth, they have never had a problem with it.

Mr. Perlowski asked if there is a warranty that the Board could get a copy of ?

Mr. Valentine stated yes, one would be provided through Mr. Houser

Ms. Simon asked if the company had to do quality assurance checks ?

Mr. Valentine stated that they have to provide a letter to the engineer that they have reviewed the design, provide notification to NJDEP that the design has been submitted to the County, they have to train and authorize the engineer, the installer and the maintenance provider, provide a class in NJ to anyone who wants to attend it 3 times/year (which this board is invited to attend). There is an operations and monitoring requirement where the system does need to be looked at twice a year. Their representative has to be there at inspection with the HCDH to insure proper installation. There was some discussion of the operation during a power outage.

Mr. Matt Winters, from Wawa stated that the determination would be made for a backup generator at the time of a power failure.

Mr. Valentine stated that the system would automatically restart when power was restored.

Chair Nugent stated that this is a lot of information for the board to digest, but not all of the experts attending this evening would have to return, in that case, did the Board see any need for the FAST representative to return?

The Board stated no.

Mr. Perlowski asked Ms. Blodig if there were any provisions to the guidance documents that would not be agreeable to their company ?

Ms. Blodig stated in regard to the NJ guidance documents, no, they agree with all of them, they actually have to sign for an agreement with the state.

Chair Nugent asked if the Board saw any need for the AMERICAN Mfg. Co., representative to return?

Chair Nugent stated one last question for Mr. Houser is regarding the bed depth of 18" of sand as opposed to a typical 4' zone of treatment, why?

Mr. Houser stated back to what he was describing previously, the level of effluent strength going out to the bed, and that typically in a residential system, 30% of treatment is taking place in the tanks and you are relying on the sands to do the remaining 7%. Now 95% of the treatment is in the tanks, they are not relying on the sand for treatment at all. Because of that, you don't need a 4' zone of treatment anymore, or even that 4' zone of disposal. Because of the way this distributes the effluent in an unsaturated fashion, you can place this drip tubing 18" above the water table, or 18" above rock, because you aren't relying on soil.

Ms. Muir stated if you have bedrock at 18", which we do have in some parts of the township, and you have 18" of sand, with topsoil or turf on top of that, you have to mow the turf, and typically have heavy, large, lawnmowers which compacts the ground. Have they considered how that may be effected ?

Mr. Valentine stated DEP has determined that sand may be used, and their experience has been that the sand doesn't compress as much as silts and clays, also, this design proposes 9 – 18" of cover which is consistent with what a pressure dose/gravity fed system has. It is 9 – 18" of cover, filter fabric so that the fines don't wash into the gravel, and provides some lateral strength, then 2" of sand, then the tubing, then the 18" of sand.

Mr. Prime stated that is the reason for the 3 variances, which is stated in the notice. Also, there is a wetlands report which has been submitted.

Chair Nugent asked if the board had any other questions/concerns.

Mr. Perlowski stated that the next meeting would be held on Wednesday, January 20, 2010.

Chair Nugent asked if there was anyone in the audience that wished to speak to this application, having been noticed by mail or in the newspaper ?

There was no response from the audience.

Chair Nugent stated that this hearing is continued to the January 20, 2010 meeting at 7:00 p.m.

G. ADJOURNMENT

A *MOTION* was made by Ms. Muir to adjourn at 11:05 pm, seconded by Ms. Simon with a vote of Ayes all, Nays, none recorded.

Respectfully submitted:

Lorraine Petzinger
Board of Health Secretary