



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

Mail Code 401-03

Division of Water Supply - Water Supply Permitting Element
Bureau of Water Systems and Well Permitting
401 E. State Street - P.O. Box 420
Trenton, New Jersey 08625-0420
Tel #: (609) 984-6831 - Fax #: (609) 633-1231
STATE WELL DRILLERS AND PUMP INSTALLERS
EXAMINING AND ADVISORY BOARD

BOB MARTIN
Commissioner

State Well Drillers and Pump Installers Examining and Advisory Board Meeting Minutes for September 16, 2010

Board Members Present: Tony Tirro (Vice-Chairperson), Richard Dalton, Gary Poppe, Joe Yost, Joe Pepe, Karl Muessig (am only), Fred Sickels (late part of am session and partial pm only) and Carol Graff.

Board Members Absent: Art Becker (Chairperson)

NJDEP Staff Present: Pat Bono, Julia Altieri (am only), Tracy Omrod, Steve Reya, Brian Buttari (pm only), John Olko (Compliance & Enforcement- am only), John Fields (pm only), David Pasicznyk, New Jersey Geologic Survey (NJGS), (pm only)

Others Present: Jill Denyes, DAG

Member(s) of the Public: Robert Jensen of Agreenability LLC and Hugh Streep of Next Gen Technologies

1. **Call to Order** - The meeting was called to order by A. Tirro at 9:50 am with a quorum present.
2. **Review of Minutes from July 15, 2010 Meeting** – R. Dalton noticed that the numbering of the listed topics is erroneous because the minutes list two items as number eight. “Technical topics” will now be correctly listed as number 9 and the subsequent items will be re-numbered accordingly. A motion to accept the minutes with these changes was made by C. Graff, seconded by G. Poppe and approved unanimously.
3. **Certification of Applicants for October 7, 2010 Master, Journeyman, Journeyman B, Monitoring, Soil Borer and Pump Installers Exams–
Applicant Certification:**

Master – A motion to approve the list of applicants without changes as presented was made by J. Yost, seconded by C. Graff and approved unanimously.

Journeyman – A motion to approve the list of applicants without changes as presented was made by G. Poppe, seconded by C. Graff and approved unanimously.

Journeyman B – S. Reya noted that two applicants, Joseph Fichner, Jr. and Shawn Ricigliano, were listed as “pending” as these applicants required Board review. Mr. Fichner listed Benjamin Primost, Master Well Driller from Pickwick Well Drilling, as verification of his drilling experience. S. Reya stated that Mr. Fichner’s application specifies that he works for his father’s pump service company, A-1 well Drilling and Pump Service Company. Mr. Primost did verify via phone that the applicant had assisted on approximately 20-30 well installations over the time the two companies had worked together (August 2002 to August 2010). Mr. Fichner did not work for Mr. Primost directly as a full time employee but rather for his father, who is a licensed Pump Installer. Since the regulations do not specify that the applicant must be employed by the same company as the individual certifying the experience. Additionally, there is no exact requirement of hours required as experience to constitute the three full years, other than proof of assisting with the drilling of five wells over a three-year span, which the applicant satisfied. The Board members unanimously approved Mr. Fichner to sit for the exam.

Shawn Ricigliano’s application was listed as “pending” because his application only contained one reference; two are required. Upon notification of this deficiency, Mr. Ricigliano submitted a letter that stated that he has “only been employed by The Well Doctor/ John Ricigliano. The Well Doctor is a family owned business with only one licensed driller and that there is no ability to have a second driller certify to his experience. Mr. Ricigliano had previously applied to sit for an exam but was rejected as his experience would have been while he was under the age of 18. Minors are not allowed by law to engage in hazardous occupations. J. Yost noted that the wording is vague on the application/reference questionnaire because it asks “how many years/months have you supervised the applicant in well drilling activities?” This wording implies that the reference must supervise the applicant, while the purpose is merely to attest that the listed experience is accurate. It was suggested that the Bureau revise this wording to make it more consistent with the actual purpose of the questionnaire. G. Poppe made a motion to deny the application. This motion was not seconded. C. Graff made a motion to approve application, which was seconded by R. Dalton. All members who were present were in favor of the motion, with the exception of G. Poppe who opposed the motion. The motion carried so the status of both applicants will be noted as approved for the upcoming exam. J. Yost motioned to accept list with this change. J. Pepe seconded and all were in favor.

Monitoring – A motion to approve the list as presented was made by C. Graff, seconded by K. Muessig and approved unanimously

Soil Borer – A motion to approve the list as presented was made by G. Poppe, seconded by J. Yost and approved unanimously

Pump Installer - A motion to approve the list as presented was made by G. Poppe, seconded by J. Pepe and approved unanimously

4. **Licensing Topics** – The Journeyman applicant roster score listed two “no shows” because both applicants had already passed the exam on the April test cycle. They applied for the June test in the event that they did not pass but still had to pay the non-refundable application fee. S. Reya brought up the possibility of altering the exam schedule and/or Board meeting schedule for 2011 to ensure that the scores for the April exam are available to test candidates prior to the application deadline for June. He also noted that there is a second time in the yearly testing cycle when the same problem is encountered (October/December exam cycles). At the July Board meeting, Chairman Becker discussed the possibility of certifying both test applicants and exam scores via email to eliminate the requirement to wait for the next regularly scheduled meeting for their approval. At that meeting, however, DAG Rachel Horowitz read through the statute and regulations and found that they state that certification must be done at regularly scheduled meetings so the scores could not be certified electronically without a statute change.

One possible solution that was previously discussed would be to have conference calls for approval of applicants and scores. Public notice of these additional conference calls would have to be made since a Board quorum would be necessary, but the postings would note that the meeting would only be held as a conference call and that the only Board business. The Board members agreed to have two additional dates annually to solve this problem. The only Board business to be conducted through these two conference calls will be the review and certification of applicants or exam scores.

5. **Driller, Pump Installer/Plumber Jurisdiction** – P. Bono noted that she had recently spoken with A. Becker, who had been in contact with Tom Pitcherello from the Department of Community Affairs (DCA) about setting up a meeting between the four stakeholders - the Plumbers Board, the Well driller Board, NJ DCA and NJDEP. A. Becker requested that a couple of Board members volunteer to participate in this meeting, if it can be arranged. G. Poppe, J. Pepe volunteered to attend (A. Tirro will be available to fill in for J. Pepe if necessary). A. Becker will be trying to set up the meeting within the next few weeks.

6. **Enforcement Update-
Administrative Hearing Process-**

D.A.G. J. Denyes stated that before the Department can suspend or revoke a well driller or pump installer license a full trial must be held and any appeals, if made, must be complete. She also noted that she researched the Uniform Enforcement Act which gives many boards the authority to hold hearings and enforce violations of licensees. However, the Act lists the Boards by name and the New Jersey Well Drillers and Pump Installers Examining and Advisory Board is not identified in that list. This Act sets forth procedures for conducting hearings to consider suspension of licenses. The well regulations, which are codified in NJAC 7:9D, do not specifically include procedures for license suspension. She believed that the lack of a mechanism to conduct hearings is problematic because the Board has the authority to revoke licenses but there is no administrative mechanism ~~to~~ established mechanism to do so. In addition, she noted that the Board does not have the authority to issue fines to drillers or drilling companies. Those actions are in the domain of the Department. In order to revoke the license a Board hearing would have to be conducted, which could take place at regularly scheduled meetings or a part of a special meeting that is properly noticed. She also stressed that all DEP investigations would have to be concluded prior to the Board's initiation of hearings. Board hearings would be entirely separate from DEP administrative hearings. They could be of a formal or informal nature. An informal process, which could yield a more timely resolution to licensee violations vs the Department's procedures for conducting administrative hearings, which often takes a couple of years to complete.

There was no final decision on the part of the Board members as to what direction to take this issue. Fred offered to look into how to acquire the services of a court stenographer and DAG Denyes offered to write up a charges form.

Recent Enforcement Activity-

J. Olko, from the Department's Compliance and Enforcement Division provided an enforcement activity update, stating that additional Settlement Offer Letters (SOLs) had recently been issued to repeat offenders. He also discussed a new policy and process that Water Enforcement Division, along with the Bureau of Water Systems and Well Permitting, will be jointly instituting. This will include the issuance of formal Administrative Orders (AO) and penalties for frequent, repeat violators. He has been working on a document that will allow J. Altieri to use the AO format when appropriate. J. Olko explained that in his experience, once a number of the AOs are issued and eventually resolved, the drilling community at large will begin to understand the significance of these actions. He felt that all of these actions should be posted on the DEP website in a compliance advisory section. Adding

general language to the website indicating that enforcement against violators of well drilling and pump installation laws are being ramped up was another suggestion. J. Pepe questioned whether the AOs, which reportedly become a "final" document after twenty days, affect the status of an individual's license. J. Olko stated that the documents carry penalties but are independent of the license. P. Bono added that the Bureau does not have the authority to stop issuing permits no matter how many violations are outstanding with one individual. If a person still possesses a valid license the Bureau is unable to deny a drilling permit application for that reason. F. Sickels stressed the need to bring issues against licenses for frequent violators and involve the Board. J. Denyes noted that if a perceived violator fails to respond to the Department's enforcement letters, it demonstrates a lack of resolution of outstanding issues, which would be helpful as the Board attempts to prove patterns of behavior for frequent violators. She stated that a stenographer, hearing officer and attorney would all be required in order to conduct the hearing. All of these would be required, whether the Department chooses to bring someone in for an Administrative Hearing or if the Board conducts their own hearing after investigation and referral by the Department.

7. Technical Topics –

Agreenability Geothermal System- Robert Jensen,, President of Agreenability, addressed the Board regarding approval of a new geothermal well system that he is developing. Mr. Jensen also submitted a letter detailing the system installation, which consists of a bundle of four (4) ¾" polyethylene u-bend loops in one borehole, which is expected to be six (6) inches in diameter. His letter stated that "what differentiates this pipe from the norm, and thus requires me to respectfully seek the approval of the Board, is that it uses a "Bundle" of conforming pipes placed together in a specific geometric fashion that allows for very unique flow characteristics that will allow for enhanced performance." The four loops (8 pipes) are comprised of polyethylene pipe that meets the specifications required by N.J.A.C. 7:9D-2.5. Additionally, a 1 ¼" polyethylene pipe of the same material will be utilized as a centralizer pipe for arrangement of the other eight pipes in a circular pattern. This central pipe will be fusion welded on the top and bottom. The tremie pipe would be inserted along with the other nine (9) pipes and the grouts utilized would be those approved in N.J.A.C. 7:9D. His letter also states that the circulating fluid has not yet been specified but will be selected from the list of approved materials in N.J.A.C. 7:9D. He discussed a small model of the "bundle" that he said was not exactly to scale, but showed the orientation of the nine (9) pipes.

Several Board members raised concern with the ability to get grout in-between the pipes, since the eight (8) surrounding pipes spiral around the central one without any form of separator. Therefore, the spaces between all of the pipes are of concern because if the central pipe is not used as a tremie, installation of a grout seal in these small annular spaces is perceived to be problematic. Mr. Jensen noted that the current design will not allow him to pump thick geothermal grouts, but requested approval to install the system at his home in order to perform the thermal conductivity testing that would be required prior to the final design and development of the system. He stated that his system is theoretically up to 60% more efficient than geothermal systems that are currently in use. He added that by performing a test installation in Montvale, NJ (in a consolidated formation), he would be able to determine the actual efficiency, which is likely considerably less than the theoretical. As he is a small company, however, he added that he did not have the resources to redesign the system for Board approval prior to running any thermal tests, because depending on the results of the test, the system may ultimately require a redesign. D. Pasicznyk, from NJGS, noted that the rock formation near Mr. Jensen's residence is extremely impermeable and stated that NJGS staff would be interested in performing a geophysical logging of the borehole drilled for this installation. He indicated that there are minimal environmental risks to the groundwater, should 100% effective grouting not occur, due to the location of the site. The Board, therefore, allowed approval to proceed with one test installation at Mr. Jensen's home. Upon issuance, permits will be issued with conditions: one

regarding the fact that the permits are approved solely for test purposes for one installation and that further information/proof of adequate grouting will be required prior to approval for installation throughout the state, and a second condition that requires that NJGS is contacted prior to drilling.

Hardin Geothermal System- Hugh Streep, President of Next Gen Technologies, presented information on the newest pipe from Hardin Geotechnologies, Inc., which will be 4.5" in diameter. Mr. Streep stated that the pipe that he had previously submitted for Board review was 3.2" in diameter and was cast polyethylene. The new pipe, he stated, is extruded and exceeds the requirements specified in N.J.A.C. 7:9D. He also said that the engineers worked on enlarging the grout ports of this pipe, which was in response to the Board's comments in the past. The larger grout ports can now be machined out of the extruded pipe to be .5" x 6" slots, which he proposed spacing every foot. Also, the center hole in which the tremie is inserted, would now be able to accommodate a 1 ¼" tremie, which would facilitate the pumping of thick geothermal grouts, such as cementitious thermally enhanced grout (Mix 111). The pipe contains two different sized inlet/outlet tubes and the individual lengths would be heat fused in accordance with the International Ground Source Heat Pump Association (IGSHPA) standards. He felt that the Bureau and Board concerns raised in past meetings and correspondence had now been addressed; the extruded pipe exceeds those required and would be marked with the schedule and pressure ratings and the grout ports had now been enlarged to a size more than adequate to allow pumping all of New Jersey's approved geothermal grouts. Additionally, after Mr. Streep left the meeting, B. Bono questioned the Board members on the minimum requirements for grout port separation. She felt that the manufacturers should not have to re-submit documentation for Board and Bureau approval every time they wish to alter the length of the grout ports (which Mr. Streep indicated could easily be accomplished with the current manufacturing process.). The Board members recommended that the ½" x 6" slots be located a maximum of five (5) feet apart.

Post meeting Activity: Mr. Streep contacted the Bureau staff after he learned from the manufacturer that it would not be possible to create ports larger than 4/8 inch in size (round). The ports would still be spaced 12 inches apart on opposite sides of the pipe to act as a centralizer as well as to insure grouting on both sides of the pipe. He has requested Board member approval for this size port.

8. DEP Program Updates –

Licensing – S. Reya has been working on the response to the National Ground Water Association (NGWA) regarding administration of New Jersey testing, licensing and continuing education program. This response will allow NGWA to better develop a proposed program and cost estimate. S.Reya expects to have the response finalized soon and is also working with other programs within the Department to determine what steps must be taken to set up a contract with NGWA.

9. Adjournment - A motion to adjourn the meeting was made by G. Poppe, seconded by R. Dalton and unanimously approved at 2:55 PM.