



## State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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### **New Jersey Department of Environmental Protection NJ State Well Drillers and Pump Installers Examining and Advisory Board Meeting Minutes for May 26, 2016**

*Approved by the Board on July 21, 2016*

**Board Members Present:** Gary Poppe (Vice-Chairman), Gordon Craig, Joe Yost, Joe Pepe, Richard Dalton and Steve Doughty

**Board Members Absent:** Art Becker (Chairman), Carol Graff

**NJDEP Bureau of Water Allocation & Well Permitting Staff Present:** Terry Pilawski, Pat Bono, Steve Reya, Julia Altieri, Michael Schumacher and Melia Stoop

**Board Legal Representative:** Jill Denyes, Deputy Attorney General (DAG), NJ Division of Law

**New Jersey Geologic & Water Survey (NJGWS) Staff Present:** Jeffrey L. Hoffman, NJ State Geologist

**Members of the Public Present:** Denis Crayon, Summit Drilling/New Jersey Ground Water Association (NJGWA) President-arrived 10:05 AM

#### **1. Call to Order-**

The meeting was called to order by Vice-Chairman Gary Poppe at 9:45 am with a quorum present.

#### **2. Review and Certification of the Minutes for the March 17, 2016 Meeting –**

A motion to approve the minutes without change was made by S. Doughty, seconded by R. Dalton and approved unanimously.

#### **3. Review and Certification of the Minutes for the April 28, 2016, Conference Call-**

A motion to approve the minutes without change was made by J. Yost, seconded by R. Dalton and approved unanimously.

**4. Review and Certification of Exam Applicants to sit for the June 8, 2016 Master Well Driller, Journeyman, Journeyman B, Monitoring Well Driller, Soil Borer and Pump Installers Exams –**

**Master Well Driller**– A motion to approve the two listed exam applicants was made by G. Craig, seconded by R Dalton and approved unanimously.

**Journeyman**- A motion to approve all ten of the listed exam applicants was made by S. Doughty, seconded by J. Yost and approved unanimously.

**Monitoring**– A motion to approve all ten of the listed exam applicants was made by G. Craig, seconded by R. Dalton and approved unanimously.

**Soil Borer**– A motion to approve the two listed exam applicants, was made by R. Dalton, seconded by G. Craig and approved unanimously.

**Pump Installer** – A motion to approve all three of the listed exam applicants was made by Joe Pepe, seconded by J. Yost and approved unanimously.

**Note:** No one applied for the Journeyman B exam.

**5. 2016 Exam and Board meeting Schedule Reminder-**

The upcoming 2016 exams dates for well drillers and pump installers are: June 8, October 5 and December 7.

The Board's remaining published conference call to approve the October exam results is scheduled for October 27<sup>th</sup> at 10:00 am. The dates for the published Board meetings scheduled to take place at the Department Headquarters Building are: July 21, September 15 and November 22.

**6. P. Bono brought copies of an ethics form entitled: Outside Employment Questionnaire for 'Special State Officers' and 'Special State Employees' Status Forms** which all members of a NJ State Board are required to complete. Pat Bono asked the Board legal advisor, D.A.G. J. Denyes, if members of the Board who are state employees also need to file the form. She also raised the concern that some of the questions seem to be incompatible with the required structure of the Board (namely NJ licensed drillers working in that industry which is regulated by the NJDEP.) J. Denyes said that she would look into the use of the info requested on the forms and get back to her before the next meeting.

**7. Update on the progress of the GEA GA-XTRA Geothermal Grout Approval by Steve Reya:**

S. Reya provided an update on the status of the review of the cement-based geothermal grout product, GA-XTRA. The product manufacturer, GEA, has successfully demonstrated to Board members that the lab permeability of their geothermal grout mix meets the minimum requirements for approval. Specifically, the permeability of the mix does not exceed the maximum value ( $1 \times 10^{-7}$  cm/sec) specified in the Department's well construction regulations. As required, the field demonstration showed the product could be successfully mixed in accordance with

the manufacturer's specifications and pumped into a borehole for a closed loop geothermal well measuring several hundred feet deep. The demonstration was conducted in the presence of several Board members, who observed the work by a NJ licensed well driller which included the mixing and pumping of the product using a conventional grouter used by various drilling contractors.

What has delayed the final approval of the product was a problem with the containers used to collect the field samples submitted for the permeability tests to an independent laboratory. To correct that problem, M. Schumacher and S. Reya attended a second product demonstration conducted in Sussex County on April 23<sup>rd</sup> to oversee the collection of additional samples for testing. S. Reya reported that the product was again able to be mixed and pumped downhole; however, he has still not received the permeability data. He hopes to receive this documentation shortly and will pass it along to R. Dalton for review and ultimately to the Board at the next scheduled meeting following receipt of the data.

- 8. Complaint by R. Simon addressed to the Board regarding soil boring work that fails to meet ASTM standards - Mr. Rod Simon, P.E. of Simon Engineering LLC** sent a letter of complaint to the Board, dated March 7, 2016 alleging that three (3) well drilling companies in particular, and perhaps more, are conducting soil boring work that fails to meet the required ASTM standards for architectural borings. Specifically, Mr. Simon's complaint alleges that these contractors are performing soil borings, generally to a maximum depth of 20 ft., to provide design professionals (i.e. engineers and architects) boring logs needed "to determine foundation type, for the design of piles, for the lateral load analysis required by the building code and many other things important to construction projects. Without a proper soil boring it is impossible to do those other tasks." He further alleges that the three (3) referenced companies and others are utilizing continuous flight augers (CFAs) to perform the borings, many of which are required when rebuilding properties destroyed by Superstorm Sandy. The problem with performing geotechnical borings with this drilling method, states Mr. Simon, is that "it is not possible to retrieve soil samples much below the water table using CFAs and in fact this practice is specifically prohibited by Section 6.3 of ASTM D1586. " His complaint further adds that he often receives drilling logs for borings that were not performed properly and informs the owner or agent that the data on the log is worthless. Mr. Simon has requested that the Board look into this issue, as the data being provided from these "auger borings" is essentially worthless for the intended geotechnical purposes and often needs to be performed again to yield usable data.

Board members discussed the complaint at length. All members agreed that nothing in the complaint or supporting documentation (boring logs from each of the three (3) drilling contractors referenced in the letter) was a specific violation of the Well Construction and Maintenance; Sealing of Abandoned Wells Rules, N.J.A.C. 7:9D. It was noted that all three (3) firms utilized licensed well drillers to perform the borings and borings shallower than 25 ft. do not need to be grouted upon decommissioning.

The regulations pertaining to boreholes are broad in nature, mean to protect the groundwater resources and designed to cover borings collected for a variety of uses, not just architectural borings. Therefore, no violations of the well rules occurred. The Board found no evidence indicating that the Department should pursue enforcement action against any of the referenced individuals or companies. Board members did agree, however, that Mr. Simon raised a valid concern in that if the boring is meant to meet certain specifications for its intended use, it needs to be collected in a manner

that is acceptable. Mr. Simon's letter further stated that "the bad soil logs are obvious to anyone who practices geotechnical drilling or engineering, but not obvious to someone who doesn't, including building inspectors." Board members discussed that it might be useful to inform local building inspectors that property owners would need to be told this in advance so that they could request that the driller collect the borings in a specific, acceptable manner in accordance with the ASTM standards. Without such notification, there is no requirement for a driller to follow any particular method other than what is laid out in the contract entered into with the property owner. As board members do not know what the drillers were being asked to quote or perform, they cannot conclude that fraud or negligence occurred. It was also recognized that a substantial amount of rebuilding is taking place in the coastal communities in the aftermath of Superstorm Sandy.

**G. Craig offered to draft a response letter to Mr. Simon for review at the next Board meeting. Additionally, Board members will further discuss ways in which the Department can get the word out to homeowners, drillers and building inspectors that if borings must be done in a certain way for a specific purpose, the applicable specification must be made clear before the work is done.**

- 9. Water Allocation & Well Permitting Enforcement and Field Work Activities –** G. Poppe mentioned that due to the recent NJDEP inspections being conducted and Notices of Non-Compliance being issued, the "word is out" that random field inspections are being conducted. He noted that this increased enforcement activity should help insure that drillers have appropriate licenses, permits and materials onsite when working.

Next, a summary of Well Permitting Program's enforcement and field activities over the past 9 weeks was presented by Julia Altieri

**A) Unsettled Violations-**

As of April 6, 2016, the Bureau finally received all of the requested additional documentation requested from the Maryland based drilling company that Bureau staff met with on March 8, 2016, regarding 17 suspected, improperly constructed wells and other violations to the well construction regulations. Further evaluation of the Company's response is needed by the Section. Furthermore, the Bureau has not received any additional information from the Master well driller involved in the

NONC's, as requested, at the meeting so further enforcement action is anticipated at this time for both parties involved.

**B) Outstanding Well Records and Decommissioning Reports-**

Four (4) more well drilling companies were contacted in the month of May regarding their failure to submit outstanding well records owed to the Bureau from the years 2000 to 2015. A positive response overall to this initiative has been observed with several drillers approving of the on-line system. Several drilling companies were also requested to start submitting electronic well decommissioning reports on-line instead of paper, thereby, drastically reducing the number of paper reports. Totals of paper decommissioning reports received and processed went from 102 in March to 27 in April 2016. The section will continue to send letters in the future, targeting those companies that owe a substantial amount of well records and encourage electronic submittal of paper well decommissioning reports.

**C) Field Work-**

Well Permitting Section staff performed nine (9) field inspections during the past nine (9) weeks. Staff conducted various compliance field checks of abandoned wells, witnessed sonic monitor well drilling, and evaluated new grouting technique demonstrations. Field site inspections of suspected lost and abandoned wells were the main priority of section staff for the last month, including several visits to the same area of concern.

**D) Coordination with Compliance & Enforcement-**

Work continues behind the scenes to further develop future well permitting enforcement NJEMS (the Department's software program) capabilities, as staff resources permit.

**10. Status of the Revisions to N.J.A.C. 7:9D-**

T. Pilawski stated that she does not have any update with regard to the status of the draft revisions to the well rules since the Board's May 26<sup>th</sup> meeting.

**11. Lead and Copper-**

P. Bono informed Board members of the Division of Water Supply & Geoscience's role in the issue of lead and copper contamination in drinking water. She discussed the role the Bureaus of Safe Drinking Water and Water Systems Engineering play in identifying and resolving problems with the water systems.

**12. New Jersey Ground Water Association (NJGWA)-** NJGWA President, Denis

Crayon, notified all present that the next NJGWA meeting will be held at Mistoris Diner on November 15, 2016. He also added that he and some other NJGWA members have been involved in a NJ Private Well Consortium, which includes other stakeholders such as USGS, private well testing labs, water treatment companies, and

NJ Department of Health members. Jeff Hoffman also said that arsenic remediation and system maintenance issues will also be discussed and that a member of his staff is also included in the consortium meetings. Denis offered to forward information about the NJ Private Well Consortium to Well Permitting Staff members, as they were unaware of the meetings.

**13. Adjournment-**

A motion to adjourn was made by G. Craig at 11.08 AM. The motion was seconded by J. Pepe and approved unanimously.

**Review of NJ Pump Installer Exam Following the Meeting-** J. Pepe, J. Yost, S. Doughty and G. Poppe volunteered to stay after to assist S. Reya and P. Bono with revising and updating the Pump Installer Exam.