



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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New Jersey Department of Environmental Protection State Well Drillers and Pump Installers Examining and Advisory Board Meeting Minutes for March 17, 2022

Approved by the Board on April 21, 2022

Board Members Present at NJDEP Headquarters Building: N/A

Board Members Participating Via Telephone: Art Becker (Chairman), Gary Poppe (Vice-Chairman), Dave Lyman, Gordon Craig, Richard Dalton, and Eric Hoffmann

Board Members Absent: Joe Yost, Jeff Hoffman, and Steve Domber

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

NJDEP Water Supply (Bureau of Water Allocation and Well Permitting) Staff Present: Terry Pilawski, Joe Mattle, Steve Reya, Mark Ortega, and Steve Vargo

Members of the Public: Tom Stover; Stover's Wells & Pumps, Brian McGuire; SGS North America Inc./New Jersey Ground Water Association (NJGWA), Wesley Eichfeld; SGS North America Inc., Bill Buschur; Total Green Manufacturing (Total Green)

1. Call to Order-

The meeting was called to order at 9:31 am with a quorum present. This meeting was held via conference call and Microsoft Teams video call due to the COVID-19 pandemic. Notice of the meeting and instructions on how to participate by phone or video were listed on the Department's website.

A. Becker welcomed the members of the public to the call.

2. Review and Certification of the February 17, 2022 Conference Call Minutes-

A motion to approve the draft minutes from February 17, 2022 as written was made by G. Craig, seconded by D. Lyman, and approved by R. Dalton. A. Becker, G. Poppe, and E. Hoffmann abstained as they did not attend the meeting so the minutes were approved by acclamation.

3. Licensing-

Review of License Applicant

A. Becker asked if there was any discussion needed for the six license applicants (listed below). He added that there were two Pump Installer applications and four Environmental Resource and Geotechnical (ERG) well driller applications. No further discussion was needed.

License Type	Applicant Name	Employer
Pump Installer	Joshua DeRidder	Robbins Water Service Inc
Pump Installer	Jason Callahan	Callahan Well Drilling
ERG	Daniel Halecki	Summit Drilling
ERG	David Macaluso	SGS North America Inc.
ERG	John Maciejewski	Summit Drilling
ERG	Andrew Glose	Sovereign Consulting Inc.

A motion to approve all listed individuals for licensure was made by G. Poppe. This motion was seconded by E. Hoffmann and approved unanimously.

4. Continuing Education-

Maryland Delaware Water Well Association (MDWWA)

A. Becker introduced MDWWA’s 2022 Annual Convention, which was held in February. A. Becker asked if any discussion was needed for this course, which the Department had previously provided the Board with information to review. R. Dalton said that the information provided was confusing and said that courses which were about Maryland should not be counted for credit as they are not relevant to New Jersey. G. Craig agreed that courses related specifically to Maryland rules should not count for New Jersey well drillers or pump installers. A. Becker suggested voting on the courses individually. M. Ortega noted that the Board does not need to vote on the First Aid course, the OSHA HAZWOPER Refresher course, or the Apprentice course. A. Becker reminded the Board to specify how many continuing education points (CEP) and the point category when making their motions.

The Board discussed courses individually and made motions after each course:

A motion to not recommend the Legislative Update course was made by G. Craig. This motion was seconded by R. Dalton and approved unanimously.

A motion to not recommend What to Expect Before Your Inspection was made by G. Craig. This motion was seconded by D. Lyman and approved unanimously.

A motion to accept the Legislative and Legal Update Effecting the Water Well Industry for one technical CEP was made by G. Craig. This motion was seconded by G. Poppe and approved unanimously.

A motion to accept The Well from Hell for one technical CEP was made by G. Poppe. This motion was seconded by G. Craig and approved unanimously.

A motion to accept Hiring and Leading the 21st Century Driller for one technical CEP was made by G. Craig. This motion was seconded by G. Poppe and approved unanimously.

A motion to accept Reverse Osmosis Best Practices for one technical CEP was made by D. Lyman. This motion was seconded by G. Craig and approved unanimously.

A motion to accept Ph Adjustment: When, How, and Why for one technical CEP was made by R. Dalton. This motion was seconded by G. Craig and approved unanimously.

A motion to accept Solar Pumping – Size, Selection, and Other Considerations for one technical CEP was made by G. Poppe. This motion was seconded by D. Lyman and approved unanimously.

A motion to accept Power Systems at Peak Efficiency with Permanent Magnet Technology for one technical CEP was made by E. Hoffmann. This motion was seconded by R. Dalton and approved unanimously.

A motion to accept Drill Rig Maintenance for one technical CEP was made by G. Craig. This motion was seconded by G. Poppe and approved unanimously.

The Board agreed that there was not enough information regarding Applying Tribal Knowledge to Engineered Expectations to make a determination on the course.

A motion to have the Department request that MDWWA send more information for the Applying Tribal Knowledge to Engineered Expectations course was made by D. Lyman. This motion was seconded by G. Craig and approved unanimously.

A motion to accept the DOT Update course for one safety CEP was made by G. Craig. This motion was seconded by G. Poppe and approved unanimously.

A. Becker brought up how the Water and Graphite course was only listed as being 45 minutes of material. S. Reya reminded the Board that they previously made a motion which said that if a course is 45 minutes or more, they would round up to the nearest CEP.

A motion to accept Water and Graphite: A Geothermal Game Changer for one technical CEP was made by G. Poppe. This motion was seconded by G. Craig and approved unanimously.

CEP Status Update

A. Becker asked M. Ortega to provide a status update for CEP completion for well drillers and pump installers. M. Ortega informed the Board that as of March 7th, 428 licensees had at least one CEP. Of the 54 percent of licensees who had at least one CEP, 58 licensees had completed the CEP requirement for this cycle.

M. Ortega discussed some upcoming courses which the Department anticipated would be well-attended. He noted that Parkhurst will be hosting two courses, which would earn licensees seven and a half CEPs. M. Ortega said that Duff Co and Drill Tech Group will also be hosting larger courses in May.

E. Hoffmann asked about the mechanics of how the Department tracks and enters CEPs for well drillers and pump installers. M. Ortega explained that most course providers submit the course rosters to the Department within 45 days of administering the course and then the Department enters the license numbers into a database. Once the license numbers are entered into the Department's database, licensees can track their points on the DEP DataMiner. M. Ortega added that Well Permitting established an email address for licensing and continuing education-related submittals. This allows licensees to submit their certificates directly to Well Permitting when a course provider

does not submit the attendance roster directly to the Department. M. Ortega said that there are notes on the Course List which detail submittal requirements when the course provider is not responsible for submitting the information to the Department. He told the Board that he's been working on an update to the course list, which provides additional, more detailed, instructions for licensees to submit completion certificates for credit. E. Hoffman thanked M. Ortega for the explanation and said that the Department is very generous with how they handle the process.

Additional Comments

G. Poppe said that he attended NJGWA's March membership meeting a few days prior and wanted to relay some of the comments that he received from their membership. He added that there were a lot of people that approached him to voice their displeasure with the Board's decision to approve the last meeting and course for one and a half CEPs instead of two. Attendees of the course regularly spend at least four hours at the meetings.

A. Becker asked if there were any comments from the industry. Mr. Eichfeld said that he had attended the meeting and found it to be very informative and felt that it should have been worthy of receiving two CEPs. Mr. McGuire, who is on NJGWA's Board of Directors, said that most of the displeasure stems from the inconsistency. He added that these meetings have always been approved for two CEPs and NJGWA has taken the Board's suggestions to make the meetings more stringent and informative. A. Becker thanked Mr. Eichfeld and Mr. McGuire for their comments.

5. Total Green-

S. Reya confirmed that Mr. Bill Buschur, from Total Green Manufacturing (Total Green), was on the call. The Board welcomed Mr. Buschur and thanked him for joining. S. Reya reminded the Board that they had received acceptable lab permeability results for the Tenon Thermaseal HF 1.1 thermal conductivity grout mix. Total Green had also successfully demonstrated that the grout could be pumped in the field on October 25, 2021. The final permeability results from the field demo also fell below the maximum allowable permeability. S. Reya noted that the results were about two orders of magnitude below what is required by the Department and clearly met the requirements and referenced a January 27, 2022 memo that R. Dalton supplied (and was forwarded to Board members), which further detailed the permeability test results on the field samples and meets the grout permeability requirements prescribed in the rule.

S. Reya discussed the construction of the Direct Exchange (DX) geothermal well system, which was also subject to approval by the Board. He stated that Total Green successfully demonstrated that they were able to grout the annular spaces between the borehole and the PVC and the PVC and the copper loop at a test installation in Burlington County. He reminded the Board that the PVC outer casing was required to address their concerns with the copper piping and the potential adverse impacts that the acidic groundwater in the Coastal Plain would have on the copper pipe. S. Reya clarified that the Board will be voting on this specific type of construction and not all DX installations. The detailed specifications of the copper U-bend, PVC outer casing, grout material and refrigerant have been provided throughout multiple document submittals from Total Green, dating back to their initial request for product approval in a letter dated August 19, 2019.

Mr. Buschur briefly discussed other products available through Total Green, including coated copper tubing to eliminate the need for the PVC outer casing. He asked if the Board would need to review this product for it to be acceptable for use in New Jersey. S. Reya said that the only product that is being considered for approval currently is the copper tubing grouted in a PVC sleeve. Any additional products or designs would need to go through this process. Mr. Buschur noted that the most important thing for them was to get the grout approved. A. Becker clarified that the technology would be subject

to approval for all distributors, not just Total Green. Mr. Buschur confirmed that Total Green is not the only distributor of this product, and anyone could use this method, if approved.

D. Lyman asked about the refrigerant used by Total Green and if it was previously approved before he joined the Board. Mr. Buschur stated that this information was submitted with the original packet of information in 2019 when the process started. S. Reya added that Total Green provided the Safety Data Sheets for all of their products, which the Board reviewed. It was determined that since the copper tubing would be encapsulated with the PVC casing, it would be less of a concern if there was a problem with the copper tubing.

A. Becker noted that Total Green has met all the criteria and asked for a motion to approve the product.

A motion to recommend approval of the referenced DX geothermal system, the grout material and the installation method was made by G. Poppe. This motion was seconded by G. Craig and approved unanimously.

R. Dalton added that the permeability of the grout quite low and is similar to neat cement when mixed with an appropriate amount of water. S. Reya noted that the Department will send a letter to Total Green that will stipulate the Department's approval of this system design for state-wide use. The letter will note that any alterations to the supplied design would need to be submitted for review by the Department, in consultation with the Board.

6. Horizontal Directional Drilling (HDD)-

J. Mattle talked about the Science Advisory Board's (SAB) review of the aspects of HDD. S. Reya had provided the Board with the SAB's final report on HDD prior to the meeting in order for them to review their findings. J. Mattle added that after the report was finalized, Well Permitting staff had met with the Commissioner about regulating HDD in New Jersey. The Commissioner was agreeable to regulating HDD and requested that staff start investigating a path forward. J. Mattle said that Well Permitting staff have already put together a proposal for how to handle the regulation of HDD in New Jersey and are investigating potential stakeholders.

T. Pilawski talked about the potential regulation of HDD in the future, noting that grouting of conventional wells/borings already falls within N.J.A.C. 7:9D. She said that the SAB and Department management had concerns regarding inadvertent returns (IRs). J. Mattle said that Mark Miller of Water Allocation, M. Ortega, and S. Vargo would be on the rule writing team for this project. Department staff will also be investigating potential changes to licensing and appointing a new Board member.

A. Becker said that the SAB's report was very thorough. He brought up how the SAB said that it is advisable to grout the annular space with a low-permeability grout for the first 50 to 100 linear feet from both the entry and exit holes. He said that he was surprised at the number of IRs that occur during HDD operations.

7. Disinfection of Private Wells by an Unlicensed Individual-

J. Denyes said that she relayed the Board's displeasure of the delay in providing written guidance on this issue to her management. She said that her team has agreed to let the Department reach out to the individual to advise them of the correct procedures. She added that with no consumer complaint or photographic evidence, it is very hard to proceed with the Board's request.

J. Denyes said that N.J.A.C. 7:9D is ambiguous on the topic of disinfection. While the Board has expressed to her and the Department that one needs a license to conduct this work, she does not believe that the rule is supportive of their interpretation. N.J.A.C. 7:9D-1.6 does not list “disinfect” under the list of items that only can be performed by a well driller or pump installer. While N.J.A.C. 7:9D-1.7 says that a well driller is authorized to perform disinfection, the rule does not state that only licensed individuals may perform this work. The Board also agreed that homeowners should be able to disinfect their own wells in emergency situations, which would be contradictory to stating that a licensee must perform the work.

J. Denyes thanked the Board for their patience and asked if they had any questions. A. Becker asked if the Department could specify in the letter to this individual that a license is required in the future to disinfect wells. J. Denyes said that the Department cannot do that, but they can say that a license is recommended. S. Reya said that he has already drafted the letter for internal circulation. He said that the letter references the Safe Drinking Water Act Rule regarding disinfection procedures that must be followed. D. Lyman asked if the letter could clarify what work can be done by licensed well drillers and pump installers. S. Reya said that he also addressed this in the letter.

8. Enforcement Update-

S. Vargo informed the Board that 14 Notices of Non-Compliance (NONC) were sent out for perceived violations in late-February. The NONCs were sent out to six different well drillers to address 20 potential construction violations. He noted that the NONCs selected, which were part of Well Permitting’s first batch to go out since Julia Altieri retired, were high priority and were meant to address health or environmental concerns. Currently, Well Permitting is awaiting written responses from the recipients of these NONCs. A. Becker and the rest of the Board thanked S. Vargo for the update.

9. Geothermal Update-

Woodbury

S. Reya explained to the Board that as of the last update that he provided, all known improperly installed geothermal wells had been addressed. The property owner had recently taken steps to move a compactor and generator, which had been covering some wells, according to the best available information provided to the Department. After excavating down to 15 feet below grade, no wells were found in this location. S. Reya was happy to report that all geothermal wells were successfully recommissioned. He noted that Summit Drilling has completed doing their work and another company will seal the abandoned irrigation well on the property at which point the project will be complete.

Princeton

S. Reya briefly talked about Phase 1 of the Princeton geothermal well field. He noted that those wells had target depths of 850 feet below grade. He said that the wells in Phase 2, which is located in West Windsor, have target depths of 600 feet below grade.

As of March 11, 2022, 44 wells had been completed. It was reported to the Department that two of these wells had intersected with each other and had been damaged, which was a problem that was encountered frequently during Phase 1. S. Reya added that there have been no major issues with this phase. Currently, there are three rigs on site and this phase will consist of 190 wells.

10. New Items/Comments from the Public-

G. Poppe asked if Mr. Stover was still on the call to address a concern which he brought to G. Poppe's attention during the March NJGWA meeting. G. Poppe explained that Mr. Stover was working with a property owner whose property was potentially too close to a water service line hook up for a private well to be installed. He said that the property owner received a quote of \$49,000 to be hooked up to city water. A. Becker said that he wasn't sure if this was something that Well Permitting directly handles and asked Mr. Stover to speak to the Department regarding his concerns. Mr. Stover said that he has already been working with the Department to resolve this issue.

J. Mattle said that the provision in question is in the New Jersey Safe Drinking Water Act Rule (N.J.A.C. 7:10). The rule states that if an adequate public community water system is available and that water system's water lines are within 200 feet of the property line the owner would be required to hook up to that water system and cannot drill a private well for potable use. He noted that in 1978, the rule was amended to include this provision. J. Mattle followed up by saying that the Department does their best to be consistent when evaluating well permit applications subject to this provision.

Mr. Stover asked who confirms the 200-foot distance. T. Pilawski explained that the Department has access to maps which detail the locations of water lines. Those maps are used in the decision-making process. She noted that Well Permitting staff already visited the site in question and that all indications are that the water line is within 200 ft. of the property line. It was noted that Mr. Stover and his potential client may contact the Department directly regarding this matter. This issue does not warrant any action from the Board.

11. Adjournment-

A. Becker thanked everyone for attending. M. Ortega said that the next scheduled meeting will be held on Thursday, April 21, 2022. A. Becker asked when the Board could resume in-person meetings. S. Reya explained that a lot of the building restrictions have been lifted, including the mask requirement. However, Well Permitting staff is unsure as to how many people can be accommodated in conference rooms at this time. S. Reya said that he'll keep the Board updated as to when in-person meetings will resume.

At 11:00 am, a motion to adjourn the meeting was made by G. Poppe, seconded by E. Hoffmann, and approved unanimously.