



## 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 January 18, 2024**

*Approved by the Board on February 15, 2024*

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

**Board Members Absent:** 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:** Kathleen Burkhard, Mark Miller, Steve Reya, Mark Ortega, Jeremy Wick, Steve Vargo, and Jillian Walker

**Other NJDEP Staff Present:** Don Hirsch, Northern Water Compliance and Enforcement; Alexandra Carone, Geological Mapping and Coastal Geology Section

**Members of the Public:** Brian McGuire, MB Drilling; Todd Tannehill, CETCO; Michael Kleespies, CETCO

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

The meeting was called to order at 9:34 am with a quorum present via Microsoft Teams and telephone. Notice of the meeting and instructions on how to participate by video or phone were listed on the Board's website. A. Becker thanked everyone for attending.

#### **2. Review and Certification of the December 21, 2023, Meeting Minutes-**

A. Becker asked if anyone had any comments on the draft meeting minutes from December 21, 2023. G. Poppe noted a spelling correction needed to the word "Bureau" on page one of the minutes.

**A motion to approve the draft minutes from December 21, 2023, after the noted correction is made, was made by G. Poppe, seconded by J. Yost, and approved unanimously.**

**3. Review and Certification of Well Driller and Pump Installer License Applications-**

A. Becker said that there were five license applications submitted to the Department for review, but only three were administratively complete. He added that the three approved applications consisted of two pump installers and one journeyman well driller. A. Becker asked if the Board had any comments on the license applicants who were deemed acceptable by the Department. No discussion was needed on the applicants, who are listed below:

License Type	Applicant Name	Employer
Pump Installer	Robert Coulson	D'Agostino Well & Water Services
Journeyman	Ryan C. Olinger	J. Olinger Drilling LLC
Pump Installer	Jeffrey M. Pereira	Atlantic Pumping Supply

**A motion to approve the three license applicants for licensure was made by G. Craig. This motion was seconded and approved unanimously.**

**4. Review of Continuing Education Course: Maryland Delaware Water Well Association (MDWWA) 2024 Convention-**

S. Reya read the list of courses being offered at the upcoming 2024 MDWWA Convention. The Board began reviewing the full list and voted on the courses.

R. Dalton recommended not approving the Legislative Update course. He suggested not approving this course because it only focuses on Maryland laws. The Board members agreed that this course should not be approved as it would not be relevant to New Jersey licensees.

**A motion to deny the Legislative Update course was made by R. Dalton, seconded by G. Craig, and approved unanimously.**

The Board asked about the missing courses listed on the course syllabus provided by MDWWA. M. Ortega said that MDWWA emailed him the one missing course the day before the meeting, and it has not been evaluated yet. He told the Board that the final course will be presented to them during the February meeting. The other course listed on the syllabus as missing was the course named, "Mud Testing How Important is it?". M. Ortega explained that this application was originally received in November, but he was waiting for the other courses to be submitted before presenting the application to the Board.

R. Dalton added that at least two courses should be awarded a safety continuing education point (CEP). He said that Safety & New Hires: Injuries That Can Impact a Company's Legacy and Drilling Rig Safety and Routine Maintenance should both be awarded safety CEPs. Other Board members noted that the 2024 DOT Update should also receive safety CEPs.

**A motion to approve 2024 DOT Update, Safety & New Hires: Injuries That Can Impact a Company's Legacy and Drilling Rig Safety and Routine Maintenance for one safety CEP each was made by R. Dalton. This motion was seconded by J. Yost and approved unanimously.**

The Board members agreed that the remaining courses were relevant and should receive technical CEPs. The full list of approved courses can be found in the table below.

**A motion to approve the remaining six courses for one technical CEP each was made by J. Yost, seconded by G. Craig, and approved unanimously.**

The following courses were approved with the passing of this motion:

Course Name	CEPs
PFAs – Concerns and Implications on Ground and Drinking Water Quality	1 Technical
Geothermal in Schools: Great for the Country, the Students and for the Drilling Industry	1 Technical
Safety & New Hires: Injuries That Can Impact a Company's Legacy	1 Safety
Dealing with Emerging and Uncommon Contaminants	1 Technical
Total Alkalinity in Water Treatment	1 Technical
Geophysical Tools and Applications for Coastal Plain and Piedmont Region Water Supply & Environmental Investigations	1 Technical
Drilling Rig Safety and Routine Maintenance	1 Safety
Mud Testing How Important Is It?	1 Technical
2024 DOT Update	1 Safety

**5. CETCO C-Grout Cementitious/Bentonite Grout Product-**

S. Reya introduced Mr. Todd Tannehill and Mr. Michael Kleespies from CETCO. The Board welcomed Mr. Tannehill and Mr. Kleespies and thanked them for attending the meeting. S. Reya explained that the CETCO representatives were present in case the Board had any questions regarding their grout.

S. Reya read the CETCO C-Grout mix synopsis and design to the Board. CETCO provided four permeability summary sheets:

- One 50-pound bag of CETCO C-Grout, 94-pounds Portland Type 1 cement
- One 50-pound bag of CETCO C-Grout, 94-pounds Portland Type 1-L cement
- One 50-pound bag of CETCO C-Grout, 188-pounds Portland Type 1 cement
- One 50-pound bag of CETCO C-Grout, 188-pounds Portland Type 1-L cement

S. Reya added that all four mixes meet the Department’s permeability standards according to the independent third-party lab data that CETCO provided, which were performed in accordance with ASTM D5084 and reviewed by R. Dalton prior to the Board meeting.

R. Dalton asked the CETCO representatives how this grout performs in groundwater with high chlorides. Mr. Kleespies said that it performs well, and the grout sets appropriately in areas with high chlorides.

It was noted that CETCO’s C-Grout can have their Thermal Conductivity (TC) Booster added for geothermal purposes. S. Reya clarified that for a field demonstration, the Department would require that CETCO test the grout mix highest TC Booster do demonstrate that it could adequately be pumped at the specified mix ratio.

Mr. Tannehill informed the Board that some states have already approved this grout mix. Mr. Kleespies added that they ran this mix in a grouter for 60 minutes and it pumped with no problems. He also indicated that CETCO might lower the max usable TC for this grout, as 1.95 might be un-pumpable if there are slight variations in the quantity of water that is used in the mix.

J. Yost asked if this grout would only be acceptable for geothermal wells. Mr. Tannehill and S. Reya said that the grout would be acceptable for any well, if approved as long as it meets the relevant standards of DEP regulations. Mr. Tannehill also added that this grout has been found to be an alternative for the currently approved Cementitious Thermally Enhanced Grout, also known as Mix 111. Mr. Tannehill said that this mix can be used for vertical installations and some horizontal wells where high compressive strength is needed.

A. Becker asked S. Reya if all geothermal grouts can be used in water wells. S. Reya confirmed that any of the approved grouts can be used for other well uses provided that there are no other extenuating circumstances, such as high chlorides in the groundwater and the presence of competent rock as bentonite-based grouts are prevented in such environments by the rule.

A. Becker asked about the benefits of a grout with high compressive strength. Mr. Kleespies said that this grout has been used when a building was going to be constructed over a well. A. Becker also asked if CETCO had any information about how this grout bonds to the well casing. He cited the Nebraska study and how a micro-annulus can form around a well casing as grout contracts. Mr. Kleespies said that they have conducted studies that ensure that their grout does not desiccate in the vadose zone, but they need to investigate if their grout bonds to casing.

Mr. Kleespies and the Board discussed Type 1L cement and potential differences in comparison to Type 1 cement, which is currently being phased out throughout the country. Mr. Kleespies noted that some people in the industry have found that Type 1L cement occasionally exhibits cement bleed, but it has been shown that adding bentonite helps to mitigate that.

A motion to allow CETCO to perform their pump test of C-Grout was made by G. Poppe. This motion was seconded by G. Craig. Additional discussion was needed before the Board voted.

Mr. Tannehill asked S. Reya and the Board what solids content would need to be tested. S. Reya said that the highest solids content would need to be tested. R. Dalton noted that permeability data would be needed with the TC Booster added to the mix. Mr. Tannehill asked if any additional tests were needed except for the third-party lab tests. Mr. Kleespies said that it will take them a little over a month to get the permeability results with the TC Booster added to the grout mix. It was noted that if CETCO is seeking approval for the grout mixtures containing the thermally conductive additive, they would need to perform the test using that mixture. The permeability values submitted were for the bentonite and cement grout, as would typically be used in water well/environmental well construction but did not include any thermal enhancement material.

S. Reya asked the Board to consider issuing a conditional approval to CETCO to expedite the review process, as has been done in the past. He added that if the permeability is acceptable for the mixes with the TC Booster (thermal enhancement material) added, then they can proceed with scheduling the field demonstration for both the C-grout product containing the thermal additive and without. The Board agreed. G. Popped revised his motion to issue a conditional approval to CETCO.

A motion to allow CETCO to proceed with their field demonstration of C-Grout if their permeability results for the mixes with the TC Booster are within an acceptable range was made by G. Poppe. This motion was seconded by G. Craig and approved unanimously.

**6. Program Updates-**

*Staffing Updates*

S. Reya informed the Board that M. Ortega was recently promoted to Environmental Specialist 3 in Well Permitting's Technical Unit. The Board congratulated M. Ortega on his promotion. M. Ortega's promotion fills the vacancy left by M. Schumacher moving to the Well Permitting Unit.

*Board Appointments*

S. Reya said that the Department is currently working on reappointments for Board members who expressed interest in serving for another term. The current term expires in February. The Department is also working on finding a replacement for one of the Department representatives. S. Reya reminded the Board that S. Domber replaced J. Hoffman as the State Geologist, so a replacement is needed to fill his old role on the Board. The Department is also working on posting a vacancy for the public member, to replace E. Hoffmann.

*Enforcement*

S. Reya explained that no enforcement summary table was provided for this meeting since Well Permitting is revamping their existing processes. M. Miller will be taking over Julia Altieri's former role in coordinating enforcement for Well Permitting's Technical Unit. A. Becker again noted that he hopes the Department will focus on unresolved enforcement issues before frequent rule violators are able to renew licenses again for another cycle.

**7. Adjournment-**

A. Becker thanked everyone for attending the meeting. The next meeting will be held on Thursday, February 15<sup>th</sup>. A. Becker added that he might not be able to attend the February meeting and already asked G. Poppe to fill in for him.

**A motion to adjourn the meeting at 10:17 am was made by G. Craig. This motion was seconded by D. Lyman and approved unanimously.**