Register Now...

PA Section’s 69th Annual Conference
at the Hershey Lodge & Convention Center
April 25-27, 2017
Registration and Conference Info...
Pages 9-19

Drones may revolutionize the water/wastewater industry...Page 6
Pennsylvania Water Law

This column will provide overviews of interesting cases and legal issues affecting water suppliers in Pennsylvania.

By Michael D. Klein, Esq.

Michael D. Klein is a member in the Harrisburg, PA, and Washington D.C. offices of Cozen O’Connor. Michael practices in the areas of utility and environmental law. He can be reached at mklein@cozen.com and 717-703-5903. This column is intended to be a discussion of legal issues in the water industry. It is not intended to be legal advice, or to establish any attorney-client relationships. Before making any legal decisions regarding anything discussed in this column you should always consult with an attorney.

Drones: The sky is no longer the limit for water/sewer systems

By David Heffernan, Michael Klein and Jennifer Urban

Drones have the potential to revolutionize the way water and sewer systems operate. Everyone keeps hearing about the usefulness of drones, but how can water and sewer systems actually use drones to enhance their operations?

The water and sewer sectors have extensive infrastructure located across vast areas of the United States. Drones, also known as unmanned aircraft systems (“UAS”) or unmanned aerial vehicles (“UAV”), offer new, better, and more cost-efficient ways to address critical security and inspection issues, such as surveillance or inspection of remote pipeline rights of way, reservoirs, treatment plants, pump stations, wells, elevated water tanks, and watersheds. Not only is this likely to be safer, cheaper, and more efficient, but drone operations also enable more accurate and quicker data collection. Drones can also be a critical tool in emergency response situations, enabling systems to transport tools, equipment, and food to crews in inaccessible areas.

Although drone operations have enormous potential for water and sewer systems, there are many legal restrictions on the commercial use of drones in the United States. Until recently, entities that wanted to participate in commercial drone operations had to petition the Federal Aviation Administration (“FAA”) for a so-called Section 333 exemption. The FAA reviewed each Section 333 exemption petition on a case-by-case basis and could take months to issue an approval. On August 29, 2016, the FAA’s Small UAS Rule, known as Part 107, went into effect and changed the game for commercial drone operations. Part 107 generally authorizes the commercial use of drones that weigh less than 55 pounds and do not fly faster than 100 miles per hour, but subject to significant conditions and limitations. Drones must:

- remain within 400 feet of the ground;
- operate during daylight;
- only operate when there is at least 3 miles of visibility from the control station;
- not fly over people who are not directly involved in the drone operation;
- remain within confined areas;
- not carry hazardous materials; and
- remain within the visual line of sight of the operator at all times.

If your drone operations fall within the scope of Part 107, you do not have to get a special exemption or waiver, but for most systems in these sectors it is unlikely their operations would comply. For operations that are not in compliance with Part 107, entities must prove to the FAA that the proposed operations are safe in order to be issued a waiver from Part 107.

PA Water Law continued on Page 7

COZEN O’CONNOR

Our office provides legal advice and representation in the following areas:

- PADEP MATTERS
- PUC MATTERS
- ENVIRONMENTAL AND PERMITTING
- FINANCINGS – PENNVEST/PEDFA/CFA
- CSO/SSO ISSUES
- CONDEMNATIONS
- REAL ESTATE AND LAND USE
- REGIONALIZATION/Aquisitions
- EMERGENCY RESPONSE PLANS & SECURITY
- WIND & SOLAR POWER
- MARCELLUS SHALE LEASING & REGULATION
- WATER ALLOCATIONS

WE PROUDLY SERVE AS LEGAL COUNSEL TO THE WATER UTILITY COUNCIL OF THE AMERICAN WATER WORKS ASSOCIATION, PA SECTION AND THE NATIONAL ASSOCIATION OF WATER COMPANIES, PA CHAPTER

MICHAEL D. KLEIN, ESQ.
Cozen O’Connor
17 North Second Street, Suite 1410 • Harrisburg, PA 17101
P: 717.703.5903 • F: 866.248.5448 • C: 717.439.2564
mklein@cozen.com • www.cozen.com
Entities can apply for a waiver that allows operations:
- outside of daylight hours;
- beyond the visual line of sight of the drone operator;
- over people; and
- in certain areas where drones are not usually permitted.

Under the Obama administration, the FAA was drafting new regulations to permit the operation of drones over people, without the need for a waiver. It remains uncertain whether these regulations will be issued under the Trump administration.

In order to pilot the drone, the operator must hold a Remote Pilot Airman Certificate and pass a Transportation Security Administration background check. The Remote Pilot Airman Certificate requires the applicant pay $150, pass the initial aeronautical knowledge test (2-hour, 60-question test) with a minimum score of 70 percent, and complete the FAA Airman Certificate and/or Rating Application. While there have not been specific regulations implemented regarding cybersecurity or privacy issues, entities engaged in drone operations should exercise caution not to violate others’ privacy rights and ensure that the drone has proper security mechanisms, such as a password protected Wi-Fi signal.

Although performance specifications can vary greatly from model to model, most drones used for commercial purposes are powered by batteries that provide approximately 20 to 25 minutes of operation time and include a small GPS. Average commercial drones under 55 pounds can fly up to about 3 miles, lift payloads ranging from 5 to 14 pounds, and cost between $400 and $5,500, depending on the model’s capabilities. Entities seeking waivers for operations beyond line of sight and at night have been testing different technologies to ensure safety, but these technologies have been kept proprietary. The limiting factors of drones are regularly changing and advancements are likely in the near future.

Should water and sewer systems conduct drone operations themselves or hire an outside contractor? It depends. Systems have the option to own or lease their own drones if an employee can obtain a Remote Pilot Airman Certificate, the proper insurance coverage is bought, and the system is confident it will be able to conduct drone operations in a compliant manner. By conducting drone operations itself, the system eliminates the need to hire a contractor and the time it takes to get contractor operations established; however, the system will be primarily liable for its drone operations. Alternatively, systems can contract in for drone services, which can be useful, particularly for more complex operations. The benefits of using an outside contractor include the ability to access a range of drone devices and the most up-to-date technology operated by a licensed, insured, experienced pilot and to limit the system’s liability.

Any water or sewer system interested in drones should consult an attorney who is knowledgeable about the increasingly complex laws and regulations applicable to drones before initiating operations. Water and sewer systems are well-versed in the regulations that apply to their day-to-day operations; however, most have not had to deal with specialized aviation laws and regulations governing commercial drone use. The advice of a drone attorney on licensing issues and Part 107 compliance matters is critical, because this is an emerging area of the law. For those entities using outside contractors, drone attorneys can also help draft a contract that limits the system’s liability. This article covers federal legislation issues, but states and local governments also regulate drone activities, for example, with respect to land use, zoning, privacy, trespass, and law enforcement.

In Pennsylvania, bills have been introduced the past several years, but none have become law. Depending on the system’s location, legal advice may also be needed regarding compliance with state and local laws affecting drone operations. Increasingly, a consensus view is emerging that the benefits of drones for water and sewer systems exceed the risks and uncertainties surrounding this new technology.