

From: [Livermore, Dan](#)
To: [R4RCB](#); [Hoc, HQO X](#); [Hoc, ROO](#); [ILTAB-Internal](#)
Subject: Fwd: [External_Sender] You ALL Are on Drudge!
Date: Thursday, July 30, 2020 8:53:58 AM

----- Original Message -----

From: Dan Livermore <[\(b\)\(7\)\(C\)](#)>
Date: Thu, July 30, 2020 7:51 AM -0500
To: "Livermore, Dan" <Dan.Livermore@nrc.gov>
Subject: [External_Sender] You ALL Are Famous!

<https://www.thedrive.com/the-war-zone/34800/the-night-a-drone-swarm-descended-on-palo-verde-nuclear-power-plant>

Lots of HOOs and ILTAB people made it to the Drudge Report today.

The Night A Mysterious Drone Swarm Descended On Palo Verde Nuclear Power Plant

The mysterious case of mass drone incursions over America's most powerful nuclear power plant that only resulted in more questions and no changes.

BY TYLER ROGOWAY AND JOSEPH TREVITHICK JULY 29, 2020

THE WAR ZONE

While the news has been filled with [claims that strange unidentified craft](#) with unexplainable capabilities are [appearing over highly sensitive](#) U.S. installations and assets as of late, a much less glamorous, more numerous, and arguably far more pressing threat has continued to metastasize in alarming ways—that posed by lower-end and even off-the-shelf drones. Less than a year ago and just days after the stunning drone [attacks on Saudi Arabia's most critical](#) energy production infrastructure deep in the heart of that highly defended country, a bizarre and largely undisclosed incident involving a swarm of drones occurred on successive September evenings in 2019. The location? America's most powerful nuclear plant, the Palo Verde Nuclear Generation Station situated roughly two dozen miles west to Phoenix, near Tonopah, Arizona.

In a trove of documents and internal correspondences related to the event, officials from the Nuclear Regulatory Commission (NRC) described the incident as a "drone-a-palooza" and said that it highlighted concerns about the potential for a future "adversarial attack" involving small unmanned aircraft and the need for defenses against them. Even so, the helplessness and even cavalier attitude

toward the drone incident as it was unfolding by those that are tasked with securing one of America's largest and most sensitive nuclear facilities serves as an alarming and glaring example of how neglected and misunderstood this issue is.

What you are about to read is an unprecedented look inside a type of event that is less isolated in nature than many would care to believe.

A Rapidly Accelerating Threat

Troubling incidents of protracted activity by swarms of drones, including [a series of very strange incidents](#) in Colorado and neighboring states last year that the mainstream media was quick to blow off without any real evidence to prompt such a dismissal, are occurring over and near some of America's most critical infrastructure. These events are occurring as lower-end and lower-performance unmanned aircraft systems (UAS) have become weaponized to [increasingly remarkable degree](#) in recent years. Even those built-in sheds in the middle of warzones have been employed with not only deadly, but also a [highly disruptive effects](#). As we mentioned a moment ago, drones have [even inflicted major damage](#) to one of the world's richest and most heavily defended country's cash cow—oil production. They have also been used in an [attempt to assassinate](#) a country's ruler. And yes, the potential for them to be used for similar purposes exists right here in the United States, as well.

Even as lower-end drones that are armed with explosives and capable of precision attacks are [being mass-produced overseas](#) and America's adversaries are openly perfecting [far more complex swarm capabilities](#), the U.S. military and federal agencies are desperately trying to play catch-up to the threat even though they [had years to proactively work](#) to nullifying it before its inevitable manifestation. It wasn't before weaponized drones were [careening into and dropping bomblets](#) on Iraq soldiers' heads during the Battle of Mosul that the U.S. military had no choice but to begin to take the issue seriously. Today, American soldiers deal with the ominous presence of drones [overhead and even dropping munitions](#) daily in overseas hotspots. America's top military commander in the Middle East is all too aware of this compounding threat and the lack of resources being placed on countering it:

"I argue all the time with my Air Force friends that the future of flight is vertical and it's unmanned," U.S. Marine General Kenneth McKenzie, head of U.S. Central Command, said at an event hosted by the Middle East Institute [last week](#). "I'm not talking about large unmanned

platforms, which are the size of a conventional fighter jet that we can see and deal with, as we would any other platform."

"I'm talking about the one you can go out and buy at Costco right now in the United States for a thousand dollars, four quad, rotorcraft, or something like that that can be launched and flown," he continued. "And with very simple modifications, it can be made into something that can drop a weapon like a hand grenade or something else."

...

"Right now, the fact of the matter is we're on the wrong side of that equation."

With all this in mind, it isn't a matter of if similar events will occur in the homeland, it's a matter of when and of what scope. As it sits now, all the warning signs are there, especially in terms of where mysterious swarms of drones are popping up without explanation.

Two Nights In Late September

[Douglas D. Johnson](#), a volunteer researcher affiliated with the [Scientific Coalition for UAP Studies \(SCU\)](#), was able to obtain a large number of internal documents regarding the September drone incidents at Palo Verde from the NRC via the Freedom of Information Act (FOIA) and kindly shared them with *The War Zone*. It is important to note that these documents primarily reflect the NRC's perspective rather than that of any other U.S. government agencies at the federal, state, or local levels. The Arizona Public Service Company, which operates the Palo Verde Generating Station, is also a private entity not directly subject to the FOIA.

Johnson did also submit a FOIA request for relevant documents to the Department of Homeland Security's (DHS) Cybersecurity and Infrastructure Security Agency (CISA). DHS said it found 32 pages of documents related to the incident from CISA, but declined to release them, citing exemptions related to law enforcement activities. Another 17 pages of relevant records are still undergoing a review by the Transportation Security Administration (TSA).

This particular story starts on Sept. 29, 2019. Shortly before 11:00 PM local time at the Palo Verde Nuclear Generating Station, Daphne Rodriguez, an Acting Security Section Chief at the plant, called the duty officer at NRC's Headquarters

Operations Center (HOC). Rodriguez reported that a number of drones were flying over and around a restricted area near the nuclear power plant's Unit 3, which houses one of its three pressurized water reactors.

Thomas Kendzia, a Headquarters Emergency Response Officer (HERO) at the HOC, subsequently created an incident report in the NRC's Security Information Database (SID). The HOC's policy is to have one Headquarters Operations Officer (HOO) and a Headquarters Emergency Response Officer (HERO) on duty, 24 hours a day, every day, with no exceptions. "The designated HOO for the shift has the primary responsibility for receiving reports and determining appropriate actions. The HERO counterpart role provides procedural, communications, and administrative support," according to a 2018 NRC Office of the Inspector General's [report](#) on headquarters staffing issues. The key portions of the SID entry that Kendzia created, which was then updated as time went on, are as follows:

"Officer noticed several drones (5 or 6) flying over the site. The drones are circling the 3 unit site inside and outside the Protected Area. The drones have flashing red and white lights and are estimated to be 200 to 300 hundred feet above the site. It was reported the drones had spotlights on while approaching the site that they turned off when they entered the Security Owner Controlled Area. Drones were first noticed at 2050 MST and are still over the site as of 2147 MST. Security Posture was normal, which was changed to elevated when the drones were noticed. The Licensee notified one of the NRC resident inspectors.

As of 0237 EST, no drones have been observed at the site since 2230 MST. Officers believe drones were over 2 feet in diameter.

Personnel at the HOC also then called the duty officer at the NRC's Intelligence Liaison and Threat Assessment Branch (ILTAB), a division of the Office of Nuclear Security and Incident Response. ILTAB's mission is to "provide strategic and tactical intelligence warning and analysis of all threats to the US commercial nuclear sector, and serve as NRC's liaison and coordination staff to the US intelligence and law enforcement communities," according to [a 2010 briefing](#).

That wasn't the end of it, though, for Palo Verde. The very next night, Ismael Garcia, a Security Supervisor at the plant called ILTAB to report another drone incursion over sensitive areas.

This new information was originally added as an update to the previous incident, but the HERO on duty, Donald Norwood, eventually set up a new, separate SID entry, which again received additional updates as the situation progressed, with the key details being as follows:

Four (4) drones were observed flying beginning at 2051 MST [on Sept. 30, 2019] and continuing through the time of this report (2113 MST). As occurred last night, the drones are flying in, through, and around the owner controlled area, the security owner controlled area, and the protected area. Also, as last night, the drones are described as large with red and white flashing lights. Spotlights have not been noted tonight.

The licensee has not changed their security posture. The licensee continues to monitor the drones.

As of 0355 EDT, no drones have been observed at the site since before 0020 MST. LLEA [local law enforcement agency] surveyed the area and were unable to locate drones on the ground or anyone controlling the drones.

The licensee notified FAA (both Phoenix and Albuquerque), FBI, DHS, and the Maricopa [County, Arizona] Sheriff's Office. The licensee notified the NRC Resident Inspector.

Palo Verde security officials had filed their own report on this second incident, which eventually made its way to NRC. It included the following narrative:

"On 9/30/19 at approximately 2051 hours, it was reported by a Security Team Leader that Unmanned Aerial Vehicles (UAVs) were approaching the plant from the east (true east). The hours of darkness made it difficult to estimate the altitude at which the UAVs were flying. Two Security Team Leaders [redacted]. The UAVs appeared to have been launching from behind the mountain range at the intersection of Southern Ave and 361 Ave just east of the plant. Four UAVs were confirmed to have been spotted at one time flying northwest over Unit 1 and returning northeast over Unit 3. LLEA (MCSO) [Maricopa County Sheriff's Office] deputies were dispatched to the area of the mountain range with a Security Unit Team Leader in an attempt to determine the

location of the UAV operators, but were unsuccessful. No other UAVs were observed after approximately 2300 hours."

"These UAVs are believed to have been the same UAVs that flew over the plant the night before on 9/29/19 at approximately 2020 hours (refer to CR# 14095 for details)."

"All required notifications were made IAW [in accordance with] 20DP-OSK49 Security Integrated Response Plan and additional Security contingency measure [sic] were implemented IAW 21SP-OSK11 Security Contingencies. No additional compensatory measures are required IAW 20SP-OSK08 Compensatory Measures for Loss of Security Equipment/Effectiveness."

A Feutile Distraction?

Curiously, one of ILTAB's top priorities seemed to be getting the staff at Palo Verde, or anyone from any other NRC-licensed facility, to stop calling them in the middle of the night about reported drones. "Our folks got calls last night at 2am, which is correct per the procedure," Laura Pearson, ILTAB's chief, wrote an Email on Sept. 30 to Silas Kennedy, the Chief of the Operations Branch within the Division of Preparedness and Response of NRC's Office of Nuclear Security. "However, I am wondering if there is a way to cut down on calls in the middle of the night for issues that ILTAB can't add value to," Pearson continued. "The call last night about drones is a good example-in the middle of the night, ILTAB can't really do anything about it anyway apart from say 'ok thanks' and handle it in the morning."

Pearson raised concerns that the late-night calls "interrupts sleep" and that her staff would then arrive at work "either groggy or come in late, so there's negative returns on it from an, organizational perspective." Kennedy told her that ILTAB could, on its own accord, change its requirements for when personnel at nuclear sites would need to immediately contact the duty officer to report an incident.

Before the second drone incursion had even occurred on Sept. 30, ILTAB was already working on revising its instructions from when the HOC staff should contact them. Pearson also asked Kennedy if there was a way to halt all calls about drones in and around Palo Verde, specifically. "There is nothing ILTAB

can do about it at night, and if my staff has to be woken up about it each night, it will start to cause other problems for us. We have a small staff and having people out or late because they are not getting adequate sleep will impact our ability to get work done," she wrote in another Email on Oct. 1.

"Please place a note in the turnover log stating 'Until further notice, do not call the ILTAB duty officer from 10 pm until 6 am for drone flyovers of Palo Verde. Send an email to ILTAB in the morning. This is specific to Palo Verde only. For all other licensed facilities, continue to follow HOO procedures until changes are made,'" Kennedy subsequently instructed other staff at the HOC.

At that time, per a subsequent Email, the list of instances in where HOOs or HEROs were supposed to immediately notify ILTAB included, but were not necessarily limited to the following:

- Ongoing security events. (basis for the drone calls since they were loitering in the OCA [owner controlled area])
- Verbal/telephone/e-mail threats.
- Bomb threats.
- Threats to site employees.
- Fence jumpers/intrusions.
- Security barrier penetrations.
- Discovery of weapons or explosives.
- Event involving law enforcement response/investigation on the owner-controlled area (OCA) or watercraft exclusion areas.
- Event involving FBI investigation.
- Security-related media attention at any level.
- Sabotage/Tampering.

Other NRC officials appear to have been unsure as to how they could necessarily help in responding to the incidents, in general. "[Palo Verde] Site security was unable to observe any identifying markings on the UAVs themselves or locate the operator(s), so I do not know how much additional investigation can be undertaken," an Intelligence Specialist at the Response Coordination Branch for NRC's Region IV, whose name is redacted, wrote in a separate Email.

Inconclusive Investigation

The situation on the ground at Palo Verde was completely different. By Oct. 2,

officials at the plant were working together resident NRC personnel, as well as local law enforcement, the FBI, the Department of Homeland Security (DHS), and the Federal Aviation Administration (FAA). A subsequent Email shows that the FBI's Weapons of Mass Destruction (WMD) Coordinator was specifically contacted in relation to the drones.

They were also in the process of deploying unspecified drone detection systems acquired from a company identified in one Email as "Area Armor." This is very likely an error in referring to [Aerial Armor](#), which describes itself as having "been at the forefront of the drone defense industry since 2015 as a service provider and systems integrator for C-UAS solutions." The company's website [also says](#) "On countless deployments, we've worked hand in hand with local law enforcement, FAA, FBI, DHS and private security professionals throughout the US."

"This technology apparently has a 13-mile radius and can determine the specific point from which the UAVs were launched so that LLEA / site security can locate the operator(s)," a Region IV Response Coordination Branch Intelligence Specialist, with their name redacted, possibly the same individual referenced earlier, wrote in an Email. "I confirmed with the licensee that they have coordinated the use of this counter drone technology with FAA, and they informed me that this technology only locates the UAVs; it does not interfere with the flight pattern of those UAVs in any way."

Aerial Armor supplies drone detection systems from various manufacturers, including small radars and ones that work by spotting and tracking the unmanned aircraft's signal emissions. Some of them also include full-motion electro-optical and infrared video cameras that can be slewed to visually monitor targets of interest after the other sensors spot them.

It's not entirely clear what drove the decision at the time by the Palo Verde staff to set up systems to detect rather than knock down the drones. It's possible that the detections systems were the only ones readily available or that this was the established protocol for security at the plant at the time.

Regardless, it underscored serious questions about what the plant operators could actually do, legally, in response to the intrusions. "At this time, the pilots are not violating any laws or regulations by flying over the plant," Joseph Rivers, a [now-retired](#) Senior Level Advisor on Security for NRC, wrote in an Email on Oct 2.

"Since drones are aircraft and they are not violating a law, what is the action that can be taken legally if they locate the operator?" Mark Lombard, the Deputy Director of NRC's Office of Nuclear Security and Incident Response, asked in response. The next Email in the chain is unrelated to that question and the one after that is redacted entirely. The last message in this particular string is also heavily censored, though it does say that "NEI has a drone working group and we will bring these examples to them." NEI very likely refers to the [Nuclear Energy Institute](#), a nuclear energy trade association and lobby group in the United States.

It's unclear if whoever was flying the drones was still violating FAA regulations, which ban unmanned aircraft from [flying lower than 400 feet](#) over "designated national security sensitive facilities," which includes nuclear power plants, even if they weren't technically breaking any laws. Arizona also has its own state law prohibiting drones from flying under 500 feet over any critical infrastructure, including power plants.

Without knowing the exact altitude the drones were flying at during the incursions, it's difficult to say what the exact legalities of the situation were. We also don't know for sure if authorities at Palo Verde didn't deploy counter-drone systems capable of actually knocking down unmanned aircraft later, though NRC's officials never mention any such development in the documents *The War Zone* reviewed.

What we do know is that by Oct. 3, with assistance from the FBI and the Department of Energy, officials at Palo Verde had begun the process of rectifying that situation and getting the airspace over the plant designated as restricted through the FAA.

"DOE is working closely with FAA to designate areas over NPPs [nuclear power plants] are no-fly zones and we are working to communicate to licensees what that means," Deputy Director Lombard wrote in an Email the following day. "At this time, we are not planning to impose new requirements [sic] on licensees, but the landscape is dynamic and changing."

None of the authorities involved in subsequent investigations into the two drone incursions over Palo Verde were able to determine the operators of the drones or their intent. ILTAB followed up with other officials within NRC on Oct. 28 to see if there had been any new developments and had marked the two SID entries "closed unresolved" by Nov. 25.

Not An Isolated Incident

Whatever the exact story of what happened at Palo Verde might be, the internal Emails from NRC make clear that this was not an isolated incident. "We also had several high speed drones over [Limerick \[Generating Station\]](#) in Pennsylvania] that caused a VP to call about 8 months ago," Brian Holian, Director of NRC's Office of Nuclear Security and Incident Response, wrote at one point.

"Yes, I agree that both of these overflight incidents at Palo Verde meet several criteria that we have historically used in triaging UAV overflights as particularly worthy of follow-up (# of UAVs involved, time of day, length of overflight, maneuvers, etc.)," another individual whose name is redacted added in the same Email chain.

Another response, from another redacted individual, is censored almost entirely. "Just my two cents worth of an observation. I'm off to a tabletop exercise," the Email concludes with.

After the Palo Verde incidents, officials at ILTAB went back and checked and found 42 drone-related incident reports entered into the Security Information Database since 2016, including the two at the Arizona plant. There were another 15 in the system when they searched all the way back to Dec. 27, 2014. This includes another one involving a drone at Palo Verde, also "closed unresolved," on Dec. 21, 2017. NRC redacted information about all of these remaining cases as "non-responsive" to Douglas Johnson's FOIA request.

It's also clear that NRC hasn't been the only U.S. government entity grappling with this issue. Another Email notes that the [Federal Energy Regulatory Commission](#) (FERC), part of the Department of Energy, had recently added a "suspicious activity reporting requirement" with regards to incidents at sites under its jurisdiction, but that it was also unclear as to how to approach drone incursions, necessarily.

"I just met with Shana Helton [Director of the Physical & Cyber Security Policy Division of the Office of Nuclear Security and Incident Response] and Jeremy Bowen [Deputy Director of the Office of Nuclear Regulatory Research] for a detailed discussion about drones, FERC, and where we are with reporting requirements," Geoffrey Miller, Deputy Director of the Reactor Safety Division at the NRC's Region IV office, wrote.

"I look forward to that discussion," an individual, whose name is redacted, responded. "I would love to have a better understanding of where we are going as an Agency on the topic of drones."

"This week has been Drone-a-palooza for ssure [sic]," the Office of Nuclear Security and Incident Response's Deputy Director Lombard had written in an Email on Oct. 4. "With the two drone swarm flyovers at PVNGS [Palo Verde Nuclear Generating Station] early in the week getting a lot of attention in the agency and outside (e.g., folks who work in the EEOB [Electrical Engineering Operating Reactors Division of the Office of Nuclear Reactor Regulation]), we learned a lot and briefed a lot. And our UAV/drone Commission paper should go up to them next week."

Rules, regulations, and reporting requirements are, of course, just one part of the picture. Joseph Rivers, the NRC Senior Level Advisor on Security who was coordinating with various other individuals around the Palo Verde incidents, highlighted in one Email that none of this would do anything to directly prevent a hostile actor from using drones in a more nefarious way.

"I would point out that restricted airspace will do nothing to stop an adversarial attack and even the detection systems identified earlier in this email chain have limited success rates, and there is even lower likelihood that law enforcement will arrive quickly enough to actually engage with the pilots," he wrote.

"We should be focusing our attention on getting Federal regulations and laws changed to allow sites to be defended and to identify engineering fixes that would mitigate an adversarial attack before there our licensed facilities become vulnerable."

You can find the full copies of the NRC documents as they were released to us, broken into four parts here: [Part 1](#), [Part 2](#), [Part 3](#), and [Part 4](#).

The Changes That Never Came

The "drone-a-palooza" over America's most powerful nuclear powerplant represents an intriguing and puzzling mystery. Who had the capability to put at least around a half a dozen drones up over the plant for hours on two consecutive nights and why? The fact that drone incursions aren't totally new there, or at other major nuclear facilities, is equally concerning. But above all else, these internal documents show just how naive those tasked with dealing with such threats are to the potential nefarious capabilities of readily available unmanned aircraft.

Could smaller weaponized drones have the capability to trigger a catastrophic radiological event at a powerplant like Palo Verde? These facilities and the nuclear waste stored on their grounds are hardened to some degree, but that's not really the point. Even throwing the plant into disarray and disabling it for a protracted period of time could have substantial impacts on the region as millions depend on the plant for power. Coordinated attacks on other plants across a region could have even more damning, if not somewhat unthinkable impacts.

Strategically speaking, a standoff capability with such a low barrier of acquisition, ease of use, and with such a high-chance of evasion for its perpetrators, is highly troubling. We will talk about these elements and tie together many other threads we have been weaving over the past year in an upcoming post, but for now, the Palo Verde drone scare of 2019 should be yet another reminder of how far we are behind dealing with this threat on a legislative, informational, and defensive level.

Oh, and if you think this event may have served as something of a wakeup call for the powers that be, you are mistaken. Just a month after it occurred, the NRC made the highly [controversial, if not outright dubious](#) decision to formally decline to require owners of U.S. nuclear power and waste storage facilities to be able to defend against drones.

"Staff has determined that nuclear power plants and Category I fuel cycle facilities do not have any risk-significant vulnerabilities that could be exploited using UAVs and result in radiological sabotage, theft of special nuclear material (SNM), or substantial diversion of SNM," according to [NRC's review](#). "Similarly, the staff has determined that information gained from UAV video surveillance of an NRC-licensed facility is bounded by the type of information that could be provided by the knowledgeable insider currently permitted in the DBTs [[Design-Basis Threats](#)]."

Physicist Edwin Lyman, acting director of the Nuclear Safety Project at the Union of Concerned Scientists, [a nonprofit organization](#), stated the following about the decision:

"The NRC's irresponsible decision ignores the wide spectrum of threats that drones pose to nuclear facilities and is out of step with policies adopted by the Department of Energy and other government agencies... Congress should demand that the NRC require nuclear facility owners to update their security plans to protect against these emerging threats."

Many companies are developing technologies to protect critical infrastructure from drone attacks through early detection, tracking, and jamming... If the NRC were to add drones to the design basis threat, nuclear plant owners would likely have to purchase such systems. Laws would also have to be changed to allow private facilities to disrupt hostile drone flights. But plant owners are loath to spend more on safety and security at a time when many of their facilities are struggling to compete with cheap natural gas, wind and solar.

The NRC seems more interested in keeping the cost of nuclear plant security low than protecting Americans from terrorist sabotage that could cause a reactor meltdown... The agency needs to remember that it works for the public, not the industry it regulates.”

Sadly, it's unlikely that any action will be taken when it comes to the threat posed by lower-end drones until a catastrophe occurs. We will discuss just how much is at risk and highlight other even more concerning incidents that have all but proven how capable such an asymmetric and inconvenient threat can be in the very near future.

Regardless, the Palo Verde incidents serve as yet another warning of the potential dark side of the drones that fly among us daily.

Contact the authors: Tyler@thedrive.com and Joe@thedrive.com

You can reach Douglas D. Johnson via [@ddeanjohnson](https://twitter.com/ddeanjohnson) on Twitter.

~~**FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION**~~

*This report may contain "law enforcement sensitive" information
Please do not relay this information to individuals
who do not have a "need to know"*

Event #: SID-02915

Security Event Description

Site: Limerick

Facility Type: Power Reactor - Operating

Event Date/Time: 03/20/2018 (EDT)

Notify Date/Time: 3/20/2018 5:18:00 (EDT)

Last Update Date: 3/20/2018 6:04:10 (EDT)

Event Type: Drone

H.E.R.O.: Jeffrey Herrera

Caller Affiliation:

DRONE FLYOVER AT LIMERICK

"On the 20th of March, at approximately 0300 EDT, a security officer posted in the owner controlled area observed a drone flying over the owner controlled area for approximately two minutes. The drone appeared in the Southeast and travelled over the owner controlled area before visual was lost. The drone was approximately 300 feet above the ground. Notifications were made to the Shift Manager and Local Law enforcement. Voluntary notifications will be made to the FAA and NRC."

Limerick stated that no identifiable information was able to be captured by security personnel regarding the drone flyover. Limerick contacted the Limerick Township Police and notified them of the incident. Limerick did not change security posture as a result of the incident.

Limerick will be notifying the NRC Resident Inspector.

Notified the R1DO (McKinley), ILTAB (via email).

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

ILTAB

General Information

Record Number: SID-02915
 EN #: N/A
 Incident Status: Open, Closed Resolved, Closed Unresolved

General Information

Incident / Communication Document Date: Mar 20, 2018 3:00 EDT(-0400)

Subject/Short Description: Drone Flyover at Limerick

Reporting Organization: Power Reactor - Operating

Site/Licensee: Limerick

Site/Licensee Name: Limerick, State: PA, Region: 1, Timezone: (GMT-5:00) Eastern Standard Time [US/Eastern]

Report Category: Drone

Non-Sensitive Attachments:

(R) Sensitive Attachments

Recorded on 20-Mar-2018 at 05:17:50.WAV

Recorded on 20-Mar-2018 at 05:23:04.WAV

SIDS REPORT LGS.pdf

Document Links
 External Links
 External Reference Number

Vehicle(s) Involved (Query)

(R) Vehicle Type: Other
 (R) Make, (R) Model, (R) Year (e.g. 2011), (R) Color
 (R) License Plate State, (R) License Plate #, (R) Partial
 (R) VIN #, (R) N-Number, (R) Partial
 (R) Additional Information: Drone

Person(s) Involved (Query)

Incident Information

73.71 Report?, 37.57 Report?, 37.81 Report?

Yes No Yes No Yes No

Notification Date/Time/Timezone
Mar 20, 2018 5:18 EDT

(R) Caller Name: Kevin Keiffer
(R) Caller Title: Security Shift Supervisor
Caller Affiliation:
(R) Call Back Phone #: (610) 718-2043

HOO/HERO
Jeffrey Herrera

ILTAB Duty Officer

(b)(7)(C)

(R) Detailed Description of Incident
DRONE FLYOVER AT LIMERICK

Prepare to Redact

"On the 20th of March, at approximately 0300 EDT, a security officer posted in the owner controlled area observed a drone flying over the owner controlled area for approximately two minutes. The drone appeared in the Southeast and travelled over the owner controlled area before visual was lost. The drone was approximately 300 feet above the ground. Notifications were made to the Shift Manager and Local Law enforcement. Voluntary notifications will be made to the FAA and NRC."

Limerick stated that no identifiable information was able to be captured by security personnel regarding the drone flyover. Limerick contacted the Limerick Township Police and notified them of the incident. Limerick did not change security posture as a result of the incident.

Limerick will be notifying the NRC Resident Inspector.

Notified the R1DO (McKinley), ILTAB (via email).

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Redacted Description of Incident
DRONE FLYOVER AT LIMERICK

Redact Selected Text

"On the 20th of March, at approximately 0300 EDT, a security officer posted in the owner controlled area observed a drone flying over the owner controlled area for approximately two minutes. The drone appeared in the Southeast and travelled over the owner controlled area before visual was lost. The drone was approximately 300 feet above the ground. Notifications were made to the Shift Manager and Local Law enforcement. Voluntary notifications will be made to the FAA and NRC."

Limerick stated that no identifiable information was able to be captured by security personnel regarding the drone flyover. Limerick contacted the Limerick Township Police and notified them of the incident. Limerick did not change security posture as a result of the incident.

Limerick will be notifying the NRC Resident Inspector.

Notified the R1DO (McKinley), ILTAB (via email).

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Updates / ILTAB Summary

ILTA (b)(7)(C) notified the FBI's WMD Coordinator of the incident on 3/20/2018. As no identifying features were recorded on the drone and the operator was not located, this incident is being closed as "unresolved." ILTAT will reopen this incident should additional information become available.

Last Updated
Mar 20, 2018 6:04 EDT

Caller's Notification Information

(R) Name: Officer Duffy
(R) Organization: LLEA
(R) Phone: 6104899332

NRC's External Notification Information

(R) = "Restricted Field" (not viewable by general users)

Access Control

Phase Tracking

Assigned To	Phase	Submitted Date	Due Date	Completed Date	Due Date Extension/Reassignment Link
Jeffrey Herrera	Draft	Mar 20, 2018	Mar 21, 2018	Mar 20, 2018	
EtQAdministrator	ILTAB	Mar 20, 2018	Mar 23, 2018	Mar 20, 2018	
(b)(7)(C)					
Jonah Pezeshki					
(b)(7)(C)					
Test ILTAB					
Laura Pearson					

(b)(7)(C)

Brian Yip
Ashley Vowinkel
Bernadette Bland
Bernard
Pisarchick
Daniel Bahr
Daniel Coleman
David Goldkopf
Dustin Deterding
HOO.HOC@nrc.g

ov

Joshua Palotay
Linne Willis
Megan
Maciejewski
Melinda Nickelson
Michael Collins
Patrick McNelis
Ryan Moore
STEVEN
RAZZAQUE
Taniche Jinks
Todd Savage
Linne Willis
David Blanchard
Jonathan Preston
Steve Sandin
Dan Livermore
Donald Norwood
Donj Park
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kico
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh
David Aird
Thomas Kendzia

(b)(7)(C)

Kevin Walsh
Warren Buckley
Robert Goetz
Kimberly Howell
scott Kryk
Scott Langan

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathan Greives
Doug Tift
James Shehee
Jon Wallo
John Pelchat
Don Funk
Joseph Maynen
kenneth o'brien
Steven Orth
Nathian Egan
Test Agreement
Allan Barker
Haral Logaras

Jason Kozal
William Maier
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Krista Ziebell
Samuel Bazian
Gregory Warnick

EIO Administrator

Released All

Mar 20, 2018

Mar 21, 2018

Oct 15, 2018

(b)(7)(C)

Jonah Pezeshki

(b)(7)(C)

Test ILTAB
Laura Pearson

(b)(7)(C)

Brian Yip
Ashley Vowinkel
Bernadette Bland
Bernard

Pisarchick
Daniel Bahr
Daniel Coleman
David Goldkopf
Dustin Deterding
HOO.HOC@nrc.g

ov

Joshua Palotay
Linne Willis
Megan

Maciejewski
Melinda Nickelson
Michael Collins
Patrick McNelis
Ryan Moore
STEVEN

RAZZAQUE
Taniche Jinks
Todd Savage
Lne Willis
David Blanchard
Jonathan Preston
Steve Sandin
Dan Livermore
Donald Norwood
Dong Park
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kloo
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh
David Aird
Thomas Kendzia

(b)(7)(C)

Kevin Walsh
Warren Buckley
Robert Goetz
Kimberly Howell
scott Kryk
Scott Langan

(b)(7)(C)

Anthony
Dimitriadis

Dana Caron
 Darrell Roberts
 John Cherubini
 Raymond
 McKinley
 Raymond Lorson
 Jonathan Greives
 Doug Tift
 James Shehee
 Jon Wallo
 John Pelchat
 Don Funk
 Joseph Maynen
 kenneth o'brien
 Steven Orth
 Nathan Egan
 Test Agreement
 Allan Barker
 Harral Logaras
 Jason Kozal
 William Maier
 Jesse Rollins
 Nick Ballam
 Jason Cai
 Judy Yu
 Krista Ziebell
 Samuel Bazian
 Gregory Warnick

Steve Sandin	Draft	Oct 15, 2018	Oct 16, 2018	Oct 15, 2018
Dan Livermore				
Donald Norwood				
Dong Park				
Eric Simpson				
Howard Crouch				
Karl Diederich				
Mark Abramovitz				
Ryan Alexander				
Vince Kico				
Nestor Makris				
Test HOO				
Test HOO2				
Jeffrey Herrera				
Steven Vitto				
Richard Smith				
Bethany Cecere				
Andrew Waugh				
David Aird				
Thomas Kendzia				
Oswaldo Fort				
Kenneth Mott				
Rodney Clagg				
Brian Lin				
Phil Natividad				

ETQAdministrator	ILTAB	Oct 15, 2018	Oct 18, 2018
------------------	-------	--------------	--------------

(b)(7)(C)

Jonah Pezeshki

(b)(7)(C)

Test ILTAB

Laura Pearson

(b)(7)(C)

Brian Yip
 Ashley Vowinkel
 Bernadette Bland
 Daniel Bahr
 Daniel Coleman
 David Goldkopf
 Dustin Deterding
 HOO.HOC@nrc.gov

ov
 Joshua Palotay
 Linne Willis
 Megan
 Maciejewski
 Melinda Nickelson
 Michael Collins
 Patrick McNelis
 Ryan Moore
 STEVEN
 RAZZAQUE
 Taniche Jinks

Todd Savage
Lnne Willis
David Blanchard
Jonathan Preston
Jeremy Grossman
Steve Sandin
Dan Livermore
Donald Norwood
Dong Park
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kico
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh
David Aird
Thomas Kendzia
Osvaldo Font
Kenneth Mott
Rodney Clagg
Brian Lin
Phil Natividad

(b)(7)(C)

Kevin Walsh
Warren Buckley
Robert Goetz
Kimberly Howell
scott Kryk
Scott Langan

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathan Greives
Doug Tift
James Shehee
Jon Wallo
John Pelchat
Don Funk
Joseph Maynen
kenneth o'brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Harral Logaras
Jason Kozal
William Maier
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Samuel Bazian
Gregory Warnick

(b)(7)(C)

Additional Document Security

Managers	Editors	Readers
	HOO/HERO	
	ILTAB	


Last Edited by Bethany Cecere on Aug 31, 2020 9:45 AM


Comments


Last Comment


Dan Livermore [807]: Oct 15, 2018 3:27 PM
Draft
Category change to Drone.

All Comments

 Jeffrey Herrera [1547]: Mar 20, 2018 6:34 AM
Draft

 (b)(7)(C) [1715]: Mar 20, 2018 10:13 AM
ILTAB

 Dan Livermore [807]: Oct 15, 2018 3:27 PM
Released All
Category change to Drone.

 Dan Livermore [807]: Oct 15, 2018 3:27 PM
Draft
Category change to Drone.

SID # SID-02938

Created by Richard Smith on Aug 10, 2018 5:37 AM

ILTAB

General Information

Record Number: SID-02938
 EN #: N/A
 Incident Status:
 Open
 Closed Resolved
 Closed Unresolved

General Information

Incident / Communication Document Date
 Aug 9, 2018 23:15 GDT(-0500)

Subject/Short Description
 Multiple Drone Flyover

Reporting Organization
 Power Reactor - Operating

Site/Licensee
 Limerick

Site/Licensee Name Limerick	State PA	Region 1	Timezone (GMT-5:00) Eastern Standard Time (US/Eastern)
--------------------------------	-------------	-------------	---

Report Category
 Drone

Non-Sensitive Attachments

(R) Sensitive Attachments

Recorded on 10-Aug-2018 at 04.30.17.WAV

Document Links

External Links

External Reference Number

Vehicle(s) Involved (Query)

Person(s) Involved (Query)

Incident Information

73.71 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No	37.57 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No	37.81 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No
--	--	--

Notification Date/Time/Timezone
 Aug 10, 2018 4:28 EDT

(R) Caller Name Ryan Gross	(R) Caller Title Security Supervisor	Caller Affiliation Licensee	(R) Call Back Phone # 610-718-2043
-------------------------------	---	--------------------------------	---------------------------------------

HOO/HERO
 Richard Smith

ILTAB Duty Officer

(b)(7)(C)

(R) Detailed Description of Incident

*On 09 August 2018 at approximately 2215 [EDT], a Security Officer reported a drone flying in the area of the 500 kV yard. At approximately 2230 [EDT] MSO's [Member of Security Organization] reported multiple drones in the OCA [Owner Control Area] and flying over the PA [Protected Area]. Security initiated (b)(7)(F) and observed drones flying in the vicinity of the ISFSI [Independent Spent Fuel Storage Installation] Pad, Turbine Roof, Cooling Towers, 500 kV Yard, 66 kV Yard, and 220 kV Yard. Limerick PD [Police Department] was notified of the incident and responded to the OCA. The drones were approximately 300-500 feet in the air and approximately 3-5 feet in diameter with amber

Prepare to Redact

colored lights as well as blinking red and white lights. A total of 4-6 drones were identified and observed by multiple members of the security organization. The flight path of the drones was from the South East to North West over the PA circling South and East returning to the initial point the drones were first observed. Multiple drones took this same flight pattern for a duration of approximately 20-30 minutes. The flight path changed to a counter clockwise pattern over the OCA portion of the plant for approximately 40-60 minutes until the drones were no longer observable by the security force. The Security Supervisor was in contact with Limerick PD during the duration of situation. Limerick PD patrolled areas of the OCA with no adverse findings but did confirm drone activity and the size of the drones. No identifying marks or flight numbers could be observed on the drones. Voluntary notifications [were] made to the FAA and FBI offices."

The licensee notified the NRC Resident Inspector.

Notified R1DO (Cahill) and ILTAB (b)(7)(C)

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Redacted Description of Incident

"On 09 August 2018 at approximately 2215 [EDT], a Security Officer reported a drone flying in the area of the 500 kV yard. At approximately 2230 [EDT] MSO's [Member of Security Organization] reported multiple drones in the OCA [Owner Control Area] and flying over the PA [Protected Area]. Security initiated a (b)(7)(F) and observed drones flying in the vicinity of the ISFSI [Independent Spent Fuel Storage Installation] Pad, Turbine Roof, Cooling Towers, 500 kV Yard, 66 kV Yard, and 220 kV Yard. Limerick PD [Police Department] was notified of the incident and responded to the OCA. The drones were approximately 300-500 feet in the air and approximately 3-5 feet in diameter with amber colored lights as well as blinking red and white lights. A total of 4-6 drones were identified and observed by multiple members of the security organization. The flight path of the drones was from the South East to North West over the PA circling South and East returning to the initial point the drones were first observed. Multiple drones took this same flight pattern for a duration of approximately 20-30 minutes. The flight path changed to a counter clockwise pattern over the OCA portion of the plant for approximately 40-60 minutes until the drones were no longer observable by the security force. The Security Supervisor was in contact with Limerick PD during the duration of situation. Limerick PD patrolled areas of the OCA with no adverse findings but did confirm drone activity and the size of the drones. No identifying marks or flight numbers could be observed on the drones. Voluntary notifications [were] made to the FAA and FBI offices."

The licensee notified the NRC Resident Inspector.

Notified R1DO (Cahill) and ILTAB (b)(7)(C)

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Updates / ILTAB Summary

ILTAT (b)(7) notified the FBI WMD Coordinator on 8/10/2018, but - due to the lack of identifying information for the UAVs/operators - no additional follow-up is expected by FBI.

Last Updated

Aug 10, 2018 5:37 EDT

Caller's Notification Information

(R) Name Steve Winneberter	(R) Organization LLEA	(R) Phone 610-495-7909
(R) Name Philadelphia Office	(R) Organization FBI	(R) Phone 215-418-4000
(R) Name	(R) Organization FAA	(R) Phone 404-305-5150

NRC's External Notification Information

(R) = "Restricted Field" (not viewable by general users)

Access Control

Phase Tracking

Assigned To	Phase	Submitted Date	Due Date	Completed Date	Due Date Extension/Reassignment Link
Richard Smith	Draft	Aug 10, 2018	Aug 11, 2018	Aug 10, 2018	
ETQ Administrator (b)(7)(C)	ILTAB	Aug 10, 2018	Aug 15, 2018	Aug 20, 2018	
Jonah Pezeshki (b)(7)(C)					
Test ILTAB Laura Pearson (b)(7)(C)					
Brian Yip					
Ashley Vowinkel					
Bernadette Bland					
Bernard					
Pisarchick					
Daniel Bahr					
Daniel Coleman					
David Goldkopf					

Dustin Deterding
HOO.HOC@nrc.g

ov

Joshua Palotay
Linne Willis
Megan
Maciejewski
Melinda Nickelson
Michael Collins
Patrick McNeils
Ryan Moore
STEVEN

RAZZAQUE
Taniche Jinks
Todd Savage
Llne Willis
David Blanchard
Jonathan Preston
Jeremy Grossman
Steve Sandin
Dan Livermore
Donald Norwood
Dong Park
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kloo
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh
David Aird
Thomas Kendzia
Oswaldo Font
Kenneth Mott
Rodney Clagg
Brian Lin

(b)(7)(C)

Kevin Walsh
Warren Buckley
Robert Goetz
Kimberly Howell
scott Kryk
Scott Langan

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathan Greives
Doug Tilt
James Shehee
Jon Wallo
John Pelchal
Don Funk
Joseph Mayner
kenneth o'brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Harrel Logaras
Jason Kozal
William Maier
Jesse Rollins
Nick Ballam

Jason Cai
Judy Yu
Krista Ziebell
Samuel Bazian
Gregory Warnick

(b)(7)(C)

EIQAdministrator Released All Aug 20, 2018 Aug 21, 2018 Oct 15, 2018

James Whitney

(b)(7)(C)

Jonah Pezeshki

(b)(7)(C)

Test ILTAB

Laura Pearson

(b)(7)(C)

Brian Yip
Ashley Vowinkel
Bernadette Bland
Bernard

Pisarchick
Daniel Bahr
Daniel Coleman
David Goldkopf
Dustin Deterding
HOO.HOC@nrc.g

ov

Joshua Palotay
Linne Willis
Megan

Maciejewski
Melinda Nickelson
Michael Collins
Patrick McNelis
Ryan Moore
STEVEN

RAZZAQUE
Taniche Jinks
Todd Savage
Llne Willis
David Blanchard
Jonathan Preston
Jeremy Grossman
Steve Sandin
Dan Livermore
Donald Norwood

Dong Park
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kloo
Nestor Makris

Test HOO
Test HOO2
Jeffrey Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh

David Aird
Thomas Kendzia
Osvaldo Font
Kenneth Mott
Rodney Clagg
Brian Lin

(b)(7)(C)

Kevin Walsh
Warren Buckley
Robert Goetz
Kimberly Howell
scott Kryk
Scott Langan

(b)(7)(C)

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathan Greives
Doug Tift
James Shehee
Jon Wallo
John Pelchat
Don Funk
Joseph Mayner
kenneth o'brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Haral Logaras
Jason Kozal
William Maier
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Krista Ziebell
Samuel Bazian
Gregory Warnick

(b)(7)(C)

Steve Sandin	Draft	Oct 15, 2018	Oct 16, 2018	Oct 15, 2018
Dan Livermore				
Donald Norwood				
Dong Park				
Eric Simpson				
Howard Crouch				
Karl Diederich				
Mark Abramovitz				
Ryan Alexander				
Vince Kico				
Nestor Makris				
Test HOO				
Test HOO2				
Jeffrey Herrera				
Steven Vitto				
Richard Smith				
Bethany Cecere				
Andrew Waugh				
David Aird				
Thomas Kendzia				
Oswaldo Font				
Kenneth Mott				
Rodney Clagg				
Brian Lin				
Phil Natividad				

ETQ Administrator	ILTAB	Oct 15, 2018	Oct 18, 2018	
James Whitney				

(b)(7)(C)

Jonah Pezesnik

(b)(7)(C)

Test ILTAB

Laura Pearson

(b)(7)(C)

Brian Yip
Ashley Vowinkel
Bernadette Bland
Daniel Bahr
Daniel Coleman
David Goldkopf
Dustin Defending
HOO.HOC@nrc.gov
Joshua Palotay
Linne Willis
Megan
Maciejewski
Melinda Nickelson
Michael Collins
Patrick McNelis

Ryan Moore
STEVEN
RAZZAQUE
Taniche Jinks
Todd Savage
Lne Willis
David Blanchard
Jonathan Preston
Jeremy Grossman
Steve Sandin
Dan Livermore
Donald Norwood
Dong Park
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kloo
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh
David Aird
Thomas Kendzia
Osvaldo Font
Kenneth Mott
Rodney Clagg
Brian Lin
Phil Natividad

(b)(7)(C)

Kevin Walsh
Warren Buckley
Robert Goetz
Kimberly Howell
scott Kryk
Scott Langan

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathan Greives
Doug Tift
James Shehee
Jon Wallo
John Polchat
Don Funk
Joseph Maynen
kenneth o'brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Harral Logaras
Jason Kozal
William Maier
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Samuel Bazian
Gregory Warnick

(b)(7)(C)

Additional Document Security

Managers

Editors

Readers

HOO/HERO
ILTAB


Last Edited by Bethany Cecere on Aug 31, 2020 9:46 AM


Comments


Last Comment


Dan Livermore [807]: Oct 15, 2018 3:20 PM
Draft
Category change to Drone.

All Comments

 Richard Smith [1611]: Aug 10, 2018 6:20 AM
Draft

 (b)(7)(C) 1715]: Aug 20, 2018 12:45 PM
ILTAB

 Dan Livermore [807]: Oct 15, 2018 3:20 PM
Released All
Category change to Drone.

 Dan Livermore [807]: Oct 15, 2018 3:20 PM
Draft
Category change to Drone.

SID # SID-02939

Created by Richard Smith on Aug 13, 2018 1:10 AM

ILTAB

General Information

Record Number SID-02939	EN # N/A	Incident Status <input type="radio"/> Open <input type="radio"/> Closed Resolved <input checked="" type="radio"/> Closed Unresolved
----------------------------	-------------	--

General Information

Incident / Communication Document Date
Aug 13, 2018 0:40 EDT(-0400)

Subject/Short Description
Drones Flying Over Licensee Facility

Reporting Organization
Power Reactor - Operating

Site/Licensee
Limerick

Site/Licensee Name Limerick	State PA	Region 1	Timezone (GMT-5:00) Eastern Standard Time (US/Eastern)
--------------------------------	-------------	-------------	---

Report Category
Drone

Non-Sensitive Attachments

(R) Sensitive Attachments

Recorded on 13-Aug-2018 at 00.13.23.WAV

Document Links

External Links

External Reference Number

Vehicle(s) Involved (Query)

Person(s) Involved (Query)

Incident Information

73.71 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No	37.57 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No	37.81 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No
--	--	--

Notification Date/Time/Timezone
Aug 13, 2018 0:13 EDT

(R) Caller Name Angel Lopez	(R) Caller Title Shift Security Supervisor	Caller Affiliation Licensee	(R) Call Back Phone # 610-718-2043
--------------------------------	---	--------------------------------	---------------------------------------

HOO/HERO
Richard Smith

ILTAB Duty Officer

(b)(7)(C)

(R) Detailed Description of Incident

"On August 12, 2018 at approximately 2335 EDT, a Security Officer reported a drone flying near the upper parking lot. At approximately 2337 EDT, MSO's [Member of Security Organization] reported multiple drones in the OCA flying towards the cooling tower and near the Spray Pond. Officers observed drones flying East to West in a North/West direction and circling back to the East. Limerick PD and State police were notified of the incident and responded to the OCA. AT 2340 EDT the Security assumed a (b)(7)(F)

Prepare to Redact

(b)(7)(F)

The drones were approximately 100-200 feet in the air and approximately four feet in diameter with amber and

orange colored blinking lights. A total of two drones were identified and observed by multiple members of the security organization. The flight path of the drones was from East to North West circling back to East returning to the initial point of the upper parking lot. The flight pattern for a duration of approximately five minutes. The total flight time was approximately 20 minutes until the drones were no longer observable by the security force. Security Supervisor contacted following Agencies: FBI, FAA, PA State Police, and Limerick Police. Limerick PD and State Police patrolled areas of the OCA with no adverse findings and committed to patrol the area at a later time. No identifying marks or flight numbers could be observed on the drones. All voluntary notifications were made to the FAA and FBI offices."

Notified R1DO (Cahill) and ILTAB Duty Officer (b)(7)(C)

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Redacted Description of Incident

"On August 12, 2018 at approximately 2335 EDT, a Security Officer reported a drone flying near the upper parking lot. At approximately 2337 EDT, MSO's [Member of Security Organization] reported multiple drones in the OCA flying towards the cooling tower and near the Spray Pond. Officers observed drones flying East to West in a North/West direction and circling back to the East. Limerick PD and State police were notified of the incident and responded to the OCA. AT 2340 EDT the Security assumed (b)(7)(F). The drones were approximately 100-200 feet in the air and approximately four feet in diameter with amber and orange colored blinking lights. A total of two drones were identified and observed by multiple members of the security organization. The flight path of the drones was from East to North West circling back to East returning to the initial point of the upper parking lot. The flight pattern for a duration of approximately five minutes. The total flight time was approximately 20 minutes until the drones were no longer observable by the security force. Security Supervisor contacted following Agencies: FBI, FAA, PA State Police, and Limerick Police. Limerick PD and State Police patrolled areas of the OCA with no adverse findings and committed to patrol the area at a later time. No identifying marks or flight numbers could be observed on the drones. All voluntary notifications were made to the FAA and FBI offices."

Redact Selected Text

Notified R1DO (Cahill) and ILTAB Duty Officer (b)(7)(C)

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Updates / ILTAB Summary

ILTAT (b)(7)(C) notified the FBI WMD Coordinator on 8/13/2018 of the incident; however, due to the lack of identifying features on the drones and the inability to locate the UAVs' operators, no additional follow up is expected.

Last Updated
Aug 13, 2018 1:37 EDT

(b)(7)(C)

Caller's Notification Information

(R) Name Agent (b)(7)(C)	(R) Organization FBI	(R) Phone (b)(7)(C)
(R) Name Wynn Harris	(R) Organization FAA	(R) Phone 404-305-5150
(R) Name Corporal Pomponio	(R) Organization State Police	(R) Phone 610-584-1250
(R) Name Officer Reiley	(R) Organization LLEA	(R) Phone 610-495-7909

NRC's External Notification Information

(R) = "Restricted Field" (not viewable by general users)

Access Control

Phase Tracking

Assigned To	Phase	Submitted Date	Due Date	Completed Date	Due Date Extension/Reassignment Link
Richard Smith	Draft	Aug 13, 2018	Aug 14, 2018	Aug 13, 2018	
ETQAdministrator James Whitney	ILTAB	Aug 13, 2018	Aug 16, 2018	Aug 20, 2018	
(b)(7)(C)					
Jonah Pazoski					
(b)(7)(C)					
Test ILTAB Laura Pearson					
(b)(7)(C)					
Brian Yip					
Ashley Vowinkel					
Bernadette Bland					
Bernard					
Pisarchick					
Daniel Bahr					
Daniel Coleman					

David Goldkopf
Dustin Deterding
HOO.HOC@nrc.g

ov

Joshua Palotay
Linne Willis
Megan
Maciejewski
Melinda Nickelson
Michael Collins
Patrick McNeilis
Ryan Moore
STEVEN

RAZZAQUE
Taniche Jinks
Todd Savage
Lrnn Willis
David Blanchard
Jonathan Preston
Jeremy Grossman
Steve Sandin
Dan Livermore
Donald Norwood
Dong Park
Eric Simpson
Howard Crouch
Kari Diederich
Mark Abramovitz
Ryan Alexander
Vince Kloo
Nestor Makris
Test HOO
Test HOO2
Jeffroy Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh
David Aird
Thomas Kendzia
Oswaldo Font
Kenneth Mott
Rodney Clagg
Brian Lin

(b)(7)(C)

Kevin Walsh
Warren Buckley
Robert Goetz
Kimberly Howell
scott Kryk
Scott Langan

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathan Greives
Doug Tiff
James Shehee
Jon Wallo
John Pelchat
Don Funk
Joseph Mayner
kenneth o'brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Harral Logaras
Jason Kozal
William Maier
Jesse Rollins

Nick Ballam
Jason Cai
Judy Yu
Krista Ziebell
Samuel Bazian
Gregory Warrick

(b)(7)(C)

ETQAdministrator Released All Aug 20, 2018 Aug 21, 2018 Oct 15, 2018

James Whitney

(b)(7)(C)

Jonah Pezeshki

(b)(7)(C)

Test ILTAB

Laura Pearson

(b)(7)(C)

Brian Yip

Ashley Vowinkel

Bernadette Bland

Bernard

Pisarchick

Daniel Bahr

Daniel Coleman

David Goldkopf

Dustin Deterding

HOO.HOC@nrc.g

ov

Joshua Palotay

Linne Willis

Megan

Maciejewski

Melinda Nickelson

Michael Collins

Patrick McNelis

Ryan Moore

STEVEN

RAZZAQUE

Taniche Jinks

Todd Savage

Lnne Willis

David Blanchard

Jonathan Preston

Jeremy Grossman

Steve Sandin

Dan Livermore

Donald Norwood

Dong Park

Eric Simpson

Howard Crouch

Karl Diederich

Mark Abramovitz

Ryan Alexander

Vince Kico

Nestor Makris

Test HOO

Test HOO2

Jeffrey Herrera

Steven Vitto

Richard Smith

Bethany Cecere

Andrew Waugh

David Aird

Thomas Kendzia

Oswaldo Font

Kenneth Mott

Rodney Clagg

Brian Lin

(b)(7)(C)

Kevin Walsh

Warren Buckley

Robert Goetz

Kimberly Howell

scott Kryk

Scott Langan

(b)(7)(C)

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathan Greives
Doug Tift
James Shehee
Jon Wallo
John Pelchat
Don Funk
Joseph Maynen
kenneth o'brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Harra Logaras
Jason Kozal
William Maier
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Krista Ziebell
Samuel Bazian
Gregory Warnick

(b)(7)(C)

Steve Sandin Draft Oct 15, 2018 Oct 16, 2018 Oct 15, 2018
Dan Livermore
Donald Norwood
Dong Park
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kloo
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh
David Aird
Thomas Kendzia
Osvaldo Font
Kenneth Mott
Rodney Clagg
Brian Lin
Phil Natividad

ETCAdministrator ILTAB Oct 15, 2018 Oct 18, 2018

(b)(7)(C)

Jonah Pezeszki

(b)(7)(C)

Test ILTAB
Laura Pearson

(b)(7)(C)

Brian Yip
Ashley Vowinkel
Bernadette Bland
Daniel Bahr
Daniel Coleman
David Goldkopf
Dustin Deterding
HOC.HOC@nrc.g

ov

Joshua Palotay
Linne Willis
Megan
Maciejewski
Melinda Nickelson
Michael Collins

Patrick McNeilis
Ryan Moore
STEVEN
RAZZAQUE
Taniche Jinks
Todd Savage
Lrnn Willis
David Blanchard
Jonathan Preston
Jeremy Grossman
Steve Sandin
Dan Livermore
Donald Norwood
Dong Park
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kico
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh
David Aird
Thomas Kendzia
Osvaldo Font
Kenneth Mott
Rodney Clagg
Brian Lin
Phil Natividad

(b)(7)(C)

Kevin Walsh
Warren Buckley
Robert Goetz
Kimberly Howell
scott Kryk
Scott Langan

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathan Greives
Doug Tiff
James Shehee
Jon Wallo
John Pelchat
Don Funk
Joseph Maynan
Kenneth O'Brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Haral Logaras
Jason Kozal
William Maler
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Samuel Bazian
Gregory Warnick

(b)(7)(C)

Managers

Editors
HOO/HERO
ILTAB

Readers

Last Edited by Bethany Cecere on Aug 31, 2020 9:48 AM

Comments

Last Comment

Dan Livermore [807]:

Oct 15, 2018 3:19 PM

Draft

Category change to Drone.

All Comments



Richard Smith [1611]:

Aug 13, 2018 2:33 AM

Draft



(b)(7)(C) [1715]:

Aug 20, 2018 12:48 PM

ILTAB



Dan Livermore [807]:

Oct 15, 2018 3:19 PM

Released All

Category change to Drone.



Dan Livermore [807]:

Oct 15, 2018 3:19 PM

Draft

Category change to Drone.

ILTAB

General Information

Record Number SID-02941	EN # N/A	Incident Status <input type="radio"/> Open <input type="radio"/> Closed Resolved <input checked="" type="radio"/> Closed Unresolved
----------------------------	-------------	--

General Information

Incident / Communication Document Date
Aug 23, 2018 21:15 EDT(-0400)

Subject/Short Description
Drone Activity Over OCA and PA

Reporting Organization
Power Reactor - Operating

Site/Licensee
Limerick

Site/Licensee Name Limerick	State PA	Region 1	Timezone (GMT-5:00) Eastern Standard Time [US/Eastern]
--------------------------------	-------------	-------------	---

Report Category
Drone

Non-Sensitive Attachments

(R) Sensitive Attachments

8.24.2018 at 0057 1.WAV

8.24.2018 at 0057 2.WAV

Notification of Drone Activity Over OCA and PA at Limerick Generating Station, PA.pdf

Document Links

External Links

External Reference Number

Vehicle(s) Involved (Query)

Person(s) Involved (Query)

Incident Information

73.71 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No	37.57 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No	37.81 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No
--	--	--

Notification Date/Time/Timezone
Aug 24, 2018 0:57 EDT

(R) Caller Name John Cranford	(R) Caller Title Security Supervisor	Caller Affiliation Licensee	(R) Call Back Phone # 610-718-2043
----------------------------------	---	--------------------------------	---------------------------------------

HOO/HERO
Andrew Waugh

ILTAB Duty Officer
(b)(7)(C)

(R) Detailed Description of Incident
*On August 23, 2018 at approximately 2100 [EDT], a security officer reported a potential drone in the vicinity of Fritz

Prepare to Redact

Lock which is not part of the owner controlled area (OCA) at LGS [Limerick Generating Station] and is located southwest of the plant on the south side of the Schuylkill River. At approximately 2120 [EDT] multiple security officers posted on the south and southwest sides of the protected area reported multiple drones in the OCA. At 2125 [EDT] Limerick security assumed a (b)(7)(F) [redacted]. The Limerick Police Department and State Police were notified of the incident and responded to the OCA.

"The drone activity was confirmed to be three drones approximately 200-400 feet in the air and approximately 3-5 feet in diameter with white and multi colored blinking indicator lights. The flight paths of the drones were from the southwest to the southeast over the Schuylkill River Pump House in Exelon Owner Controlled Area and would repeat this flight pattern back and forth for a minimum of 40 minutes. The drones travel path would venture over the southern part of the protected area in the vicinity of the ISFSI [Independent Spent Fuel Storage Installation] area before continuing southwest out of view of any posted security officer. The Security Supervisor contacted the following agencies.

"FBI – Agent (b)(7)(C) [redacted]
 FAA – Kelly Peurifoy 404-305-5150
 PA State Police – PCO Patrick Finucane 610-584-1250
 Limerick Police – Officer 610-495-7909

"Limerick Police Officer Patrick Murphy responded to the OCA in the vicinity of the personnel processing center and confirmed drone activity south of the plant in the vicinity of the 220 KV Yard. East Coventry Police Officer Brown responded to the Fritz Lock area south of the Schuylkill River and did not report any activity. The (b)(7)(F) [redacted] and all voluntary notifications were made to the FAA and FBI offices."

The licensee notified the NRC Resident Inspector. Notified R1DO (Janda) and ILTAB (b)(7)(C) [redacted]

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Redacted Description of Incident

"On August 23, 2018 at approximately 2100 [EDT], a security officer reported a potential drone in the vicinity of Fritz Lock which is not part of the owner controlled area (OCA) at LGS [Limerick Generating Station] and is located southwest of the plant on the south side of the Schuylkill River. At approximately 2120 [EDT] multiple security officers posted on the south and southwest sides of the protected area reported multiple drones in the OCA. At 2125 [EDT] Limerick security assumed a (b)(7)(F) [redacted]. The Limerick Police Department and State Police were notified of the incident and responded to the OCA.

Redact Selected Text

"The drone activity was confirmed to be three drones approximately 200-400 feet in the air and approximately 3-5 feet in diameter with white and multi colored blinking indicator lights. The flight paths of the drones were from the southwest to the southeast over the Schuylkill River Pump House in Exelon Owner Controlled Area and would repeat this flight pattern back and forth for a minimum of 40 minutes. The drones travel path would venture over the southern part of the protected area in the vicinity of the ISFSI [Independent Spent Fuel Storage Installation] area before continuing southwest out of view of any posted security officer. The Security Supervisor contacted the following agencies.

"FBI – Agent (b)(7)(C) [redacted]
 FAA – Kelly Peurifoy 404-305-5150
 PA State Police – PCO Patrick Finucane 610-584-1250
 Limerick Police – Officer 610-495-7909

"Limerick Police Officer Patrick Murphy responded to the OCA in the vicinity of the personnel processing center and confirmed drone activity south of the plant in the vicinity of the 220 KV Yard. East Coventry Police Officer Brown responded to the Fritz Lock area south of the Schuylkill River and did not report any activity. The (b)(7)(F) [redacted] and all voluntary notifications were made to the FAA and FBI offices."

The licensee notified the NRC Resident Inspector. Notified R1DO (Janda) and ILTAB (b)(7)(C) [redacted]

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Updates / ILTAB Summary

ILTAT (b)(7)(C) [redacted] contacted the FBI's WMD Coordinator regarding the drone flyover on 8/24/2018; however, due to a lack of identifying features on the drones and an inability by law enforcement point officials to locate the operator(s), this case is being closed "unresolved."

Last Updated
 Aug 24, 2018 2:11 EDT

Caller's Notification Information

(R) Name	(R) Organization	(R) Phone
(b)(7)(C) [redacted]	FBI	(b)(7)(C) [redacted]
Kelly Peurifoy	FAA	404-305-5150
Patrick Finucane	State Police	610-584-1250
Patrick Murphy	LLEA	610-495-7909

NRC's External Notification Information

(R) = "Restricted Field" (not viewable by general users)

Access Control

Phase Tracking

Assigned To	Phase	Submitted Date	Due Date	Completed Date	Due Date Extension/Reassignment Link
Andrew Waugh	Draft	Aug 24, 2018	Aug 25, 2018	Aug 24, 2018	
ETQAdministrator	ILTAB	Aug 24, 2018	Aug 29, 2018	Aug 24, 2018	
James Whitney					
(b)(7)(C)					
Jonah Pezeshki					
(b)(7)(C)					
Test ILTAB					
Laura Pearson					
(b)(7)(C)					
Brian Yip					
Ashley Vowinkel					
Bernadette Bland					
Bernard					
Pisarchick					
Daniel Bahr					
Daniel Coleman					
David Goldkopf					
Dustin Deterding					
HOO.HOC@nrc.g					
ov					
Joshua Palotay					
Linne Willis					
Megan					
Maciejewski					
Melinda Nickelson					
Michael Collins					
Patrick McNeilis					
Ryan Moore					
STEVEN					
RAZZAQUE					
Taniche Jinks					
Todd Savage					
Lnne Willis					
David Blanchard					
Jonathan Preston					
Jeremy Grossman					
Steve Sandin					
Dan Livermore					
Donald Norwood					
Dong Park					
Eric Simpson					
Howard Crouch					
Karl Diederich					
Mark Abramovitz					
Ryan Alexander					
Vince Klo					
Nestor Makris					
Test HOO					
Test HOO2					
Jeffrey Herrera					
Steven Vitto					
Richard Smith					
Bethany Cecere					
Andrew Waugh					
David Aird					
Thomas Kendzia					
Oswaldo Font					
Kenneth Matt					
Rodney Clagg					
Brian Lin					
(b)(7)(C)					
Kevin Walsh					
Warren Buckley					
Robert Goetz					
Kimberly Howell					
scott Kryk					
Scott Langan					
(b)(7)(C)					
Anthony Dimitriadis					

Dana Caron
 Darrell Roberts
 John Cherubini
 Raymond
 McKinley
 Raymond Lorson
 Jonathan Greives
 Doug Tift
 James Shehee
 Jon Wallo
 John Pelchat
 Don Funk
 Joseph Maynen
 kenneth o'brien
 Steven Orth
 Nathan Egan
 Test Agreement
 Allan Barker
 Harral Logaras
 Jason Kozal
 William Maier
 Jesse Rollins
 Nick Ballam
 Jason Cai
 Judy Yu
 Krista Ziebell
 Samuel Bazian
 Gregory Warnick

(b)(7)(C)

EtQAdministrator

Released All

Aug 24, 2018

Aug 25, 2018

Oct 15, 2018

James Whitney

(b)(7)(C)

Jonah Pezeshki

(b)(7)(C)

Test ILTAB

Laura Pearson

(b)(7)(C)

Brian Yip

Ashley Vowinkel

Bernadette Bland

Bernard

Pisarchick

Daniel Bahr

Daniel Coleman

David Goldkopf

Dustin Deterding

HOO.HOC@nrc.g

ov

Joshua Palotay

Linne Willis

Megan

Maciejewski

Melinda Nickelson

Michael Collins

Patrick McNelis

Ryan Moore

STEVEN

RAZZAQUE

Taniche Jinks

Todd Savage

Lnne Willis

David Blanchard

Jonathan Preston

Jeremy Grossman

Steve Sandin

Dan Livermore

Donald Norwood

Dong Park

Eric Simpson

Howard Crouch

Karl Diederich

Mark Abramovitz

Ryan Alexander

Vince Klo

Nestor Makris

Test HOO

Test HOO2

Jeffrey Herrera

Steven Vitto

Richard Smith

Bethany Cecere

Andrew Waugh
David Aird
Thomas Kendzia
Osvaldo Font
Kenneth Mott
Rodney Clagg
Brian Lin

(b)(7)(C)

Kevin Walsh
Warren Buckley
Robert Goetz
Kimberly Howell
scott Kryk
Scott Langan

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley

Raymond Lanson
Jonathan Greives
Doug Tiff
James Shehee
Jon Wallo
John Pelchat
Don Funk
Joseph Mayner
kenneth o'brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Harriat Logaras
Jason Kozal
William Maier
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Krista Ziebell
Samuel Bazian
Gregory Wernick

(b)(7)(C)

Steve Sandin
Dan Livermore
Donald Norwood
Dong Park
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kico
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Steven Vitto
Richard Smith
Bethany Cecere
Andrew Waugh
David Aird
Thomas Kendzia
Osvaldo Font
Kenneth Mott
Rodney Clagg
Brian Lin
Phil Natividad

Draft

Oct 15, 2018

Oct 16, 2018

Oct 15, 2018

ETQAdministrator
James Whitney

(b)(7)(C)

ILTAB

Oct 15, 2018

Oct 18, 2018

Jonah Pezeshki

(b)(7)(C)

Test ILTAB

Laura Pearson

(b)(7)(C)

Brian Yip

Ashley Vowinkel

Bernadette Bland

Daniel Bahr

Daniel Coleman

David Goldkopf

Dustin Deterding

HOO.HOC@nrc.g

ov

Joshua Palotay

Linne Willis

Megan

Maciejewski

Melinda Nickelson

Michael Collins

Patrick McNeils

Ryan Moore

STEVEN

RAZZAQUE

Taniche Jinks

Todd Savage

Linne Willis

David Blanchard

Jonathan Preston

Jeremy Grossman

Steve Sandin

Dan Livermore

Donald Norwood

Dong Park

Eric Simpson

Howard Crouch

Karl Diederich

Mark Abramovitz

Ryan Alexander

Vince Klo

Nestor Makris

Test HOO

Test HOO2

Jeffrey Herrera

Steven Vitto

Richard Smith

Bethany Cecere

Andrew Waugh

David Aird

Thomas Kendzia

Oswaldo Font

Kenneth Mott

Rodney Clagg

Brian Lin

Phil Natividad

(b)(7)(C)

Kevin Walsh

Warren Buckley

Robert Goetz

Kimberly Howell

scott Kryk

Scott Langan

(b)(7)(C)

Anthony

Dimitriadis

Dana Caron

Darrell Roberts

John Cherubini

Raymond

McKinley

Raymond Lanson

Jonathan Greives

Doug Tiff

James Shehee

Jon Wallo
John Pelchat
Don Funk
Joseph Maynen
Kenneth O'Brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Haral Logaras
Jason Kozal
William Maier
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Samuel Bazian
Gregory Warnick

(b)(7)(C)

Additional Document Security

Managers	Editors	Readers
	HOO/HERO	
	ILTAB	

Last Edited by Bethany Cecere on Aug 31, 2020 9:49 AM

Comments

Last Comment

Dan Livermore [807]: Oct 15, 2018 3:18 PM
Draft
Category change to Drone.

All Comments

-  Andrew Waugh [1790]: Aug 24, 2018 2:52 AM
Draft
-  (b)(7)(C) [1715]: Aug 24, 2018 2:50 PM
ILTAB
-  Dan Livermore [807]: Oct 15, 2018 3:18 PM
Released All
Category change to Drone.
-  Dan Livermore [807]: Oct 15, 2018 3:18 PM
Draft
Category change to Drone.

SID # SID-02979

Created by Howard Crouch on May 27, 2019 7:52 PM

Released All

General Information

Record Number SID-02979	EN # N/A	Incident Status <input checked="" type="radio"/> Open <input type="radio"/> Closed Resolved <input type="radio"/> Closed Unresolved
----------------------------	-------------	--

General Information

Incident / Communication Document Date
May 27, 2019 19:04 EDT(-0400)

Subject/Short Description
Drone Flyover

Reporting Organization
Power Reactor - Operating

Site/Licensee Name Limerick	State PA	Region 1	Timezone (GMT-5:00) Eastern Standard Time [US/Eastern]
--------------------------------	-------------	-------------	---

Report Category
Drone

[Clear Personally Identifiable Info](#)

Non-Sensitive Attachments

(R) Sensitive Attachments

Recorded on 27-May-2019 at 19:39:12.WAV

Document Links

External Links

External Reference Number

Vehicle(s) Involved (Query)

Person(s) Involved (Query)

Incident Information

73.71 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No	37.57 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No	37.81 Report? <input type="radio"/> Yes <input checked="" type="radio"/> No
--	--	--

Notification Date/Time/Timezone
May 27, 2019 19:39 EDT

(R) Caller Name Glenn Kunkel	(R) Caller Title Security Lead	Caller Affiliation Limerick	(R) Call Back Phone # (610) 718-2043
---------------------------------	-----------------------------------	--------------------------------	---

HOO/HERO
Howard Crouch

IL TAB Duty Officer
(b)(7)(C)

(R) Detailed Description of Incident

At 1904 EDT, a site security officer observed a black quad-copter drone fly over the owner controlled area. The drone was at an altitude of 450-500 feet and flew from northeast to south. It did not loiter over the facility and its flight took about 5 minutes to traverse the site. It only made one pass. On its flight path, the drone was able to view the cooling tower, the east side of the protected area, the building that houses the reactor and the 500kV switchyard area. The site did not change its security posture due to this event.

The licensee was in the process of notifying FAA - Reading, PA and did notify local law enforcement (Montgomery Co. Sheriff) and the Philadelphia Field Office of the FBI. They will be notifying the NRC Resident Inspector.

Notified R1DO (Arner) and ILTAB (b)(7)(C)

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Redacted Description of Incident

At 1904 EDT, a site security officer observed a black quad-copter drone fly over the owner controlled area. The drone was at an altitude of 450-500 feet and flew from northeast to south. It did not loiter over the facility and its flight took about 5 minutes to traverse the site. It only made one pass. On its flight path, the drone was able to view the cooling tower, the east side of the protected area, the building that houses the reactor and the 500KV switchyard area. The site did not change its security posture due to this event.

The licensee was in the process of notifying FAA - Reading, PA and did notify local law enforcement (Montgomery Co, Sheriff) and the Philadelphia Field Office of the FBI. They will be notifying the NRC Resident Inspector.

Notified R1DO (Arner) and ILTAB (b)(7)(C)

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

Updates / ILTAB Summary

ILTAT notified FBI's WMD Coordinator of incident for awareness on 5/28/2019. As there were no identifying features on the drone and the operator was not located, no additional investigation expected. Incident is considered closed / unresolved.

Last Updated
May 29, 2019 19:52 EDT

(b)(7)(C)

Caller's Notification Information

(R) Name	(R) Organization	(R) Phone
Dispatch	LLEA	(610) 278-3331
Philadelphia Field Office	FBI	(215) 418-4000
Reading Field Office	FAA	(610) 374-8039

NRC's External Notification Information

(R) = "Restricted Field" (not viewable by general users)

Access Control

Phase Tracking

Assigned To	Phase	Submitted Date	Due Date	Completed Date	Due Date Extension/Reassignment Link
Howard Crouch	Draft	May 27, 2019	May 28, 2019	May 28, 2019	
EtQAdministrator James Whitney	ILTAB	May 28, 2019	May 30, 2019	May 29, 2019	
(b)(7)(C)					
Test ILTAB Laura Pearson					
(b)(7)(C)					
Brian Yip Ashley Vowinkel Bernadette Bland Daniel Bahr Daniel Coleman Dustin Deterding HOO.HOC@nrc.gov Joshua Palolay Megan Maciejewski Melinda Nickelson Patrick McNeilis Ryan Moore STEVEN RAZZAQUE Todd Savage David Blanchard Jonathan Preston Jeremy Grossman Richard Mehring Linne Willis Dan Livermore Donald Norwood Eric Simpson					

Howard Crouch
Kari Diederich
Mark Abramovitz
Ryan Alexander
Vince Kico
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Richard Smith
Bethany Cecere
Andrew Waugh
Thomas Kendzia
Osvaldo Font
Rodney Clagg
Brian Lin
Jeffrey Whitel
Joanna Bridge
Catherine Nolan
Jeffrey Teator

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darroll Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathan Greives
Doug Titt
James Shehee
Jon Wallo
John Pelchat
kenneth o'brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Harral Logaras
Jason Kozal
William Maier
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Samuel Bazian
Gregory Warrick

(b)(7)(C)

ETQAdministrator
James Whitney

Released All May 29, 2019 May 30, 2019

(b)(7)(C)

Test ILTAB
Laura Pearson

(b)(7)(C)

Brian Yip
Ashley Vowinkel
Bernadette Bland
Daniel Bahr
Daniel Coleman
Dustin Deterding
HOO.HOC@nrc.gov
Joshua Palotay
Megan
Maciejewski
Melinda Nickelson
Patrick McNellis
Ryan Moore
STEVEN
RAZZAQUE

Todd Savage
David Blanchard
Jonathan Preston
Jeremy Grossman
Richard Mehring
Linne Willis
Dan Livermore
Donald Norwood
Eric Simpson
Howard Crouch
Karl Diederich
Mark Abramovitz
Ryan Alexander
Vince Kico
Nestor Makris
Test HOO
Test HOO2
Jeffrey Herrera
Richard Smith
Bethany Cecere
Andrew Waugh
Thomas Kendzia
Osvaldo Font
Rodney Clagg
Brian Lin
Jeffrey Whited
Joanna Bridge
Catherine Nolan

(b)(7)(C)

Anthony
Dimitriadis
Dana Caron
Darrell Roberts
John Cherubini
Raymond
McKinley
Raymond Lorson
Jonathani Greives
Doug Tift
James Shehee
Jon Wallo
John Pelchat
Kenneth O'Brien
Steven Orth
Nathan Egan
Test Agreement
Allan Barker
Harri Logaras
Jason Kozal
William Maier
Jesse Rollins
Nick Ballam
Jason Cai
Judy Yu
Samuel Bazian
Gregory Warnick

(b)(7)(C)

Additional Document Security

Managers Editors Readers
HOO/HERO
ILTAB

Last Edited by Bethany Cecere on Aug 31, 2020 9:49 AM

Comments

Last Comment

(b)(7)(C) [1715]:
ILTAB

May 29, 2019 4:37 PM

All Comments



Howard Crouch [818]:

May 27, 2019 8:13 PM

Draft



(b)(7)(C) [1715]:

May 29, 2019 4:37 PM

ILTAB

From: [Johnson, Dante](#)
To: [Barry, Terrence](#); [Berry, Joshua](#); [Bradfield, David](#); [Byre, Everett](#); [Clark, Jefferson](#); [Coughlin, Patrick](#); [Dexter, Robert](#); [Negrete, Philip](#); [Richardson, Rebecca](#); (b)(7)(C); [Roundtree, Cliff](#); [Willis, Joseph](#); [Wovansky, Andrew](#)
Subject: FW: ~~OUO~~-SID Distribution- Limerick Drone Swarm Flyover
Date: Friday, August 10, 2018 11:42:56 AM
Attachments: [SID \(003\).pdf](#)
Importance: High

fyi

-----Original Message-----

From: McKinley, Raymond
Sent: Friday, August 10, 2018 11:39 AM
To: Huyck, Doug <Doug.Huyck@nrc.gov>; Johnson, Dante <Dante.Johnson@nrc.gov>; Pearson, Laura <Laura.Pearson@nrc.gov>; (b)(7)(C); Orth, Steven <Steven.Orth@nrc.gov>; Groom, Jeremy <Jeremy.Groom@nrc.gov>; Desai, Binoy <Binoy.Desai@nrc.gov>; Rivers, Joseph <Joseph.Rivers@nrc.gov>; Gott, William <William.Gott@nrc.gov>; Pham, Bo <Bo.Pham@nrc.gov>; Rivera, Alison <Alison.Rivera@nrc.gov>
Cc: Bream, Jeffrey <Jeffrey.Bream@nrc.gov>; Caron, Dana <Dana.Caron@nrc.gov>; Cherubini, John <John.Cherubini@nrc.gov>; Hussar, Kenneth <Kenneth.Hussar@nrc.gov>; McCarver, Sammy <Sammy.McCarver@nrc.gov>; Rey, Jeremiah <Jeremiah.Rey@nrc.gov>
Subject: FW: ~~OUO~~- SID Distribution- Limerick Drone Swarm Flyover
Importance: High

~~OUO - SECURITY RELATED INFORMATION~~

All,

We had an unusual drone swarm fly over Limerick last night. There was no overt threat, but the activity was highly unusual. Several drones were involved which appeared to be on a pre-programmed flight path. We also had a picture taker with a telephoto lens in the OCA earlier in the day, but the individual left the scene before security could engage the individual.

I spoke with the Security Manager today, and I learned something new. Apparently, the FAA has a program embedded in drones that will force the drones to land if they fly within a certain bubble around PA. You have to get a code from the FAA to defeat that feature if you want to fly inside that "bubble". In this case, Security thinks that these drones were able to fly through the "bubble" over the PA, so they either had the FAA code or they were able to hack through the FAA program. I am not sure if any of you knew about this drone feature. It would be great if someone from NSIR could contact FAA to learn more about this feature and communicate it out to everyone for awareness.

Also, take a look at the thread below. My new Deputy RA (Ray Lorson) asked a good question regarding our response. While I think we handled this particular issue appropriately in terms of our response, I think we may need to add a section to our IAT procedure to provide some additional guidance for drones. Specifically, what might constitute a sufficient "threat" to trigger an IAT call or other NRC actions? We should probably discuss this on our next NSIR/Regional Branch Chief Counterparts call.

I did contact the ILTAB Duty Officer (b)(7)(C) today just for awareness. We have seen previous activity similar to this at Diablo Canyon in the past, but no recent activity to suggest coordination with this new incident at Limerick. This may be worthy of mentioning at an upcoming Threat Brief.

Please feel free to share this with anyone having a need to know that I missed.

Ray McKinley
Chief, Plant Support Branch
U.S. NRC Region I

~~OUO - SECURITY RELATED INFORMATION~~

-----Original Message-----

From: McKinley, Raymond

Sent: Friday, August 10, 2018 9:57 AM

To: Lorson, Raymond <Raymond.Lorson@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>

Cc: Caron, Dana <Dana.Caron@nrc.gov>; Cherubini, John <John.Cherubini@nrc.gov>

Subject: RE: ~~OUO~~ SID Distribution- Limerick Drone Flyover

~~OUO - SECURITY RELATED INFORMATION~~

I would characterize this activity as very unusual but non-threatening. From my perspective, threatening activity would include extreme low altitude maneuvers over equipment or buildings that could potentially cause damage, actually cause damage or personnel injury, or landing in the PA or critical OCA areas such as the switchyards. I agree that it would be helpful to have a defined threshold for escalated NRC engagement. We will follow up with our peers.

Thanks,

Ray M

-----Original Message-----

From: Lorson, Raymond

Sent: Friday, August 10, 2018 9:28 AM

To: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>

Subject: RE: ~~OUO~~ SID Distribution- Limerick Drone Flyover

Ray - thanks. Agree with reaching out. I am not familiar with the airspace restrictions but it sounds like part of the flite was over the plant; in any event we should engage NSIR and develop a consistent approach for how to react to events like this. I am not clear how we differentiate a threat flyover from a non-threat flyover?

Ray

-----Original Message-----

From: McKinley, Raymond

Sent: Friday, August 10, 2018 9:25 AM

To: Lorson, Raymond <Raymond.Lorson@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>

Subject: RE: ~~OUO~~ SID Distribution- Limerick Drone Flyover

No. There was no threat and the drones were operating in unrestricted airspace under FAA regulations. We will engage the ILTAB duty officer for awareness. This type of activity has occurred at other facilities such as Diablo Canyon. Worthy of note, but no need for an IAT call.

Ray M

-----Original Message-----

From: Lorson, Raymond

Sent: Friday, August 10, 2018 9:21 AM

To: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David

<David.Pelton@nrc.gov>
Subject: FW: ~~TOP SECRET~~ SID Distribution- Limerick Drone Flyover

Jimi et al:

Should a coordinated flyover like this have triggered an ILTAB call?

Ray

-----Original Message-----

From: Greives, Jonathan
Sent: Friday, August 10, 2018 7:30 AM
To: Bickett, Brice <Brice.Bickett@nrc.gov>; Crisden, Cherie <Cherie.Crisden@nrc.gov>; Tiff, Doug <Doug.Tiff@nrc.gov>; Sheehan, Neil <Neil.Sheehan@nrc.gov>; Screnci, Diane <Diane.Screnci@nrc.gov>; Lorson, Raymond <Raymond.Lorson@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Lew, David <David.Lew@nrc.gov>; Giessner, John <John.Giessner@nrc.gov>
Cc: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Caron, Dana <Dana.Caron@nrc.gov>; Cherubini, John <John.Cherubini@nrc.gov>; Barber, Scott <Scott.Barber@nrc.gov>; Rutenkroger, Scott <Scott.Rutenkroger@nrc.gov>; Beacon, Daniel <Daniel.Beacon@nrc.gov>; Fannon, Matthew <Matthew.Fannon@nrc.gov>; Turilin, Andrey <Andrey.Turilin@nrc.gov>
Subject: ~~TOP SECRET~~ SID Distribution- Limerick Drone Flyover

All,

See attached for more details, but in summary last night there was a coordinated flyover of 4-6 drones at the Limerick PA. Security entered (b)(7)(F) and notified LLEA who were unable to find the responsible individuals. (b)(7)(F) Limerick also made voluntary notifications to the FAA and FBI.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Jon

Jonathan Greives, Chief
Projects Branch 4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission- Region I
610-337-5337 (W)
(b)(7)(C) (C)
jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X
Sent: Friday, August 10, 2018 5:53 AM
To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice: 08/10/2018

FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION

SID#: SID-02938 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hool@nrc.sgov.gov

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

*This report may contain "law enforcement sensitive" information
Please do not relay this information to individuals
who do not have a "need to know"*

Event #: SID-02938

Security Event Description

Site: Limerick

Facility Type: Power Reactor - Operating

Event Date/Time: 08/09/2018 America/Chicago

Notify Date/Time: 8/10/2018 4:28:00 (EDT)

Last Update Date: 8/10/2018 5:37:20 (EDT)

Event Type: Drone

H.E.R.O.: Richard Smith

Caller Affiliation: Licensee

"On 09 August 2018 at approximately 2215 [EDT], a Security Officer reported a drone flying in the area of the 500 kV yard. At approximately 2230 [EDT] MSO's [Member of Security Organization] reported multiple drones in the OCA [Owner Control Area] and flying over the PA [Protected Area]. Security initiated a (b)(7)(F) and observed drones flying in the vicinity of the ISFSI [Independent Spent Fuel Storage Installation] Pad, Turbine Roof, Cooling Towers, 500 kV Yard, 66 kV Yard, and 220 kV Yard. Limerick PD [Police Department] was notified of the incident and responded to the OCA. The drones were approximately 300-500 feet in the air and approximately 3-5 feet in diameter with amber colored lights as well as blinking red and white lights. A total of 4-6 drones were identified and observed by multiple members of the security organization. The flight path of the drones was from the South East to North West over the PA circling South and East returning to the initial point the drones were first observed. Multiple drones took this same flight pattern for a duration of approximately 20-30 minutes. The flight path changed to a counter clockwise pattern over the OCA portion of the plant for approximately 40-60 minutes until the drones were no longer observable by the security force. The Security Supervisor was in contact with Limerick PD during the duration of situation. Limerick PD patrolled areas of the OCA with no adverse findings but did confirm drone activity and the size of the drones. No identifying marks or flight numbers could be observed on the drones. Voluntary notifications [were] made to the FAA and FBI offices."

The licensee notified the NRC Resident Inspector.

Notified R1DO (Cahill) and ILTAB (b)(7)(C)).

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

From: [Keiffer, Kevin P:\(GenCo-Nuc\)](#)
To: [Hoc, HOO X](#)
Subject: [External_Sender] SIDS REPORT LGS
Date: Tuesday, March 20, 2018 05:36:07

02915

On 20 March 2018, at approximately 0300 hours, a security officer posted in OCA, observed and reported a drone flying over the Owner Controlled Area. The drone appeared in the Southeast and traveled Northwest over the OCA before visual was lost. The drone was approximately 300 feet above the ground. Notifications were made to the Shift Manager and Local Law. Voluntary notifications will be made to the FAA and NRC.

Thank you,

Kevin Kleffer
Security Supervisor



Limerick Generating Station
3146 Sanatoga Road
Pottstown, PA 19464
O: 610-718-2048 | F: 610-718-2018
Kevin.Kieffer@exeloncorp.com

~~This Email message and any attachment may contain information that is proprietary, legally privileged, confidential and/or subject to copyright belonging to Exelon Corporation or its affiliates ("Exelon"). This Email is intended solely for the use of the person(s) to which it is addressed. If you are not an intended recipient, or the employee or agent responsible for delivery of this Email to the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this Email is strictly prohibited. If you have received this message in error, please immediately notify the sender and permanently delete this Email and any copies. Exelon policies expressly prohibit employees from making defamatory or offensive statements and infringing any copyright or any other legal right by Email communication. Exelon will not accept any liability in respect of such communications. - EXCIP~~

From: [Gross, Ryan Patrick:\(GenCo-Nuc\)](#)
To: [Hoc, HOO X](#)
Cc: [Mohr, Jared:\(GenCo-Nuc\)](#); [Stout, Megan:\(GenCo-Nuc\)](#); [Rutenkroger, Scott:\(Contractor - GenCo-Nuc\)](#); [Keiffer, Kevin P:\(GenCo-Nuc\)](#)
Subject: [External_Sender] SIDS 02938
Date: Friday, August 10, 2018 04:47:21

On 09 August 2018 at approximately 2215, a Security Officer reported a drone flying in the area of the 500 KV yard. At approximately 2230 MSO's reported multiple drones in the OCA and flying over the PA. Security initiated a (b)(7)(F) and observed drones flying in the vicinity of the ISFSI Pad, Turbine Roof, Cooling Towers, 500 KV Yard, 66 KV Yard, and 220 KV Yard. Limerick PD was notified of the incident and responded to the OCA. The drones were approximately 300-500 feet in the air and approximately 3-5 feet in diameter with amber colored lights as well as blinking red and white lights. A total of 4-6 drones were identified and observed by multiple members of the security organization. The flight path of the drones was from the South East to North West over the PA circling South and East returning to the initial point the drones were first observed. Multiple drones took this same flight pattern for a duration of approximately 20-30 minutes. The flight path changed to a counter clockwise pattern over the OCA portion of the plant for approximately 40-60 minutes until the drones were no longer observable by the security force. The Security Supervisor was in contact with Limerick PD during the duration of situation. Limerick PD patrolled areas of the OCA with no adverse findings but did confirm drone activity and the size of the drones. No identifying marks or flight numbers could be observed on the drones. All voluntary notifications made to the FAA and FBI offices.

LLEA Officers name – Steve Winneberter 610-495-7909

FAA – 404-305-5150

FBI – 215-418-4000 (Philadelphia Office)

MSSO – Jared Mohr 610-718-2044

NRC – Scott Rutenkroger 610-718-4318

~~This Email message and any attachment may contain information that is proprietary, legally privileged, confidential and/or subject to copyright belonging to Exelon Corporation or its affiliates ("Exelon"). This Email is intended solely for the use of the person(s) to which it is addressed. If you are not an intended recipient, or the employee or agent responsible for delivery of this Email to the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this Email is strictly prohibited. If you have received this message in error, please immediately notify the sender and permanently delete this Email and any copies. Exelon policies expressly prohibit employees from making defamatory or offensive statements and infringing any copyright or any other legal right by Email communication. Exelon will not accept any liability in respect of such communications. -~~

~~EXCIP~~

From: [Lopez, Angel M:\(GenCo-Nuc\)](#)
To: [Hoc, HOO X](#)
Subject: [External_Sender] Limerick Drone Activity Over OCA
Date: Monday, August 13, 2018 01:13:19
Attachments: [Drone Activity Over PA.DOCX](#)

Angel Lopez
Shift Security Supervisor



Limerick Generating Station
3146 Sanatoga Road
Pottstown, PA 19464
610-718-2043

~~This Email message and any attachment may contain information that is proprietary, legally privileged, confidential and/or subject to copyright belonging to Exelon Corporation or its affiliates ("Exelon"). This Email is intended solely for the use of the person(s) to which it is addressed. If you are not an intended recipient, or the employee or agent responsible for delivery of this Email to the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this Email is strictly prohibited. If you have received this message in error, please immediately notify the sender and permanently delete this Email and any copies. Exelon policies expressly prohibit employees from making defamatory or offensive statements and infringing any copyright or any other legal right by Email communication. Exelon will not accept any liability in respect of such communications. - EXCIP~~

Drone Activity Over OCA:

On August 12, 2018 at approximately 2335, a Security Officer reported a drone flying near the upper parking lot. At approximately 2337, MSO's reported multiple drones in the OCA flying towards the cooling tower and near the Spray Pond. Officers observed drones flying East to West in a North/West direction and circling back to the East. Limerick PD and State police were notified of the incident and responded to the OCA. AT 2340 the Security assumed a (b)(7)(F)

(b)(7)(F)

The drones were approximately 100-200 feet in the air and approximately four feet in diameter with amber and orange colored blinking lights. A total of two drones were identified and observed by multiple members of the security organization. The flight path of the drones was from East to North West circling back to East returning to the initial point of the upper parking lot. The flight pattern for a duration of approximately five minutes. The total flight time was approximately 20 minutes until the drones were no longer observable by the security force. Security Supervisor contacted following Agencies

Mgr Site Security – John McGee

MCR Shift Manager - John Harkins

FBI - Agent (b)(7)(C)

FAA – Wynn Harris

PA State Police – Corporal Pomponio

Limerick Police - Officer Reiley

Limerick PD and State Police patrolled areas of the OCA with no adverse findings and committed to patrol the area at a later time. No identifying marks or flight numbers could be observed on the drones. All voluntary notifications were made to the FAA and FBI offices.

From: Cranford Sr. John:(GenCo-Nuc)
To: Hoc. HOO X
Subject: [External_Sender] Notification of Drone Activity Over OCA & PA at Limerick Generating Station, PA
Date: Friday, August 24, 2018 01:07:51

Drone Activity Over OCA & PA:

On 23 August 2018 at approximately 2100, a security officer reported a potential drone in the vicinity of Fritz Lock which is not part of the owner controlled area at LGS and is located southwest of the plant on the south side of the Schuylkill River. At approximately 2120 multiple security officers posted on the south and southwest of the protected area reported multiple drones in the OCA. At 2125 Limerick security assumed a (b)(7)(F)

(b)(7)(F) The Limerick Police Department & State Police were notified of the incident and responded to the OCA.

The drone activity was confirmed to be three drones approximately 200-400 feet in the air and approximately 3-5 feet in diameter with white and multi colored blinking indicator lights. The flight paths of the drones were from the south west to the south east over the Schuylkill River Pump House in Exelon Owner Controlled Area and would repeat this flight pattern back and forth for a minimum of 40 minutes. The drones travel path would venture over the southern part of the protected area in the vicinity of the ISFSI area before continuing southwest out of view of any posted security officer. The Security Supervisor contacted the following agencies.

FBI – Agent (b)(7)(C)

FAA – Kelly Peurifoy 404-305-5150

PA State Police – PCO Patrick Finucane 610-584-1250

Limerick Police – Officer 610-495-7909

Limerick Police Officer Patrick Murphy responded to the OCA in the vicinity of the personnel processing center and confirmed drone activity south of the plant in the vicinity of the 220 KV Yard. East Coventry Police Officer Brown responded to the Fritz Lock area south of the Schuylkill River who did not report any activity. The (b)(7)(F) and All voluntary notifications were made to the FAA & FBI offices.

John M Cranford Sr

Bravo Security Supervisor



Limerick Generating Station

3146 Sanatoga Rd

Pottstown, PA 19464

O:610-718-2048 / F:610-718-2051

John.cranford@exeloncorp.com

This Email message and any attachment may contain information that is proprietary, legally

~~privileged, confidential and/or subject to copyright belonging to Exelon Corporation or its affiliates ("Exelon"). This Email is intended solely for the use of the person(s) to which it is addressed. If you are not an intended recipient, or the employee or agent responsible for delivery of this Email to the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this Email is strictly prohibited. If you have received this message in error, please immediately notify the sender and permanently delete this Email and any copies. Exelon policies expressly prohibit employees from making defamatory or offensive statements and infringing any copyright or any other legal right by Email communication. Exelon will not accept any liability in respect of such communications. - EXCIP~~

From: [Henderson, Joseph:\(GenCo-Nuc\)](#)
To: [Hoc, HOO X](#); [Trump, Wayne A.:\(GenCo-Nuc\)](#); [Rutenkroger, Scott:\(Contractor - GenCo-Nuc\)](#); [Kirk, John F.:\(BSC\)](#)
Subject: [External_Sender] SIDS Report # 2979 for Drone Activity at Limerick
Date: Monday, May 27, 2019 22:03:24
Attachments: [SIDS May 27 2019.docx](#)

Joseph Henderson
Security Shift Supervisor
X2043
Joseph.Henderson@exeloncorp.com

~~This Email message and any attachment may contain information that is proprietary, legally privileged, confidential and/or subject to copyright belonging to Exelon Corporation or its affiliates ("Exelon"). This Email is intended solely for the use of the person(s) to which it is addressed. If you are not an intended recipient, or the employee or agent responsible for delivery of this Email to the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this Email is strictly prohibited. If you have received this message in error, please immediately notify the sender and permanently delete this Email and any copies. Exelon policies expressly prohibit employees from making defamatory or offensive statements and infringing any copyright or any other legal right by Email communication. Exelon will not accept any liability in respect of such communications. - EXCIP~~

On May 27, 2019 at Approx. 1904 a Drone was reported in the OCA by a Security Officer. The Drone was reported flying out of the North East into the Eastern section of the OCA. The Drone then flew south and then South East over the 500 KV and continued traveling South until it was out of sight. Note the Drone never flew over into the PA. The Drone was about 400 feet off the ground and never stopped in the OCA. Shift Manager and the MSS were notified. Notifications were also made to the FBI, FAA, NRC, Local & State Law Enforcement Agencies. A SIDS report was documented (SIDS # 2979) and will be forwarded to all.

Officers were notified that the drone was in area but traveling south away from plant. SSS, SM, MSS were notified along with FBI, FAA, NRC, Local & State Law Enforcement Agencies. LLEA was dispatched to sweep the area of the drone flight path.

Joe Henderson SSS LGS

SIDS#2979

From: [Bower, Fred](#)
To: [Dana Caron \(Dana.Caron@nrc.gov\)](#); [John Cherubini \(John.Cherubini@nrc.gov\)](#)
Subject: FW: SID Notice #2979: 05/27/2019
Date: Tuesday, May 28, 2019 6:38:00 AM
Attachments: [SID.pdf](#)

You probably already got this directly?

Fred Bower
Acting Chief | Plant Support Branch | Division of Reactor Safety | Region I | U.S. NRC |
| 2100 Renaissance Boulevard, STE 100, King of Prussia, PA 19406 |
| | (610) 337-5200 | : (610) 731-1920 | : Fred.Bower@nrc.gov |

-----Original Message-----

From: Arner, Frank
Sent: Monday, May 27, 2019 8:38 PM
To: Greives, Jonathan <Jonathan.Greives@nrc.gov>; Bower, Fred <Fred.Bower@nrc.gov>
Subject: FW: SID Notice #2979: 05/27/2019

FYI

Frank Arner
RDO

-----Original Message-----

From: Hoc, HOO X
Sent: Monday, May 27, 2019 8:20 PM
To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice #2979: 05/27/2019

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

SID#: SID-02979 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

~~**FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION**~~

*This report may contain "law enforcement sensitive" information
Please do not relay this information to individuals
who do not have a "need to know"*

Event #: SID-02979

Security Event Description

Site: Limerick

Facility Type: Power Reactor - Operating

Event Date/Time: 05/27/2019 (EDT)

Notify Date/Time: 5/27/2019 19:39:00 (EDT)

Last Update Date: 5/29/2019 19:52:00 (EDT)

Event Type: Drone

H.E.R.O.: Howard Crouch

Caller Affiliation: Limerick

At 1904 EDT, a site security officer observed a black quad-copter drone fly over the owner controlled area. The drone was at an altitude of 450-500 feet and flew from northeast to south. It did not loiter over the facility and its flight took about 5 minutes to traverse the site. It only made one pass. On its flight path, the drone was able to view the cooling tower, the east side of the protected area, the building that houses the reactor and the 500kV switchyard area. The site did not change its security posture due to this event.

The licensee was in the process of notifying FAA - Reading, PA and did notify local law enforcement (Montgomery Co. Sheriff) and the Philadelphia Field Office of the FBI. They will be notifying the NRC Resident Inspector.

Notified R1DO (Arner) and ILTAB (b)(7)(C).

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

From: [Bower, Fred](#)
To: [Dana Caron \(Dana.Caron@nrc.gov\)](#); [Jeremiah Rey@nrc.gov](#); [John Cherubini \(John.Cherubini@nrc.gov\)](#); [Kenneth Hussar@nrc.gov](#); [RT/DRS/PSB/SEC \(RIDRSPSBSEC@usnrc.onmicrosoft.com\)](#); [Sammy McCarver \(Sammy.McCarver@nrc.gov\)](#)
Subject: FW: ***Sensitive Security Related Information- Drone Activity at Limerick***
Date: Tuesday, May 28, 2019 6:49:00 AM
Attachments: [image001.png](#)

FYI

From: Greives, Jonathan
Sent: Tuesday, May 28, 2019 6:40 AM
To: Collins, Daniel <Daniel.Collins@nrc.gov>; Shams, Mohamed <Mohamed.Shams@nrc.gov>; Bower, Fred <Fred.Bower@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Krohn, Paul <Paul.Krohn@nrc.gov>; Lew, David <David.Lew@nrc.gov>; Lorson, Raymond <Raymond.Lorson@nrc.gov>
Cc: Tiff, Doug <Doug.Tiff@nrc.gov>; DeBoer, Briana <Briana.DeBoer@nrc.gov>; Sheehan, Neil <Neil.Sheehan@nrc.gov>; Screnci, Diane <Diane.Screnci@nrc.gov>; Rutenkroger, Scott <Scott.Rutenkroger@nrc.gov>; Obadina, Sarah <Sarah.Obadina@nrc.gov>; DeBoer, Joseph <Joseph.DeBoer@nrc.gov>; Beacon, Daniel <Daniel.Beacon@nrc.gov>
Subject: ***Sensitive Security Related Information- Drone Activity at Limerick***

For awareness, Exelon identified a small personal drone that traversed over the OCA last night. IT did not fly over the protected area, did not threaten personnel or equipment safety, and the site's security posture remained unchanged.

Exelon notified local law enforcement, the FAA, and the FBI field office, per station procedures, and submitted a SIDs report. ILTAB was notified.

Jon

Jonathan Greives
Chief, Projects Branch 4
Division of Reactor Projects, Region 1
(610) 337-5337 (W)
(b)(7)(C) (M)
jonathan.greives@nrc.gov



From: [Greives, Jonathan](#)
To: [Bower, Fred](#); [Dimitriadis, Anthony](#); [Ferdas, Marc](#); [Schroeder, Daniel](#); [Cahill, Christopher](#); [Young, Matt](#)
Subject: FW: SID Notice: 08/10/2018
Date: Friday, August 10, 2018 10:43:09 AM
Attachments: [SID.pdf](#)

Attachment same
on pg. 52

FYI- Got feedback from Ray that he would have expected a call on this last night. In this case, the site didn't call the SRI, and therefore I was not notified. We would have expected that based on a change in security posture (to (b)(7)(F) and notification of offsite.

That said, given that by the time I would have been notified by the SRI, the event would have been over and it wasn't threatening behavior, not sure I would have called the DD/DDD anyway and probably would have sent a text.

Just sharing for awareness if you would have taken the same approach as me. Let me know if you have different thoughts or if I'm way off on what I would have done...still trying to figure out this whole BC thing!

-----Original Message-----

From: Cahill, Christopher
Sent: Friday, August 10, 2018 7:46 AM
To: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Rutenkroger, Scott <Scott.Rutenkroger@nrc.gov>
Subject: FW: SID Notice: 08/10/2018

-----Original Message-----

From: Hoc, HOO X
Sent: Friday, August 10, 2018 5:53 AM
To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice: 08/10/2018

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

SID#: SID-02938 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.gov

From: [McKinley, Raymond](#)
To: [Bower, Fred](#); [Greives, Jonathan](#); [Schroeder, Daniel](#); [Dimitriadis, Anthony](#); [Ferdas, Marc](#); [Cahill, Christopher](#); [Young, Matt](#)
Cc: [Klukan, Brett](#)
Subject: RE: SID Notice: 08/10/2018
Date: Friday, August 10, 2018 12:47:55 PM

~~OUO – SECURITY RELATED INFORMATION~~

All,

We are on top of this, and the right people know in NSIR ILTAB. We are in the SIDS process. While unusual and suspicious, there was no threat, and there were no additional actions for us to take. Similar activity has occurred at other facilities. The airspace over the sites is not restricted, so drones are free to fly in that airspace as long as they comply with FAA drone operating regulations.

I would be careful lowering the internal notification bar too low; otherwise, we are going to be getting a lot of nuisance calls. It's always a judgement call, and when in doubt feel free to call. This one was odd enough that it may have warranted some earlier internal communications, but I was fine getting notified this morning, and Jon did call me early this morning. It's always a judgement call, and when in doubt feel free to call. If a drone executes threatening low altitude maneuvering that could potentially cause or actually damage to equipment or cause personnel, or if it lands inside the PA, then absolutely send up a flare to get us involved and we will engage the NSIR ILTAB Team. If your Division wants to be notified at a lower threshold, then that is up to them, but the notification threshold can be quite fuzzy to define with these drones. There is no one size fits all.

Thanks,

Ray M

From: Bower, Fred
Sent: Friday, August 10, 2018 11:53 AM
To: Greives, Jonathan <Jonathan.Greives@nrc.gov>; Schroeder, Daniel <Daniel.Schroeder@nrc.gov>; Dimitriadis, Anthony <Anthony.Dimitriadis@nrc.gov>; Ferdas, Marc <Marc.Ferdas@nrc.gov>; Cahill, Christopher <Christopher.Cahill@nrc.gov>; Young, Matt <Matt.Young@nrc.gov>
Cc: Klukan, Brett <Brett.Klukan@nrc.gov>; McKinley, Raymond <Raymond.McKinley@nrc.gov>
Subject: Re: SID Notice: 08/10/2018

Suggest you speak with our regional drone expert (Brett) and PSB.

Interest may be heightened due to recent exploding drone in South America that was portrayed as an assassination attempt.

Sent from my iPhone

On: 10 August 2018 11:33,
"Greives, Jonathan" <Jonathan.Greives@nrc.gov> wrote:

Thanks Dan. We've had drone flyovers at plants before and I envision we'll have many more in the future. This may have been a little different because it was multiple drones. Does anyone know how this has been communicated in the past?

-----Original Message-----

From: Schroeder, Daniel
Sent: Friday, August 10, 2018 11:30 AM
To: Greives, Jonathan <Jonathan.Greives@nrc.gov>; Bower, Fred <Fred.Bower@nrc.gov>; Dimitriadis, Anthony <Anthony.Dimitriadis@nrc.gov>; Ferdas, Marc <Marc.Ferdas@nrc.gov>; Cahill, Christopher <Christopher.Cahill@nrc.gov>; Young, Matt <Matt.Young@nrc.gov>
Subject: RE: SID Notice: 08/10/2018

Because of the uniqueness of the threat and public concern over drone attacks, this should have been elevated last night.

I feel it would have been prudent to communicate based on the perception of a threat. If a reporter called the region this morning, it would be better for them to be prepared to address the questions.

Dan

-----Original Message-----

From: Greives, Jonathan
Sent: Friday, August 10, 2018 10:43 AM
To: Bower, Fred <Fred.Bower@nrc.gov>; Dimitriadis, Anthony <Anthony.Dimitriadis@nrc.gov>; Ferdas, Marc <Marc.Ferdas@nrc.gov>; Schroeder, Daniel <Daniel.Schroeder@nrc.gov>; Cahill, Christopher <Christopher.Cahill@nrc.gov>; Young, Matt <Matt.Young@nrc.gov>
Subject: FW: SID Notice: 08/10/2018

FYI- Got feedback from Ray that he would have expected a call on this last night. In this case, the site didn't call the SRI, and therefore I was not notified. We would have expected that based on a change in security posture (b)(7)(F) and notification of offsite.

That said, given that by the time I would have been notified by the SRI, the event would have been over and it wasn't threatening behavior, not sure I would have called the DD/DDD anyway and probably would have sent a text.

Just sharing for awareness if you would have taken the same approach as me. Let me know if you have different thoughts or if I'm way off on what I would have done...still trying to figure out this whole BC thing!

-----Original Message-----

From: Cahill, Christopher
Sent: Friday, August 10, 2018 7:46 AM
To: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Rutenkroger, Scott <Scott.Rutenkroger@nrc.gov>
Subject: FW: SID Notice: 08/10/2018

-----Original Message-----

From: Hoc, HOO X
Sent: Friday, August 10, 2018 5:53 AM
To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice: 08/10/2018

~~FOR OFFICIAL USE ONLY~~- LIMITED DISTRIBUTION

SID#: SID-02938 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hool@nrc.gov

From: [McKinley, Raymond](#)
To: [Lew, David](#); [Giessner, John](#); [Lorson, Raymond](#); [Yerokun, Jimi](#); [Welling, Blake](#); [Tiff, Doug](#); [Bickett, Brice](#); [Screnci, Diane](#); [Sheehan, Neil](#); [Pelton, David](#)
Cc: [Cahill, Christopher](#); [Dimitriadis, Anthony](#); [Bower, Fred](#); [Greives, Jonathan](#); [Young, Matt](#); [Schroeder, Daniel](#); [Bream, Jeffrey](#); [Caron, Dana](#); [Cherubini, John](#); [Hussar, Kenneth](#); [McCarver, Sammy](#); [Rev. Jeremiah](#)
Subject: OOU: FW: Unmanned Aerial Vehicles One-Pager
Date: Wednesday, September 5, 2018 2:44:30 PM
Attachments: [UAV One-Pager 8-31-18 \(OUO-Law Enforcement Sensitive\) \(003\).docx](#)
[image002.png](#)

~~OUO — SECURITY RELATED INFORMATION~~

All,

We checked with the NSIR SME (Joe Rivers) who was extensively involved with writing this one-pager. All of the key messages can be used publically. I would try to stick to the key messages as much as possible, but the remaining information may also be discussed with the exception of the specific Limerick information which is appropriately portion marked as OOU.

Ray McKinley
Chief, Plant Support Branch
U.S. NRC Region I

From: Welling, Blake
Sent: Friday, August 31, 2018 11:13 AM
To: McKinley, Raymond <Raymond.McKinley@nrc.gov>
Cc: Yerokun, Jimi <Jimi.Yerokun@nrc.gov>
Subject: FW: Unmanned Aerial Vehicles One-Pager

Ray - FYI

From: Curtis, David
Sent: Friday, August 31, 2018 11:02 AM
To: Miller, Chris <Chris.Miller@nrc.gov>; King, Michael <Michael.King2@nrc.gov>; Bailey, Marissa <Marissa.Bailey@nrc.gov>; Clark, Jeff <Jeff.Clark@nrc.gov>; Franke, Mark <Mark.Franke@nrc.gov>; Gody, Tony <Tony.Gody@nrc.gov>; Lantz, Ryan <Ryan.Lantz@nrc.gov>; Lara, Julio <Julio.Lara@nrc.gov>; Lorson, Raymond <Raymond.Lorson@nrc.gov>; Louden, Patrick <Patrick.Louden@nrc.gov>; Miller, Mark <Mark.Miller@nrc.gov>; Munday, Joel <Joel.Munday@nrc.gov>; O'Brien, Kenneth <Kenneth.O'Brien@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>; Pretzello, Andrew <Andrew.Pretzello@nrc.gov>; Pruett, Troy <Troy.Pruett@nrc.gov>; Shuaibi, Mohammed <Mohammed.Shuaibi@nrc.gov>; Vegal, Anton <Anton.Vegal@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Helton, Shana <Shana.Helton@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>
Subject: Unmanned Aerial Vehicles One-Pager

As I mentioned during the Bi-Weekly HQ and Regional Division Directors Meeting this morning, attached is a one-pager on the current staff activities related to drones and NRC licensed facilities. This one-pager is intended to supplement the

information Jim Andersen provided you in a message on August 13th.

If you have additional questions or would like to discuss, please let me know.

David Curtis
Deputy Director
Division of Physical and Cyber Security Policy
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission

(o) 301-287-3607

(b)(7)(C)



~~—OUO— SECURITY RELATED INFORMATION—~~

From: [Bower, Fred](#)
To: [RT/DRS/PSB/SEC \[Region I\]](#)
Subject: FW: NRC Daily News Brief - July 30, 2020
Date: Thursday, July 30, 2020 12:17:34 PM
Attachments: [NRC Daily News - July 30, 2020_full.pdf](#)

Attachment is public at:
<https://nrc.barbaricumanalytics.com/home/daily?id=5f2274ad7702d019c0978deb#>

Drones

Brief summary at the top

Full story further down

Non-Responsive Record

From: Media Analyst (NRC) <nrcmediaanalyst@barbaricum.com>
Sent: Thursday, July 30, 2020 6:45 AM
To: NRC News Summary <nrcnewssummary@usnrc.onmicrosoft.com>
Subject: NRC Daily News Brief - July 30, 2020

Good morning,

Please find the attached NRC Daily News Brief for July 30, 2020. The Daily News Brief can also be found at <https://nrc.barbaricumanalytics.com/Home/Daily>.

From: [McKinley, Raymond](#)
To: [Lew, David](#); [Glessner, Jack](#); [Lorson, Raymond](#); [Pelton, David](#); [Yerokun, Jimi](#); [Welling, Blake](#); [Screnci, Diane](#); [Sheehan, Neil](#); [Tift, Doug](#)
Cc: [Greives, Jonathan](#); [Barber, Scott](#); [Rutenkroger, Scott](#); [Fannon, Matthew](#)
Subject: OJO: FW: SID Notice: 08/10/2018
Date: Friday, August 10, 2018 9:31:55 AM
Attachments: [SID.pdf](#) Attachment same
Importance: High on pg. 52

~~OUO - SECURITY RELATED INFORMATION~~

FYI. Coordinated drone activity over Limerick. There was no threat, and the drone activity is legal under FAA regulations. The licensee took appropriate action and reported the activity to local law enforcement, and made voluntary notifications to NRC, FBI, and FAA.

Plant Support Branch will reach out to ILTAB for awareness.

If we receive any external inquiries, then would recommend limiting comments as follows:

- * We are aware of the drone overflight activity.
- * The drones did not present a threat to the facility.
- * Drone overflights are not prohibited under FAA regulations.
- * Any questions regarding FAA drone regulations should be referred to FAA.

Ray McKinley
Chief, Plant Support Branch

-----Original Message-----

From: Cahill, Christopher
Sent: Friday, August 10, 2018 7:46 AM
To: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Rutenkroger, Scott <Scott.Rutenkroger@nrc.gov>
Subject: FW: SID Notice: 08/10/2018

-----Original Message-----

From: Hoc, HOO X
Sent: Friday, August 10, 2018 5:53 AM
To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice: 08/10/2018

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

SID#: SID-02938 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov

secure e-mail: hool@nrc.sgov.gov

From: [Lorson, Raymond](#)
To: [Pelton, David](#); [Lew, David](#); [Yerokun, Jimi](#); [Welling, Blake](#); [Nick, Joseph](#); [Trapp, James](#); [Giessner, John](#)
Cc: [Screnci, Diane](#); [Sheehan, Neil](#); [Klukan, Brett](#); [Bickett, Brice](#); [Tiff, Doug](#); [Sheehan, Neil](#)
Subject: DRP Report 8/10
Date: Friday, August 10, 2018 9:54:18 AM

A couple items of interest:

- SIDs report for a drone flyover last night at Limerick; Ray McK sent out a separate email with more detail
- Talen has decided to s/d Susq 1 next Friday for a 5 day out to replace the RRP seal

That's it; have a great weekend!

Ray

From: [McKinley, Raymond](#)
To: [Yerokun, Jimi](#); [Wellino, Blake](#)
Subject: FW: Chris Mudrick call; drones over Limerick
Date: Friday, August 24, 2018 3:16:50 PM

Speaking of drones... FYI. Ray

From: Huyck, Doug
Sent: Friday, August 24, 2018 2:56 PM
To: McKinley, Raymond <Raymond.McKinley@nrc.gov>
Subject: FW: Chris Mudrick call; drones over Limerick
Info.

From: Bailey, Marissa
Sent: Friday, August 24, 2018 2:51 PM
To: Johnson, Clay <Clay.Johnson@nrc.gov>; Chernoff, Harold <Harold.Chernoff@nrc.gov>; Pretzello, Andrew <Andrew.Pretzello@nrc.gov>; Pearson, Laura <Laura.Pearson@nrc.gov>; Huyck, Doug <Doug.Huyck@nrc.gov>
Subject: FW: Chris Mudrick call; drones over Limerick
FYI.

Maybe a heads up to the HOOs? They may be getting a report.

From: Holian, Brian
Sent: Friday, August 24, 2018 2:48 PM
To: Lubinski, John <John.Lubinski@nrc.gov>; Dudes, Laura <Laura.Dudes@nrc.gov>
Cc: Johnson, Michael <Michael.Johnson@nrc.gov>; Castelveter, David <David.Castelveter@nrc.gov>; Bailey, Marissa <Marissa.Bailey@nrc.gov>; Andersen, James <James.Andersen@nrc.gov>
Subject: Chris Mudrick call; drones over Limerick

I just had a short call with Chris. He was letting me know site actions for what have been repeat drone flights of extended duration over the Limerick site. He has submitted a SID notification.

He wanted to give me more detail. They are large drones with extended flight duration (eg. an hour).

The site has notified local law enforcement. FBI is also following

Interestingly the Limerick site is in a no fly zone due to their proximity to Limerick air field.

The last occasion was at night. The drones - multiple - did have lights on. He is not worried about site security. But wanted to ensure we were involved and had a discussion should he get press interest

Brian Holian

From: [Greives, Jonathan](#)
To: [Bickett, Brice](#); [Crisden, Cherie](#); [Tiff, Doug](#); [Sheehan, Neil](#); [Screnci, Diane](#); [Lorson, Raymond](#); [Pelton, David](#); [Yerokun, Jimi](#); [Welling, Blake](#); [Lew, David](#); [Giessner, John](#)
Cc: [McKinley, Raymond](#); [Caron, Dana](#); [Cherubini, John](#); [Barber, Scott](#); [Rutenkroger, Scott](#); [Beacon, Daniel](#); [Fannon, Matthew](#); [Turilin, Andrey](#)
Subject: RE: ~~OO~~- SID Distribution- Limerick Drone Flyover
Date: Monday, August 13, 2018 7:24:53 AM

One correction to the below email, the drone event last night did not crossover the PA, however did include a flyover of the OCA (in the vicinity of the cooling towers and parking lot). Sorry for the confusion.

Regards,
Jon

-----Original Message-----

From: Greives, Jonathan
Sent: Monday, August 13, 2018 5:49 AM
To: Bickett, Brice <Brice.Bickett@nrc.gov>; Crisden, Cherie <Cherie.Crisden@nrc.gov>; Douglas Tiff (Doug.Tiff@nrc.gov) <Doug.Tiff@nrc.gov>; Neil Sheehan (Neil.Sheehan@nrc.gov) <Neil.Sheehan@nrc.gov>; Diane Screnci (Diane.Screnci@nrc.gov) <Diane.Screnci@nrc.gov>; Raymond Lorson (Raymond.Lorson@nrc.gov) <Raymond.Lorson@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Blake Welling (Blake.Welling@nrc.gov) <Blake.Welling@nrc.gov>; David Lew (David.Lew@nrc.gov) <David.Lew@nrc.gov>; Giessner, John <John.Giessner@nrc.gov>
Cc: Raymond McKinley (Raymond.McKinley@nrc.gov) <Raymond.McKinley@nrc.gov>; Dana Caron (Dana.Caron@nrc.gov) <Dana.Caron@nrc.gov>; John Cherubini (John.Cherubini@nrc.gov) <John.Cherubini@nrc.gov>; G Scott Barber (Scott.Barber@nrc.gov) <Scott.Barber@nrc.gov>; Scott Rutenkroger (Scott.Rutenkroger@nrc.gov) <Scott.Rutenkroger@nrc.gov>; Beacon, Daniel <Daniel.Beacon@nrc.gov>; Fannon, Matthew <Matthew.Fannon@nrc.gov>; 'Andrey Turilin' <andrey.turilin@nrc.gov>
Subject: ~~OO~~- SID Distribution- Limerick Drone Flyover

All,

See attached for more details, but in summary last night there was a coordinated flyover of 2 drones at the Limerick PA. This was similar to the event described last Friday. Security entered (b)(7)(F) and notified LLEA and Pennsylvania State Police who were unable to find the responsible individual(s). (b)(7)(F) (b)(7)(F) Limerick also made voluntary notifications to the FAA and FBI. As stated in the attached SIDS report, ILTAB was notified. Though the drones did fly over the protected area, they did not pose a threat to Limerick personnel or SSCs.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Regards,
Jon

Jonathan Greives, Chief
Projects Branch 4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission- Region I
610-337-5337 (W)
(b)(7)(C) (C)
jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X
Sent: Monday, August 13, 2018 1:53 AM

To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice: 08/13/2018

~~FOR OFFICIAL USE ONLY~~- LIMITED DISTRIBUTION

SID#: SID-02939 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

From: [Fannon, Matthew](#)
To: [Greives, Jonathan](#)
Cc: [Rutenkroger, Scott](#)
Subject: RE: ~~OOO~~ SID Distribution- Limerick Drone Flyover
Date: Friday, August 24, 2018 7:51:50 AM

I spoke with Bob Dickinson, the RA manager, about the differences in details from last night's issue. He is going to reach out to the security manager and follow-up on it.

Matthew Fannon
U.S. NRC Region 1
Resident Inspector, Limerick Generating Station
Matthew.Fannon@nrc.gov
(610)327-1344/1345

-----Original Message-----

From: Greives, Jonathan
Sent: Friday, August 24, 2018 6:35 AM
To: Bickett, Brice <Brice.Bickett@nrc.gov>; Tift, Doug <Doug.Tift@nrc.gov>; Sheehan, Neil <Neil.Sheehan@nrc.gov>; Screnci, Diane <Diane.Screnci@nrc.gov>; Lorson, Raymond <Raymond.Lorson@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Lew, David <David.Lew@nrc.gov>; Giessner, John <John.Giessner@nrc.gov>
Cc: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Caron, Dana <Dana.Caron@nrc.gov>; Cherubini, John <John.Cherubini@nrc.gov>; Barber, Scott <Scott.Barber@nrc.gov>; Rutenkroger, Scott <Scott.Rutenkroger@nrc.gov>; Beacon, Daniel <Daniel.Beacon@nrc.gov>; Fannon, Matthew <Matthew.Fannon@nrc.gov>; Turilin, Andrey <Andrey.Turilin@nrc.gov>
Subject: ~~OOO~~ SID Distribution- Limerick Drone Flyover

All,

See attached for more details, but in summary last night at approximately 9:00 p.m., there was reported drone activity at Limerick. This was similar to the previous events over the past several weeks. Security entered (b)(7)(F) and notified LLEA and Pennsylvania State Police who were unable to find the responsible individual(s). Limerick also made voluntary notifications to the FAA and FBI. As stated in the attached SIDS report, ILTAB was notified. Though the bulk of the activity was over the OCA, the drones did fly over the protected area in the vicinity of the ISFSI, and did not pose a threat to Limerick personnel or SSCs.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Regards,
Jon

Jonathan Greives, Chief
Projects Branch 4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission- Region 1
610-337-5337 (W)
(b)(7)(C) (C)
jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X
Sent: Friday, August 24, 2018 2:14 AM

To: Janda, Donna <Donna.Janda@nrc.gov>
Subject: SID Notice: 08/24/2018

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

SID#: SID-02941 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

From: [Greives, Jonathan](#)
To: [Bickett, Brice](#); [Tift, Doug](#); [Sheehan, Neil](#); [Screnci, Diane](#); [Lorson, Raymond](#); [Pelton, David](#); [Yerokun, Jimi](#); [Welling, Blake](#); [Lew, David](#); [Glessner, John](#)
Cc: [McKinley, Raymond](#); [Caron, Dana](#); [Cherubini, John](#); [Barber, Scott](#); [Rutenkroger, Scott](#); [Beacon, Daniel](#); [Fannon, Matthew](#); [Turilin, Andrew](#)
Subject: ~~OO~~ SID Distribution- Limerick Drone Flyover
Date: Friday, August 24, 2018 6:34:53 AM
Attachments: [SID.pdf](#)

All,

See attached for more details, but in summary last night at approximately 9:00 p.m., there was reported drone activity at Limerick. This was similar to the previous events over the past several weeks. Security entered (b)(7)(F) and notified LLEA and Pennsylvania State Police who were unable to find the responsible individual(s). Limerick also made voluntary notifications to the FAA and FBI. As stated in the attached SIDS report, ILTAB was notified. Though the bulk of the activity was over the OCA, the drones did fly over the protected area in the vicinity of the ISFSI, and did not pose a threat to Limerick personnel or SSCs.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Regards,
Jon

Jonathan Greives, Chief
Projects Branch 4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission- Region 1
610-337-5337 (W)
(b)(7)(C) (C)
jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X
Sent: Friday, August 24, 2018 2:14 AM
To: Janda, Donna <Donna.Janda@nrc.gov>
Subject: SID Notice: 08/24/2018

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

SID#: SID-02941 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

*This report may contain "law enforcement sensitive" information
Please do not relay this information to individuals
who do not have a "need to know"*

Event #: SID-02941

Security Event Description

Site: Limerick

Facility Type: Power Reactor - Operating

Event Date/Time: 08/23/2018 (EDT)

Notify Date/Time: 8/24/2018 0:57:00 (EDT)

Last Update Date: 8/24/2018 2:11:25 (EDT)

Event Type: Drone

H.E.R.O.: Andrew Waugh

Caller Affiliation: Licensee

"On August 23, 2018 at approximately 2100 [EDT], a security officer reported a potential drone in the vicinity of Fritz Lock which is not part of the owner controlled area (OCA) at LGS [Limerick Generating Station] and is located southwest of the plant on the south side of the Schuylkill River. At approximately 2120 [EDT] multiple security officers posted on the south and southwest sides of the protected area reported multiple drones in the OCA. At 2125 [EDT] Limerick security assumed a (b)(7)(F) (b)(7)(F) The Limerick Police Department and State Police were notified of the incident and responded to the OCA.

"The drone activity was confirmed to be three drones approximately 200-400 feet in the air and approximately 3-5 feet in diameter with white and multi colored blinking indicator lights. The flight paths of the drones were from the southwest to the southeast over the Schuylkill River Pump House in Exelon Owner Controlled Area and would repeat this flight pattern back and forth for a minimum of 40 minutes. The drones travel path would venture over the southern part of the protected area in the vicinity of the ISFSI [Independent Spent Fuel Storage Installation] area before continuing southwest out of view of any posted security officer. The Security Supervisor contacted the following agencies.

"FBI – (b)(7)(C)
FAA – Kelly Peurifoy 404-305-5150
PA State Police – PCO Patrick Finucane 610-584-1250
Limerick Police – Officer 610-495-7909

"Limerick Police Officer Patrick Murphy responded to the OCA in the vicinity of the personnel processing center and confirmed drone activity south of the plant in the vicinity of the 220 KV Yard. East Coventry Police Officer Brown responded to the Fritz Lock area south of the Schuylkill River and did not report any activity. The (b)(7)(F) was terminated at 2215 [EDT] and all voluntary notifications were made to the FAA and FBI offices."

The licensee notified the NRC Resident Inspector. Notified R1DO (Janda) and ILTAB (b)(7)(C).

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

~~For Official Use Only~~

From: [Greives, Jonathan](#)
To: [Bickett, Brice](#); [Crisden, Cherie](#); [Tiff, Doug](#); [Sheehan, Neil](#); [Screnci, Diane](#); [Lorson, Raymond](#); [Pelton, David](#); [Yerokun, Jimi](#); [Welling, Blake](#); [Lew, David](#); [Glessner, John](#)
Cc: [McKinley, Raymond](#); [Caron, Dana](#); [Cherubini, John](#); [Barber, Scott](#); [Rutenkroger, Scott](#); [Beacon, Daniel](#); [Fannon, Matthew](#); [Turillo, Andrey](#)
Subject: OTO- SID Distribution- Limerick Drone Flyover
Date: Monday, August 13, 2018 5:49:22 AM
Attachments: [SID.pdf](#)

All,

See attached for more details, but in summary last night there was a coordinated flyover of 2 drones at the Limerick PA. This was similar to the event described last Friday. Security entered (b)(7)(F) and notified LLEA and Pennsylvania State Police who were unable to find the responsible individual(s). (b)(7)(F) (b)(7)(F) Limerick also made voluntary notifications to the FAA and FBI. As stated in the attached SIDS report, ILTAB was notified. Though the drones did fly over the protected area, they did not pose a threat to Limerick personnel or SSCs.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Regards,
Jon

Jonathan Greives, Chief
Projects Branch 4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission- Region 1
610-337-5337 (W)
(b)(7)(C) (C)
jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X
Sent: Monday, August 13, 2018 1:53 AM
To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice: 08/13/2018

FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION

SID#: SID-02939 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

*This report may contain "law enforcement sensitive" information
Please do not relay this information to individuals
who do not have a "need to know"*

Event #: SID-02939

Security Event Description

Site: Limerick

Facility Type: Power Reactor - Operating

Event Date/Time: 08/12/2018 America/New_York

Notify Date/Time: 8/13/2018 0:13:00 (EDT)

Last Update Date: 8/13/2018 1:37:00 (EDT)

Event Type: Drone

H.E.R.O: Richard Smith

Caller Affiliation: Licensee

"On August 12, 2018 at approximately 2335 EDT, a Security Officer reported a drone flying near the upper parking lot. At approximately 2337 EDT, MSO's [Member of Security Organization] reported multiple drones in the OCA flying towards the cooling tower and near the Spray Pond. Officers observed drones flying East to West in a North/West direction and circling back to the East. Limerick PD and State police were notified of the incident and responded to the OCA. AT 2340 EDT the Security assumed a

(b)(7)(F)

The drones were approximately 100-200 feet in the air and approximately four feet in diameter with amber and orange colored blinking lights. A total of two drones were identified and observed by multiple members of the security organization. The flight path of the drones was from East to North West circling back to East returning to the initial point of the upper parking lot. The flight pattern for a duration of approximately five minutes. The total flight time was approximately 20 minutes until the drones were no longer observable by the security force. Security Supervisor contacted following Agencies: FBI, FAA, PA State Police, and Limerick Police. Limerick PD and State Police patrolled areas of the OCA with no adverse findings and committed to patrol the area at a later time. No identifying marks or flight numbers could be observed on the drones. All voluntary notifications were made to the FAA and FBI offices."

Notified R1DO (Cahill) and ILTAB Duty Officer (b)(7)(C).

This report is open pending ILTAB/ILTAT review. ILTAB/ILTAT will update or close this report when appropriate.

From: [Rutenkroger, Scott](#)
To: [Greives, Jonathan \(Jonathan.Greives@nrc.gov\)](#); [Mckinley, Raymond \(Raymond.McKinley@nrc.gov\)](#); [Caron, Dana \(Dana.Caron@nrc.gov\)](#); [Cherubini, John \(John.Cherubini@nrc.gov\)](#)
Cc: [Fannon, Matthew \(Matthew.Fannon@nrc.gov\)](#)
Subject: Limerick SIDS 02938
Date: Friday, August 10, 2018 6:58:00 AM

Subject: SIDS 02938

On 09 August 2018 at approximately 2215, a Security Officer reported a drone flying in the area of the 500 KV yard. At approximately 2230 MSO's reported multiple drones in the OCA and flying over the PA. Security initiated a (b)(7)(F) and observed drones flying in the vicinity of the ISFSI Pad, Turbine Roof, Cooling Towers, 500 KV Yard, 66 KV Yard, and 220 KV Yard. Limerick PD was notified of the incident and responded to the OCA. The drones were approximately 300-500 feet in the air and approximately 3-5 feet in diameter with amber colored lights as well as blinking red and white lights. A total of 4-6 drones were identified and observed by multiple members of the security organization. The flight path of the drones was from the South East to North West over the PA circling South and East returning to the initial point the drones were first observed. Multiple drones took this same flight pattern for a duration of approximately 20-30 minutes. The flight path changed to a counter clockwise pattern over the OCA portion of the plant for approximately 40-60 minutes until the drones were no longer observable by the security force. The Security Supervisor was in contact with Limerick PD during the duration of situation. Limerick PD patrolled areas of the OCA with no adverse findings but did confirm drone activity and the size of the drones. No identifying marks or flight numbers could be observed on the drones. All voluntary notifications made to the FAA and FBI offices.

From: [Rutenkroger, Scott:\(Contractor - GenCo-Nuc\)](#)
To: [Rutenkroger, Scott](#)
Subject: [External_Sender] FW: SIDS 02938
Date: Friday, August 10, 2018 6:23:33 AM

From: Gross, Ryan Patrick:(GenCo-Nuc)
Sent: Friday, August 10, 2018 4:47 AM
To: hoo.hoc@nrc.gov
Cc: Mohr, Jared:(GenCo-Nuc) <Jared.Mohr@exeloncorp.com>; Stout, Megan:(GenCo-Nuc) <Megan.Stout@exeloncorp.com>; Rutenkroger, Scott:(Contractor - GenCo-Nuc) <Scott.Rutenkroger@exeloncorp.com>; Keiffer, Kevin P:(GenCo-Nuc) <Kevin.Kieffer@exeloncorp.com>
Subject: SIDS 02938

On 09 August 2018 at approximately 2215, a Security Officer reported a drone flying in the area of the 500 KV yard. At approximately 2230 MSO's reported multiple drones in the OCA and flying over the PA. Security initiated a (b)(7)(F) and observed drones flying in the vicinity of the ISFSI Pad, Turbine Roof, Cooling Towers, 500 KV Yard, 66 KV Yard, and 220 KV Yard. Limerick PD was notified of the incident and responded to the OCA. The drones were approximately 300-500 feet in the air and approximately 3-5 feet in diameter with amber colored lights as well as blinking red and white lights. A total of 4-6 drones were identified and observed by multiple members of the security organization. The flight path of the drones was from the South East to North West over the PA circling South and East returning to the initial point the drones were first observed. Multiple drones took this same flight pattern for a duration of approximately 20-30 minutes. The flight path changed to a counter clockwise pattern over the OCA portion of the plant for approximately 40-60 minutes until the drones were no longer observable by the security force. The Security Supervisor was in contact with Limerick PD during the duration of situation. Limerick PD patrolled areas of the OCA with no adverse findings but did confirm drone activity and the size of the drones. No identifying marks or flight numbers could be observed on the drones. All voluntary notifications made to the FAA and FBI offices.

LLEA Officers name – Steve Winneberter 610-495-7909

FAA – 404-305-5150

FBI – 215-418-4000 (Philadelphia Office)

MSSO – Jared Mohr 610-718-2044

NRC – Scott Rutenkroger 610-718-4318

~~This Email message and any attachment may contain information that is proprietary, legally privileged, confidential and/or subject to copyright belonging to Exelon Corporation or its affiliates ("Exelon"). This Email is intended solely for the use of the person(s) to which it is addressed. If you are not an intended recipient, or the employee or agent responsible for~~

~~delivery of this Email to the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this Email is strictly prohibited. If you have received this message in error, please immediately notify the sender and permanently delete this Email and any copies. Exelon policies expressly prohibit employees from making defamatory or offensive statements and infringing any copyright or any other legal right by Email communication. Exelon will not accept any liability in respect of such communications. - EXCIP~~

From: [Krafty, James](#)
To: [Rutenkroger, Scott](#); [Fannon, Matthew](#); [Heinly, Justin](#); [Smith, Brian](#); [Daun, Travis](#); [Micewski, Laura](#)
Cc: [Barber, Scott](#); [Turilin, Andrey](#); [Sreenivas, V](#); [Hood, Tanya](#); [Tobin, Jennifer](#)
Subject: PB4 status 3/20/18
Date: Tuesday, March 20, 2018 7:43:06 AM
Attachments: [03-20-2018.docx](#)

Branch 4	BRIDGE: 9-1-866-721-2755, passcode (b)(7)(C)			03/20/18
Daily Status	New info in bold	DRP Status Board Items	Discusses at Morning Meeting	
Project Managers	LM: V. Sreenivas	PB: Jenny Tobin	SQ: Tanya Hood	
Branch Items				
<u>Training Requirements</u> - Post Qualification and Refresher Training Tracker (Update quarterly) <u>Backup and Objectivity Visits</u> - Required annually for Backup and Objectivity (Update quarterly) <u>Backshift Hours</u> - (Lim) (PB) (SQ) <u>Inspector BC Accompaniment</u> - Inspector Accompaniment by BC required annually (Update quarterly)				
LIMERICK UNIT 1	Rx Power: 87%	Risk: Green	Unidentified Leakage: 0.05 gpm	AL: 0
Weekend Coverage: Scott/Matt	1R17: 3/26 - 4/21/18	AL1: (9x) > .046	AL2: (3x) > .056	AL3: 2x > .061
Unplanned/Significant TSA <ul style="list-style-type: none"> None Major Activities Onsite <ul style="list-style-type: none"> None Other Items: (Security, EP, Stakeholder Interest) <ul style="list-style-type: none"> None Potential Findings - 1Q18 <ul style="list-style-type: none"> None 				
LIMERICK UNIT 2	Rx Power: 100%	Risk: Green	Unidentified Leakage: 0.03 gpm	AL: 0
Weekend Coverage: See Above	2R15: 4/15 - 5/05/19	AL1: (9x) > .022	AL2: (3x) > .029	AL3: 2x > .033
Unplanned/Significant TSA <ul style="list-style-type: none"> None. Major Activities Onsite <ul style="list-style-type: none"> Downpower to 98% for followup control rod pattern adjustment, 2100 - 2200 Other Items: (Security, EP, Stakeholder Interest) <ul style="list-style-type: none"> LPT blade cracking, turbine replacement has interlocking blades Potential Findings - 1Q18 <ul style="list-style-type: none"> None 				
LIMERICK COMMON				
Unplanned/Significant TSA <ul style="list-style-type: none"> None Major Activities Onsite <ul style="list-style-type: none"> FYI - three SIDS reports from Sunday through this morning <ul style="list-style-type: none"> Non-Responsive Record 3/20 ~0300 - drone flying over the OCA from southeast to northwest about 300 feet above ground. Visual contact was lost and no operators were observed. Local police, FAA, and NRC notifications were made. <ul style="list-style-type: none"> Non-Responsive Record Other Items: (Security, EP, Stakeholder Interest) <ul style="list-style-type: none"> No adverse weather impacts Potential Findings - 1Q18 <ul style="list-style-type: none"> Non-Responsive Record 				

PEACH BOTTOM UNIT 2

Non-Responsive Record

Non-Responsive Record

SUSQUEHANNA UNIT 1

Non-Responsive Record

Non-Responsive Record

From: [Rutenkroger, Scott](#)
To: [Krafty, James](#); [Barber, Scott](#)
Cc: [Heinly, Justin](#); [Smith, Brian](#); [Fannon, Matthew](#); [Daun, Travis](#); [Micewski, Laura](#); [Sreenivas, V](#)
Bcc: [Rutenkroger, Scott \(Scott.Rutenkroger@nrc.gov\)](#)
Subject: Limerick Plant Status Tuesday 3/20/18
Date: Tuesday, March 20, 2018 7:13:00 AM

Limerick

Unit 1

87%

Green

0.05 gpm

- No activities of significance

Unit 2

100%

Green

0.03 gpm

- Downpower to 98% for followup control rod pattern adjustment, 2100 – 2200

Common

- No activities of significance.
- FYI – three SIDS reports from Sunday through this morning
 - 3/18 1110 – three individuals on OCA taking photographs, left prior to being contacted
 - 3/19 1325 – three individuals (different from previous) on OCA taking photographs, local police department did interact, individuals compliant
 - 3/20 ~0300 – drone flying over the OCA from southeast to northwest about 300 feet above ground. Visual contact was lost and no operators were observed. Local police, FAA, and NRC notifications were made.

From: [Lorson, Raymond](#)
To: [Greives, Jonathan](#); [Pelton, David](#)
Subject: RE: ~~OTUO~~ SID Distribution- Limerick Drone Flyover
Date: Friday, August 10, 2018 11:34:19 AM

Sounds good; its always nice to update and revise the policy. At the same time we are all smart thinking individuals and should have discretion in how we support our safety mission.

Ray

From: Greives, Jonathan
Sent: Friday, August 10, 2018 10:52 AM
To: Lorson, Raymond <Raymond.Lorson@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>
Subject: RE: ~~OTUO~~ SID Distribution- Limerick Drone Flyover

Separately, I'm sharing with the other BCs as a learning. I reviewed our DRP policy for when the residents should notify the BC after-hours (again, had he been called). The only security-related item in there is:

A security event or events that require a security investigation

I was surprised there wasn't one for a change in security posture. The reason I looked there is because that is what we used at SUS for communicating expectations to the site for when we should be called. The thought was that if I'm expected to call the BC, then I better make sure I get notified. We had a couple other lower threshold items included as well. In this case, there's one in there for notification of offsite authorities so we should have been covered regardless.

I'll take a look if this should be added to a future revision to the policy.

Jon

From: Greives, Jonathan
Sent: Friday, August 10, 2018 10:45 AM
To: Lorson, Raymond <Raymond.Lorson@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>
Subject: RE: ~~OTUO~~ SID Distribution- Limerick Drone Flyover

Agree. Scott and I talked earlier and are aligned with that as well.

From: Lorson, Raymond
Sent: Friday, August 10, 2018 10:43 AM
To: Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>
Subject: RE: ~~OTUO~~ SID Distribution- Limerick Drone Flyover

Got it; thanks. Given the change in security posture a courtesy heads up when the licensee had time would have been appreciated. I would not want to interfere with their response of course and recognize it is during the back shift; nonetheless would have been a nice to have heard in real time issues like this.

Ray

From: Greives, Jonathan
Sent: Friday, August 10, 2018 10:36 AM
To: Lorson, Raymond <Raymond.Lorson@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>
Subject: RE: ~~OTUO~~ SID Distribution- Limerick Drone Flyover

Thanks for the feedback Ray. I did **not** get a call on this until this morning, but Scott also did not get a call from the site. He has already affirmed with them that he would have expected a call. They did send him an email (~0500), but that is not sufficient to make him aware after hours.

-----Original Message-----

From: Lorson, Raymond
Sent: Friday, August 10, 2018 9:20 AM
To: Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>

Subject: RE: ~~OOO~~ SID Distribution- Limerick Drone Flyover

Jon - thanks; not sure if you got a call on this or not but I would have been interested in hearing about this last night.

Ray

-----Original Message-----

From: Greives, Jonathan

Sent: Friday, August 10, 2018 7:30 AM

To: Bickett, Brice <Brice.Bickett@nrc.gov>; Crisden, Cherie <Cherie.Crisden@nrc.gov>; Tift, Doug <Doug.Tift@nrc.gov>; Sheehan, Neil <Neil.Sheehan@nrc.gov>; Screnci, Diane <Diane.Screnci@nrc.gov>; Lorson, Raymond <Raymond.Lorson@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Lew, David <David.Lew@nrc.gov>; Giessner, John <John.Giessner@nrc.gov>

Cc: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Caron, Dana <Dana.Caron@nrc.gov>; Cherubini, John <John.Cherubini@nrc.gov>; Barber, Scott <Scott.Barber@nrc.gov>; Rutenkroger, Scott <Scott.Rutenkroger@nrc.gov>; Beacon, Daniel <Daniel.Beacon@nrc.gov>; Fannon, Matthew <Matthew.Fannon@nrc.gov>; Turilin, Andrey <Andrey.Turilin@nrc.gov>

Subject: ~~OOO~~ SID Distribution- Limerick Drone Flyover

All,

See attached for more details, but in summary last night there was a coordinated flyover of 4-6 drones at the Limerick PA. Security entered (b)(7)(F) and notified LLEA who were unable to find the responsible individuals. (b)(7)(F)

(b)(7)(F) Limerick also made voluntary notifications to the FAA and FBI.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Jon

Jonathan Greives, Chief

Projects Branch 4

Division of Reactor Projects

U.S. Nuclear Regulatory Commission- Region 1

610-337-5337 (W)

(b)(7)(C) (C)

jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X

Sent: Friday, August 10, 2018 5:53 AM

To: Hoc, HOO X <HOO.Hoc@nrc.gov>

Subject: SID Notice: 08/10/2018

FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION

SID#: SID-02938 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer

U.S. Nuclear Regulatory Commission

Phone: 301-816-5100

Fax: 301-816-5151

email: hoo.hoc@nrc.gov

secure e-mail: hoo1@nrc.sgov.gov

From: [Greives, Jonathan](#)
To: [Lew, David](#)
Subject: RE: ~~OOO~~-SID Distribution- Limerick Drone Flyover
Date: Monday, August 13, 2018 7:26:00 AM

Sorry for the confusion Dave. It was only the OCA this time. I sent a correction to the larger group.

From: Lew, David
Sent: Monday, August 13, 2018 6:35 AM
To: Greives, Jonathan <Jonathan.Greives@nrc.gov>
Subject: Re: ~~OOO~~-SID Distribution- Limerick Drone Flyover

Jon, Did you mean OCA or did the drones actually fly over the protected area? Dave

On: 13 August 2018 05:49, "Greives, Jonathan" <Jonathan.Greives@nrc.gov> wrote:

All,

See attached for more details, but in summary last night there was a coordinated flyover of 2 drones at the Limerick PA. This was similar to the event described last Friday. Security entered (b)(7)(F) and notified LLEA and Pennsylvania State Police who were unable to find the responsible individual(s). (b)(7)(F) Limerick also made voluntary notifications to the FAA and FBI. As stated in the attached SIDS report, ILTAB was notified. Though the drones did fly over the protected area, they did not pose a threat to Limerick personnel or SSCs.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Regards,
Jon

Jonathan Greives, Chief
Projects Branch 4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission- Region I
610-337-5337 (W)
(b)(7)(C) (C)
jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X
Sent: Monday, August 13, 2018 1:53 AM
To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice: 08/13/2018

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

SID#: SID-02939 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to ind

From: [Caron, Dana](#)
To: [Giessner, John](#)
Cc: [Greives, Jonathan](#); [McKinley, Raymond](#)
Subject: FW: ~~OOO~~ SID Distribution- Limerick Drone Flyover
Date: Monday, August 13, 2018 7:56:44 AM

Ray will be late this morning (b)(7)(C).

This drone issue was a hot topic at the NEI Security/EP Summit in June (I was presenting for a couple of things). It is my understanding that the air space above NPPs is still public. The NOTAM (notice to airmen) that the FAA issued years ago is applicable to drones, but it just says do not loiter above. It is not a no fly zone.

There are requirements associated with drones that were likely not followed in these cases: minimum/maximum altitude, notification of airports within a certain distance (Limerick airport is certainly within this distance from the site), and line of site piloting which is required unless you have an FAA exemption.

At the summit, industry discussed some sites that are attempting to get FAA approval for a no fly zone or at least an exemption to "take action" on drones over their airspace. Nothing substantive from those efforts with FAA yet.

Let me know if you want someone to stop down.

Dana C. Caron

Senior Physical Security Inspector

Region 1, Plant Support Branch 1

Office: 610-337-5140

Cell: (b)(7)(C)

From: Greives, Jonathan
Sent: Monday, August 13, 2018 7:29 AM
To: Caron, Dana <Dana.Caron@nrc.gov>
Cc: McKinley, Raymond <Raymond.McKinley@nrc.gov>
Subject: FW: ~~OOO~~ SID Distribution- Limerick Drone Flyover

Dana,

I heard that Ray may be late and wanted you to have the question from Jack and my initial response.

Jon

From: Greives, Jonathan
Sent: Monday, August 13, 2018 7:26 AM
To: Giessner, John <John.Giessner@nrc.gov>; McKinley, Raymond <Raymond.McKinley@nrc.gov>
Subject: RE: ~~OOO~~ SID Distribution- Limerick Drone Flyover

Jack,

I think that may have been in a response email from Ray McKinley. I'm on the road at Peach Bottom today, but will make sure Ray stops down to answer your questions.

All that said, my understanding is that the basis is that it's public airspace and as long as they are operating in accordance with FAA drone guidelines, it is not against the law. That said, similar to a photographer that parks on public property and takes pictures of a NPP, plant security engages LLEA to attempt to intercept the responsible parties to identify their intentions and would likely request voluntary deletion of any photographs.

Regards,

Jon

From: Giessner, John
Sent: Monday, August 13, 2018 7:10 AM

To: Greives, Jonathan <Jonathan.Greives@nrc.gov>; McKinley, Raymond <Raymond.McKinley@nrc.gov>

Subject: Re: ~~OOO~~-SID Distribution- Limerick Drone Flyover

Thanks Jon. One of your talking points last time was about the legality (I think I recall) and saying there is no prohibition. I know there has been debate but is it nrc position that drones inside the PA don't have a legal precedent; ie not considered private property because it's in the air. Just want to make sure I understand. Stop down for a couple minutes

Jack

Thanks!

On: 13 August 2018 05:49,
"Greives, Jonathan" <Jonathan.Greives@nrc.gov> wrote:

All,

See attached for more details, but in summary last night there was a coordinated flyover of 2 drones at the Limerick PA. This was similar to the event described last Friday. Security entered (b)(7)(F) and notified LLEA and Pennsylvania State Police who were unable to find the responsible individual(s). (b)(7)(F) Limerick also made voluntary notifications to the FAA and FBI. As stated in the attached SIDS report, ILTAB was notified. Though the drones did fly over the protected area, they did not pose a threat to Limerick personnel or SSCs.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Regards,
Jon

Jonathan Greives, Chief
Projects Branch 4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission- Region 1
610-337-5337 (W)
(b)(7)(C) (C)
jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X
Sent: Monday, August 13, 2018 1:53 AM
To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice: 08/13/2018

~~FOR OFFICIAL USE ONLY -- LIMITED DISTRIBUTION~~

SID#: SID-02939 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

From: [McKinley, Raymond](#)
To: [Greives, Jonathan](#)
Subject: Re: ~~OTH~~ SID Distribution- Limerick Drone Flyover
Date: Friday, August 24, 2018 7:58:54 AM

Thanks. I'll be heading in to the office. I'll be there around 9:30.

Ray M

On: 24 August 2018 06:34, "Greives, Jonathan" <Jonathan.Greives@nrc.gov> wrote:

All,

See attached for more details, but in summary last night at approximately 9:00 p.m., there was reported drone activity at Limerick. This was similar to the previous events over the past several weeks. Security entered (b)(7)(F) and notified LLEA and Pennsylvania State Police who were unable to find the responsible individual(s). Limerick also made voluntary notifications to the FAA and FBI. As stated in the attached SIDS report, ILTAB was notified. Though the bulk of the activity was over the OCA, the drones did fly over the protected area in the vicinity of the ISFSI, and did not pose a threat to Limerick personnel or SSCs.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Regards,
Jon

Jonathan Greives, Chief
Projects Branch 4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission- Region 1
610-337-5337 (W)
(b)(7)(C) (C)
jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X
Sent: Friday, August 24, 2018 2:14 AM
To: Janda, Donna <Donna.Janda@nrc.gov>
Subject: SID Notice: 08/24/2018

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

SID#: SID-02941 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100

Fax: 301-816-5151

email: hoo.hoc@nrc.gov

secure e-mail: hool@nrc.sgov.gov

From: [Young, Matt](#)
To: [Lew, David](#); [Lorson, Raymond](#); [Pelton, David](#); [Krohn, Paul](#); [Yerokun, Jimi](#); [Welling, Blake](#)
Cc: [Greives, Jonathan](#); [Carfang, Erin](#); [Dimitriadis, Anthony](#); [Jackson, Donald](#); [Gray, Mel](#); [McKinley, Raymond](#); [Dentel, Glenn](#); [Barber, Scott](#); [Shaffer, Steve](#); [Rosebrook, Andrew](#); [Ayala, Juan](#); [Hardgrove, Matthew](#); [Boguszewski, Peter](#); [Safouri, Christopher](#); [Allen, Eben](#); [Beacon, Daniel](#)
Subject: ***Official Use Only - Exelon Drop In Pre-Brief Information***
Date: Tuesday, October 23, 2018 2:57:15 PM
Attachments: [Exelon Drop-in 10-24-2018 Briefing Package Final.docx](#)

The remaining 31 pages of the attachment discusses topics that are not related to drones, and are being withheld as non-responsive records

Attached is an updated Pre-brief package. I have fixed some minor editorial issues and added a paragraph on "Project Legacy" to the Personnel/Org Changes section.

Exelon Drop-in Visit to NRC Region I
October 24, 2018

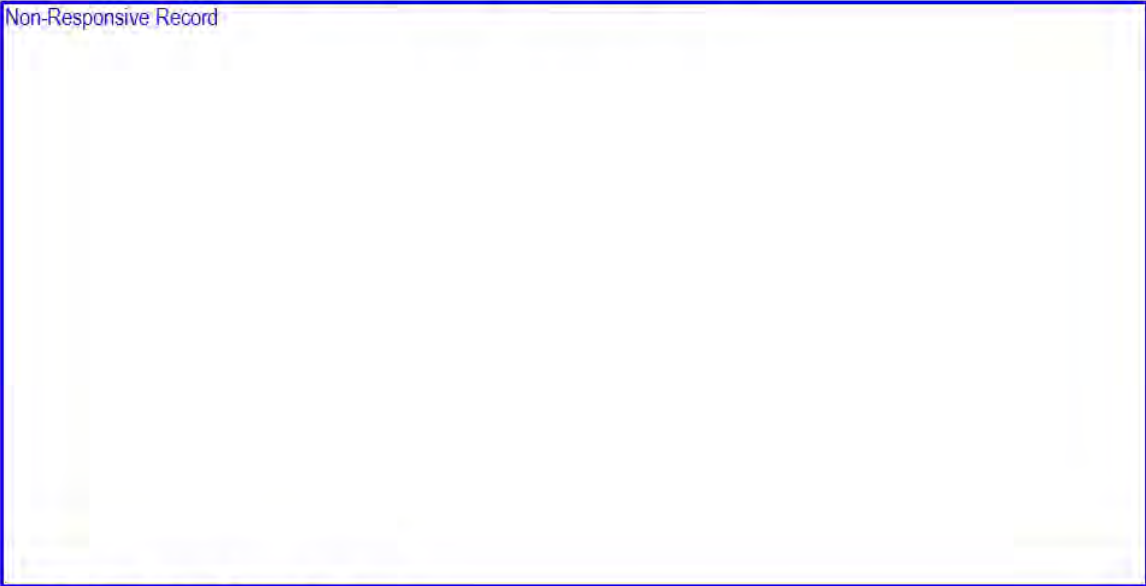
Exelon Attendees

Chris Mudrick, Senior Vice President and Chief Operating Officer, Exelon Nuclear
Tom Dougherty, Senior Vice President, Mid-Atlantic Operations, Exelon Nuclear
George Gellrich, Vice President – Licensing, Regulatory Affairs, and Corporate Security
Jim Barstow, Director, Mid-Atlantic Licensing and Regulatory Affairs, Exelon Nuclear
Dave Helker, Manager, Mid-Atlantic Licensing and Regulatory Affairs, Exelon Nuclear
Dave Gudger, Manager for Mid-Atlantic Licensing Northeast, Exelon Generation - Nuclear,
Kennett Square, Pennsylvania

Exelon General Discussion Topics

- Non-Responsive Record
- Physical Security Issues
- Non-Responsive Record
-
-
-
-
-
-
-
-
-
-
-
-
-

Agency Information on Exelon's General Discussion Topics

- Non-Responsive Record
- 

- **Exelon Physical Security Issues**

Increased drone activities in the past year at several Exelon sites. Specifically Limerick has had several SID reports in the past few months reporting that several drones were observed flying over the owner controlled area. Exelon is working with local and federal law enforcement agencies to address the issue. NSIR is engaged with other agencies to address drones in general

- Non-Responsive Record
- 

From: [Bower, Fred](#)
To: [Diane Screnci \(Diane.Screnci@nrc.gov\)](#); [Scott, Michael](#)
Cc: [Nieh, Ho](#); [Neil Sheehan \(Neil.Sheehan@nrc.gov\)](#); [Barber, Scott](#); [Esch, Nicole](#); [Greives, Jonathan](#); [Hansell, Samuel](#); [Lin, Brian](#); [matthew.fannon@nrc.gov](#); [Meier, Peter](#); [Rutenkroger, Scott \(Scott.Rutenkroger@nrc.gov\)](#); [Turilin, Andrey](#); [Ennis, Rick](#); [Hughey, John](#)
Subject: ACE LETTER: Attend NRC meeting May 21 to voice concerns about Limerick nuke plant
Date: Thursday, May 21, 2015 7:14:00 AM

Info Only

The Mercury (<http://www.pottsmmerc.com>)

LETTERS: Attend NRC meeting May 21 to voice concerns about Limerick nuke plant

Wednesday, May 20, 2015

Diane Screnci's April 19 letter claiming "Safety is primary concern of NRC" is refuted by reality,

If NRC's primary concern was safety, NRC would be closing Limerick Nuclear Plant as soon as possible,

NRC has in fact shown reckless disregard for the consequences of Limerick Nuclear Plant operations on the people in the Greater Philadelphia Region, Despite ACE's repeatedly expressed public concerns on a broad range of unprecedented health and safety issues related to Limerick, NRC's responses have shown that NRC really doesn't care about health and safety. NRC's reckless disregard is identified by inaction related to Limerick's threats and harms below:

- More radiation releases from Limerick using high-bum fuel
- Radioactive contamination of vital drinking water resources
- Depletion and pollution of drinking water for almost two million people from Pottstown to Philadelphia
- Massive PMIO air pollution (more deadly than ozone) from Limerick's cooling towers
- Faster corrosion of equipment and systems than estimated
- Unprecedented earthquake risk could result in Fukushima-like multiple meltdowns
- Tons of deadly high-level radioactive wastes piling up on-site, in our back yard, with no long-term safe solution
- More dangerous high-level radioactive waste storage and transport from using high bum fuel
- Limerick is less safe four years after Fukushima, NRC failed to require Exelon comply with NRC's post Fukushima recommendations to minimize meltdown risks
- Inadequate safeguards against terrorists air strikes, missiles, drones and cyber attack threats

- Derailment and/or explosions from crude oil bomb trains traveling through the Limerick site

Costs to Exelon always trump public safety in NRC decisions. Exelon is making a mockery of NRC's 2012 Post-Fukushima Orders to prevent meltdowns. NRC is allowing Exelon to delay costs of compliance (for up to seven years, maybe longer), That seriously jeopardizes the health and financial interests of millions of people in the Greater Philadelphia Region because NRC's 2012 recommendations were about mitigating meltdown risks at Limerick,

Meltdown threats are increasing dramatically at Limerick from massive fracking that can trigger earthquakes, to tornado wind/missile hazards, and cyber and drone attacks. Yet, Limerick's Fukushima like reactors are no safer now than before the Fukushima meltdowns in 2011:

- Despite increasing risks for Limerick meltdowns, NRC allowed Exelon to avoid costs for radiation filters. In 2012, NRC's own staff said these filters were imperative, regardless of cost to industry, because the vents installed to minimize explosions would become "radioactive fire hoses into the sky." Three years after NRC's 2012 orders, Exelon still doesn't even have plans completed for vents.
- Despite increasing risk of earthquakes from fracking, and the unprecedented risk of meltdowns from Limerick's reactors and fuel pools built with substandard cement directly over fault fractures, NRC is ignoring risks. Four other earthquake faults are within 17 miles of Limerick. Even the August 23, 2011 Virginia earthquake jolted Limerick. Miles of Limerick's underground pipes and cables vital to preventing meltdowns can be disrupted, yet are not actually inspected. Often, NRC allows Limerick's monitoring systems to remain inoperable for long periods of time, even over a year sometimes. NRC's solution to Limerick's unprecedented earthquake risks: Allow Exelon until 2019 to complete a "self serving seismic study." Hardly risk reduction!
- Despite increasing tornado risks, even in our region, NRC admitted in its March 17 audit report that Limerick is not reasonably protected against the tornado wind/missile hazard. Equipment needed to mitigate a tornado would not be available.

NRC's PR people appear to be either uninformed or ethically challenged. How could Ms. Screnci claim NRC cares about safety?

NRC is holding a public meeting at the Limerick Township Building Thursday, May 21, (right before Memorial Day weekend). Another tactic to limit public participation. If you can attend, please talk to ACE members with graphics identifying all the reasons why NRC should close Limerick if they really care about our safety. For more information see www.acereport.org or email aceactivists@comcast.net.

-Donna Cuthbert

ACE

URL: http://www.pottsmmerc.com/opinion/2015_0520/letten-attmd-nrc-meeting-may-21-to-voice-concerns-about-limerick-nuke-plant

©2015 The Mercury (<http://www.pottsmmerc.com>)

Fred Bower

**USNRC Region I Branch Chief with Oversight Responsibility for Limerick, Peach Bottom
and Susquehanna**

| 2100 Renaissance Boulevard, STE 100, King of Prussia, PA 19406 |

| ☎: (610) 337-5200 |

From: [Bower, Fred](#)
To: ["Margaret Thompson"](#); ["Laurie Pinkham"](#); ["G. Scott Barber \(Scott.Barber@nrc.gov\)"](#); [Klukan, Brett](#); ["Andrey Turilin"](#); [Ennis, Rick](#)
Cc: [Scott, Michael](#); [Nieh, Ho](#); [Diane Screnci \(Diane.Screnci@nrc.gov\)](#); [Neil Sheehan \(Neil.Sheehan@nrc.gov\)](#); [Tiff, Doug](#); [Nancy McNamara \(Nancy.McNamara@nrc.gov\)](#); [Rutenkroger, Scott \(Scott.Rutenkroger@nrc.gov\)](#); [matthew.fannon@nrc.gov](#); [R1ALLEGATION RESOURCE](#); [Broaddus, Doug](#)
Subject: ACE's AAM Document Submittal
Date: Tuesday, May 26, 2015 7:10:00 AM
Attachments: [NRC HAS LOST TOUCH WITH REALITY.pdf](#)

Attachment public at
ML15146A226

(b)(5)

All others, FYI only

Thanks all,

Fred

From: [Bower, Fred](#)
To: [Ziedonis, Adam](#)
Subject: RE: NRC Daily News Brief - July 30, 2020
Date: Thursday, July 30, 2020 10:20:00 AM

Thanks for sharing. I had not seen it in the news clips yet.

I vaguely remember it being in a SID from last year; however, they are not widely distributed. You may or may not be aware that well before that, Limerick experienced something similar if I recall correctly.

Fred

Non-Responsive Record



From: Media Analyst (NRC) <nrcmediaanalyst@barbaricum.com>
Sent: Thursday, July 30, 2020 6:45 AM
To: NRC News Summary <nrcnewssummary@usnrc.onmicrosoft.com>
Subject: NRC Daily News Brief - July 30, 2020

Good morning,

Please find the attached NRC Daily News Brief for July 30, 2020. The Daily News Brief can also be found at <https://nrc.barbaricumanalytics.com/Home/Daily>.

From: [Greives, Jonathan](#)
To: [Bower, Fred](#)
Subject: RE: SID Notice: 08/10/2018
Date: Friday, August 10, 2018 12:10:36 PM

Thanks. Yeah, Scott is looking into that. He already provided them feedback that he expected a call, but we're going to confirm what they should have done by procedure. Scott indicated they're going through a revision to that procedure right now.

From: Bower, Fred
Sent: Friday, August 10, 2018 12:04 PM
To: Greives, Jonathan <Jonathan.Greives@nrc.gov>
Subject: Re: SID Notice: 08/10/2018

Jon,

Another thought

Exelon has a procedure for when to notify the resident staff. The residents should check to verify if the procedure was properly implemented for this event and consider feedback to the licensee or a request for a procedure revision.

Sent from my iPhone

On: 10 August 2018 11:33,
"Greives, Jonathan" <Jonathan.Greives@nrc.gov> wrote:

Thanks Dan. We've had drone flyovers at plants before and I envision we'll have many more in the future. This may have been a little different because it was multiple drones. Does anyone know how this has been communicated in the past?

-----Original Message-----

From: Schroeder, Daniel
Sent: Friday, August 10, 2018 11:30 AM
To: Greives, Jonathan <Jonathan.Greives@nrc.gov>; Bower, Fred <Fred.Bower@nrc.gov>; Dimitriadis, Anthony <Anthony.Dimitriadis@nrc.gov>; Ferdas, Marc <Marc.Ferdas@nrc.gov>; Cahill, Christopher <Christopher.Cabill@nrc.gov>; Young, Matt <Matt.Young@nrc.gov>
Subject: RE: SID Notice: 08/10/2018

Because of the uniqueness of the threat and public concern over drone attacks, this should have been elevated last night.

I feel it would have been prudent to communicate based on the perception of a threat. If a reporter called the region this morning, it would be better for them to be prepared to address the questions.

Dan

-----Original Message-----

From: Greives, Jonathan
Sent: Friday, August 10, 2018 10:43 AM
To: Bower, Fred <Fred.Bower@nrc.gov>; Dimitriadis, Anthony <Anthony.Dimitriadis@nrc.gov>;
Ferdas, Marc <Marc.Ferdas@nrc.gov>; Schroeder, Daniel <Daniel.Schroeder@nrc.gov>; Cahill,
Christopher <Christopher.Cahill@nrc.gov>; Young, Matt <Matt.Young@nrc.gov>
Subject: FW: SID Notice: 08/10/2018

FYI- Got feedback from Ray that he would have expected a call on this last night. In this case, the site didn't call the SRI, and therefore I was not notified. We would have expected that based on a change in security posture (b)(7)(F) and notification of offsite.

That said, given that by the time I would have been notified by the SRI, the event would have been over and it wasn't threatening behavior, not sure I would have called the DD/DDD anyway and probably would have sent a text.

Just sharing for awareness if you would have taken the same approach as me. Let me know if you have different thoughts or if I'm way off on what I would have done...still trying to figure out this whole BC thing!

-----Original Message-----

From: Cahill, Christopher
Sent: Friday, August 10, 2018 7:46 AM
To: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Rutenkroger, Scott <Scott.Rutenkroger@nrc.gov>
Subject: FW: SID Notice: 08/10/2018

-----Original Message-----

From: Hoc, HOO X
Sent: Friday, August 10, 2018 5:53 AM
To: Hoc, HOO X <HOO.Hoc@nrc.gov>
Subject: SID Notice: 08/10/2018

~~FOR OFFICIAL USE ONLY~~ - LIMITED DISTRIBUTION

SID#: SID-02938 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hool@nrc.gov

From: [McKinley, Raymond](#)
To: [Klukan, Brett](#); [Teator, Jeffrey](#)
Subject: RE: OOO- SID Distribution- Limerick Drone Swarm Flyover
Date: Thursday, August 16, 2018 8:54:42 PM

Yes, from what I have since learned, your description is accurate.

Thanks,

Ray

From: Klukan, Brett
Sent: Wednesday, August 15, 2018 12:05 AM
To: Teator, Jeffrey <Jeffrey.Teator@nrc.gov>; McKinley, Raymond <Raymond.McKinley@nrc.gov>
Subject: RE: OOO- SID Distribution- Limerick Drone Swarm Flyover

Ray,

I'm no expert but I'm not sure what FAA program the security manager is referencing. I'm guessing that he's thinking of a geo-fencing feature (voluntarily) implemented by certain drone manufacturers, such as DJI, for certain models of drones ((1) <https://www.heliguy.com/blog/2017/02/16/heliguys-guide-to-geofencing/>; (2) <https://www.theatlantic.com/technology/archive/2017/03/drones-invisible-fence-president/518361/>). Such features rely on data provided by FAA to establish "no-fly-zones." However, just to be clear, not all drones are equipped with this kind of safety technology.

Cheers,
Brett

From: Teator, Jeffrey
Sent: Friday, August 10, 2018 1:52 PM
To: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Klukan, Brett <Brett.Klukan@nrc.gov>
Subject: Re: OOO- SID Distribution- Limerick Drone Swarm Flyover

Got it Ray. Thanks. Jeff

On: 10 August 2018 12:56, "McKinley, Raymond" <Raymond.McKinley@nrc.gov> wrote:
~~OOO- SECURITY RELATED INFORMATION~~

Brett and Jeff, FYI.

Ray M

-----Original Message-----
From: McKinley, Raymond

Sent: Friday, August 10, 2018 11:39 AM

To: Huyck, Doug <Doug.Huyck@nrc.gov>; Johnson, Dante <Dante.Johnson@nrc.gov>; Pearson, Laura <Laura.Pearson@nrc.gov>; (b)(7)(C) <(b)(7)(C)>; Orth, Steven <Steven.Orth@nrc.gov>; Groom, Jeremy <Jeremy.Groom@nrc.gov>; Desai, Binoy <Binoy.Desai@nrc.gov>; Rivers, Joseph <Joseph.Rivers@nrc.gov>; Gott, William <William.Gott@nrc.gov>; Pham, Bo <Bo.Pham@nrc.gov>; Rivera, Alison <Alison.Rivera@nrc.gov>
Cc: Bream, Jeffrey <Jeffrey.Bream@nrc.gov>; Caron, Dana <Dana.Caron@nrc.gov>; Cherubini, John <John.Cherubini@nrc.gov>; Hussar, Kenneth <Kenneth.Hussar@nrc.gov>; McCarver, Sammy <Sammy.McCarver@nrc.gov>; Rey, Jeremiah <Jeremiah.Rey@nrc.gov>
Subject: FW: OOU- SID Distribution- Limerick Drone Swarm Flyover
Importance: High

~~OOU - SECURITY RELATED INFORMATION~~

All,

We had an unusual drone swarm fly over Limerick last night. There was no overt threat, but the activity was highly unusual. Several drones were involved which appeared to be on a pre-programmed flight path. We also had a picture taker with a telephoto lens in the OCA earlier in the day, but the individual left the scene before security could engage the individual.

I spoke with the Security Manager today, and I learned something new. Apparently, the FAA has a program embedded in drones that will force the drones to land if they fly within a certain bubble around PA. You have to get a code from the FAA to defeat that feature if you want to fly inside that "bubble". In this case, Security thinks that these drones were able to fly through the "bubble" over the PA, so they either had the FAA code or they were able to hack through the FAA program. I am not sure if any of you knew about this drone feature. It would be great if someone from NSIR could contact FAA to learn more about this feature and communicate it out to everyone for awareness.

Also, take a look at the thread below. My new Deputy RA (Ray Lorson) asked a good question regarding our response. While I think we handled this particular issue appropriately in terms of our response, I think we may need to add a section to our IAT procedure to provide some additional guidance for drones. Specifically, what might constitute a sufficient "threat" to trigger an IAT call or other NRC actions? We should probably discuss this on our next NSIR/Regional Branch Chief Counterparts call.

I did contact the ILTAB Duty Officer (b)(7)(C) today just for awareness. We have seen previous activity similar to this at Diablo Canyon in the past, but no recent activity to suggest coordination with this new incident at Limerick. This may be worthy of mentioning at an upcoming Threat Brief.

Please feel free to share this with anyone having a need to know that I missed.

Ray McKinley
Chief, Plant Support Branch
U.S. NRC Region I

~~OOU - SECURITY RELATED INFORMATION~~

-----Original Message-----

From: McKinley, Raymond
Sent: Friday, August 10, 2018 9:57 AM

To: Lorson, Raymond <Raymond.Lorson@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>
Cc: Caron, Dana <Dana.Caron@nrc.gov>; Cherubini, John <John.Cherubini@nrc.gov>
Subject: RE: ~~OUO~~- SID Distribution- Limerick Drone Flyover

~~OUO~~ - SECURITY RELATED INFORMATION

I would characterize this activity as very unusual but non-threatening. From my perspective, threatening activity would include extreme low altitude maneuvers over equipment or buildings that could potentially cause damage, actually cause damage or personnel injury, or landing in the PA or critical OCA areas such as the switchyards. I agree that it would be helpful to have a defined threshold for escalated NRC engagement. We will follow up with our peers.

Thanks,

Ray M

-----Original Message-----

From: Lorson, Raymond
Sent: Friday, August 10, 2018 9:28 AM
To: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>
Subject: RE: ~~OUO~~- SID Distribution- Limerick Drone Flyover

Ray - thanks. Agree with reaching out. I am not familiar with the airspace restrictions but it sounds like part of the flite was over the plant; in any event we should engage NSIR and develop a consistent approach for how to react to events like this. I am not clear how we differentiate a threat flyover from a non-threat flyover?

Ray

-----Original Message-----

From: McKinley, Raymond
Sent: Friday, August 10, 2018 9:25 AM
To: Lorson, Raymond <Raymond.Lorson@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>
Subject: RE: ~~OUO~~- SID Distribution- Limerick Drone Flyover

No. There was no threat and the drones were operating in unrestricted airspace under FAA regulations. We will engage the ILTAB duty officer for awareness. This type of activity has occurred at other facilities such as Diablo Canyon. Worthy of note, but no need for an IAT call.

Ray M

-----Original Message-----

From: Lorson, Raymond
Sent: Friday, August 10, 2018 9:21 AM
To: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Greives, Jonathan <Jonathan.Greives@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>

Subject: FW: OOO- SID Distribution- Limerick Drone Flyover

Jimi et al:

Should a coordinated flyover like this have triggered an ILTAB call?

Ray

-----Original Message-----

From: Greives, Jonathan

Sent: Friday, August 10, 2018 7:30 AM

To: Bickett, Brice <Brice.Bickett@nrc.gov>; Crisden, Cherie <Cherie.Crisden@nrc.gov>; Tiff, Doug <Doug.Tiff@nrc.gov>; Sheehan, Neil <Neil.Sheehan@nrc.gov>; Screnci, Diane <Diane.Screnci@nrc.gov>; Lorson, Raymond <Raymond.Lorson@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>; Lew, David <David.Lew@nrc.gov>; Giessner, John <John.Giessner@nrc.gov>

Cc: McKinley, Raymond <Raymond.McKinley@nrc.gov>; Caron, Dana <Dana.Caron@nrc.gov>; Cherubini, John <John.Cherubini@nrc.gov>; Barber, Scott <Scott.Barber@nrc.gov>; Rutenkroger, Scott <Scott.Rutenkroger@nrc.gov>; Beacon, Daniel <Daniel.Beacon@nrc.gov>; Fannon, Matthew <Matthew.Fannon@nrc.gov>; Turilin, Andrey <Andrey.Turilin@nrc.gov>

Subject: OOO- SID Distribution- Limerick Drone Flyover

All,

See attached for more details, but in summary last night there was a coordinated flyover of 4-6 drones at the Limerick PA. Security entered (b)(7)(F) and notified LLEA who were unable to find the responsible individuals. (b)(7)(F) Limerick also made voluntary notifications to the FAA and FBI.

PB4 will coordinate with DRS and PAOs/SLOs for any additional information or follow-up.

Jon

Jonathan Greives, Chief
Projects Branch 4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission- Region 1
610-337-5337 (W)
(b)(7)(C) (C)
jonathan.greives@nrc.gov

-----Original Message-----

From: Hoc, HOO X

Sent: Friday, August 10, 2018 5:53 AM

To: Hoc, HOO X <HOO.Hoc@nrc.gov>

Subject: SID Notice: 08/10/2018

~~FOR OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

SID#: SID-02938 ; Limerick ; Open

The following attached report may contain "law enforcement sensitive" information. Please do not relay this information to individuals who do not have a "need to know".

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hool@nrc.sgov.gov

From: (b)(7)(C)
To: [Caron, Dana](#); [Cherubini, John](#); [McKinley, Raymond](#); [Lorson, Raymond](#); [Wallo, Jon](#); [Shehee, James](#); [Desai, Binoy](#); [Gody, Tony](#); [Miller, Mark](#); [Maynen, Joseph](#); [Orth, Steven](#); [O'Brien, Kenneth](#); [Shuaibi, Mohammed](#); [Egan, Nathan](#); (b)(7)(C) [Warnick, Greg](#); [Larsen, Jim](#); [Meyen, Arnold](#); [Rollins, Jesse](#); [Steely, Chris](#)
Cc: [Pearson, Laura](#)
Subject: FW: (U//FOUO) JIB: Small Unmanned Aircraft Systems Continue to Pose Threat
Date: Wednesday, August 15, 2018 10:40:09 AM
Attachments: [\(U//FOUO\) JIB -Small Unmanned Aircraft Systems Continue to Pose Threat 08132018.pdf](#)

6-page attachment is being withheld in its entirety as a "non-responsive record", as it is not specific to drones flyover at Limerick

Fellow IAT members:

(U//FOUO) As you know, drone flights over NPPs are becoming more and more common (including two recent incidents at Limerick involving multiple drones during hours of darkness). The attached Joint Intelligence Bulletin is being forwarded to you for your situational awareness.

(U//FOUO) Since it is a DHS product, it cannot be shared with licensees without the specific approval of DHS. However, those licensee security managers who have HSIN accounts should be able to pull it up.

Greg

(b)(7)(C)

*Sr. Intelligence Specialist
Intelligence Liaison & Threat Assessment Team
U.S. NRC*

(b)(7)(C) Office)
Cell)

2in-color-nrc-logo



Non-Responsive Record

From: [Manning, Louis](#)
To: [Ennis, Tina](#)
Subject: FW: Unmanned Aerial Vehicles One-Pager
Date: Thursday, October 22, 2020 9:43:23 AM
Attachments: [image002.png](#)

From: Dimitriadis, Anthony
Sent: Monday, March 4, 2019 2:47 PM
To: Cline, Leonard <Leonard.Cline@nrc.gov>; Boguszewski, Peter <Peter.Boguszewski@nrc.gov>
Cc: Ziedonis, Adam <Adam.Ziedonis@nrc.gov>
Subject: FW: Unmanned Aerial Vehicles One-Pager

One more

Anthony Dimitriadis, Chief
Projects Branch 5
Division of Reactor Projects



US NRC Region I
2100 Renaissance Blvd
King of Prussia, PA 19406
Telephone: 610-337-6953 (office)
Cell: (b)(7)(C) (cell)
Fax: 610-337-5320
E-mail: Anthony.Dimitriadis@nrc.gov

μολών λαβέ !

From: Welling, Blake
Sent: Monday, March 04, 2019 2:34 PM
To: Dimitriadis, Anthony <Anthony.Dimitriadis@nrc.gov>
Subject: FW: Unmanned Aerial Vehicles One-Pager

From: Welling, Blake
Sent: Friday, August 31, 2018 11:22 AM
To: Lew, David <David.Lew@nrc.gov>; Giessner, John <John.Giessner@nrc.gov>
Cc: Yerokun, Jimi <Jimi.Yerokun@nrc.gov>
Subject: FW: Unmanned Aerial Vehicles One-Pager

Dave/Jack,

NSIR just shared this one-pager with us. It mentions the multiple drone flights around

Limerick this month.

Blake

From: Curtis, David

Sent: Friday, August 31, 2018 11:02 AM

To: Miller, Chris <Chris.Miller@nrc.gov>; King, Michael <Michael.King2@nrc.gov>; Bailey, Marissa <Marissa.Bailey@nrc.gov>; Clark, Jeff <Jeff.Clark@nrc.gov>; Franke, Mark <Mark.Franke@nrc.gov>; Gody, Tony <Tony.Gody@nrc.gov>; Lantz, Ryan <Ryan.Lantz@nrc.gov>; Lara, Julio <Julio.Lara@nrc.gov>; Lorson, Raymond <Raymond.Lorson@nrc.gov>; Louden, Patrick <Patrick.Louden@nrc.gov>; Miller, Mark <Mark.Miller@nrc.gov>; Munday, Joel <Joel.Munday@nrc.gov>; O'Brien, Kenneth <Kenneth.O'Brien@nrc.gov>; Pelton, David <David.Pelton@nrc.gov>; Pretzello, Andrew <Andrew.Pretzello@nrc.gov>; Pruett, Troy <Troy.Pruett@nrc.gov>; Shuaibi, Mohammed <Mohammed.Shuaibi@nrc.gov>; Vegal, Anton <Anton.Vegal@nrc.gov>; Yerokun, Jimi <Jimi.Yerokun@nrc.gov>; Helton, Shana <Shana.Helton@nrc.gov>; Welling, Blake <Blake.Welling@nrc.gov>

Subject: Unmanned Aerial Vehicles One-Pager

As I mentioned during the Bi-Weekly HQ and Regional Division Directors Meeting this morning, attached is a one-pager on the current staff activities related to drones and NRC licensed facilities. This one-pager is intended to supplement the information Jim Andersen provided you in a message on August 13th.

If you have additional questions or would like to discuss, please let me know.

David Curtis
Deputy Director
Division of Physical and Cyber Security Policy
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission

(o) 301-287-3607

(m) (b)(7)(C)

