

February 26, 2016

Mr. Thomas Saporito
Saprodani Associates
401 Old Dixie Hwy, Unit 3525
Tequesta, FL 33469

Dear Mr. Saporito:

I am responding to your request to require licensees to inform the NRC on how they intend to prevent drone attacks. The U.S. Nuclear Regulatory Commission (NRC) staff evaluated your request pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.206, "Request for action under this subpart." This letter summarizes the NRC's evaluation of your request.

On July 30, 2015, during a transcribed teleconference with the petition review board (PRB) on your 2.206 petition regarding fracking, you requested that licensees be required to inform the NRC on how they intend to prevent drone attacks. You also suggested mounting protective structures over facilities and described devices that can be used to destroy or disable drones, as well as how to use them to protect a nuclear facility.

The transcript of that discussion is available in the NRC's Agencywide Documents Access and Management System (ADAMS).¹ You stated that your request applies to operating reactor licensees and to facilities that may not be currently operating, but continue to store nuclear fuel at the facilities.² On September 8, 2015, the petition manager for your petition on fracking informed you by e-mail that the PRB would treat your request as a separate petition.³ On September 25, 2015, a new petition manager assigned to your petition on drones offered you an opportunity to address a new PRB before its internal meeting to make the initial recommendation to accept or reject the petition for review; you accepted the offer.² On October 18, 2015, you supplemented your petition by e-mail and stated that you would refer to the supplement during the teleconference.⁴ You stated that the basis of your request was reports of serious violations committed by one or more individuals in the unauthorized operation of drones in areas strictly prohibited by law. On October 20, 2015, you addressed the PRB by teleconference. A transcript of that discussion is available in ADAMS.⁵

Your supplement requested^{2,4} that the NRC take escalated enforcement action against the subject licensees and issue a confirmatory order requiring licensees to take their nuclear facilities to a cold shutdown mode of operation until certain actions were accomplished.

¹ ADAMS Accession No. ML15218A475.

² ADAMS Accession No. ML15299A089.

³ ADAMS Accession No. ML15264B142.

⁴ ADAMS Accession No. ML15299A091.

⁵ ADAMS Accession No. ML15300A104.

Specifically, you requested that each licensee:

- complete an independent assessment to fully understand and correct the potential and/or realized security threat posed by outside organizations and/or individuals related to the operation of drones to attack the licensee's nuclear facility
- complete a comprehensive evaluation of its nuclear program as it relates to any potential and/or realized security threat posed by outside organizations and/or individuals related to the operation of drones to attack the licensee's nuclear facility
- identify and implement measures to correct any deficiencies in its security plan related to any potential and/or realized security threat posed by outside organizations or individuals related to the operation of drones to attack the licensee's nuclear facility
- submit an updated and NRC-approved physical security plan, which documents actions and measures to be taken against any potential and/or realized security threat posed by outside organizations and/or individuals related to the operation of drones to attack the licensee's nuclear facilities

On November 3, 2015, the PRB met to discuss your request for immediate enforcement action and to make an initial recommendation on the petition. On January 5, 2016, the petition manager informed you by e-mail⁶ that the PRB recommended rejecting your petition because the NRC has previously considered and addressed your concerns. Specifically, the NRC defers responsibility for regulating aircraft to the Federal Aviation Administration (FAA). Title 49 of the United States Code (49 U.S.C.), "Transportation," § 40103 requires the FAA to regulate aircraft operations, including those of unmanned aircraft systems (UASs), conducted in the national airspace to protect persons and property on the ground and to prevent collisions between aircraft and other aircraft or objects.

Although the FAA regulates aircraft operations, NRC staff continually reviews emerging threats to NRC-licensed facilities and makes prompt recommendations to the Commission when a specific attack mode is not addressed by the design basis threat (DBT). Specific emerging attack methods are evaluated for their destructive capability, the consequences of the attack, and the interest demonstrated by domestic and international terrorist groups to use the method in an attack against NRC-licensed facilities. As part of its evaluation, NRC staff also considers the ability of a terrorist group to plan, organize, and successfully execute the specific attack against an NRC-licensed facility.

The concerns you raised were evaluated in rulemakings for the DBT – 10 CFR 73, "Physical Protection of Plants and Materials" (72 *Federal Register* (FR) 12705; March 19, 2007), and the final rule for 10 CFR Parts 50, 52, 72, and 73 (74 FR 13926; March 27, 2009). In these rulemakings, the Commission stated that active protection against the airborne threat rests with other Federal government organizations. The Commission explicitly addressed security plan provisions noting that protection of NRC-licensed facilities against aircraft attacks is beyond the scope of a licensee's obligation.

⁶ ADAMS Accession No. ML16007A151.

The petition manager offered you a second opportunity to address the PRB, which you accepted.⁷ On January 14, 2016, you addressed the PRB in a teleconference. The transcript of that discussion is available in ADAMS.⁸ In that teleconference, you stated that your petition applied to hobby drones and model aircraft. You cited instances of the dangers posed by hobby drones and model aircraft, including terrorism associated with their operation, as the basis for your concern. You stated that the basis for NRC's rejection of your petition was incorrect because the FAA does not have the authority to regulate a model aircraft or an aircraft being developed as a model aircraft. You also stated that the NRC was incorrectly rejecting the petition on the basis that the concerns you raised were previously evaluated in rulemakings for the DBT – 10 CFR 73, "Physical Protection of Plants and Materials" (72 FR 12705; March 19, 2007), and the final rule for 10 CFR Parts 50, 52, 72, and 73 (74 FR 13926; March 27, 2009). You stated that these rulemakings apply to aircraft attacks and that they do not mention drones.

In response to information you provided during the second teleconference, the PRB considered the following additional information. The regulations in 49 U.S.C. § 40103 require the FAA to regulate aircraft operations, including those of drone/UAS or remote controlled model aircraft. The FAA Modernization and Reform Act of 2012, Public Law 112-95, defines unmanned aircraft as an aircraft that is operated without the possibility of direct human intervention from within the aircraft. Also, Section 336 of Public Law 112-95 defines a model aircraft as an unmanned aircraft that is capable of sustained flight in the atmosphere, flown within visual line of sight of the person operating the aircraft, and flown only for hobby or recreational purposes. Although the FAA does not place additional regulatory guidance on hobby aircraft, as compared to aircraft used for commercial purposes, the law specifies that hobby aircraft must not interfere with the safety of the National Airspace System and must comply with airspace restrictions, temporary flight restrictions, notice to airman bulletins and other guidance. Public Law 112-95 authorizes the FAA to pursue enforcement actions against persons operating model aircraft who endanger the safety of the National Airspace System.

The NRC staff has thus determined that the requirements in 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," and 10 CFR Section 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," address the safety and security threats that you cited in your petition. Therefore, the PRB rejects the petition under the criterion in the Management Directive 8.11, "Review Process for 10 CFR 2.206 Petitions," that the NRC has previously considered and addressed your concerns. This letter closes your 2.206 petition.

⁷ ADAMS Accession No. ML16007A151.

⁸ ADAMS Accession No. ML16019A475.

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On January 14, 2016, you requested that the PRB forward the transcript and documentation associated with your petition to the Office of the Inspector General; the PRB will do as you requested.

Thank you for sharing your concerns and engaging in the regulatory process.

Sincerely,

/RA/

Mirela Gavrilas, Deputy Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

T. Saporito

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Mirela Gavrilas, Deputy Director
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Office of Nuclear Reactor Regulation

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ADAMS Accession Nos.: Package ML15253A595, Letter ML16019A202 *Via e-mail

OFFICE	NRR/DPR/PGCB/PM	NRR/DPR/PGCB/LA*	NSIR/DSO/ILTAB	NSIR/DSO/ILTAB*
NAME	MBanic	ABaxter	DAllston	LPearson
DATE	02/25/16	02/23/16	02/23/16	02/25/16
OFFICE	NMSS/FMB/FSCE*	OGC (NLO)*	OE*	NRR/DPR/DD
NAME	RJohnson (LCuadrado for)	RCarpenter	DFurst	MGavrilas
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