



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

800 Independence Ave., S.W.  
Washington, D.C. 20591

May 7, 2015

Exemption No. 11238A  
Regulatory Docket No. FAA-2014-0719

Mr. Dallas Cormier  
San Diego Gas & Electric Company  
8316 Century Park Court  
San Diego, CA 92123

Dear Mr. Cormier:

This letter is to inform you that we have granted your petition to amend Exemption No. 11238. It explains the basis for our decision, describes its effect, and lists any changes to the original conditions and limitations.

By letter dated March 26, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of San Diego Gas & Electric Company (hereinafter petitioner or operator) for an amendment to Exemption No. 11238. That exemption from §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b) of Title 14, Code of Federal Regulations (14 CFR) allows the petitioner to perform aerial data collection. You requested an amendment to add four new aircraft, the InstantEye Mk-2 Gen3, the Pulse Aerospace Vapor 35, Vapor 55, and the PrecisionHawk Lancaster Hawkeye.

In your petition, you indicate that there has been no change in the conditions and reasons relative to public interest and safety that were the basis for granting the original exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested amendment to the exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner. The unmanned aircraft(s) authorized in the original grant are comparable in type, size, weight, speed and operating capabilities to those in this petition.

## **Airworthiness Certification**

In accordance with the statutory criteria provided in Section 333 of Public Law 112–95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*, and any associated noise certification and testing requirements of part 36, is not necessary.

## **Our Decision**

The FAA has determined that the justification for the issuance of Exemption No. 11238 remains valid with respect to this exemption and is in the public interest. Therefore, under the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, San Diego Gas & Electric Company is granted an amendment to its exemption that adds four new aircraft: InstantEye Mk-2 Gen 3, Pulse Aerospace Vapor 35, Vapor 55, and the PrecisionHawk Lancaster Hawkeye.

The operator shall add this amendment to the original Exemption No. 11238.

## **Conditions and Limitations**

All conditions and limitations within Grant of Exemption No. 11238 remain in effect except as follows. Condition No. 1 has been updated to reflect the additional aircraft, and is amended as follows.

In this grant of exemption, San Diego Gas & Electric Company is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

1. Operations authorized by this grant of exemption are limited to the InstantEye Mk-2 including the Gen 2 and Gen 3)<sup>1</sup>, Pulse Aerospace Vapor 35, Vapor 55, and the PrecisionHawk Lancaster Hawkeye when weighing less than 55 pounds including payload. Proposed operations of any other aircraft will require a new petition or a petition to amend this exemption.

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<sup>1</sup>Per Exemption No. 11238 issued on March 26, 2015, the FAA authorized the use of the InstantEye Mk-2 Gen2.

This exemption terminates on March 31, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

**Amendment for Exemption No. 11238 Regulatory Docket No. FAA-2014-0719**

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|---|---|
| <b>Registered Owner Name:</b><br><i>San Diego Gas &amp; Electric Company</i>  | <b>Registered Owner Name:</b><br><i>San Diego Gas &amp; Electric Company</i>  |
| <b>Registered Owner Address:</b><br><i>8316 Century Park Court<br/> San Diego CA 92123<br/> Attn: Dallas Cormier, CP52E</i> | <b>Registered Owner Address:</b><br><i>8316 Century Park Court<br/> San Diego CA 92123<br/> Attn: Dallas Cormier, CP52E</i> |
| <b>Aircraft Description:</b><br><i>Helicopter</i>   | <b>Aircraft Description:</b><br><i>Single Electric Motor Fixed Wing</i>   |
| <b>Aircraft Serial Number:</b><br>100296-100123 Vapor 35<br>100110-0123 Vapor 55  | <b>Aircraft Serial Number:</b><br>PCN 04E201513001<br>PCN 04E201513002  |
| <b>Aircraft Builder:</b><br><i>Pulse Aerospace</i>  | <b>Aircraft Builder:</b><br><i>Precision Hawk Inc.</i>  |
| <b>Year Manufactured:</b><br>2015   | <b>Year Manufactured:</b><br>2015   |
| <b>Aircraft Model Designation:</b><br><i>Vapor 35 &amp; 55</i>  | <b>Aircraft Model Designation:</b><br><i>PrecisionHawk Lancaster HawkEye</i>  |
| <b>Engine Model:</b><br>Kontronik Pyro 850-31   | <b>Engine Model:</b><br>E flight park 480   |

San Diego Gas & Electric Company (SDG&E) received Exemption No. 11238 on March 26, 2015 for the InstantEye Mk-2 Gen2.

SDG&E is requesting to amend that exemption to include three additional Unmanned Aircraft models: the Pulse Aerospace Vapor 35, Vapor 55 and the PrecisionHawk Lancaster Hawkeye. All Unmanned Aircraft are less than 55 lbs including payload and proprietary manuals will be submitted along with this amendment.

The Pulse Aerospace Vapor 35 has already received exemption No. 11241 with Phoenix Air Unmanned. The Vapor 55 is a scaled up version of the Vapor 35. The main difference between the Vapor 35 and Vapor 55 is the size, the maximum takeoff weight for the Vapor 35 is 30lbs and the max takeoff weight for the Vapor 55 is 55lbs. Performance is the same for both UAVs to include the same flight controls, safety features, autopilot, and avionics.

Precision Hawk Lancaster Hawkeye has also already received and exemption, Exemption No. 11274 with United Services Automobile Association on April 2, 2015.

None of our operations would change; we are just requesting to add additional Unmanned Aircraft to our exemption for greater flexibility.

**Amendment for Exemption No. 11238 Regulatory Docket No. FAA-2014-0719**

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| <b>Registered Owner Name:</b><br><i>San Diego Gas &amp; Electric Company</i>   | <b>Aircraft Builder:</b><br><i>Physical Sciences Inc.</i>         |
| <b>Registered Owner Address:</b><br><i>8316 Century Park Court<br/> San Diego CA 92123<br/> Attn: Dallas Cormier, CP52E</i>  | <b>Year Manufactured:</b><br><i>2014</i>                          |
| <b>Aircraft Description:</b><br><i>Vertical Take Off and Landing (VTOL)<br/> sUAS</i>  | <b>Aircraft Model Designation:</b><br><i>InstantEye Mk-2 Gen3</i> |
| <b>Aircraft Registration/Serial Number:</b><br><br>N55TD/0030200300632<br>N619FS/0030200300633<br>N619TD/0030200300634<br>N858JE/0030200300635<br>N858DC/0030200300636<br>N619CV/0030200300637<br>N554GE/0030200300638<br>N553GE/0030200300639 | <b>Engine Model:</b><br>Mk-2 Gen Brushless Motor                  |
|  | <b>Propeller Model:</b><br><i>PSI 7 x 5 Pusher</i>                |

San Diego Gas & Electric Company (SDG&E) received Exemption No. 11238 on March 26, 2015 for the InstantEye Mk-2 Gen2.

SDG&E is requesting to amended that exemption to include the InstantEye Mk-2 Gen3. Because it took over 6 months for our exemption request to get approved, the InstantEye Mk-2 Gen2 is now obsolete.

The InstantEye Gen 3 is the same Unmanned Aircraft as the Gen 2 but it's bigger in size and capabilities. The InstantEye is a vertical take off and landing (VTOL) quadrotor small unmanned aerial system (sUAS). The aircraft is in a "X" configuration with 4 rotors centered at the tips of its carbon fiber arms separated by 22.23 cm on a side for the Gen 3 vs. 20 cm on the Mk-2. The aircraft is all-electric with a brushless motor driving each rotor. There is a 4 Amp/Hour Lithium polymer rechargeable /replaceable battery at the bottom of the center of the aircraft on the Gen 3 vs. a 2 Amp/hour on the Gen 2. Maximum gross takeoff weight for the Gen 3 is 725g and the Gen 2 is 610g. Maximum endurance for the Gen 3 is 30 minutes and 20minutes for the Gen 3.