**Notice of Exemption** 2020080328 **Form D**

**To:** Office of Planning and Research
PO Box 3044
1400 Tenth Street, Room 113
Sacramento, CA 95812-3044

**From:** California Energy Commission
1516 Ninth Street, MS-48
Sacramento, CA 95814

**Project Applicant:** General Engineering & Research, L.L.C.

**Project Title:** High Efficiency Magnetic Refrigeration for Industrial Cryogenic Applications

**Project Location – Specific:** 10459 Roselle St, Ste A

**Project Location – City:** San Diego 92121 **Project Location – County:** San Diego

**Description of Nature, Purpose and Beneficiaries of Project:**

The purpose of this Agreement is to develop and test a high efficiency magnetic refrigeration technology that operates in the cryogenic temperature regime of 80 kelvins (K) to 10 K and which can significantly reduce electricity, operational and capital costs compared to current baseline compression technology. This Agreement will result in the ratepayer benefits of greater electricity reliability and lower costs by reducing the energy demand for industrial cryogenic refrigeration, which is required for a variety of processes in the high-tech manufacturing industry.

**Name of Public Agency Approving Project:** California Energy Commission

**Name of Person or Agency Carrying Out Project:** General Engineering & Research, L.L.C.

**Exempt Status:** (*check one)*

- ☐ Ministerial Exemption (Pub. Resources Code § 21080(b)(1); Cal. Code Regs., tit 14, § 15268);
- ☐ Declared Emergency (Pub. Resources Code § 21080(b)(3); Cal. Code Regs., tit 14, § 15269(a));
- ☐ Emergency Project (Pub. Resources Code § 21080(b)(4); Cal. Code Regs., tit 14, § 15269(b)(c));
- ☒ Categorical Exemption. State type and section number

  Cal. Code Regs., tit. 14, § 15301
- ☐ Statutory Exemptions. State code number.
- ☐ Common Sense Exemption. (Cal. Code Regs., tit 14, §15061(b)(3))

**Reasons why project is exempt:**

California Code of Regulations, title 14, section 15301 provides that projects which consist of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, and which involve negligible or no expansion of use beyond that existing at the time of the lead agency's determination, are categorically exempt from the provisions of the California Environmental Quality Act.

A bench scale refrigeration prototype will be built during this project.
The partial system will be placed on a 2ft x 3ft platform sitting on a lab countertop. The full system will probably be approximately 2ft wide by 6ft long by 3ft high. Plus, there will be 2 helium cylinders (~9in in diameter and 4ft tall), Dewar tank, and the helium compressor.

The helium compressor that is to be purchased is 115cm X 60cm X 70cm. It uses a standard 240V outlet. Several outlets are already available in the lab.

Authority cited: Sections 21083 and 21110, Public Resources Code. Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

The lab already has a 30L Dewar with dimensions of 18 inches in diameter and 35inches height. The larger 50L Dewar that is to be purchased is 20 inches in diameter and 40 inches height.

Approximately 400 square feet of lab space are available for this project. Everything that this prototype will need will plug into standard outlets already available in the lab. No new electrical work or panels are needed. This work will occur in an already existing laboratory facility and no modifications to the facility will be needed for this project.
These modifications will not result in any expansion of capacity. For these reasons, the proposed work will not have any significant effect on the environment and falls under section 15301.

**Responsible Agency**
**Contact Person:** Ilia Krupenich **Area code/Telephone/Ext:** 916-327-1648

**If filed by applicant:**
1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ☐ Yes ☐ No

**Signature:** _____ **Date:** _____ **Title:** _____

☒ **Signed by Responsible Agency**

☐ **Signed by Lead Agency**

☐ **Signed by Applicant**

Governor's Office of Planning & Research

Aug 19 2020

STATE CLEARINGHOUSE

**Date received for filing at OPR:** _____

Authority cited: Sections 21083 and 21110, Public Resources Code. Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.