Notice of Exemption **Form D**

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

From: California Energy Commission
715 P Street
Sacramento, CA 95814

Project Applicant: The Regents of the University of California on behalf of the Berkeley campus

Project Title: Performance-based Monitoring and Risk Assessment Tool for Gas Pipelines under Natural Forces

Project Location:

Address	City	County
37.8942111, -122.2560396	Berkeley 94708	Alameda
37.9610952, -122.3327224	San Pablo 94806	Contra Costa
37.013722, -121.487028	Gilroy 95020	Santa Clara
4125 Blackhawk Plaza Cir Ste 175	Danville 94506	Contra Costa
37.914316, -122.333204	Richmond 94804	Contra Costa

Description of Nature, Purpose and Beneficiaries of Project:

This project will demonstrate the use of remote and embedded sensing technologies to monitor and gain insights into the performance of gas infrastructure assets and manage risk. Sensing technologies will be deployed at two field sites and large-scale experimental sites. Data collected will be coupled with an open-source a seismic risk assessment tool in predictive modeling and data analytics. The project will increase gas system safety and reliability by enabling more accurate identification of at-risk infrastructure.

Name of Public Agency Approving Project: California Energy Commission

Name of Person or Agency Carrying Out Project: The Regents of the University of California on behalf of the Berkeley campus

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 ; Cal. Code Regs., tit. 14, § 15306
- ☐ Statutory Exemptions. State code number.
- ☐ Common Sense Exemption. (Cal. Code Regs., tit. 14, §15061(b)(3))

Reasons why project is exempt:

This project will demonstrate the use of remote and embedded sensing technologies to monitor and gain insights into the performance of gas infrastructure assets in California and manage risk through a complete system approach that includes sensors, field data collection, data management and analysis, and risk assessment. Sensing technologies will be deployed at two field sites and large-scale experimental sites. Data collected will

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

be coupled with an open-source integrated monitoring and seismic risk assessment tool in predictive modeling and data analytics (called OpenSRA II) for gas pipeline infrastructure portfolio managers to assess the current condition and predict the future reliability of gas pipeline infrastructure components and systems. The project will increase gas system safety and reliability by enabling more accurate identification of at-risk infrastructure.

California. Code Regs., tit 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 existing or former use, are categorically exempt from the provisions of the California Environmental Quality Act. This project will collect data using various sensing technologies to monitor and gain insights into the performance of gas pipeline infrastructure and manage risk. The sensing technologies are divided into two groups: remote and embedded sensing technologies. Tested remote sensing technologies will include (i) satellite-based interferometric synthetic aperture radar (InSAR) technology, (ii) light detection and ranging (LiDAR), (iii) optical cameras, and (iv) infrared and multispectral cameras. Tested embedded sensors will include (i) static distributed fiber optic strain sensors, (ii) dynamic distributed fiber optic acoustic sensors, (iii) distributed fiber optic temperature sensors, and (iv) Long Range Wide Area Networks with low-cost sensors for strain/tilt/temperature/soil moisture measurements. The sensing technologies will be coupled with OpenSRA II, a system seismic risk assessment methodology, and open-source software in predictive modeling and data analytics under uncertain scenarios. The project will be conducted at two field sites, the northern section of East Bay Hills-San Pablo along the Hayward Fault and a site in Gilroy on the Calaveras Fault, as well as at large-scale experimental sites. The sensing technologies that will be utilized at field and experimental sites will consist of minor modifications that will not result in expanding the capacity or use of the existing facilities.

This project is also exempt under California Code Regs., tit 14, section 15306 which provides that projects which consist of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource are categorically exempt from the provisions of the California Environmental Quality Act. This project will collect data within the two field sites located in the East Bay Hills-San Pablo and Gilroy areas in real-time, for at least 12 months. Remote and embedded sensing approaches to data collection will facilitate monitoring of geohazard impacts under any natural hazard ground motion scenario (i.e., earthquake, landslide, subsidence, and liquefaction). The instruments will be accessed remotely to obtain the data recorded. With the data, a digital twin of these sites will be created that will be used to monitor continuously, map ground activity, and perform simulations to understand the impact of ongoing processes and future ground movement scenarios on the gas pipeline system. The data will be incorporated into a user-friendly, integrated monitoring and risk assessment tool (called OpenSRA II) for gas pipeline infrastructure portfolio managers. These activities will not result in a serious or major disturbance to an environmental resource.

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

For these reasons, the proposed work will not have any significant effect on the environment and falls under the exemptions in sections 15301 and 15306.

This project will not impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies; does not involve impacts on any particularly sensitive environment; does not involve any cumulative impacts of successive projects of the same type in the same place that might be considered significant; does not involve unusual circumstances that might have a significant effect on the environment; will not result in damage to scenic resources within a highway officially designated as a state scenic highway; the project site is not included on any list compiled pursuant to Government Code section 65962.5; and the project will not cause a substantial adverse change in the significance of a historical resource. Therefore, none of the exceptions to categorical exemptions listed in CEQA Guidelines section 15300.2 apply to this project and this project will not have a significant effect on the environment.

Lead Agency
Contact Person: **Pooya Khodaparast** **Area code/Telephone/Ext:** **N/A**

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:** 2/7/2024 **Title:** Utilities Engineer

☒ **Signed by Responsible Agency**

☐ **Signed by Lead Agency**

☐ **Signed by Applicant** **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.