

**DUTY STATEMENT**

**DUTY STATEMENT**

|   |                                  |
|---|----------------------------------|
| Employee Name: Vacant                                   | Current Date: 4/15/2024          |
| Classification: Air Pollution Specialist (APS)          | Position #: 673-310-3887-040     |
| Division/Office: Research Division                      | CBID: R09                        |
| Section: Remote Sensing & Data Analysis Section (RSDAS) |                                  |
| Supervisor Name: Stephen Zelinka                        | Supervisor Classification: ARS I |

|  |       |
|--|-------|
| I certify that this duty statement represents an accurate description of the essential functions of this position. |       |
| Supervisor:  | Date: |

|  |       |
|--|-------|
| I have read this duty statement and agree that it represents the duties I am assigned. |       |
| Employee:  | Date: |

**SPECIAL REQUIREMENTS OF POSITION (IF ANY):**

- Designated under Conflict of Interest Code.
- Duties performed may require pre-employment physical.
- Duties performed may require drug testing.
- Duties require participation in the DMV Pull Notice Program.
- Requires the utilization of a 32-pound self-contained breathing apparatus.
- Operates heavy motorized vehicles.
- Requires repetitive movement of heavy objects.
- Works at elevated heights or near fast moving machinery or traffic.
- Performs other duties requiring high physical demand. (Explain below):
- Duties require use of hearing protection and annual hearing examinations.

**SUPERVISION EXERCISED**

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| <input type="checkbox"/> None       | <input type="checkbox"/> Lead Person |
| <input type="checkbox"/> Supervisor | <input type="checkbox"/> Team Leader |

**DUTY STATEMENT**

ASD/HRB-12 (REV. 03/2020) PAGE 2 OF 3

FOR SUPERVISORY POSITIONS ONLY: Indicate the number of positions by classification that this position DIRECTLY supervises: N/A

Total number of positions in Section/Branch/Office for which this position is responsible: N/A

FOR LEADPERSONS OR TEAM LEADERS ONLY:

Indicate the number of positions by classification that this position LEADS: N/A

MISSION OF SECTION:

The Remote Sensing Data and Analysis Section (RSDAS) in the Research Division serves as the central hub for methane data collected from remote sensing technology in order to support a variety of California Air Resources Board (CARB) programs and policies. The section will leverage the latest advancements in remote sensing technology to help support California's goal of reducing methane emissions by 40% below 2013 levels by 2030. The satellite-based methane plume data compiled and managed by RSDAS will be used to track California's progress toward addressing climate change through methane emissions mitigation as well as identify and communicate safety and potential co-pollutant health impacts to nearby communities.

For these purposes, RSDAS manages data, performs data quality assurance and quality control, optimizes workflows, improves data processing algorithms, and performs data analysis to enhance CARB's understanding of highly concentrated methane plume emissions in California. The section will develop tools and utilities to track methane plumes, their sources, proximity to human populations, and the actions taken to mitigate the emissions. The section is also responsible for developing and providing data products, through active coordination with stakeholders, which are useful for both policy makers and the broader public to understand methane emissions, the level of impact, and mitigation progress. The section will work across CARB divisions and other state agencies to improve CARB's understanding of the co-pollutants emitted along with methane that may be of health concern to nearby residents and burdened communities. As the central hub for the satellite methane data, the section will have an important role in coordinating with internal stakeholders at CARB, other state agencies, industry partners, and other jurisdictions who are interested in using this remote sensing data.

CONCEPT OF POSITION:

Under direction of the supervisor of the Remote Sensing and Data Analysis Section, this position will provide scientific expertise and active participation in discussions with stakeholders to promote the transparency and public understanding of CARB's adoption of satellite-based remote sensing technology to identify and mitigate methane emissions. The APS will also investigate and catalog the latest information about the composition of volatile organic compounds, including toxic air contaminants, emitted alongside methane. The APS will collaborate with internal and external stakeholders to develop metrics for assessing the significance of emissions near communities and provide recommendations for how to notify and inform the public if there is a high priority plume. Additionally, the APS will compile, maintain, and integrate geospatial datasets representing the locations of typical sources of methane emissions and nearby residential areas. Effective communication will be critical for engaging with and obtaining feedback from a diverse audience of stakeholders, including the collaborative development of clear and accessible data visualization tools and summaries.

**DUTY STATEMENT**

| <u><b>% OF TIME</b></u> | <u><b>RESPONSIBILITIES OF POSITION</b></u>   |
|-------------------------|--|
| 25% - E                 | Develop and implement a comprehensive methodology for characterizing the significance of emissions of methane and its co-emitted pollutants to human populations in the vicinity of remotely detected methane plumes. Utilize the feedback received through direct coordination with community engagement efforts and multi-agency collaborations to inform this methodology and relevant parameters.  |
| 20% - E                 | Coordinate with internal and external stakeholders, including participation in outreach to community groups and community engagement efforts. Based on ongoing and iterative discussions with stakeholders, determine and develop data products to support efforts to better understand and communicate the significance of methane plume emissions on nearby communities.   |
| 15% - E                 | Gather and compile relevant data sources which can be used to identify residential populations, sensitive receptors, designated communities, and industrial sources associated with methane emissions. Leverage the results of contracts, research studies, and feedback received through discussions with internal and external stakeholders to augment this geospatial library. Work with other members of the team to ensure these data and calculations are integrated into the automated data processing pipeline.                          |
| 15% - E                 | Coordinate across divisions and agencies to investigate and compile the expected chemical species composition of the volatile organic compounds and toxic air contaminants emitted alongside methane for the industrial processes associated with methane emissions, including any pollutant-specific health effect metrics. Ensure information about potential health impacts of co-pollutants is communicated in a clear and digestible manner while providing adequate context.   |
| 15% - E                 | Develop and maintain data summaries and visualizations to effectively communicate the occurrences of methane plumes near residential areas and designated communities, the sources of the emissions, species composition, and the demographic attributes of impacted communities. Ensure through ongoing and iterative discussions with community members and community-based organizations that these summaries provide representative and relevant information addressing concerns of public health, environmental justice, and racial equity. |
| 10% - M                 | Prepare written reports and oral presentations on research efforts and findings, including presentations to the CARB Executive Office and Board. Represent CARB at workshops and conferences   |