

DOCKETED

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**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA**

In the Matter of:

Application for Small Power Plant Exemption
for the Laurelwood Data Center

Docket No. 19-SPPE-01

MECP1 SANTA CLARA 1, LLC'S NOTICE OF SUPPLEMENTAL WITNESS

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The Committee's October 17th order provided for the filing by parties of prehearing conference statements, including evidence, witness lists and requests to cross-examine witnesses.¹ On October 25, 2019, Intervenor Robert Sarvey submitted his prehearing conference statement indicating his desire to cross-examine the Applicant's Air Quality witnesses at the evidentiary hearing, confirming the possibility of live witness testimony on Air Quality, if the parties are so directed by the Committee.²

On October 28, 2019, the Applicant was informed that one of its identified Air Quality witnesses, Ms. Elyse Engel, is unavailable to attend the evidentiary hearing. Air Quality expert witness, Mr. John Frohning of Jacobs, who assisted in preparing the Applicant's Testimony, is available to provide testimony as part of the panel on Air Quality issues with Mr. Jerry Salamy. Mr. Frohning's declaration and qualifications are provided as Attachment A hereto. Mr. Frohning's appearance will not prejudice any party to this proceeding as all prefiled testimony submitted by the Applicant remains unchanged.

October 28, 2019

ELLISON SCHNEIDER HARRIS & DONLAN LLP

By: 

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¹ *Order Denying Sarvey Motion to Compel; Granting Motion to Extend Deadline to File Rebuttal Testimony; and Adopting a Second Revised Schedule* (TN#: 230267).

² *Robert Sarvey's Prehearing Conference Statement* (TN#: 230366).

MECP1 SANTA CLARA 1, LLC'S NOTICE OF SUPPLEMENTAL WITNESS

ATTACHMENT A

DECLARATION AND QUALIFICATIONS OF MR. JOHN FROHNING

**DECLARATION OF
JOHN FROHNING**

I, John Frohning, declare as follows:

1. I am presently employed by Jacobs Engineering Inc. as an Air Quality Specialist.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Air Quality/Public Health and Greenhouse Gas for the Laurelwood Data Center (19-SPPE-01) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 10/28/19

Signed:



John Frohning

EDUCATION/QUALIFICATIONS

B.S., Mathematics, University of Portland, 2001

PUBLICATIONS/ PRESENTATIONS

AWMA Conferences:

Co-Author of paper accepted for the June 2011 National AWMA conference

Speaker at the 2003 PNWIS AWMA Conference

SUPPLEMENTAL INFORMATION

Years experience prior to Jacobs/CH2M HILL: 3.25: HMH Consulting, LLC. Anchorage, AK. Aug 2001 thru Nov 2004.

Jacobs/CH2M HILL Hire Date: 11/2004

PROFESSIONAL DEVELOPMENT

URBEMIS (Urban Emission) Land Use Software Training. SMAQMD, 2004.

Air Toxics Health Risk Assessment Training, featuring the hotspot and analysis program, HARP, 2006

CALPUFF Model Training, featuring CALMET meteorological data processing. TRC CALPUFF Training, 2007

AIR QUALITY SPECIALIST

John is a scientist and air quality specialist Seattle, Washington. John's project experience and training includes emission inventories, dispersion modeling (near and far field), CO and PM hotspot evaluations, human health risk assessments, Best Available Control Technology (BACT) analyses, and meteorological data evaluation. He has prepared Prevention of Significant Deterioration (PSD), major and minor construction, and Title V operating permit applications for many different industry types. John has significant knowledge of the CAL3QHC, CALINE4, AERMOD, CALPUFF, and HARP air quality dispersion modeling systems as well as project experience working with regulatory agencies throughout the United States, including international experience.

Areas of Expertise

- Conducted air quality analyses for transportation related projects throughout the western United States adhering to local and federal requirements. Including landfill, port and rail terminal activities.
- Prepared PSD Major and Minor construction and Title V operating permit applications for many different industry types.
- Significant experience with AERMOD, CALPUFF, CAL3QHC, CALINE4, and HARP air quality dispersion modeling systems.
- Performs emission inventories, dispersion modeling (near and far field), human health risk assessments, Best Available Control Technology (BACT) analyses, greenhouse gas emission inventories, odor studies and meteorological data evaluation.

Relevant Project Experience

Cooling Tower Evaluations:

Client: Dominion Energy

Title: Air Quality Task Lead

Start/End Dates: 2017 - Present

Responsibilities: Prepared analysis to support air quality impacts from a cooling tower evaluation for 316(b) requirements. Support of both the Manchester Street Station and Possum Point Power Plants.

Client: Dow Chemical Corporation

Title: Air Quality Task Lead

Start/End Dates: 2018 - Present

Responsibilities: Prepared analysis to support air quality impacts from a cooling tower evaluation for 316(b) requirements. Freeport, Texas.

Client: Troutdale Energy Center

Title: Air Quality Task Lead



John Frohning
AIR QUALITY SPECIALIST

Start/End Dates: 2011 - 2016

Responsibilities: Prepared analysis to support air quality impacts and fogging impacts from a cooling tower at a nearby airport. Conducted quantitative analysis of potential fogging events and presented results to the Oregon State Aviation Board.

Permitting Projects:

Client: Microsoft Corporation

Title: Task Lead

Start/End Dates: 2017 - Present

Responsibilities: Prepared minor modification permit application for a datacenter in Wyoming. Duties include emission inventory development, BACT assessment, dispersion modeling and Agency negotiations.

Client: Boeing

Title: Associate Scientist

Start/End Dates: 2012 - Present

Responsibilities: Prepared permit applications for minor modifications at the Boeing Renton and Everett facilities. Duties included, emissions estimates, dispersion modeling, and health risk assessment.

Client: Intel Corporation

Title: Permitting Task Lead

Start/End Dates: 2016 - 2018

Responsibilities: Prepared minor modification and operating permit renewal applications for an Intel Facility in Santa Clara, CA. Duties included emission inventory, health risk screening assessment, and Agency Negotiations with Bay Area Air Quality Management District (BAAQMD).

Client: Chiquita Canyon Landfill

Title: Associate Scientist

Start/End Dates: 2012 - Present

Responsibilities: Prepared Draft and Final EIS for a Landfill in Ventura County, CA. Duties included EIS Air quality section, emissions estimates, dispersion modeling, and health risk assessment. Prepared responses to numerous public comments on the air quality and health risk studies, and successfully provided detailed responses to comments from the South Coast Air Quality Management District (SCAQMD).

Client: AES Corporation (Huntington Beach & Redondo Beach Power Plant)

Title: Associate Scientist

Start/End Dates: 2011 - Present

John Frohning
AIR QUALITY SPECIALIST

Responsibilities: Assisted in the Air Quality PSD application. Duties included draft permit application, AERMOD dispersion modeling, and agency consultation.

Client: AES Corporation (Alamitos Power Plant)

Title: Associate Scientist

Start/End Dates: 2011 - Present

Responsibilities: Assisted in the PSD permit application for the replacement of the existing equipment with combined cycle power blocks. Duties included NAAQS and Increment dispersion modeling for both federally designated Class II and Class I Areas with AERMOD and CALPUFF, respectively.

Facility Permitting

Client: Troutdale Energy Center

Title: Associate Scientist

Start/End Dates: 2011 - 2016

Responsibilities: Prepared PSD construction permit application for a natural gas power plant near Troutdale, WA. Duties included draft permit application, emissions estimates, and dispersion modeling.

Client: Nippon Paper

Title: Associate Scientist

Start/End Dates: 2012 - 2014

Responsibilities: Assisted the development of a permit application for the addition of a new boiler. Duties included preparation of the meteorological data and dispersion modeling. Project located within 10-km of Olympic National Park.

Biomass Power Generation Facility Permitting

Client: Iberdrola Renewable Resources

Title: Associate Scientist

Start/End Dates: 2011

Responsibilities: Prepared construction permit application for a 35-megawatt (MW) biomass power facility near Lakeview. Duties included draft permit application, emissions estimates, and dispersion modeling.

Client: Kennecott Utah Copper (Utah Power Plant)

Title: Associate Scientist

Start/End Dates: 2012

Responsibilities: Assisted in the NOI for the repowering of the UPP. Replacing existing power boilers with a gas combustion turbine repowering the boiler steam turnbines. Duties included dispersion modeling to demonstrate compliance with the 1-hour NO2 NAAQS.

Client: Kennecott Utah Copper (SIP Modification and Notice of Intent)



John Frohning
AIR QUALITY SPECIALIST

Title: Associate Scientist

Start/End Dates: 2008 - 2013

Responsibilities: Assisting in the development and strategy to expand mining operations at a facility in Utah. Strategy includes using dispersion modeling to assist in the State PM10 SIP modification.

Biomass Power Generation Facility Permitting

Client: Iberdrola Renewable Resources

Title: Associate Scientist

Start/End Dates:

Responsibilities: Prepared construction permit application for a 35-megawatt (MW) biomass power facility near Lakeview. Duties included draft permit application, emissions estimates and dispersion modeling.

Prevention of Significant Deterioration (PSD) Air Quality Permit, ID

Client: Idaho Power Company

Title: Associate Scientist

Start/End Dates: 2009

Responsibilities: Assisted in developing a PSD permit application for a combined cycle power plant in Idaho. Duties included emission inventory, BACT analysis and dispersion modeling.

PSD Permitting

Client: Confidential Client

Title: Associate Scientist

Start/End Dates: 2006 - Present

Responsibilities: Reviewed a variety of possible sites for the feasibility of developing a combined cycle power plant. Roles included meteorological data evaluation, dispersion modeling, human health risk assessments, and emission estimates.

Best Available Retrofit Control Technology (BART) Analyses

Client: Various Sites Throughout United States

Title: Staff Scientist/Task Manager

Start/End Dates: 2005 - Present

Responsibilities: Developed CALMET wind fields, conducted CALPUFF modeling, and post processing to determine BART applicability and control technology evaluations. Facilities evaluated were for a variety of industry types and many different processes. Primary locations include WY, AZ, UT and WA.

Client: Travis Air Force Base Emission Inventory

Title: Staff Scientist

Start/End Dates: 2006

John Frohning
AIR QUALITY SPECIALIST

Responsibilities: Generated an Emission Inventory for Beale Air Force Base, in the Feather River Air Quality Management District, CA. Included site visits, data collection, emission calculations, support documentation and Air Program Information Management System (APIMS) entry.

Client: Beale Air Force Base Emission Inventory

Title: Staff Scientist/Task Manager

Start/End Dates: 2008

Responsibilities: Generated an Emission Inventory for Travis Air Force Base, near Fairfield, CA. Included site visits, data collection, emissions calculation and support documentation.

Power Plant Applications

Client: California Energy Commission

Title: Staff Scientist

Start/End Dates: 2004 - Present

Responsibilities: Conducted ambient air quality analyses for a variety of power plants installed throughout California. This includes emission estimates, meteorological data processing, criteria pollutant modeling for Class II and Class I areas, and potential adverse health impacts due to toxic air contaminants.

Client: Donlin Creek, AK

(Wind Resource Assessment)

Title: Staff Scientist

Start/End Dates: 2005 - 2009

Responsibilities: Assisted senior meteorologist to conduct a wind resource assessment for a wind farm in Donlin Creek. Roles included meteorological data assessment, turbine siting, and long-term power estimations.

Owens Lake Dust Mitigation Project

Client: LA Department of Water and Power

Title: Staff Scientist

Start/End Dates: 2004 - 2006

Responsibilities: Worked in the data quality assurance program section of the Owens Lake Dust Mitigation Project. Roles included quality assurance of particulate matter monitoring data and meteorological data through data evaluation and audits.

Client: North Pole Refinery

Title: Staff Scientist

Start/End Dates: 2001- 2004

John Frohning
AIR QUALITY SPECIALIST

Responsibilities: Assigned to assist in preparation of a PSD Permit Application for the Ultra-Low Sulfur Diesel refinery upgrade. Roles included ambient air quality dispersion modeling using AERMOD and CALPUFF, BACT analysis, and emission calculations.

Transportation Projects:

Client: Salem River Crossing

Title: Task Lead

Start/End Dates: 2016

Responsibilities: Air quality task lead for a transportation conformity analysis for large roadway improvement project in Oregon, including CO hot-spot, GHG, and MSAT analysis.

Client: Seattle City Center Connector

Title: Senior Air Quality Review

Start/End Dates: 2015

Responsibilities: Air Quality Senior Reviewer for the City Center Connector, a planned expansion of the Seattle Streetcar System linking the existing First Hill Streetcar with the South Lake Union Streetcar. Reviewed construction, CO hotpot, MSAT and GHG analysis.

Client: Anacostia Waterfront Initiative

Title: Associate Scientist

Start/End Dates: 2015

Responsibilities: Staff and associate scientist tasked with review of air quality analysis in the Washington, D.C. area.

Client: SR 710

Title: Associate Scientist / Air Quality Modeling Task Lead

Start/End Dates: 2013 – Present

Responsibilities: Developed modeling protocol for dispersion modeling to support the Health Risk Assessment and PM hotspot modeling for the 710-tunnel project in the Los Angeles area, California. The HARP modeling program was used in conjunction with AERMOD output files to characterize the risk from the project for purposes of NEPA and CEQA. The EPA PM hotspot guidance document was used in conjunction with coordination with the lead agencies to develop the protocol for approval.

Client: Redland Way and Cleveland Street Couplet Project

Title: Associate Scientist/ Air Quality Modeling Task Lead

Start/End Dates: 2013

Responsibilities: Prepared an air quality report for the Redmond Way/Cleveland St. Couplet Project in King County WA. Duties included Air quality section, construction impacts analysis, emissions estimates, CO hotspot analysis using the CAL3QHC dispersion model, Mobile

John Frohning
AIR QUALITY SPECIALIST

Source Air Toxics (MSAT) analysis, and a qualitative greenhouse gas emission impacts on climate change following WSDOT and FHWA guidelines.

Client: Bridge Replacement Improvement Project

Title: Staff Scientist

Start/End Dates: 2009

Responsibilities: Conducted CO hotspot analysis for sensitive intersections associated with the SR520 Bridge Replacement Project. The WASIST program was used to conduct the analysis following WSDOT and FHWA guidelines.

Client: Port of Los Angeles Container Terminal Expansion Project at Berth 97-109

Title: Staff Scientist

Start/End Dates: 2007

Responsibilities: Assisted in conducting CO hotspot analysis and human health risk assessments for the SR47 Bridge Replacement near Port of Long Beach, CA. The analysis used the CAL3QHC program to assess CO impacts at major intersections and the AERMOD dispersion model in conjunction with the HARP health risk analysis program following CEQA, CALTRANS, and FHWA guidelines.

Client: SR47 Bridge Replacement

Title: Staff Scientist

Start/End Dates: 2008

Responsibilities: Assisted in conducting CO hotspot analysis and human health risk assessments for the Container Terminal Expansion Project for Berth 97-109 at the Port of Los Angeles, CA. The analysis used the CAL3QHC program to assess CO impacts at major intersections and the AERMOD dispersion model in conjunction with the HARP health risk analysis program following CEQA, CALTRANS, Port Authority, and FHWA guidelines.

Client: SR126 Improvement Project

Title: Staff Scientist

Start/End Dates: 2005

Responsibilities: Road improvement project in Santa Clarita Valley, CA. Assisted conducting CO hotspot analysis using the CAL3QHC dispersion model following CEQA, CALTRANS, and FHWA guidelines.