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## SOLAVANN SIM, PE

### Education

BS – Civil Engineering, California State University Fullerton, 2004

### Licenses

Registered Professional Engineer – State of California (No. C824676)  
Registered Professional Engineer – State of Montana (No. PEL-PE-LIC-38316)  
Registered Professional Engineer – State of Colorado (No. PE 0049612)  
Registered Professional Engineer – State of New Mexico (No. 22702)  
Registered Professional Engineer – State of Utah (No. 9275727-2202)  
Registered Professional Engineer – State of Hawaii (No. PE-16361)  
Registered Professional Engineer – State of Alaska (No. AEL C 14712)

### Specialty Certifications

University of Washington Cold Regions Engineering Short Course, August 2014  
Waste Management Development Dimensions International (DDI) Leadership Training Program, 2011 to 2013  
NTT NFPA 70E Arc Flash and Electrical Safety Training, August 2011  
John Zink Flare Theory and Operations Training, July 2011  
Waste Management Landfill Manager Training, March to November 2010  
Waste Management GCCS Design and Construction, December 2009  
Waste Management Advanced Air Permitting and Compliance Program, October 2009  
Waste Management Landfill Gas Technician Development Program, April 2009

### Professional Affiliations

Solid Waste Association of North America (SWANA), Member

### Professional Experience

Mr. Sim has over 10 years of engineering-related experience with Waste Management, Inc. (WM), and more recently with SCS. He has a strong background in construction and field operations, having served as superintendent of a family-owned construction company for several years. With WM, he managed the design and construction of landfill liner cells, landfill final cover systems, landfill gas (LFG) flare stations, and numerous LFG well and piping projects. He also assisted with permitting efforts for landfill expansions, has managed environmental and safety compliance at multiple WM sites in Southern California, and managed LFG operations, including 10 LFG technicians, across 9 WM sites in Southern California and Hawaii. He is an expert in Zink Ultra-Low Emission and traditional enclosed flare operations, and has significant experience in hydrogen sulfide (H<sub>2</sub>S) treatment system design and operation. He has designed gas collection and control system (GCCS) 5-year and final closure build-out plans, with respect to site LFG generation rates and operational fill sequence, and has improved surface emissions and probe compliance at all WM landfills in Southern California. Mr. Sim has facilitated and taught WM's Landfill Gas Technician Program, and conducted numerous in-house training programs for WM employees.

Since joining SCS, Mr. Sim continues to be involved in permitting, design, construction, and operations and maintenance of LFG systems across the country. He is currently the project manager and engineer of record responsible for the operations and maintenance (O&M) of the Chiquita Canyon Landfill GCCS system. Chiquita Canyon Landfill has over 300 collection points, 2 LFG turbines, and 2 flares with condensate injection systems. In addition to his involvement in O&M projects, Mr. Sim has also been involved in many GCCS design and construction projects across California, Oregon, and Alaska since joining SCS. These projects include H<sub>2</sub>S treatment systems, condensate injection systems, and numerous LFG well installations.

Example project experience includes:

### **Landfill Gas**

**Waste Connections, Inc., GCCS Operations and Maintenance, Chiquita Canyon Landfill.** Project Manager responsible for the GCCS O&M at the Chiquita Canyon Landfill in Castaic, CA.

**Waste Connections, Inc., Temporary Modular Hydrogen Sulfide Treatment, Chiquita Canyon Landfill.** Project Manager responsible for design of a modular H<sub>2</sub>S treatment system.

**Waste Connections, Inc., GCCS Expansion, Chiquita Canyon Landfill.** Project Manager responsible for the design of horizontal and vertical extraction wells and associated header and lateral piping.

**Waste Management, Inc., Temporary Modular Hydrogen Sulfide Treatment, Hillsboro Landfill.** Project Manager responsible for design of temporary modular H<sub>2</sub>S treatment system at the Hillsboro Landfill in Hillsboro, OR.

**G2 Energy, Inc., Hydrogen Sulfide Treatment, Hay Road Landfill.** Project Manager responsible for design and installation of a 600-scfm H<sub>2</sub>S treatment system serving a Caterpillar LFG-fired engine at the Hay Road Landfill in Vacaville, CA.

**Waste Management, Inc., Partial Final Closure, GCCS Modification, 5-Year Fill and GCCS Buildout Planning, Capitol Disposal Landfill, Juneau, AK.** Project Manager for GCCS expansion, design, and planning of the 5-year operational fill sequence and associated GCCS buildout, and a 5-acre partial final closure project at the Capitol Disposal Landfill in Juneau, AK.

**Waste Management, Inc., Hydrogen Sulfide Treatment, Simi Valley Landfill.** Project Manager responsible for design of a 5,500-scfm H<sub>2</sub>S treatment system.

**Waste Management, Inc., Utility Flare Installation and GCCS Construction, West Hawaii Landfill.** Project Manager for design and installation of a utility flare at the West Hawaii Landfill.

**Waste Management, Inc., Flare Telemetry and Data Acquisition Systems.** Project Manager for installation of flare telemetry and data acquisition systems at 7 WM landfills in Southern California.

**Waste Management, Inc., Partial Final Closure, GCCS Modification, Cell Excavation and Liner Construction, and Partial Closure Construction, El Sobrante Landfill.** Project Manager for GCCS modifications, Phase 9B-10 cell excavation and liner construction, partial final closure of 36.2-acre and 17.6-acre areas at El Sobrante Landfill in Corona, CA.

**Waste Management, Inc., Condensate Management, Flare Construction and GCCS Upgrades, Simi Valley Landfill.** Project Manager responsible for condensate management system improvements, construction of John Zink ZULE flare, and GCCS system upgrades.

**Waste Management, Inc., Perimeter Header Construction and GCCS Upgrades, Lancaster Landfill.** Project Manager responsible for construction of perimeter header system and expansion of the GCCS at the Lancaster Landfill.

**Waste Management, Inc., Landfill Gas Well Installations.** Project Manager for over 30 LFG well installation projects at 7 WM sites in Southern California.

### **Landfill**

**American Golf, Inc., Former Lane Road Landfill/Rancho San Joaquin Golf Course.** Project Manager responsible for the design and construction quality assurance (CQA) of drainage improvements at the former Lane Road Landfill in Irvine, CA.

**Waste Management, Inc., Leachate Riser Replacement, Azusa Land Reclamation, Azusa, CA.** Project Manager for design and installation of a replacement vertical leachate riser through an asbestos zone at the Azusa Land Reclamation site in Azusa, CA.

**Waste Management, Inc., Partial Final Closure, Capitol Disposal Landfill, Juneau, AK.** Project Manager for GCCS expansion, design of a 5-acre partial final closure project at the Capitol Disposal Landfill in Juneau, AK

**Waste Management, Inc., El Sobrante Landfill.** Project Manager responsible for developing and managing capital budgets for cell construction, final cover construction, and post-closure care.

**Waste Management, Inc., El Sobrante Landfill.** Supervised an 8 million-cubic-yard cell excavation project that utilized a combination of conveyors and conventional earthmoving.

**Waste Management, Inc., El Sobrante Landfill.** Assisted with the landfill expansion project that resulted in 25 million cubic yards of additional airspace and the ability to operate 24 hours per day.

**Waste Management, Inc., El Sobrante Landfill.** Ensured site compliance with environmental and safety regulations by overseeing a combination of consultants, contractors, and WM staff.