

# Masoud Samee, PhD, PE\*, BCEE, PMC

## Experience Summary

Dr. Masoud Samee has over 14 years of experience in design project management, construction management, renewable energy management, and design of water and wastewater treatment facilities and residential/commercial buildings which includes master planning, feasibility studies, proposals, pre-design reports, water & wastewater survey, plant start-up, detailed engineering design and cost estimation. He has served as project manager, project engineer, and/or construction manager for projects ranging from construction, liquid handling and waste management to solar/wind energy contracts.

## Some Relevant Projects

### Senior Project Manager, Parsons/Southern California Edison (SCE), Grid Interconnection & Contract Development, Pomona, CA (2011-present)

Serves as a senior Project Manager in the Transmission and Distribution Business Unit (TDBU) part of Grid Interconnections & Contract Development (GICD) group responsible for upto 400 MW renewable energy projects' development and interconnections with SCE and California Independent System Operator (CAISO) grids.

**Project Manager, Parsons, Domestic Wastewater Treatment Plant – 2009 Expansion, Tulare, CA (2009-2011)** Served as a Project Manager and Project Engineer of a 6 mgd to 8 mgd upgrade & expansion of Tulare Domestic WWTP. The existing plant consists of headworks, primary clarifiers, activated biofilters, aeration basins, and secondary clarifiers. Solids are handled by a gravity belt thickener, anaerobic digesters, and sludge drying beds. The effluent from the plant is combined with the effluent from colocated Industrial WWTP and stored in several storage ponds, from which water is withdrawn and distributed through a pipeline distribution network for irrigation purposes. The project includes new influent pump station and headworks, discontinued use of the activated biofilters, new primary and secondary clarifiers, new aeration basins, new gravity belt thickener, and new digester.

### Senior Project Engineer, Parsons, Industrial Wastewater Treatment Plant – 2007 Expansion, Tulare, CA (2007-2009)

Served as a Project Engineer of a 12 mgd expansion of Tulare Industrial WWTP. After a comprehensive evaluation of the existing plant and different process alternatives, Sequencing Batch Reactor (SBR) process was selected for the plant expansion. The major processes selected include dissolved air floatation for fat, oil, and grease (FOG) removal, aerobic biological treatment via existing aeration lagoons and SBRs for total suspended solids, biological/biochemical oxygen demand, and chemical oxygen demand (TSS/BOD/COD) removal, and denitrification filters for nitrogen removal. Sludge treatment includes air floatation thickening, anaerobic digestion and sludge drying beds. Treated effluent is blended with the existing effluent from the domestic WWTP and directed to percolation



#### Title / Firm

President/Siranna Corporation

#### Education

- **Ph.D., Civil/Environmental Engineering**, University of Southern California (USC), CA, 2007
- **M.S., Civil/Environmental Engineering / Water Quality**, USC, CA, 2004
- **M.S., Civil/Environmental Eng / Wastewater Treatment**, KNT University, Tehran, 2001
- **B.S., Civil Engineering**, IM University, Tehran, 1998

#### Registrations/Certifications

- Professional Engineer (PE, Arizona)\*
- Project Management Certification (PMC)
- Board Certified Environmental Engineer (BCEE)

#### Professional Affiliations

- Water Environment Federation (WEF) American
- American Academy of Environmental Engineers & Scientists (AAEES)

#### Years Experience

14+

#### Summary

- Project Manager, Parsons, Domestic Wastewater Treatment Plant – 2009 Expansion, Tulare, CA
- Project Engineer, Parsons, Industrial Wastewater Treatment Plant – 2007 Expansion, Tulare, CA
- Project Engineer, Parsons, 1.5 mgd Water Reclamation Facility, Banning, CA
- Project Manager/Construction Manager, Parsons, Advanced Septic System, 2007, Beaumont Cherry Valley Water District, CA

ponds and/or the irrigation network for golf courses, parks, or on-site irrigation while the sludge will be hauled away to be utilized in agricultures.

**Project Engineer, Parsons, Water Reclamation Facility – 2007 Expansion, Banning, CA (2007-2009)** Served as a Project Engineer of a 1.5 mgd expansion of Banning Water Reclamation Facility. This project expands the city's existing treatment plant capacity by adding 1.5-mgd capacity Water Reclamation Facility (WRF) to produce high quality recycled water. Following a thorough evaluation of three secondary and tertiary process alternatives (Oxidation Ditch, Conventional Activated Sludge and Activated Sludge with Membrane Bioreactor (MBR) process), MBR process is selected for the 1.5- mgd WRF.

**Project Manager/Construction Manager, Parsons, Advanced Septic System – 2007 Expansion, Beaumont Cherry Valley, CA (2007-2008)** Served as a Project Manager and Construction Manager for design and construction of advanced septic system for Beaumont Water District. This project served as a pilot study for future expansion of this system to more than 700 residential units around the area. The system consists of nitrification/denitrification process tank, filter units, control system, and effluent distribution unit.

## TECHNICAL PAPERS & PRESENTATIONS

M. Arora, J.C. Young, W. Ferguson, **M. Samee**, "Challenges in Starting Up a Complex Wastewater Treatment Plant", Published in Wastewater Professional Magazine, CWEA, April 2013.

**M. Samee**, A. Vahdati, V. Ravindran, and M. Pirbazari, "Modeling and Design of Anaerobic Fluidized Bed Reactor Process for Sulfate Reduction in High-Strength Industrial Wastewaters", Presented at the Annual Meeting of AIChE, Salt Lake City, UT, November 7–12, 2010.

**M. Samee**, J.Y. Jung, A. Vahdati, V. Ravindran, M.D. Williams, and M. Pirbazari, "Microbial Reduction of Sulfate in Reverse Osmosis Brine Concentrate", Presented at CA-NV-AWWA Spring Conference, Burlingame, CA, April 24–28, 2006.

**M. Samee**, J.Y. Jung, A. Vahdati, V. Ravindran, M.D. Williams, and M. Pirbazari, "Microbial Reduction of Sulfate in Reverse Osmosis Brine Concentrate: Fluidized Bed Adsorber Reactor Systems, Batch and Chemostat Reactor Systems", Poster presented at CA-NV-AWWA Spring Conference, Burlingame, CA, April 24–28, 2006.

**M. Samee**, J.Y. Jung, V. Ravindran, A. Vahdati, M.D. Williams, and M. Pirbazari, "Biological Sulfate Reduction of Reverse Osmosis Brine Concentrate", Presented at the Annual Meeting of AIChE, Cincinnati, OH, October 30 – November 4, 2005.

J.Y. Jung, **M. Samee**, A. Vahdati, V. Ravindran, M.D. Williams, and M. Pirbazari "Biological Sulfate Reduction of Reverse Osmosis Brine Concentrate: Batch Reactor and Chemostat Studies", Presented at the Annual Meeting of AIChE, Cincinnati, OH, October 30 – November 4, 2005.

**M. Samee** (Project Manager), S. Mohaghegh, E. Ralston, S. Biswas, G. Knatz, Los Angeles River Revitalization Plan - Arroyo Seco/Confluence site, Environmental Impact Report (EIR), May 2006.

M. Pirbazari, V. Ravindran, **M. Samee**, J.Y. Jung, and A. Vahdati, Biological Sulfate Reduction of Recovering Reverse Osmosis Brine, MWD-EPA II, Final Report, November 2005.

**M. Samee**, J.Y. Jung, S. Kharaghani, M. Pirbazari, Storm Water Management Plans, City of Los Angeles, Bureau of Sanitation, August 2004.