

Jude Ananthanathan, PE, GE

Senior Engineer



Education

- M.S. Geotechnics, University of Oklahoma, 2002
- B.S. Civil Engineering, University of Peradeniya, 2000

Registration

- Registered Civil Engineer, California, 2005, #68673
- Geotechnical Engineer, California, 2010, #2878
- 40-Hour OSHA Trained, 29 CFR 1910.120(e)(2)/8 CCR 5192
- GSI-Certified CQA Inspector for Geosynthetics and CCLs

Experience

13 years

With AES

9 years

Jude Ananthanathan has 13 years experience in design and construction for landfill projects, including CQA for composite liners and final covers, slope stability analyses, settlement evaluation, and seismic deformation analysis. He brings CQA experience on five landfill composite liners and closure projects involving over 100,000 cu. yds. of low-permeability soil liner and over 10 million sq. ft. of geosynthetics including HDPE geomembrane, GCL, geotextile and drainage geocomposite. He has routinely performed evaluation and analysis of laboratory test results for use in stability analyses, seepage evaluation, liquefaction analyses, and unsaturated flow modeling. He performed detailed evaluations of field and laboratory test results for Mesquite Regional Landfill master planning phase involving thousands of test results for various properties. He also prepared as-built reports included in appendices to six technical memoranda for the master plan investigations. He is extremely proficient in numerical analyses of unsaturated flow using the UNSAT-H model and performing slope stability and seismic deformation analyses for landfill projects. He has extensive experience in interpreting interface strength test results for composite liner systems for selection of appropriate strength parameters for refuse fill slope stability.

His project experience includes:

- **San Timoteo Landfill, San Bernardino County, California**
Performed slope stability analysis and provided remediation options. Assisted in report preparation.
- **Colton Landfill, San Bernardino County, California**
Performed UNSAT-H analysis for the alternate cover. Evaluated erosion potential of the cover and long-term settlement of the refuse. Assisted in report preparation.
- **Frank R. Bowerman Landfill, Orange County, California**
CQA Monitor for 22-acre Phase VIIA expansion involving 2.8 million square feet of geosynthetics, and 60,000 cu. yds. of clay liner. Helped compile laboratory test results and assisted in preparation of the final report.

CQA Monitor for Phase VIIB composite liner involving 27 acres of landfill expansion, including 50,000 cu. yds. of clay liner and 3.9 million sq. ft. of geosynthetics.
- **Mesquite Regional Landfill, Imperial County, California**
Performed engineering analyses for the field and laboratory test results for master plan investigations. Work included gradation analyses of mine waste stockpiles and sand and gravel deposits, and characterization and hydraulic conductivity evaluation of potential clay liner materials explored in clay stockpiles and in situ clay deposits. Prepared appendices (12 volumes) containing laboratory test results for six Technical Memoranda for construction materials and foundation.

Jude Ananthanathan, PE, GE (cont.)

Senior Engineer

Also performed engineering analyses for the field and laboratory test results during investigations to evaluate crushed aggregate products derived from onsite alluvial sources, evaluate quality and volume of in situ and stockpiled basalt for railroad ballast, evaluate soil cement mix design for erosion protection of planned drainage channels, evaluate the depth to competent material for a cutoff wall to be constructed across a natural drainage channel.

CQA Monitor during Cell 1 Composite Liner project involving 2 million sq. ft. of geosynthetics and about 200,000 cu. yds. of earthwork.

- **Badlands Landfill, Riverside County, California**

CQA Monitor for Canyon 4, Phase 2 Expansion QA/QC services for 22-acre cell expansion 2 million cu. yds. of rock excavation, 200,000 cu. yds. of engineered fill, and 10,000 cu. yds. of compacted soil liner and geosynthetic liner for a 22-acre cell expansion. Geosynthetics included over 2.7 million sq. ft. of HDPE, GCL, and geotextile. Also responsible for preparing weekly summary of field density and flow test results, and performing quality check and statistical analysis on the field test results. Assisted in preparing as-built report of QA/QC observation and testing.

- **Lamb Canyon Landfill, Riverside County, California**

Performed stability analyses of cut and fill slopes for proposed field office and water tank site.

Performed seismic site response analyses, stability and seismic deformation analyses of refuse fill slopes, and alternative LCRS design for proposed Phase 2, Stage 3 expansion. Also assisted in report preparation.

- **55th Way Landfill, Long Beach, California**

Staff Engineer during design of an alternative final cover system, construction CQA, and regulatory coordination during construction of final cover and conversion of the former 55th Way landfill into a public park and recreational area. Assisted in design of an alternate GCL cover and geocomposite drainage system for the irrigated 5.5 acre parcel of the landfill that is being converted into a park, and obtained regulatory approval from the RWQCB and DHS.

- **Lost Hills Landfill, Kern County, California**

Performed percolation analysis using UNSAT-H for the alternate cover. Assisted in report preparation.

- **Puente Hills Landfill, Los Angeles County, California**

Moisture Monitoring Study of 94-acre study side slope cover. Evaluated TDR moisture monitoring data from 6 monitoring stations; developed post-processing calibration functions, to convert TDR data volumetric moisture content and eliminate random electronic “noise;” developed moisture profiles and plots.

CQA Monitor for Phase 6 Composite Liner construction involving 5 million sq. ft. of geosynthetics and 560,000 cu. yds. of earthwork.

- **OII Landfill, Los Angeles County, California**

Interpreted TDR moisture monitoring data from 8 moisture monitoring stations on 190-acre closed landfill with an evapotranspiration cover. Performed UNSAT-H analyses to calibrate the model based on TDR measurements and made forward predictions for model validation. Prepared plots of moisture monitoring data for regulatory presentations.

- **WDI Superfund Site, Santa Fe Springs, California**

Jude Ananthanathan, PE, GE (cont.)

Senior Engineer

Evaluated and designed alternate covers for 30-acre hazardous waste site. Developed alternate cover designs for RCRA Subtitle C and CCR Title 27 covers. Performed UNSAT-H analyses for the design of alternate evapotranspiration cover.

- **Long Beach Pike (Rough Grading and Street Improvements), Los Angeles County, California**
Performed statistical analyses and record keeping of QA/QC field density and pile driving data. Also prepared as-built reports.
- **State Route 22 Widening, Orange County, California**
Obtained geotechnical and structural data from as built plans for 18 existing bridges on SR-22. Also assisted in preparing geotechnical information reports for proposed widening of the freeway.