

ZANA BAJALAN

Education

B.S., Civil Engineering, University of Baghdad, Iraq, 2003

A.B, Business Management, Madison College, Wisconsin, 2014



Training and Certificates

40-hour OSHA HAZWOPER Training, Madison WI

Troxler Nuclear Gauge Safety Training, Madison WI

Water and Sanitation Training (Ground Water and Water Development plus Water Treatment and Testing) by Loughborough University, Amman, Jordan

Water and Sanitation Training (Pumping Systems and Networks Design) by Loughborough University, Amman, Jordan

U.S. Government Rules and Regulations Training by Mercy Corps Director of Compliance and Training in Iraq

Professional Experience

Mr. Bajalan is a civil engineer with more than 15 years of design and field construction oversight experience. He has designed and provided construction oversight for a diverse array of civil engineering projects. He has worked with municipalities and international organizations, bringing together stakeholders to achieve the intended project goals and objectives. Zana's expertise includes concrete design; water treatment plant design and construction; utility design and construction (water, storm, and sanitary); erosion control and storm water management inspections; and construction of other municipal and civil facilities such as landfills, schools, hospitals, and community centers. In addition, Zana has four years of experience in overseeing construction of liner and cover systems (including leachate collection systems and drainage) for electric utilities landfills.

Construction Oversight for Electric Utilities

Clinton, Iowa, M.L. Kapp Generating Station Main Ash Pond Closure. Full-time field engineer performing construction observation and documentation for the M.L. Kapp Main Ash Pond closure project. Work included CCR excavation, placement, and grading; construction of an 18-inch compacted clay cover; placement of 6 inches of topsoil; and construction of drainage features including swales and culverts. Closure construction covered approximately 30 acres. Construction observation and documentation included surveying for all aspects of closure construction, compaction testing of CCR and clay cover, coordination of laboratory testing of soils, storm water management inspections, and daily reporting.

Beloit, Wisconsin, Rock River Ash Landfill. Full-time field engineer performing construction observation and documentation for the Rock River Generating Station Decommissioning Project, including surveying and construction material sample collection for abandonment of wastewater and coal combustion residuals (CCR) ponds, coal yard residuals clean up, and dry CCR landfill final closure during initial power plant decommissioning activities.

Sheboygan, Wisconsin, Edgewater I-43 Ash Disposal Facility. Full-time field engineer performing construction observation and documentation, including surveying, field compaction testing, and construction material sample collection for the construction of a composite final cover system for Phase 3 Module 1 at the dry CCR landfill. Oversaw the final grading of CCR, placement and compaction of clay cap, geomembrane installation, drainage layer placement, cover drainage system piping installation, rooting zone material placement, topsoil placement, and restoration.

Full-time field engineer performing construction observation and documentation, including surveying, field compaction testing with nuclear density gauge, and construction material sample collection for the construction of a composite liner system for Phase 3 Module 2 and the Contact Water Pond at the dry CCR landfill. Oversaw grading and testing of subgrade, placement and testing of clay liner, installation of geomembrane, placement of drainage material, installation of leachate collection system, and construction of access roads.

Full-time field engineer performing construction observation and documentation, including surveying, field compaction testing, and construction material sample collection for the construction of a composite final cover system for Phase 4 Module 1 at the dry CCR landfill. Oversaw the final grading of CCR, placement and compaction of clay cap, geomembrane installation, drainage layer placement, cover drainage system piping installation, rooting zone material placement, topsoil placement, and restoration.

Portage, Wisconsin, Columbia Ash Disposal Facility. Full-time field engineer performing construction observation and documentation, including surveying, field compaction testing with nuclear density gauge, and construction material sample collection for the construction of a composite liner system for Module 3 and Module 4 Liner System Construction at the dry CCR landfill. Oversaw grading and testing of subgrade, placement and testing of clay liner, installation of geomembrane, placement of drainage material, installation of leachate collection system, construction of access roads, and coordinating the installation of rain cover system with field staff.

Full-time field engineer performing construction observation and documentation, including surveying, field compaction testing, and construction material sample collection for the construction of a composite final cover system for Modules 1 and 2 at the dry CCR landfill. Oversaw the final grading of CCR, placement and compaction of clay cap, geomembrane installation, drainage layer placement, cover drainage system piping installation, rooting zone material placement, topsoil placement, and restoration.

Spill Prevention, Control and Countermeasure (SPCC) Plans

Verona, Wisconsin, Verona Substation. Prepared spill prevention, control and countermeasure (SPCC) plan for the facility, including site visit. Obtained and verified information regarding oil containment volumes, drainage, and containment systems. Performed containments calculation and checked administration information. Created detailed figures and attachments for the plan.

Cedar Rapids, Iowa, River Run Substation. Prepared spill prevention, control and countermeasure (SPCC) plan for the facility, including site visit. Obtained and verified information regarding oil containment volumes, drainage, and containment systems. Performed containments calculation and checked administration information. Created detailed figures and attachments for the plan.

Cedar Rapids, Iowa, CR Downtown Substation. Prepared spill prevention, control and countermeasure (SPCC) plan for the facility, including site visit. Obtained and verified information regarding oil containment volumes, drainage, and containment systems. Performed containments

calculation and checked administration information. Created detailed figures and attachments for the plan.

Nevada, Iowa, Nevada Lincoln Highway Substation. Prepared spill prevention, control and countermeasure (SPCC) plan for the facility, including site visit. Obtained and verified information regarding oil containment volumes, drainage, and containment systems. Performed containments calculation and checked administration information. Created detailed figures and attachments for the plan.

Eddyville, Iowa, Cargill Substation. Prepared spill prevention, control and countermeasure (SPCC) plan for the facility, including site visit. Obtained and verified information regarding oil containment volumes, drainage, and containment systems. Performed containments calculation and checked administration information. Created detailed figures and attachments for the plan.

Burlington, Iowa, Agency Street Storage Yard Substation. Prepared spill prevention, control and countermeasure (SPCC) plan for the facility, including site visit. Obtained and verified information regarding oil containment volumes, drainage, and containment systems. Performed containments calculation and checked administration information. Created detailed figures and attachments for the plan.

Everly, Iowa, Spicer Substation. Prepared spill prevention, control and countermeasure (SPCC) plan for the facility, including site visit. Obtained and verified information regarding oil containment volumes, drainage, and containment systems. Performed containments calculation and checked administration information. Created detailed figures and attachments for the plan.

Williams Bay, Wisconsin, Williams Bay Substation. Prepared spill prevention, control and countermeasure (SPCC) plan for the facility, including site visit. Obtained and verified information regarding oil containment volumes, drainage, and containment systems. Performed containments calculation and checked administration information. Created detailed figures and attachments for the plan.

Landfill Gas Monitoring Reporting

Verona, Wisconsin, Verona Closed Landfill. Prepared monthly and quarterly gas monitoring reports for Dane County closed landfill, including coordination for field personnel, data analysis, and verification and reporting.

Madison, Wisconsin, Rodefild Active Landfill. Prepared monthly and quarterly gas monitoring reports for Dane County active landfill, including coordination for field personnel, data analysis, and verification and reporting.

Annual Reporting for Landfill Leachate Recirculation and Organic Stability

Wisconsin Rapids, Wisconsin, Cranberry Creek Landfill. Prepared annual reports for the facility's operation including obtaining and updating information regarding landfill Wisconsin Department of Natural Resources requirements, leachate extraction, recirculation and RD&D liquid addition, gas extraction, liquid levels in gas extraction wells, and waste samples analysis. Prepared organic stability reports including updating and verifying information regarding waste characterization by Wisconsin Department of Natural Resources waste category. Created annual waste reports and created annual LandGEM models and figures for cumulative modeled landfill gas generation vs. actual collection.

Muskego, Wisconsin, Emerald Park Landfill. Prepared annual reports for the facility's operation including obtaining and updating information regarding landfill Wisconsin Department of Natural Resources requirements, leachate extraction, recirculation and RD&D liquid addition, gas extraction, liquid levels in gas extraction wells, and waste samples analysis. Prepared organic stability reports including updating and verifying information regarding waste characterization by Wisconsin Department of Natural Resources waste category. Created annual waste reports and created annual LandGEM models and figures for cumulative modeled landfill gas generation vs. actual collection.

Horicon, Wisconsin, Glacier Ridge Landfill. Prepared annual reports for the facility's operation including obtaining and updating information regarding landfill Wisconsin Department of Natural Resources requirements, leachate extraction, recirculation and RD&D liquid addition, gas extraction, liquid levels in gas extraction wells, and waste samples analysis. Prepared organic stability reports including updating and verifying information regarding waste characterization by Wisconsin Department of Natural Resources waste category. Created annual waste reports and created annual LandGEM models and figures for cumulative modeled landfill gas generation vs. actual collection.

Hilbert, Wisconsin, Hickory Meadows Landfill. Prepared annual reports for the facility's operation including obtaining and updating information regarding landfill Wisconsin Department of Natural Resources requirements, leachate extraction, recirculation and RD&D liquid addition, gas extraction, liquid levels in gas extraction wells, and waste samples analysis. Prepared organic stability reports including updating and verifying information regarding waste characterization by Wisconsin Department of Natural Resources waste category. Created annual waste reports and created annual LandGEM models and figures for cumulative modeled landfill gas generation vs. actual collection.

Delavan, Wisconsin, Hickory Meadows Landfill. Prepared annual reports for the facility's operation including obtaining and updating information regarding landfill Wisconsin Department of Natural Resources requirements, leachate extraction, recirculation and RD&D liquid addition, gas extraction, liquid levels in gas extraction wells, and waste samples analysis. Prepared organic stability reports including updating and verifying information regarding waste characterization by Wisconsin Department of Natural Resources waste category. Created annual waste reports and created annual LandGEM models and figures for cumulative modeled landfill gas generation vs. actual collection.

Eau Claire, Wisconsin, Seven Mile Creek Landfill. Prepared annual reports for the facility's operation including obtaining and updating information regarding landfill Wisconsin Department of Natural Resources requirements, leachate extraction, recirculation and RD&D liquid addition, gas extraction, liquid levels in gas extraction wells, and waste samples analysis. Prepared organic stability reports including updating and verifying information regarding waste characterization by Wisconsin Department of Natural Resources waste category. Created annual waste reports and created annual LandGEM models and figures for cumulative modeled landfill gas generation vs. actual collection.

Construction Design and Oversight for Chemical Containment Facilities

Participated in design calculations and drawings and acted as full-time field engineer performing construction observation and documentation, including field concrete sampling and testing, lab test results analysis, and performing coordination with city and Wisconsin Department of Natural Resources representatives to ensure compliance with local and state regulations.

Erosion Control and Storm Water Management

Implemented Erosion Control and Storm Water Management Plans in the field for numerous construction projects in Madison, Wisconsin. Work included monitoring and evaluating best management practices for erosion control and storm water management to ensure compliance with

local and state regulations, performing calculations to demonstrate compliance, and preparing inspection reports and as-built plan sets.

Performed construction quality control oversight for numerous storm water projects for the City of Madison public works, including monitoring the construction activities, performing conflict resolution, reporting, and evaluating conformance with construction plans and specifications.

General Civil Engineering and Construction Oversight

Served as program coordinator and supervising engineer to rebuild communities in Iraq after the war of 2003. Work performed included designing and performing construction oversight for numerous civil engineering projects, including concrete, water treatment plants, concrete and steel water towers, water and sanitary systems, deep wells for rural and urban areas, pumps, and other municipal facilities such as schools and hospitals.

Performed construction oversight for street construction and public utilities projects to document compliance with the construction project contract plans, specifications, and legal documents.

Solved problems in the field based on project plans and specifications, regulations, and engineering judgment.

Prepared record drawings for over 35 utility and construction projects utilizing CAD.

Conducted field surveys for more than 20 projects, including operating specialized survey instruments and GPS equipment.

Developed electronic field recordkeeping files for streamlining reporting and activities analysis.

Prepared construction quantity estimates and construction cost estimates.

Evaluated and reviewed construction projects for completeness, and itemized and tabulated construction quantities.

Prepared project budgets, progress reports, and charts for tracking project progress.

Updated GIS utility mapping records.