

CHRISTOPHER C. FOGARTY
Facilities and Marine Engineering Expert

Facilities & Marine Engineering Expert. Experience aboard Steam Vessels in the United States Merchant Marine as an Engineering Officer aboard oil tankers for over seven years, provided unique and focused training for subsequent employment as a Maintenance Engineer and subsequently a Chief Engineer's position for over 30 years with the Sacramento Kings NBA Basketball team's sports and entertainment facility in Sacramento, California. Thorough knowledge of safety, maintenance, operation, and repair aboard Super Tankers and experience as the go to authority for all maintenance, operations and repairs of a multi-purpose sports and entertainment facility have provided a wealth of experience in mechanical, electrical, plumbing, heating, ventilation, air-conditioning and refrigeration, security, CCTV, client server networks and their associated/related systems. In conjunction with responsibilities associated with what can be considered normal everyday exposure to Facilities Engineering, also responsible for all technical aspects of every event, be it a concert, trade show, sporting event, or otherwise, for Arco Arena (then Power Balance Pavilion, then Sleep Train Arena) at One Sports Pkwy, Sacramento, California. Experience ran the gamut from the apex of the roof to the limits of surrounding parcels encompassing the buildings (Arena plus a 38,000 square foot state of the art NBA/WNBA basketball training facility) and over 180 acres of parking lots and adjacent properties; literally all facets of the physical facilities.

Facilities Engineering and Associated Systems

- Facility safety, OSHA best practices for floor marking, walking/working surface, stairways, entrances, ingress, and emergency egress (NFPA 101)
- Stadium and arena fixed, portable and telescopic seating maintenance, inspection, repair, and replacement
- ADA parking
- Maintenance and safe operation of forklift, scissor lift, and aerial lift boom supported platforms (boom lifts), knuckle boom/articulating lifts and aerial work platforms. Train the trainer annual certifications. Materials handling and storage
- Health and wellness planning, safety committee, employee safety programs and contractor safety programs as they relate to persons not directly employed by companies who provide specific labor, or services (contractors and vendors)
- Respirator fit testing and training, PPE (personal protective equipment) and arc flash protection
- Proper storage and disposal of hazardous waste materials
- HAZWOPER (hazardous waste operations and emergency response), FRA (first responder awareness, FRO (first responder operations) training and experience
- Workplace implementation of NFPA 70E, Electrical Safety in the Workplace. California State electrician's licensing. Licensed C-10 California Electrical Contractor (expired) Arc Flash Training and Prevention
- Fall protection, ladder, and scaffolding safety
- All facets of facility/property maintenance, including roofing, EIFS (Exterior Insulation and Finish Systems), MEP maintenance, grounds keeping, parking lot maintenance, underground facilities: municipal utility district (electrical) utilities, natural gas (PG&E), city water, storm drain & sanitary sewer systems

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- Wireless and cabled topologies for POS networks, CCTV security camera systems, client server, peer to peer and ad hoc networks from the head end to point of use/field hardware
- Floor marking
- Automatic switch gear and diesel emergency backup generator systems. Daily, weekly, monthly, semi-annual, annual, and 5-Year inspections and certifications. Electrical Preventive Maintenance-NFPA 70E Arc Flash and Analysis Labeling-Infrared Thermographic Facility wide electrical equipment inspections, analytics
- Experienced with installation, troubleshooting, repair and improvements of commercial power line carrier lighting control systems and monitoring equipment
- Parking lot lighting troubleshooting, maintenance & repair
- Installed, operated, maintained, and repaired POS (Point of Sale) RS-485, RS-422 serial and parallel communications and wi-fi/wireless systems of both open and proprietary communications platforms
- City of Sacramento community development department permitting for tenant improvement projects
- Battery and charging systems for backup power supplies (UPS's) for computer networks
- Commercial kitchen maintenance, operation repair, modifications, installations, suppression systems and NFPA compliance, testing and certifications
- Experienced with electrical power distribution; 120/208 VAC single and three phase (4-wire-Y). 277/480 VAC single and three phase (4-wire-Y) modifications, betterments/improvements, troubleshooting, repair and installation
- Emergency diesel generators and life safety systems
- Experienced in the operation, maintenance & repair of lighting systems: sport, theatrical, special effects, lasers, and electrical management and head end control for all similarly integrated systems
- Aisle lighting (theaters and concert venues). Broadcast lighting levels for nationally televised NBA basketball games and other sporting events. Aiming diagrams, vertical and horizontal lighting levels used for direct and indirect lighting, HID (metal halide, high pressure sodium, led) sports venue lighting requirements. Quartz (incandescent), LED, horn strobe and emergency lighting installation, operation troubleshooting and repair
- Scoreboard construction, installation, maintenance, and electronics/electrical repairs. Annual scoreboard hoist inspections
- Braking systems
- Designed, built, tested, maintained, and repaired nationally televised NBA and WNBA playoff and championship scorer's tables, single mode and multi-mode topologies for telephony (analog, VOIP, HD video, radio communications), integration of statistical meta data networks used for scoring, statistical for data storage, replay and displays. Asset inventory management for NBA Basketball games for over 30 years
- Professional sports playing surfaces for NBA & WNBA portable and fixed/stationary basketball court setup, strike and storage, Arena Football, CISL/WISL (Continental Indoor Soccer League/World Indoor Soccer League) artificial turf surfaces, RHI (Roller Hockey International) Sport Court, and Ice Rink skating surfaces.

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- Ice Rink related maintenance, operation and repair responsibilities included the operation, maintenance, and repairs, of an ice rink and all associated equipment and machinery necessary for hosting all manner of ice events: NHL league and exhibition games, Tour of World Figure Skating Champions figure skating events, Ice Capades, and Disney On Ice events. The safe set up of ice rinks in preparation for ice events, load-in/load-out of touring ice events, coordination of all the facilities' technical aspects during these ice-related events, conducting the safe performances/operation of these ice events, and striking of ice events in preparation for other events to follow. These Ice Event responsibilities included the supervision of setting and striking of seating arrangements, dashers, shields, pedestrian walkways, and fire lanes.
- Trained Crowd Management (DIM-ICE: Design/Information/Management and Ingress/Circulation/Egress) Training.

Tools: Refrigeration reclaiming and evacuation equipment, chainsaws, radial saws, table saws, bench grinders, pipe cutting, pipe threading, PAT (Powder Actuated Tools), rotary hammers, coring tools, pneumatic power tools, torque and impact wrenches, nail guns, high pressure water wash, hand tools, DMMs (Digital Multi-Meters) and meggers.

Maritime Propulsion and Auxiliaries:

- Safety, maintenance, operation and repair of shipboard power plant systems, electrical generating systems (steam and diesel), heating, ventilation, air-conditioning and refrigeration systems
- Motor controllers, governor systems
- Sewage treatment and containment systems
- Cathodic protection systems
- Sodium hypochlorite systems for controlling marine growth
- Steam, electric, pneumatic, and hydraulic machinery
- High powered turbine propulsion units, heat exchangers
- Inert gas generators and inert gas systems
- Maintenance and operation of electro-hydraulic systems
- Desalination systems (e.g. RO-Reverse Osmosis, MED-Multi Effect Desalination, MSF-Multi Stage Flash distillation, evaporative and thin film vapor type)
- Lube oil and fuel oil testing and purification systems
- Provided word processing and data information storage for machinery history, vibration analysis and equipment inventory control
- Steamship propulsion plants (17,000 – 26,000 SHP)
- High pressure boilers (35,000 – 150,000 PPH)
- Superheated and auxiliary steam systems
- Pneumatics, hydraulics, electrical and electronic systems
- Open and closed heating and cooling systems
- Oxygen stack gas analysis and water testing for testing for boiler treatment
- Shipboard fire protection systems: fixed CO₂, halon, protein foam
- Welding (carbon arc, mig, brazing, silver soldering (hard and soft), HACR tubing
- Machine shop lathes, machine guarding
- Proper Lockout/Tag-Out (LOTO) safety procedures

PROFESSIONAL EXPERIENCE

2019 to present **Robson Forensic, Inc.**
Associate

Provide technical investigations, analysis, reports, and testimony toward the resolution of commercial and personal injury litigation involving facilities management and maintenance, building and grounds premises safety, marine engineering, and failure analysis.

2016 to 2018 **ABM (American Building Maintenance)**
Chief Engineer – Sleep Train Arena

Responsible for all technical aspects of operations, maintenance, and repair of a multi-purpose sports and entertainment venue located in Sacramento, California. The site was comprised of a 17,317 seat arena (offices, luxury suites, approximately 443,000 square feet), a state of the art training facility (approximately 38,000 square feet) and surrounding parcels totaling approximately 183 acres.

1986 to 2016 **Sacramento Kings Arena, L.P.**

Chief Engineer- Arco Arena (then Power Balance Pavilion, then Sleep Train Arena) 1991-2016
Responsible for all technical aspects of operations, maintenance, and repair of a multi-purpose sports and entertainment venue located in Sacramento, California. The site was comprised of a 17,317 seat arena (offices, luxury suites, approximately 443,000 square feet), a state of the art training facility (approximately 38,000 square feet) and surrounding parcels totaling approximately 183 acres.

Maintenance Engineer - Arco Arena

1986-1991

Responsible for all engineering department crew scheduling, shipping and receiving, maintenance, operation and repair of all facility/arena mechanical, HVAC and refrigeration, electrical, and plumbing equipment, walking working surfaces, seating, stairways, tenant improvements, hazardous material (environmental management) and OSHA/Cal OSHA compliance related to local (city and county), state and federal authorities having jurisdiction, ADA compliance, energy management, utilities (SMUD, PG&E, county water, sanitary sewer and storm drain) systems, SCADA systems (supervisory control and data acquisition), budget projections and efficiency/control. Simplex fire protection systems, material handling and truck docks.

1979 to 1986 **Exxon Shipping Company**
Second Assistant Engineer

Responsible for the operation, maintenance, and repair of shipboard power plant systems. Worked on steam and diesel powered electrical generating equipment and related power plant systems. Operated, maintained and repaired pneumatic, hydraulic and electrical systems, as well as low and high pressure steam generators, lube oil testing and purification systems and other systems necessary for the efficient operation of ship's power plants and their auxiliaries. Also responsible for the inspection, operation, maintenance, repair and testing of shipboard fire protection systems, heating and cooling systems, and inert gas generator systems. Provided word processing and data information storage for machinery history and equipment inventory control. Helped train others in various system operations. Responsible for daily chemical testing and treatment of boiler water, feed water and condensate systems.

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PROFESSIONAL CREDENTIALS

Certified XL Tribometrist (CXLT), Excel Tribometers, LLC
USCG Licensed Third Assistant Engineer, Unlimited Horsepower Steam and Motor Vessels (expired)
USCG Licensed Second Assistant Engineer Unlimited Horsepower Steam Vessels (expired).
USCG Licensed First Assistant Engineer, Unlimited Horsepower Steam Vessels (expired).
California Licensed Electrical Contractor (C-10) expired
California State Licensed General Electrician (expired)
EPA Universal Technician Certification

EDUCATION

B.E. Marine Engineering, SUNY Maritime College at Fort Schuyler, 1979

Continuing education:

Swinging Fire Door Inspection Assessment, National Fire Protection Association, 2021