THE EXPERTS
Robson Forensic

EDWARD A. GRAY
Facilities Engineer, Marine Engineer & Property Management Expert

Ed Gray is a Facilities Mechanical, Chief Marine Engineer and Patented Inventor with over 36 years combined career experience. His particular expertise is exclusively in areas of Engineering Operations, Maintenance, Construction Management, Property Management, Renovation and Repair. After achieving his Federal Chief Engineer license in the U.S. Merchant Marine, Ed applied his hands-on operating experience to Facilities/ Buildings operations within various categories. A subset niche is within specialized pharmaceutical production, cGMP process, medical, hospital, and school facilities. These have been in both the public and private sectors, from K-12 grades through to College and University levels.

PROFESSIONAL EXPERIENCE

2015 to present **Robson Forensic, Inc.**
Associate
Provide technical investigations, analysis, reports, and testimony toward the resolution of commercial and personal injury litigation involving marine vessels and systems, facilities systems, plant engineering, operations, maintenance, buildings and grounds. Additional expertise includes root cause analysis, failure analysis, environmental compliance, and fire safety.
Areas of expertise include:

Facilities and Building Types

- Public Schools, K-12, NYC and NYS
- Private University
- Private Medical College
- Teaching Hospital
- Pharmaceutical Research & Development
- Pharmaceutical Production
- Boiler Steam Cogeneration Plant, High Pressure
- Boiler Hot Water Hydronic Institutional Plant
- Boiler Hot Water Residential Plant
- Pools, Natatoriums, Therapeutic and Recreational
- “Green Technology,” EnergyStar, EnergySmart, LEED
- Student Dormitories and Residential Staff Housing, (hi-rise apartment buildings and single family residences)
- Recycling, Composting, and Waste Water

Machinery

- Diesel Engines, Turbochargers, Boilers (high pressure, superheated, low pressure, residential), centrifuges, pumps, motors, capstans, cable winches, cooling towers, Cogeneration, cranes, forklifts, hoists, drill presses, lathes, milling machines, grinders, air handlers, fans, distillers, generators, personal protective equipment. HVAC/R equipment, processes, and applications.

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Manufacturing Processes

- Blending, drying, pill forming, welding, brazing, soldering, grinding, liquid and dry filling, capsule gel cap, painting, sanitizing, desiccation, vaccine production, cGMP/cGLP best practices for FDA requirements. QA/QC Quality Assurance/Quality Control, Validation.

Safety Procedures and Code Requirements

- New York State Labor Law and New York State Industrial Code Rule 23
- OSHA, PESH, NYSIR, FDA, regulatory code body compliance, material safety data sheets, MSDS, Right-To-Know Employee training.
- Personal Injury Claims investigation, Slips/Trips/Falls, school environment safety, industrial environment safety. Lockout/Tag-out procedures.
- Fire Protection systems maintenance and testing. Pumps, Standpipe, Gravity
- Integrated Pest Management (IPM), licensed pest applications, exterminations
- Child Playground Safety Inspections
- AHERA Asbestos Investigations, Hazard Communications
- Security and safety systems; perimeter fencing, gates, electronic swipe card access, ID cards, contractor compliance and security staff management.
- Garage Overhead Door Controls and safety limit checks.
- Embarkation/Disembarkation procedures and Marine Safety Regulations (USCG, CFR, USN, et al.) experience

Landscaping and Grounds Maintenance

- Grass cutting, Tree pruning, annuals, perennials, shrubs
- Fertilizers, weed and feed applications, mulching
- Asphalt paving and pothole repair
- Snowplowing roadways, salting, and shoveling sidewalks
- Xeriscape and Ecological drought resistant planting methods

Green Technology

- Solar PV array photo voltaic, Solar PV Shingles, Windmills, Geothermal.

Tools

- Chainsaws, radial saws, table saws, bench grinders, pipe thread, pneumatic impact wrench, nail gun, high pressure water wash, hand tools.

1998 to 2015 **Rockland BOCES,** Public School K-12 Grades, West Nyack, NY
Director of School Facilities
Managed (30) staff for Operations and Maintenance of BOCES NYS public school district-owned & leased facilities. Support consisted of custodial, skilled trades and grounds maintenance for buildings and grounds. Managed Construction projects and Facility renovations with multi-million dollar budgets annually. Had direct Construction Project responsibility with manpower scheduling and budgetary control.
Design selection and contract coordination were provided to both educational programs and site infrastructure. Performed annual space utilization and assessment surveys.

1995 to 1998 **NYC Board of Education**, Public School K-12 Grades, New York, NY
District 8 School Plant Manager

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Managed all Facilities maintenance needs for (40) NYC public school buildings. Supervised (40) building Custodians and Engineers. Indirect supervision for (150) staff. Responsible for site Construction Project coordination with NYC School Construction Authority for Capital Projects. Provided construction project budget and schedule oversight within District-wide long range planning. Performed annual space utilization and assessment surveys.

1990 to 1995 **Lederle Laboratories (Wyeth, Pfizer)**, Pharmaceutical, Pearl River, NY

Facilities Maintenance Superintendent, R&D and Production 1994-1995

Managed Construction projects and Facility renovations with in-house skilled trades. Managed Construction activity coordination between outside sub-contractors and in-house staff within a Unionized workplace. Responsible for management of new building construction projects and existing building project renovations. Managed daily operation of site wide Facilities Maintenance Group at Fortune 100 Pharmaceutical Corporation. Oversaw (2) supervisors, (35) skilled trade mechanics, (1) planner, and (1) clerical at 600-acre facility with 100 specialty pharmaceutical buildings, production and research & development laboratories. Property management of residential housing units for visiting Research Fellowships.

Department Head, Refrigeration & Air Conditioning 1991-1994

Managed 24/7 operation of site wide HVAC/R requirements. Pharmaceutical manufacturing processes & procedures: GMP/GLP (Good Manufacturing Practices/Good Lab Practices) oversight of FDA requirements; refrigeration equipment, drying equipment, ovens, desiccation of over-the-counter and regulated medicines, vaccine production, temp/humidity control of research animal habitat facilities, steam generation and co-generation waste heat boiler, maintained chilled water and glycol cold infusion heat exchangers.

HVAC/R Mechanical Engineer 1990-1991

Responsible for 2.5 million sq feet of A/C space and 200 freezers/chill rooms/dryers. Troubleshot HVAC/R, cooling towers, and Energy Management Systems. Preventive Maintenance Scheduling (PMS) and production setup, PMS capital, major design upgrades. Troubleshot HVAC/R equipment failures. Recommended and developed S.O. P. (Standard Operating Procedures) for area and labs.

1987 to 1990 **Albert Einstein College of Medicine**, Bronx, NY

Engineering Dept Supervisor of Operations and Maintenance

Supervised (42) Stationary Engineers and skilled trade mechanics at this Private University, associated with Montefiore Hospital & Yeshiva University. Oversaw High Pressure Steam Boiler Plant and Energy Management Systems. Implemented Computerized Preventive Maintenance Management System for audit tracking of Federal NIH grant funding. Managed and coordinated construction projects in accordance with strict Federal National Institute of Health (NIH) requirements. Operation, maintenance and scheduling service of laboratory animal habitat facilities. Research and development experimentation of small batch medicines and devices. Maintained sterile “clean room” temperature/ humidity requirements for F.D.A. requirements.

Property management responsibility for (4) separate Hi-rise and Mid-rise apartment buildings housing medical students, post-doctoral candidates, and staff. Apartment Complex included Athletic Center and attached underground Parking Garage.

1987 **NY Harbor**; United Marine Division Union (UMD-Local 333)

Chief Engineer

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Sailed aboard "Statue of Liberty" Ferry and "Port Jefferson, NY – Bridgeport, CT" Ferry

1980 to 1987 **McAllister Brothers Ocean Towing**, New York, NY
Chief Engineer and Assistant Port Engineer, Diesel Motor Vessels
Sailed aboard various US flag ocean going vessels and responsible for fleet maintenance including tugs and barges. Scheduled and participated in ABS (American Bureau of Shipping) Inspections for regulatory compliance and marine insurance requirements. Conducted safety review inspections for company while vessels were in shipyards and marinas. Coordinated drydock operations for tugs, barges, and ferries (floating type, graving dock type, slip/ship lift type, and marine railways). Provided project management oversight of engine re-powering conversions for marine vessels. Internationally travelled as Assistant Port Engineer to diagnose operational offshore problems and effect repairs while in foreign ports.

1979 1980 **Marine Engineers Beneficial Association,** District 2 Union
Shipboard Steam Plant Assistant Engineer

PROFESSIONAL CREDENTIALS

United States Federal Chief Engineer License
NYC Stationary Engineer, High Pressure Steam Plant License
NYC Refrigeration Machine Operator License
EPA Certified Universal Proper Refrigerant Practices
NYC Certified Fire System Operator, Pump, Standpipe, Gravity Tanks, Hi Rise
FEMA, Incident Command System, IS-00100.a, Emergency Management Institute
Certified XL Tribometrist (CXLT)
Third Assistant Engineer, Steam Vessels, Unlimited Horsepower, 1979-1997
OS, Ordinary Seaman, 1979-1997
SD FH, Steward Department, Food Handler, 1979-1997
Any Unlicensed Rating in Engine Department, 1979-1997

EDUCATION

Bachelor of Engineering, Mechanical (Marine) Engineering, S.U.N.Y. Maritime College, Fort Schuyler, NYC, 1979

Continuing Education
Building Performance Institute, Building Analyst, Hudson Valley Comm. College
Certificate in Facilities Management, Finance, Long Island University
Elevator Modernization and Maintenance course, New York University
Management Writing Skills course, SUNY New Paltz
Fire Safety Director Training course, John Jay College
Fire Fighting Practical Class, Military Sealift Command, Earle, NJ
EPA Certified AHERA Asbestos Investigator course
Commercial and Industrial Boiler Efficiency Training Institute course
Effective Labor Negotiation Skills Training course. Karras Institute

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Wildlife Habitat Construction Certificate, National Wildlife Fund
First Aid to the Injured Certificate, US Public Health Service, NYC
Transcendental Meditation Certification, David Lynch Foundation, NYC
BPI (Building Performance Institute) Certified Building Analyst
NYC Dept. of Health Academy, Swimming Pool Operation Technology
OSHA Standards Subpart Safety Training, National Utility Contractors Association
CAD/Architectural and Industrial Drawing, Rockland BOCES Adult Education and Business Services
Troubleshooting and Service Procedures of the Refrigeration, Electrical and Control Systems for: Low Temperature Cascade Systems-Queue, Revco Auto Cascade Systems, Revco Scientific, Inc.

PATENTS

Portable Personal Emergency Escape System, U.S. Patent 10485999, November 2019

COMMUNITY SERVICE

Water Conservation Committee Chair, Rockland County Legislature, 2015
Rockland Business Assoc., Green Council, Education Co-Chair, 2013
Agricultural & Farm Protection Board, Rockland County Legislature, 2011
North Rockland Lions Club, President, 2011-2012
Holistic Meditation Teacher; Adult Ed Program Rockland BOCES School
Green Infrastructure and Sustainability; Adult Ed Program Rockland BOCES School
Cornell University Cooperative Extension: Program Advisory Committee
Notary Public, services donated to the community
PTSD Meditation Classes delivered to Veterans of VFW and American Legion Posts

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MILITARY

USNR Honorable Discharge, 10/86
Lieutenant rank after seven year commitment.
Merchant Marine Ready Reserve while sailing at sea

OTHER

Bilingual Spanish (conversational from working in Central America)
Recreational boater; powered and sail, Sea Ray, Sunfish, Snark, Canoe, et.al.
Attended USPS (Power Squadron) boating seminar, New Rochelle, NY.

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