



**JOHN JOSEPH O'NEILL**

**CURRICULUM VITAE**



**DIRECTOR**

## **PERSONAL DETAILS**

PROFESSIONAL MEMBERSHIP: **Eur Ing B Eng(Hons) C Eng FIET FCIBSE MaPS Tech IOSH  
MSLL**

AND QUALIFICATIONS

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DATE OF BIRTH: 27 November 1959

NATIONALITY: British

## **PARTICULAR EXPERIENCE**

### **QUALIFICATIONS:**

Graduated with honours **Degree in Electrical & Electronic Engineering** (1987)  
**30 years experience** within the Building Services, Construction, and Property H&S fields  
**NEBOSH** Health & Safety plus **Tech IOSH** membership  
Registered **CDM Coordinator**  
**Authorising Engineer** for high risk Electrical Systems (HV & Complex LV Systems)

### **GENERAL EXPERIENCE:**

Practically versed in all aspects of electrical services design, installation, commissioning, management, refurbishment & construction.

Comprehensive knowledge and experience within the electrical building services industry including Design, Facilities Management, Health & Safety, Commissioning, Auditing, Fault Finding & Legislative Compliance.

Authorising Engineer responsible for implementing and auditing Safe Systems of Work for Electrical systems.

High standard of IT skills which play an important role in all TSA work.

Particular interests in HV/LV distribution, protection studies, systems reliability and resilience, hazardous areas and the assessment of new technologies.

### **EMPLOYMENT HISTORY:**

**8 years** with Metropolitan Police Engineers

**7 years** in total with multi-disciplinary Practices

**2 years** with GlaxoSmithKline technical group

**3 years** as **Principal Engineer** for large FM Consultant seconded to British Airways Property

**15 years** as **Electrical Director**/co-founder of Technical Support Associates

**EXPERT WITNESS / INCIDENT INVESTIGATION:**

British Airways: Represented BA in HSE investigation following flash-burns injury to maintenance operative due to electrical short circuit

Housing Association: Investigation into fraudulent completion of electrical test certificates by two contractors. Report upheld and resolved without Court Order

Cavendish Gardens: Requested to provide an independent, expert view of the electrical installation and associated testing. Report upheld and resolved without Court Order

BBC: Investigation into failure of UPS and consequential losses. Problem found & resolved without Court Order

Octagon: Investigation into failure of UPS and consequential losses. Problem found & resolved without Court Order

GSK: Investigation into transformer failure. Manufacturing fault found and remedial measures undertaken without Court Order

Children's Homes: Investigation into latent building, mechanical and electrical defects at three new children's homes. Contractor retention withheld and third party employed to correct defects

DVLA: Investigation into two electrical near-misses. Ongoing

Restaurant: Investigation into high electricity bills. Metering fault found and report issued. Ongoing

**HEALTH & SAFETY:**

Certified Authorising Engineer Electrical (High Voltage and complex Low Voltage systems) since 1996. Has acted in this role for British Airways, BBC, DVLA, & Norwich Union (LST managed properties)

General Health & Safety work has included:

Awareness training	Reviewing / compiling Safety Files
CDM Coordinator (M&E Services)	Risk assessments
Control of Contractors	Safe Systems of work for Electrical
H&S Arrangements & Procedures	SOPs for Client operations
H&S Policies	Surveys of commercial properties
Incident Investigation	Workplace Risk Assessments
Permit to Work procedures	

**PROJECTS:**

Airports	Headquarter Buildings	Offices
Banks	Health Care Homes	Prisons
Building Societies	Hospitals	Pharmaceutical
Cargo Handling Centres	Industrial Buildings	Schools
Catering Centres	Institutions	Shopping Centres
Civic Buildings	Kitchens	Shops
Clean Rooms	Laboratories	Universities
Data Centres	Museums	

**SPECIALITIES:**

Compliance	Guidance	Maintenance
High Voltage	Health & Safety	Plant performance
Expert Witness	Legislation	Record Information
Facilities Management	Litigation	

**DESIGN WORK:**

CHP		
Discrimination	High Voltage	Resilience
Escalators	Lifts	Security Systems
Fire Alarms	Lighting	Standby Generation
Grading	Power	UPS
	Public Address Systems	

## **EMPLOYMENT HISTORY**

**July 1997**

### **TECHNICAL SUPPORT ASSOCIATES LIMITED**

**Position: Director**

**Duties:** Joint Director and founder of TSA responsible for the technical management of all Electrical work including building services designs, feasibility studies, reports, project checking, site management, specifications etc. Responsible for company finance, overall strategic direction/planning, business plan, general management, marketing, staff recruitment, training, resource allocation and monitoring, initiating continuing company improvements/developments including Investors in People and Quality Assurance (ISO9001).

**Projects:** Terminal 5 11kV design (including distribution options reports, SLD's, cable/equipment schedules, SCADA), speculative office developments, various standards/guides, specialist advice, health & safety, data centres, hazardous area design for hangars, electronic record information etc.

**1995 - 1997**

### **FBA - BRITISH AIRWAYS TECHNICAL SUPPORT GROUP**

**Position: Senior Principal Engineer**

**Duties:** Lead Electrical Engineer within BA Property Department. Setting technical standards, guidance notes and specifications either in-house or via external consultants. Auditing consultant deliverables and projects. Initiating and developing Electrical Safety Rules and Permits, and fulfilling duties as BA Authorising Engineer (Electrical). Developing standard consultants briefing document. Developing BA Preferred List of Suppliers. Instigating fee tender for a protection study and system analysis at Heathrow and Gatwick. Appointment of consultants for lighting surveys. Appointment of contractors for lighting remedial works. Initiating oil switchgear survey. Developing standard asset data forms. Preparing various reports and recommendations for BA Facility Managers. Investigating the use of thermal imaging and static switching.

**Projects:** Various projects including Waterside, World Cargo Centre, Technical Block A, New Data Centre, West Side switchgear replacement and Terminal 5.

**1994 - 1995**

### **SIR ALEXANDER GIBB AND PARTNERS**

**Position: Senior Principal Engineer**

**Duties:** Supervising the work of Electrical and Graduate Engineers, including short term and long term resources planning. Liaison with client and other members of the design team. Assistance in upgrading department marketing material. Implementing the use of power systems analysis software with a view to marketing this service and developing an in-house training programme. Preparation of tender bids for a number of projects.

**Projects:** Great Man-made River Project (Libya)

Full responsibility for power and electrical building services design. Production of single line diagrams for pumping stations and ancillary services. Specification of 33 kV, 11 kV and 380V switchgear and transformers. Specification of motor control centres including 11 kV and 3.3 kV direct-on-line starters and 11 kV variable speed Kramer drives. Load calculations for normal and abnormal operation including transformer voltage regulation studies under both base load and motor starting conditions. Design of protection relay system including device co-ordination. Power system analysis by use of software.

Military Base (Oman)

Attendance at factory witness testing and site commissioning of HV/LV switchgear and frequency converters.

Sewage Treatment Plant (Turkey)

Auditing design submissions from Turkish contractor.

**1992 - 1994**

**GLAXO RESEARCH & DEVELOPMENT LTD.**

**Position: Electrical Engineer**

Duties: Auditing design submissions, drawings and protection studies from Consultants and Sub-Contractors for general building services projects, hazardous areas and sterile/laboratory/animal areas. Setting Consultants briefs; field engineering activities; attendance at factory and site tests; commissioning witnessing and supervision. Production of GRD Protection Guidance Manual and standard protection schematics; updating of GRD Standard Specifications.

Projects: Stevenage Research Campus

Checking site 11kV distribution and resolving, with the consultant, a number of problems discovered. Carrying out a study of site loads, capacity and resilience of HV and LV distribution systems under normal, abnormal and standby generator conditions. Auditing Consultants protection study, power systems analysis and generator automatic load step control proposals. Taking the lead role in commissioning general services and a complex fire alarm system for a warehouse facility.

Ware Site

Establishing Consultants briefs for an animal facilities project and a replacement LV switchgear project incorporating PLC controls and standby generation. Auditing submissions and protection studies from Consultants and Sub-Contractors. Attendance at factory and site tests; establishment and supervision of test procedures; training of maintenance engineers. Carrying out a protection study for a similar project to those above.

**1988 - 1992**

**FHP PARTNERSHIP.**

**Position: Section Leader (from 1990)  
Senior Engineer (1988 - 1990).**

Duties: Supervising the work of senior and intermediate electrical engineers. Planning resources and drawing production for new projects whilst maintaining commitment to on-site projects.

Full design responsibility for projects from initial conception to completion. Direct liaison with clients and design team members throughout a project.

Production of design reports for all aspects of the project to reach the optimum solution by assessing all viable alternatives.

Attendance at project, design and site meetings. Approval of sub-contractors working drawings.

Projects: Computer Centre - Three number at 25,000sq.ft. each.

Project electrical value - £3 million.

Specification and tender of 11kV switchpanels to cater for new 20MVA supply. Design of 11kV and LV distribution system and selection, by pre-tender, of switchgear and transformers. Production of preliminary design concepts for all aspects of the electrical services. Liaison with client, architect and quantity surveyor. Supervision of a team of four engineers in the production of tender documents. Sub-contractor selection, interviews and tender analysis. Site supervision and temporarily deputising for the Supervising Officer. Carrying out a protection study.

Speculative Offices - 200,000sq.ft.  
Project electrical value - £2.5 million.

Four office blocks from a development of seven. Formulation of electrical services concepts to meet architect and client requirements whilst remaining within budget. Space planning for electrical services. Liaison with client and design team members on site infrastructure requirements. Supervision of a team of five engineers in the production of electrical tender documents. Analysis of tenders, sub-contractor interviews and recommendations. Attendance at site meetings.

Distribution Centre -  
Project electrical value - £200,000.

Liaison with client and design team members. Supervision of the production of electrical tender documents. Analysis of tenders, sub-contractor interviews and recommendations. Attendance at site meetings.

Japanese Bank - 150,000sq.ft.  
Project electrical value - £5.5 million

Development of design from client brief to completion. Production of design reports and subsequent pre-tender, evaluation and selection of transformers, LV switchpanel, standby generators, uninterruptible power supplies, halon systems, general office, dealing rooms and executive areas lighting, lighting control system and various other electrical services. Supervision of a team of ten engineers in the production of tender documents. Attendance at site and project meetings.

**1987 - 1988**

**J ROGER PRESTON & PARTNERS**

**Position: Senior Electrical Engineer**

Duties: Design of all aspects of electrical building services to client brief.

Projects: RAF Hospital and Dental Clinic

Production of distribution schematics, cable sizing, distribution board schedules, security system and entrance area lighting scheme. Design of electrical services for associated dental clinic.

Speculative Office Block - 150,000sq.ft.

Investigation of incoming HV supply options and generator arrangements. Space planning and lighting control report.

Shopping Centre

Feasibility reports and space planning

**1980 - 1987**

**METROPOLITAN POLICE ENGINEERS**

**1986 - 1987**

**Position: Assistant Project Engineer**

Duties: Formulation of brief for external consultants. Liaison with consultants and architects on electrical and mechanical design aspects. Checking drawings, specifications and reports from consultants and in-house drawing office for compliance with brief. Attending project, design and site meetings.

Projects: Magistrates Court - £1.7 million  
Police Station - £2.8 million

**1980 - 1986**

**POSITION: ELECTRICAL DESIGN ENGINEER**

Duties: Design of all aspects of electrical building services. Production of drawings, specification, estimates and builders work for various police premises.

**1978 - 1979**

**FOSTER WHEELER LTD.**

**Position: Mechanical Draughtsman**

**CPD, TRAINING AND QUALIFICATIONS**

Year	Course	Qualification / Description
1976 - 1978	O Levels	Mathematics, English, Physics, Geography, Technical Drawing, Woodwork, History
June 1978	A Levels	Pure and applied Mathematics
June 1980	TEC Level 2	Civil Engineering
June 1981	TEC Certificate	Building Services (Electrical)
June 1983	TEC Higher Certificate	Building Services (Electrical)
1981- 1982	City and Guilds 236 Parts 1 and	Attended a full-time practical TOPs course at Slough Skill Centre in Electrical Installation and Maintenance
July 1987	Degree	B Eng (Hons) Electrical and Electronic Engineering Grade 2.2 - day release course at South Bank Polytechnic
Mar 1989	MCIBSE	Awarded Corporate Membership by CIBSE
Nov 1991	MIET	Awarded Corporate Membership by IET
Nov 1995	Authorising Engineer	Authorising Engineer course - WTI
July 2000	MSLL	Awarded Membership of the Society of Light and Lighting
May 1996	Authorised Person	Authorised Person Electrical course - WTI
June 1996	Authorising Engineer	Authorising Engineer course - WTI
June 1999	Authorising Engineer	Authorising Engineer refresher course - WTI
May 2002	Authorising Engineer	Authorising Engineer refresher course - WTI
Apr 2003	FIET	Awarded Fellowship of the IET
May 2003	FCIBSE	Awarded Fellowship of CIBSE
Apr 2006	NEBOSH	NEBOSH National Certificate in Construction Health & Safety
Aug 2006	Tech IOSH	Awarded Tech IOSH
Sept 2007	MaPS	Registered Member (CDM Coordinator) of the Association for Project Safety
Mar 2008	Authorising Engineer	Authorising Engineer refresher course - Develop
Jul 2010	Authorised Person HV/LV	4-Day AP Course (Develop)
Mar 2011	Authorising Engineer	Authorising Engineer refresher course - Develop
General	Various courses	Various courses on CDM, H&S, Business Finance, Capital Planning and Business Case