

Electrical Instrumentation, Control and Automation (ICA) Technician

Department:	Infrastructure, Housing and Environment	
Section:	Operations and Transport	
Reports to:	Operations Manager Electrical	
JE Ref:	IHE1094	
Grade:	TECH09	JE Date: 20/12/2021

Job purpose

This role combines hands-on Multi-Skilled Electrical Technician's responsibilities with specialised Instrumentation, Control and Automation (ICA) process control systems design and programming knowledge, to provide the Department and its clients with in-house bespoke process systems development capability.

The role-holder will adapt computer software programmes and/or control systems to accommodate new plant or equipment, as older assets are replaced or updated.

Job specific outcomes

- In this role the postholder is key to the Department's control and instrumentation electrical / electronic panel design, installation and maintenance and the design and programming of Programmable Logic Controllers (PLC's) and Supervisory Control and Data Acquisition (SCADA) Telemetry systems to efficiently control and monitor critical plant
- The role-holder is required to consider the nature of changes required to computer software programmes and control systems and to modify/update and sign-off on AUTOCad electrical schematics.
- Ensure that modifications/changes applied do not have unwanted side effects, by thoroughly considering all implications of the anticipated change to the plant/facility involved, ensuring the maintenance of safeguards to avoid potentially unsafe situations, or damaging system failures causing incidents such as pollution events.
- Be responsible for reporting back on faults diagnosed by the role-holder, the work they have undertaken, the time spent in these activities, the parts used, and the role-holder's analysis/determination as to future work required and reporting upon the condition of the equipment.
- The role-holder is also required to cover an out of hours on-call roster in relation to breakdowns.
- Where the role holder is required to deal with electrical breakdowns, it is imperative that these are dealt with as swiftly as possible as often the installations being worked upon can create risks if not worked upon swiftly, or if work is not undertaken in full. These risks include, for example, pollution incidents from sewage treatment works, but can also relate to 'single point of failure' issues. This is illustrated by, for example, the fire pumps at the La Collette fuel farm site. Other facilities for which

swift rectification of problems is necessary include the island's traffic lights system, and waste disposal facilities.

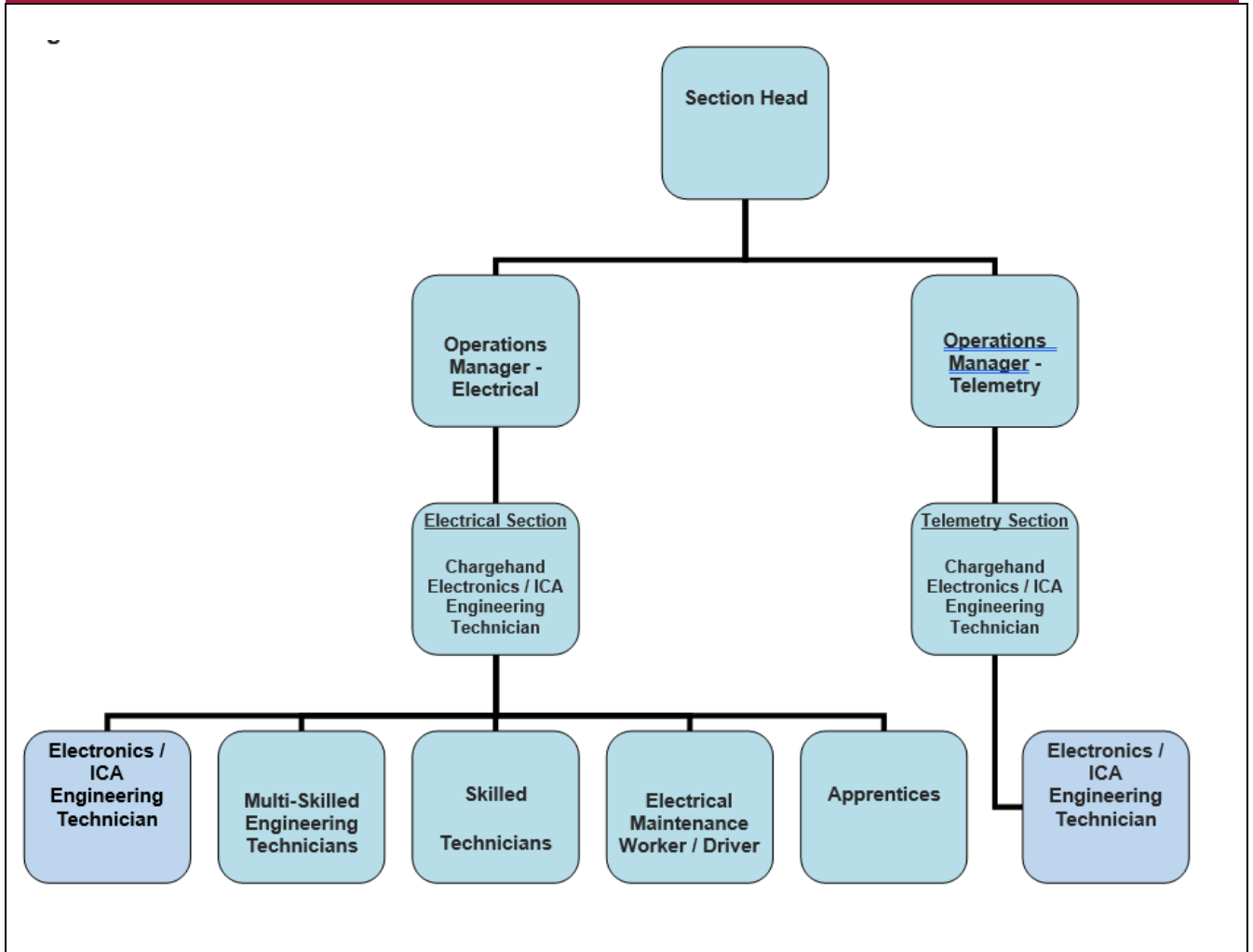
- Take an active role in the creation, development and implementation of health and safety written risk assessment, including the production of written dynamic risk assessments when on site and dealing with situations not conforming to a standard risk assessment. Similarly, the role-holder will assist asset owners, chargehands and managers with the production of method statements, when requested.
- Drive departmental vehicles (Group B licence requirement) in order to access work sites around the Island.

Organisational structure

One Government Departments



Organisation chart



Person Specification

Specific to the role

ATTRIBUTES	ESSENTIAL	DESIRABLE
<p>Qualifications</p>	<ul style="list-style-type: none"> • An individual recruited to the role would be expected to hold, or be working towards, an HNC/HND in Electrical or Electronic Engineering, with full knowledge of ICA systems. • Compex (Atex) Gas & Vapour qualifications EX01 – EX04, Fuel Forecourts (EX07 – EX08) are required for this role. These are required in addition to the qualifications for a Multi-Skilled Technician. • Be at the current edition of the Institution of Engineering & Technology (IET) Wiring Regulations (currently 18th Edition) or update if necessary. 	
<p>Knowledge</p>	<ul style="list-style-type: none"> • Be able to work independently, analysing system controls, determining the optimum solution to what is required, and being capable of reporting this comprehensively and cogently to more senior personnel. • Be able to provide appropriate guidance to less qualified personnel, including apprentices. • Where required, be able to fully understand and apply instructions and directions provided by more senior colleagues. • Be able to work collaboratively with others and as a team member. • Adhere to all safety and governance procedures. 	
<p>Technical / Work-based Skills</p>	<ul style="list-style-type: none"> • The role-holder is required to work on electrical circuits. They are qualified and competent to work on these assets, but they must follow the guidance provided by the organisation's electrical safety rules. Despite this, there is always a danger associated when working on, or close to, electrical circuits. 	

	<ul style="list-style-type: none"> • Must possess a Group B driving licence. • The post-holder is required to complete risk assessments before commencing any work. These risk assessments will also identify the appropriate PPE requirement for each individual task. On a day-to-day basis the role-holder is required to wear safety shoes, a hi viz vest or jacket and, depending upon work location, a hard hat. Further specialist PPE will be dictated by the task in hand and may include harnesses for working underground in confined spaces, or the appropriate equivalent for working at height. • When working on site outdoors, the physical effort required is frequently rendered more onerous by the need to work in all weathers. Many of the assets on which the role-holder works are located outside, and not undercover, and should a breakdown occur the role-holder will be required to attend regardless of the weather. 	
<p>General Skills/Attributes</p>	<ul style="list-style-type: none"> • The role-holder will undertake regular communication and discussions concerning potentially complex technical information with individual asset managers and professional engineers. These personnel will generally be at junior and middle management level. • There is no contact at director or senior management level with major national or international suppliers. 	
<p>Experience</p>	<ul style="list-style-type: none"> • The role-holder is to be also required to undertake, and keep up to date with, specialist manufacturer training in relation to Mitsubishi Programmable Logic Controllers (PLCs) and the associated process controls, together with Supervisory Control and Data Acquisition (SCADA) and telemetry systems training. Similarly, the role-holder must be trained in, fully conversant with, Endress & Hauser instrument and calibration training, and the current wiring regulations at 	

	<p>any given time.</p> <ul style="list-style-type: none">• The role-holder must have extensive knowledge of instrument control and calibration, and the automatic recording and transmission of data from remote locations via GSM or radio.• An external candidate recruited with the required qualifications and experience, would, in the opinion of the role-holder's line manager, be expected to be up to speed the role after a minimum period of 12 months.	
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