

Application Article 218

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SF₆ LeakCheck P1:p Detects Switchgear Leaks During Quality Control Procedures

Industry: Switchgear Manufacturer

Application: Monitoring of SF₆ leaks in switchgears

Location: Dubai

Introduction

A large switchgear manufacturer, based in Dubai, has selected the SF₆ LeakCheck P1:p for the rapid and accurate detection of SF₆ leaks.



Application

The SF₆ LeakCheck P1:p was required to detect SF₆ leaks in switchgears during the organisation's quality control processes. The instrument was used to identify gas leaks at a sensitivity level of 1x10⁻⁸ cc/sec, 0.001 gm/year.

Why Detect SF₆?

SF₆ is a colourless, odourless, man-made gas that can go easily undetected. It is relatively low in toxicity, but left undetected, its primary health hazard is asphyxiation.

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL), or Maximum Allowable Concentration (MAC) limit is 1,000 ppm.

SF₆ is a well known greenhouse gas. Its global warming potential is 23,900 times greater than that of CO₂, due in part to its atmospheric lifetime of 3,200 years. Due to its destructive potential, SF₆ gas was included in the Kyoto Protocol under which emission reduction targets apply.

An expensive gas, SF₆ gas leakages are also costly.



Why SF₆ LeakCheck P1:p was selected

The SF₆ LeakCheck P1:p was chosen due to its high level sensitivity, accuracy, reliability and its ergonomic, robust design. Its ability to provide a choice of measurement units in both ml/sec, gm/yr and ppm offered the flexibility the customer required. Another selection factor for the SF₆ LeakCheck P1:p was the quantification of detected leaks, important when monitoring conformance to leak minimisation targets.

The transportation and training of the instrument was made easy due to the non radio active source. The instruments ability to save, store and download data enabled information to be easily shared and communicated, a key advantage for the business.

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