



# RSH 103

## Working with Industrial Radiation Gauges

### INTRODUCTION

The advancement in nuclear technology and development of radiation equipment and gauges safely places nucleonic gauges as one of the leading equipment used for non-destructive measurement and non-intrusive investigation in the industrial sector.

The use of nucleonic gauges in industrial plants proved to be an excellent tool especially where there are extreme conditions such as high temperature or presence of hazardous chemicals where non-contact investigation is the only option available. Nucleonic gauges can be used in industrial plants for internal physical investigation of vessels and tanks and more.

They are also used as safe and efficient monitoring peripherals at plants. Modern, especially automatic, production methods often need to be constantly monitored in order to check the quality of the products and to control the production process. Such monitoring can be carried out by quality control devices using the unique properties of ionising radiation. Further enhancement of the nucleonic gauges with the incorporation of electronics in their design has made the use of these gauges simpler enabling easy data acquisition and storage. Thus this course aims to fulfill the need to fully understand nucleonic gauges and their applications to further enhance plant operations.

### COURSE OBJECTIVES

- To provide better understanding on the concepts and application of nucleonic gauges
- To learn the right procedures in handling with nucleonic gauges, especially the operation and maintenance
- To be able to practice safety procedures during operation of nucleonic gauges

### COURSE CONTENTS

- Basic and principles of Nuclear Physics
- Types of Nuclear Gauging
- Safety working procedures in handling radiation gauges
- Working procedures in Normal and Abnormal Situation
- Emergencies Operating Procedures
- Regulatory Control

### METHODOLOGY

- Participative lecture
- Demonstration / role play
- Discussion / case study
- Video presentation

### WHO SHOULD ATTEND

This course is designed for people who work with or operate radiation gauges in industrial applications, such as oil and gas, petrochemical and chemical radiation safety officer, radiation safety personnel, managers, engineers, industrial hygienist, instrument personnel, and other individuals interested in nuclear gauging related activities.

### CEP POINTS

Those who attended this course will obtain CEP points from these organizations:

AELB - 16 CEP Points