

# SAQCC FIRE

## D&GS TRAINING SUB COMMITTEE

### COURSE CURRICULUM

<b>COURSE</b>	<b>Standards Training SANS 369</b>	
<b>ORIGINATOR</b>	<b>Keith Norgate</b>	
<b>DATE</b>	24th July 2014	
<b>Amendment 1</b>	17th September 2014	Add power battery calculations
<b>Amendment 2</b>	18th September 2014	Passed for public comment
<b>Issued</b>	03rd October 2014	Issued

EQUIVALENT TRAINING COURSES AVAILABLE		
TITLE	TRAINING SCHOOL	CONTACT DETAILS

<b>STATUS OF CURRICULUM</b>	-	Issued
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<b>EQUIVALENT UNIT STANDARD</b>	None
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#### **PURPOSE OF TRAINING COURSE**

This training course is for learners to gain knowledge of the National standard for operation of gas systems which includes the planning, installation and servicing of equipment for the operation of gas systems.

Learners who complete this course will obtain knowledge of how to assess, install, commission and maintain the operation components for gas systems.

#### **LEARNING ASSUMED TO BE IN PLACE**

This course assumes the learner has already proved competent in:

Gas supplier training 1,2,and 3

## OUTCOMES REQUIRED

### Topics Covered:

1. Scope of SANS 369
2. System design
3. Electrical actuation - Fire detection
4. Electrical actuation - Control and Indicating equipment
5. Electrical actuation - Power supplies and wiring
6. Electrical actuation - Hand over procedures
7. Electrical actuation - Servicing
8. Mechanical actuation - Thermal link systems
9. Mechanical actuation - Pneumatic systems
10. Mechanical actuation - Manual release devices
11. Mechanical actuation - Commissioning and Hand over procedures
12. Mechanical actuation - Servicing

### Outcome 1: Scope of SANS 369

#### Learning Outcomes:

To include:

- Scope of SANS 369
- Application of SANS 369
- Mechanical operation methods
- Electrical operation methods

#### Assessment:

Learner to demonstrate knowledge of the scope of operation of gas systems.

### Outcome 2: System Design.

#### Learning Outcomes:

To include :

- Ensure compliance with the other gas standards
- Interface with other parties
- Operational methods of the gas systems

#### Assessment:

Learner to demonstrate his knowledge of the design of mechanical and electrical actuation methods and interface requirements..

## **Outcome 3: Fire detection**

### **Learning Outcomes:**

To include:

- Coincidence connection
- Types of fire detectors to use
- Spacing and siting of fire detectors
- Fire detection in adjacent areas

### **Assessment**

Learner to demonstrate a knowledge of fire detection systems for operating gas systems.

## **Outcome 4: Control and Indicating Equipment.**

### **Learning Outcomes:**

To include:

- Avoidance of accidental discharges
- Visual and audible indications
- Monitoring of circuits
- Controls and Indicators

### **Assessment:**

Learner to describe the requirements of the control and indicating equipment.

## **Outcome 5: Power supplies and wiring**

### **Learning Outcomes:**

To include:

- Isolating protective devices
- Labeling of supplies
- Types of cables
- Cable routing
- Calculating battery size requirements

### **Assessment:**

Learner to describe the requirements of power supplies,

Learner to describe types of cables to be used and routing of these cables

## **Outcome 6: Hand over procedures**

### **Learning Outcomes:**

To include:

- Documentation requirements
- Log book
- Drawings

### **Assessment:**

Learner to describe the requirements for handing over of gas systems

## **Outcome 7: Servicing Electrical actuation systems.**

### **Learning Outcomes:**

To include:

- Daily and weekly checks
- Fire detection system servicing
- Mechanical component servicing

### **Assessment:**

Learner to understand the service and maintenance requirements

## **Outcome 8: Thermal link systems.**

### **Learning Outcomes:**

To include:

- Operation of thermal links
- Design of thermal link installations

### **Assessment:**

Learner to describe the installation and operational requirement of thermal links

## **Outcome 9: Pneumatic operation.**

### **Learning Outcomes:**

To include:

- Types of pneumatic systems
- Design of pneumatic systems
- Installation of pneumatic systems

### **Assessment:**

Learner to describe the installation and operational requirement of pneumatic operating systems

## **Outcome 10: Manual release devices.**

### **Learning Outcomes:**

To include:

- Requirements of manual release devices
- Siting of manual release devices

### **Assessment:**

Learner to describe the identification and installation of manual release devices

## **Outcome 11: Commissioning and hand over procedures of mechanical operation devices**

### **Learning Outcomes:**

To include:

- Commissioning tests
- Documentation requirements
- Log book
- Drawings

### **Assessment:**

- Learner to describe the requirements for commissioning and handing over of gas systems

## **Outcome 12: Servicing mechanical actuation systems.**

### **Learning Outcomes:**

To include:

- Weekly checks
- Six monthly checks

### **Assessment:**

Learner to understand the service and maintenance requirements for mechanical actuation systems.