



# PRESENTATION ON CERTIFICATION AND STANDARDIZATION OF BREATHING APPARATUS-BENEFITS

Title : Certification, Standardization of mine rescue Breathing

apparatus and the rescue packs-Benefits

**Presenter:** Chongo Maron-President Zambia Mine Rescue

# **Introduction**

- Mine rescue equipment technology has evolved overtime in order to keep up with the current magnitude and complexity of accidents due to the deployment of modern mining technologies in various mines.
- Therefore, to enhance efficiency and quality delivery service to the mines, mine rescue equipment has to be certified and standardized.

# **Introduction**

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# **Objective**

• To understand and appreciate the benefits of certification, standardization of the breathing apparatus and the self-rescue pack.

# **Definition**

• Certification of equipment is the process by which all the working parameters, control and regulatory systems are checked and the functions of the given equipment are defined more precisely. Certification-is an official document that may be used to prove that the facts it states are True e.g. Birth, marriage, death, qualification etc.

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In reply please quote:

REPUBLIC OF ZAMBIA

#### MINES SAFETY DEPARTMENT

P.O. BOX 21006 KITWE

R.H. Mining Supplies Limited KITWE

#### BREATHING APPARATUS APPROVAL - MINING REGULATION 906

The breathing apparatus refered to below is hereby approved for use in the Mines in Zambia. on ondition that the manner of its use conforms to the requirements specified in the certificate of

MAKE TYPE MODEL APPROVAL No Breathing Apparatus

would also like to add that incorrectly assembled apparatus constitute a breach in design and pecifications, consequently, could render this approval invalid.

arther, be advised that a copy of this approval should be supplied to all the mines in Zambia

One Certificate of approval for the above apparatus is enclosed.

Please would you acknowledge receipt of this letter.

Full Face Mask

D. Kaunda LABORATORY ASSISTANT FOR/DIRECTOR OF MINES SAFETY MINES SAFETY DEPARTMENT



MINES SAFETY DEPARTMENT

#### CERTIFICATE OF APPROVAL

NUMBER

Approval is bereby granted to the equipment bereinafter described subject to such special conditions as may be set out below.

Equipment MAKE

DRAGER

MODEL

CLOSED-CIRCUIT BREATHING APPARATUS FULL-FACE MASK

B G 4

Special Conditions

NO person shall be allowed to use this apparatus unless he has been trained in its use and limitations.

- Any Deviation in the Design or specifications of this Breathing apparatus from that set out in the documents lodged with Mines Safety Department will sutconstically invalidated this approval.
- The Manufacturer or agent shall supply a copy of this approval to all

ISSUED TO: R.H. Mining Supplies Limited P.O. Box 21254

KITWE

Signed.

Chief Inspector of Mines

ORIGINAL

....26th Ogtober, 2001 ..... Date of issue



OF ZAMBIA

MINES SAFETY DEPARTMENT

### CERTIFICATE OF APPROVAL

NUMBER 54

Approval is bereby granted to the equipment hereinafter described subject to such special conditions as may be set out below.

Equipment

MAKE

TYPE

MODEL

DRAGER

OXYGEN SELF - RESCUER OXYBOKS "K"

Special Conditions SELF - R

- NO person shall be allowed to use this apparatus unless he has been trained in its use and limitations.
- Any Deviation in the Design or specifications of this Oxygen Self-Rescuer apparatus from that set out in the documents lodged with Mines Safety Department will automatically invalidate this approval.
- The Manufacturer or agent shall supply a copy of this approval to all Mines.

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P.O. Box 21254 KITWE

Signed C

Chief Inspector of Mines

26th October, 2001

. Date of issue

EPUBLIC OF ZAMBIA

ORIGINAL

# MINES SAFETY DEPARTMENT CERTIFICATE OF APPROVAL

NUMBER

Approval is bereby granted to the equipment bereinafter described subject to such special conditions as may be set out below.

Equipment

MAKE

TYPE

MODEL

DRAGER

CLOSED-CIRCUIT BREATHING APPARATUS FULL-FACE MASK B G 4

Special Conditions

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KITWE



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Chief Inspector of Mines

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# **Definition**

• Standardization is the process of bringing something into conformity with a standard. This process promotes mutual compatibility. To standardize is to make objectives or activities of the same type, have the same features or qualities.

### **Benefits of certification**

- 1. It assures that apparatus is suited for distribution and use.
- 2. Certification is very important in that it eliminates the use of substandards.
- 3. It also serves as a limiting factor on importation of sub-standard equipment into the country.
- 4. It promotes safety in that only qualified/certified organizations and personnel handle, supply and repair such equipment.

# What is a Standard?

- 1. A level of quality especially one that people think is acceptable.
- 2. A level of quality that is normal or acceptable for a particular person or in a particular situation
- 3. Level of behavior
- 4. Unit of measurement-An official rule used when producing-weight.
- 5. Size-measurement
- 6. Language

# **Benefits of Standards**

Regulators and governments count on ISO standards to help develop better regulation knowing they have a sound basis thanks to the involvement of Globally established experts.

- 1. We believe in standards because it helps to deliver harmonization, safer products and `greater fit-for purpose solutions to market place.
- 2. Improve your organization performance-manage all the standards you need for best practice with one simple tool.

- 3. Encouraging innovation- in a global economy of rapidly emerging new technologies and markets, standards help set the rules and establish the frame works, making it easier to innovate successfully.
- 4. Standards for services-if you are operating in a service industry you need to pay close attention to your processes to ensure quality doesn't sup. A wide range of standards can help you out.

- 5. Reducing business risk
  Businesses simply cannot afford to take an improvised,
  reactive approach to risk. Usually standards can help you
  to identify your risks and minimize them.
- 6. Becoming more sustainable- by helping you take a close look at how you are using energy and resources. Using our standard can serve money and improve your image while benefiting the environment.

7. The standards will allow you to demonstrate the quality of what you do to your customers and they help you to see how to embed best practice into your organization.

Southern African region (Botswana, South Africa, Zambia, Namibia, Zimbabwe, Mozambique, Tanzania, Angola, D RC) has standardized the use of the breathing apparatus and mine rescue trainings. Zambia in particular has realized a good number of benefits;

1. It has provided an opportunity for brigades men to be trained in the use of the apparatus outside Zambia. And because of this training brigades men now have a thorough and detailed understanding on the BG4 apparatus.

2. In an event of a big emergency, invited rescue teams are able to replenish and repair their apparatus at site of emergency rather than going back to their own mine or station.

3. It has become very easy to find spares. Users are able to trade spares amongst themselves

- 4. Brigades men are able to operate breathing apparatus on other mines in the regional which has reduced on the burden of having to carry own apparatus whenever they travel.
- 5. There is specialization in maintenance personnel who rectify complex problems within shortest time
- 6. It promotes a wide platform for consultation.
- 7. Standards promote a culture of continuous improvement
- 8. Standards boost productive and innovative efficiencies.

# **Conclusion**

- Using standards can offer a set of powerful business and marketing tools for organizations of all sizes.
- You can use standards to fine-tune your performance and manage the risks you face while operating in more efficient and sustainable ways.
- Success is all about how you perform at every level of your organization, standards promote a culture of continuous improvement.

# Thank you