



Electrical Machinery In Hazardous Locations Regulatory Requirements For Explosion Protected Apparatus

At present, the Mine Health And Safety Act 1996 (Act No. 29 of 1996) refers to the following extract:

Chapter 10

Hazardous Location

Definitions:

"explosion protected apparatus" means any apparatus used in a hazardous location and selected in accordance with the guidelines as defined in the South African National Standard SANS 10108-2005, "The classification of hazardous locations and the selection of apparatus for use in such locations" and the Aanbevolle / Recommended Praktyk / Practice ARP 0108, "Regulatory requirements for explosion protected apparatus"

Regulation 10 (Only extract)

10.1 (2) The employer must take reasonably practicable measures to prevent persons from being injured in any hazardous location as a result of fire, explosion or the ignition of gas, dust, mist or vapour. Such measures must ensure that -

(a) all hazardous locations are identified, clearly marked and recorded on a plan or register, which must be kept updated and readily available at the mine;

(b) only explosion protected apparatus and systems certified for use in a hazardous location in accordance with the South African National Standard ARP 0108: 2005, "Regulatory requirements for explosion protected apparatus", are used in any hazardous location;

(c) the selection of explosion protected apparatus used in any hazardous location is done in accordance with SANS 101 08:2005 "The classification of hazardous locations and the selection of apparatus for use in such locations". The normative references as listed in SANS 10108 are not applicable to the employer;

.....



The ARP 0108 was a document previously published by the SABS but withdrawn, as the SABS rules do not allow them to publish regulatory documents. Due to the SABS withdrawing ARP 0108, the Department of Mineral Resources and the Department of Energy (DMRE) publish ARP 0108:2018 on the DMRE website under the guidelines as “Guide to the Regulatory Requirements For Explosion-protected Apparatus”

In the past, the surface industry under the Occupational Health and Safety Act 85 of 1993 used the same SABS published ARP 0108. Since the SABS removal of ARP 0108 the surface industry had no official replacement for ARP 0108.

On 19 August 2022, the Department Of Labour (DOL) published their replacement for ARP 0108 as “National COP for Electrical machinery in Hazardous Locations Regulatory Requirements for Explosion-protected apparatus”.

It is important to take note that this does not replace the DMRE ARP 0108: 2018 requirements for mines as there are some major differences between these two published compliance requirements. Both publications are available on the following links but caution should be taken when viewing the contents and requirements of the DOL COP as it is not applicable to mines.

[DMRE ARP 0108 Link](#)

[DOL COP Link](#)

Members of SACEA are invited to join a work group to try and update the contents of the DMRE ARP 0108 as there are contents that require amendments and/or clearer clarifications. Closing of volunteers will be 04/10/2022. (Provide contact e-mail to SACEA)

There has been a major drive from SABS to remove all regulatory requirements from all published standards. This could lead to problems within the mining industry as the stores/supply chain could only refer to a SANS standard and omit the very importance MH&SA requirements that could have more requirements to be complied with.

It is very important to ensure that the MH&SA reference and requirements are included within the following process:

1. Purchasing of new equipment
2. Repair of equipment
3. Maintenance of equipment
4. Maintenance parts of equipment

The DMRE ARP 0108 forms a critical part of compliance and it should always be reference as well as the requirement for certification of equipment by an Approved Test Laboratory (ATL). There are also specific SANS standard referenced within the MH&SA that should also be included.

If there are information that requires clarification, please contact SACEA.

SANS standards that are being amended due to reviews for 2022:

1. SANS 1438 “Portable light assemblies for underground use in mines”
 - a. Content being updated due to newly available information on LED technology

Yours in Safety
SACEA