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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Safety requirements for working on high voltage equipment
underwater**

(English Translation)

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Foreword

All technical contents of this standard is mandatory.

This standard was drafted in accordance with rules GB/T 1.1-2009 given.

This standard corresponds to the International Marine Contractors Association (IMCA)

"High-voltage equipment Safety code" (AODC060) and "high voltage set

Preparation. ROV safe rules "(IMCAR005), and the degree of non-uniformity AODC060 and IMCAR005

Equivalent.

The standard proposed by the People's Republic of China Ministry of Transport.

This standard and underwater engineering Standardization Technical Committee by the Ministry of Transport salvage.

This standard was drafted. Underwater Engineering Institute of Marine Science, Shanghai Jiao Tong University.

1 Scope

This standard specifies the duties of staff during underwater high-voltage equipment jobs, job safety rules, maintenance work preparation, isolation and maintenance of close,

Test requirements, fire safety, as well as alert notifications requirements.

This standard applies to surface art AC or DC voltage at 380V ~ 11kV (inclusive) underwater high-voltage equipment operation and maintenance operation.

2 Terms and Definitions

The following terms and definitions apply to this document.

2.1

High voltage highvoltage

But not greater than the voltage exceeds 380V AC or DC voltage of 11kV.

2.2

Close close

Worker can enter the working position to the live conductor is smaller than the distance of 500mm.

3.1 supervise diving or ROV (ROV) Supervision

3.1.1

full operational safety related equipment electrical installations responsible for underwater work site.

3.1.2

should have the ability to give commands to engage in the operations of technical personnel, organization and complete the task.

3.1.3

Ensure that all electrical equipment according to the procedure for implementing the operations have been developed.

Carrying out its mandate, it should be able to control and correct implementation of emergency procedures 3.1.4, to protect the right to terminate the operations of health equipment maintenance personnel

Health and safety.

3.2 Equipment maintenance personnel

3.2.1

should have appropriate professional qualifications, familiar and safe work practices related provisions, and the ability to complete the work.

3.2.2

Electrical installations should be noted, warning notices on the device or program description, familiar treatment protocol when subjected to electric shocks and precautions.

3.2.3

shall be subject to high voltage electrical training courses and first aid techniques, master the basic on-site emergency medical rescue methods, and by the appropriate exam qualified.

3.2.4

Equipment maintenance personnel should be aware, be familiar with the relevant electrical equipment performance, can handle any situation affecting the normal operation of the device,

ROV and diving supervision or monitoring reports.

3.2.5

operating personnel to operate the equipment, maintenance and testing process, should ensure that according to the use manual, in strict accordance with operating procedures.

4 Job security rules

Owner 4.1 devices in the equipment life and it should develop and update appropriate to the type of electrical installation equipment, including maintenance and

Operating and safety rules or procedures needed to close the safety of the device.

4.2

in near high-voltage facility operation, site should have at least two people. Where. a person a job, a person responsible for safety isolation.

4.3 Prior to conduct operations should be carried out risk assessments and ensure.

- All parties were informed underwater operations to be carried out;
- The safe operation/copy operations manual to the side of the ship or facility;
- for the special case of work to make the necessary modifications to the safe operation of writing/Operations Manual.

4.4 In order to avoid a variety of factors make backup emergency generator or accidental activation caused by an accident, the implementation of operations should set the appropriate protective measures.

4.5 During the operation, all personnel should pay attention to the results of the risk assessment, warning notices on the device, and according to the actual need for the precautions

Item or program description.

5 Maintenance job preparation

5.1

equipment maintenance of premises should be left clean, accessible work space and into and out of the channel.

5.2

spare parts, tools, equipment, separation barrier, insulation equipment, as well as job security related items should be kept in good condition and stored in

Within the available container.

5.3 should provide adequate lighting to ensure safe access and operation.

5.4 allows the use of low-voltage self-powered hand tools. These devices should be inspected and tested on a regular basis.

5.5 It is noted from moisture, dirt intrusion electrical equipment, the enclosure should be promptly after the reset operation. Front compartment closed, should be carefully examined to ensure that

Items left behind or loose parts does not occur.

5.6 Before maintenance work on high voltage wires, make sure that all the wires are not live. It should be tested before the voltage meter used to verify

Its function well.