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

MH/T 1064.4-2017

**Safety code of power working with the helicopter. Part 4-Live
working**

(English Translation)

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Foreword

MH/T 1064 "Safety Regulations for Helicopter Electric Operation" is divided into the following seven parts.

- Part 1: General requirements;
- Part 2: Inspection operation;
- Part 3: Laser scanning operation;
- Part 4: Live work;
- Part 5: Electric water washing operation;
- Part 6: Hoisting and assembly tower operations;
- Part 7: Unfold the guide rope operation.

This part is part 4 of MH/T 1064.

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

This part was proposed by the Transportation Department of the Civil Aviation Administration of China.

This part was approved by the Aircraft Airworthiness Certification Department of the Civil Aviation Administration of China.

This part is under the jurisdiction of the China Academy of Civil Aviation Science and Technology.

Drafting organizations of this section. The Second Research Institute of Civil Aviation Administration of China, State Grid General Aviation Co., Ltd.

1 Scope

This part of MH/T 1064 stipulates the use of manned helicopters (hereinafter referred to as helicopters) to carry out live work on overhead transmission lines the general requirements, the safety requirements of different live working methods and the work requirements before and after the operation.

This part is applicable to the aerial transmission of 500 kV~1 000 kV AC and ± 500 kV DC by manned helicopters with mission equipment.

Live inspection and maintenance of electric lines.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 2900 Electrician Terminology Live Work GB/T 6568 Shielding clothing for live working
GB/T 13035 Insulated rope for live working GB/T 25726 1 000 kV Shielding clothing for AC live working
DL 409 Safety Working Rules Power Line Part DL 779 Insulated rope tools for live working
DL/T 966 Technical Guidelines for Live Working on Transmission Lines

3 Terms and definitions

The following terms and definitions apply to this document.

Helicopter live working Use helicopter-mounted equipment or devices to make operators contact with live lines for maintenance.

Potential working

Operators use electrical connections to increase the potential of their body to the potential of the charged part, and to properly isolate them from the surrounding different potentials.

Work on the live parts.

Screening clothing

It is made of natural or synthetic materials and is completely woven with conductive fibers to prevent workers from being affected by electric fields.

Electric field shield mask the mask is made of conductive material and integrated with the shielding clothing to protect the face of the operator from the electric field.

Potential rod

It is used by equipotential operators when entering and exiting equipotential to reduce the impact of discharge arc on human body and avoid pulse current on shielding clothing Metal tools that cause damage.

Minimum approach distance During live operation, the whole parts of the helicopter, including airborne personnel and objects, and any parts with different electric potentials the minimum air distance to keep.

Helicopter live working with platform method Install maintenance platforms on both sides of the helicopter or on the belly of the helicopter, and the helicopter carries live personnel on the maintenance platform to directly contact the live Lines and conduct equipotential operations.

Helicopter live working with suspension method Install hooks on the belly of the helicopter, suspend insulating ropes, and send operators or equipment (including baskets, chairs, ladders, etc.) Conduct live work at the operating point of the transmission line.

4.1 Personnel

4.1.1

The captain performing live helicopter operations shall meet the following requirements.

- Have experience in helicopter external load operations;
- Not less than 2 000 h for helicopters;
- Not less than 100 h for long hours of operating models;
- At least 100 hours of low-altitude flight experience, including electric power operation flight experience;
- Not less than 30 hours of flight training time for live operation;
- Passed live working training (online flight time is not less than 10 hours).

4.1.2

The personnel on board performing live helicopter operations shall meet the following requirements.

- Good health, no physical and psychological obstacles that hinder live working;
- Have basic knowledge of electrical principles and power lines, master the basic principles and operating methods of live work, and be familiar with work tools the scope of application and method of use;
- Familiar with DL 409, DL/T 966 and this standard;
- Pass the training and examination of the competent authority of transmission lines, hold a live working certificate, and pass the helicopter platform method or the suspension method for live working Qualified training;
- Not less than 10 hours flight training time for live operation.

4.1.3

The person in charge (or safety guardian) performing live helicopter operations shall meet the following requirements.

- Have more than 3 years of practical working experience in live working on 500 kV AC and above or ± 500 kV DC voltage lines;
- Familiar with equipment conditions, with certain organizational capabilities and accident handling capabilities;
- After specialized training.

4.2.1 Platform method live working equipment

4.2.1.1

The helicopter models that adopt the platform method for live operation shall pass the equipotential assessment test.

4.2.1.2

The design of the airborne operating platform should be determined according to the actual size of the operating helicopter, and metal materials with good conductivity and high strength should be used.

Material production.

4.2.1.3

The airborne operating platform can be fixed on the front side of the helicopter by connecting parts, and the conductive elements of the platform should be connected with the conductive equipment of the helicopter.