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**INDUSTRY STANDARD OF THE
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**Operating procedure for commercial aviation fuel pipeline
pigging
(English Translation)**

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Foreword

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

This standard was proposed by the Aircraft Airworthiness Certification Department of the Civil Aviation Administration of China.

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

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

Drafting organization of this standard. China National Aviation Fuel Corporation.

1 Scope

This standard specifies long-distance pipeline pigs for civil aviation fuel, pigging operations organization, pigging operations, emergency measures and data compilation and Aggregate requirements.

This standard applies to the pigging operations of civil aviation fuel long-distance pipelines.

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.

Quality control of MH/T 6080 civil aviation fuel long-distance pipeline transportation

3 Terms and definitions

The following terms and definitions apply to this document.

Pipeline pig

It is formed by connecting the leather bowl and the skeleton, and is pushed by the conveying medium in the pipeline. It is a tool used to clean up the dirt and impurities in the pipeline.

Magnitude of interference the percentage of the difference between the outer diameter of the cup and the inner diameter of the pipe to the inner diameter of the pipe.

4.1 Classification

4.1.1

Pipe cleaners are divided into the following two categories according to the form of the cup.

- Straight plate-shaped pipe cleaner adopts straight plate-shaped cup;
- Dish-shaped pipe cleaner adopts a dish-shaped leather bowl.

4.1.2

Pipe cleaners are divided into the following three categories according to their functions.

- Brush type pipe cleaner;
- Diameter pig;
- Magnetic pig.

4.2 Requirements for use

4.2.1

For newly-built pipelines or pipelines that have not been pigged for a long time, the first pigging operation should use a diameter measuring pig.

4.2.2

Brush pigs should be selected for pipelines that are regularly pigged.

4.2.3

Before using the magnetic pig, the brush-type pig should be used to remove most of the impurities before the magnetic pig can be used for cleaning.

Pipe work to avoid jamming.

4.2.4

When pigging is carried out for the first time, the deformation of the pipeline shall be confirmed to ensure the passage of the pig.

4.2.5

The technical parameters of the signal and receiving device of the pig should meet the requirements for use.

4.2.6

Straight-plate pigs should be used for pigging operations on pipelines painted with anticorrosive materials on the inner wall.

4.3 Assembly

4.3.1

The pig can be assembled in different structures according to the purpose of the pig.

4.3.2

A pull ring should be set in front of the frame, and the length of its protruding part should be controlled between 20 mm and 80 mm depending on the pipe diameter.

4.3.3

The frame should be able to install 2 or more cups and signalling systems.

4.3.4

The surface of the leather bowl should be smooth, without obvious defects, and the storage time should not exceed 3 years.

4.3.5

The fastening bolts of the pipe cleaner should be tightened with locknuts and symmetrically tightened. The end of the screw should be within 10 mm after tightening.

4.3.6

The outer diameter of the cup should be 1.10 to 1.26 times the inner diameter of the pipe.

4.3.7

It should be assembled according to the spacing required by the design, and the coaxiality of the cup after installation should not be greater than 2 mm.

4.3.8

The transmission device, steel brush and diameter measuring disc should be installed according to the operation requirements.

4.3.9

After the assembly is complete, check the drain hole.

4.3.10

The drain hole of the pig should be opened for the first pass through the ball to sweep the line.

4.4 Conditions of use

4.4.1

The temperature range of the working environment is -30 °C~100 °C.

4.4.2

The working pressure should be less than or equal to 15 MPa.

4.4.3

The pigging operation should be carried out under daily pipeline transportation conditions, and the operating speed should not exceed 4.5 m/s.

4.4.4

The minimum radius of curvature through the elbow should not be less than 1.5 times the pipe diameter.

4.4.5

The maximum deformation of the straight pipe section of the pipeline shall not exceed 25% of the pipe diameter.