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## Determination of the resistance to cryogenic spillage of insulation materials —

### Part 3: Jet release

*Détermination de la résistance des matériaux d'isolation thermique  
suite à un refroidissement cryogénique —*

*Partie 3: Émission sous forme de jet*



Reference number  
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## Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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## Introduction

The test is intended to be, as far as practicable, representative of a potential accidental pressurized release of cryogenic liquid natural gas (LNG) manufactured in industrial plants. The test includes:

- a) an initial enhanced cooling effect due to the momentum driven liquid contact with the substrate;
- b) a localized force that may be expected in a cryogenic jet release.

This test is designed to give an indication of how cryogenic spill protection systems will perform when subjected to a sudden cryogenic jet release.

The dimensions of the test specimen might be smaller than typical items of structure and plant. The liquid cryogenic jet mass flow rates can be substantially less than that which might occur in a credible event. However, the thermal and mechanical loads imparted to the cryogenic spill protection systems from the cryogenic jet release, described in this document, are representative of a cryogenic LNG jet release with hole size 20 mm or less and release pressure less than or equal to 6 barg.