



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/25)**

Delhi, India, 21 to 25 April 2025

**Agenda Item 6: Dangerous goods provisions to support RPAS operations (Ref: Job Card
DGP.007.02)**

**USE OF FLAMETHROWER RPAS TO PROVIDE MAINTENANCE TO POWER
TRANSMISSION LINES**

(Presented by L. Cascardo)

SUMMARY

The increasing use of remotely piloted aircraft systems (RPAS) for hazardous operations raises questions about their regulatory treatment under the Technical Instructions. Specifically, RPAS have recently been used to deploy small amounts of flammable liquid to burn objects entangled in power transmission lines, reducing risks to human workers. However, such operations are not explicitly included under the general exceptions of Part 1;1.1.5.1 c). This paper seeks to initiate discussion within the DGP regarding the experiences of other States with similar RPAS operations and whether there is interest in considering such activities under general exceptions in the future.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 The general exceptions under Part 1;1.1.5.1 of the Technical Instructions exclude certain dangerous goods operations from regulatory requirements when conducted for activities such as agriculture, forestry, and pollution control. Specifically, 1;1.1.5.1 c) states:

Part 1

GENERAL

Chapter 1

SCOPE AND APPLICABILITY

...

1.1 GENERAL APPLICABILITY

...

1.1.5.1 Except for 7;4.2, these Instructions do not apply to dangerous goods carried by an aircraft where the dangerous goods are:

...

- c) for dropping in connection with agricultural, horticultural, forestry, ice jam control, landslide clearance, pollution control activities or pest management activities;

...

1.2 With the advancement of remotely piloted aircraft systems (RPAS) technology, new applications have emerged to enhance safety and efficiency. One such application involves the use of small drones equipped with flammable liquid dispensers to ignite foreign objects on power transmission lines. These objects – such as kites, debris, and climbing vegetation – pose risks to electrical distribution and public safety. Traditional removal methods require human intervention at great heights, increasing the risk of accidents. RPAS offer a safer alternative, allowing controlled ignition while a ground team manages fire safety measures.

1.3 However, this type of RPAS operation is not currently included under the exceptions listed in Part 1;1.1.5.1 c) or any other part of 1;1.1.5.1. Recent authorization requests submitted to regulatory authorities suggest a growing interest in such applications, raising the question of whether they should be explicitly considered under the general exceptions framework or if they should be treated on a case-by-case basis due to the risks of the operation.

1.4 Pictures of this kind of operation are presented in the appendix to this working paper.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to:

- a) share experiences regarding similar RPAS operations in different States;
- b) discuss regulatory approaches to such operations, including whether they fall under existing exceptions or require case-by-case approvals; and
- c) consider whether there is interest in exploring the inclusion of such RPAS activities under general exceptions in the future.

APPENDIX

PICTURES



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