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ULC/ORD-1389:2019

GUIDE FOR THE INVESTIGATION OF PLANT OIL EXTRACTION EQUIPMENT

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FOREWORD

Certification organizations are periodically requested to promptly provide certification services for devices, constructions, materials and systems where Canadian recognized Standards do not currently exist or are not entirely applicable. Accordingly, the certification organization utilizes its experience, existing specifications and requirements in related areas, together with assistance from its advisory councils to develop and prepare Other Recognized Documents (ORDs) for use in conducting the necessary tests and evaluation investigation.

Underwriters Laboratories of Canada has prepared many ORDs in response to requests from, and in conjunction with, industry, code writing bodies, regulatory agencies and others prior to promulgating a certification program. In many instances such documents have become published ULC Standards and subsequently National Standards of Canada. It is the intention of Underwriters Laboratories of Canada to continue this practice, as appropriate.

Comments on the content of this ORD should be directed to the Head Office of Underwriters Laboratories of Canada, 7 Underwriters Road, Toronto, Ontario, CANADA, M1R 3A9.

NOTE: These Other Recognized Documents are accepted under the National Standards System of Canada. Reference may be made to the Document "SCC Requirements and Guidance – Product, Process and Service Certification Body Accreditation Program" published by the Standards Council of Canada located at 55 Metcalfe Street, Suite 600, Ottawa, Ontario, Canada, K1P 6L5.

INTRODUCTION

1 Scope

1.1 These requirements cover commercial or industrial plant oil extraction equipment for installation in accordance with CSA C22.1, Canadian Electrical Code Part 1 - Safety Standard for Electrical Installations (CE Code), CSA B149.1 Natural Gas and Propane Installation Code, and the National Fire Code of Canada, together with the manufacturer's installation instructions.

1.2 This plant oil extraction equipment includes:

a) Plant oil extractors - These plant oil extractors are complete closed loop pneumatically operated equipment, with electrical features such as for heating, cooling and illumination. This equipment has a maximum capacity of 227 L (60 G) of plant oil, and uses butane or LP-Gas to extract the plant oils as indicated in the instruction manual provided with each unit. Installation may be in a distinct room that is part of a commercial or industrial building, or in a prefabricated plant oil extraction booth.

b) Prefabricated plant oil extraction booths - These prefabricated booths (including modified shipping containers, or “pods”) are for installation in a distinct room that is part of a commercial or industrial building, and incorporate the following attributes:

1) The area within these booths is classified as either a Zone 1, Group IIA or Class I, Division 1, Group D hazardous location in accordance with the CE Code, and the area outside these booths around openings is classified as a Zone 2, Group IIA or Class I, Division 2, Group D hazardous location for a distance of 1.0 m in all directions in accordance with the CE Code, as applicable.

2) The plant oil extraction equipment enclosed by these booths use solvents such as liquid butane or liquid propane.

3) These booths are provided with integral electrical equipment and factory-provided interconnections for electrical equipment that are suitable for the area classification.

4) This integral equipment may include control panels, power distribution, illumination, ventilation, vapor detection/alarming equipment, and fire extinguishing equipment, as applicable.

5) Suitable ingress/egress are provided for authorized personnel to operate, service and maintain the intended plant oil extraction process equipment enclosed by the booths.

c) Plant oil extraction systems - Plant oil extraction systems involve any combination of plant oil extraction equipment needed for the overall extraction process.

1.3 These products, when intended for installation in hazardous (classified) locations are marked accordingly.

1.4 The requirements in this ORD do not cover the physiological or other attributes or effects that may result from the use of this equipment.

2 Units of Measurement

2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

3 Reference Publications

3.1 See Annex A for a list of publications referenced in this standard. Any undated reference to a code or standard appearing in the requirements of this guide shall be interpreted as referring to the latest edition of that code or standard.

4 Components

4.1 Except as indicated in 4.2, a component of a product covered by this standard shall comply with the requirements for that component.

4.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this guide, or

b) Is superseded by a requirement in this guide.

4.3 A component shall be used in accordance with its rating established for the intended conditions of use.

4.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.