



NSAI
Standards

Irish Standard
I.S. EN 16602-70-58:2015

Space product assurance - Bioburden control of cleanrooms

I.S. EN 16602-70-58:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

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EUROPEAN STANDARD

EN 16602-70-58

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2015

ICS 49.140

English version

Space product assurance - Bioburden control of cleanrooms

Assurance produit des projets spatiaux - Contrôle de la charge microbienne des salles blanches

Raumfahrtproduktsicherung - Kontrolle der Gesamtkeimzahl in Reinräumen

This European Standard was approved by CEN on 25 October 2014.

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Table of contents

European foreword	5
Introduction	5
1 Scope	7
2 Normative references	8
3 Terms, definitions and abbreviated terms	9
3.1 Terms defined in other standards	9
3.2 Terms specific to the present standard	9
3.3 Abbreviated terms.....	11
4 Principles	12
5 Requirements	13
5.1 Bioburden control	13
5.1.1 Formal system	13
5.1.2 Action and alert levels	14
5.2 Operational requirements	15
5.2.1 Cleanroom class	15
5.2.2 Applicability of bioburden control.....	16
5.2.3 Restrictions	16
5.2.4 Bioburden monitoring of cleanroom environment	17
5.2.5 Sampling plan	17
5.2.6 Training.....	19
5.2.7 Personnel.....	19
5.2.8 Cleanroom garments.....	20
5.3 Cleanroom commissioning.....	20
Annex A (normative) Bioburden control formal system description - DRD	21
A.1 DRD identification	21
A.1.1 Requirement identification and source document.....	21
A.1.2 Purpose and objective.....	21
A.2 Expected response	21

A.2.1	Scope and content	21
A.2.2	Special remarks	23
Annex B	(normative) Request for cleanroom commissioning - DRD	24
B.1	DRD identification	24
B.1.1	Requirement identification and source document.....	24
B.1.2	Purpose and objective.....	24
B.2	Expected response	24
B.2.1	Scope and content	24
B.2.2	Special remarks	24
Annex C	(normative) Cleanroom commissioning specifications and procedures (Work Proposal) - DRD	25
C.1	DRD identification	25
C.1.1	Requirement identification and source document.....	25
C.1.2	Purpose and objective.....	25
C.2	Expected response	25
C.2.1	Scope and content	25
C.2.2	Special remarks	26
Annex D	(normative) Cleanroom commissioning report - DRD.....	27
D.1	DRD identification.....	27
D.1.1	Requirement identification and source document.....	27
D.1.2	Purpose and objective.....	27
D.2	Expected response	27
D.2.1	Scope and content	27
D.2.2	Special remarks	27
Annex E	(informative) Cleanroom operation	28
E.1	Commissioning activities.....	28
E.1.1	Elements.....	28
E.2	Action and alert level events	29
E.2.1	Investigation.....	29
E.2.2	Sampling error	29
E.2.3	Inconclusive findings	29
E.2.4	Microorganism Identity	30
E.2.5	Frequency.....	30
E.3	Training programme	30
E.3.1	Overview.....	30
E.3.2	Training levels.....	30

EN 16602-70-58:2015 (E)

E.3.3	Sampling and analysis	31
E.3.4	Training verification	31
E.3.5	Training content	31
E.4	General guidelines for cleanroom design and operation	31
E.4.1	Design; general	31
E.4.2	Airflow	32
E.4.3	Access	32
E.4.4	Layout design	33
E.4.5	Storage space	33
E.4.6	Monitoring	34
E.5	Operational guidelines	34
E.5.1	Surveillance	34
E.5.2	Communications	34
E.5.3	Packaging	34
E.5.4	Flight hardware	34
E.5.5	Maintenance	34
E.5.6	Personnel access records	35
E.5.7	Task planning	35
E.5.8	Garments	35
E.5.9	Microbiological laboratory	35
E.5.10	Cleanroom bioburden sampling	35
E.5.11	Medical monitoring of personnel	35
E.5.12	Bioburden monitoring	36
E.5.13	Gowning	36
E.5.14	Entering cleanroom	38
E.5.15	Cleanroom cleaning	39
E.6	Cleanroom working disciplines	40
E.6.1	Overview	40
E.6.2	Access control	41
E.6.3	Working practises	42
	Bibliography	44
	Figures	
	Figure 4-1: (Bioburden Control in Cleanrooms) examination process overview	12
	Figure E-1 : Cleanroom environment schematic	32

European foreword

This document (EN 16602-70-58:2015) has been prepared by Technical Committee CEN/CLC/TC 5 “Space”, the secretariat of which is held by DIN.

This standard (EN 16602-70-58:2015) originates from ECSS-Q-ST-70-58C.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2016, and conflicting national standards shall be withdrawn at the latest by March 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document has been developed to cover specifically space systems and has therefore precedence over any EN covering the same scope but with a wider domain of applicability (e.g. : aerospace).

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The UN Outer Space Treaty of 1967 sets up the general principles applicable to the exploration and use of outer space. Article IX of the Outer Space Treaty constitutes the primary statement of international law: “States parties shall pursue studies of outer space, including the Moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter and, when necessary, adopt appropriate measures for this purpose”. Harmful contamination in that sense is defined as biological contamination, including organic-constituents, to protect the environment in order to allow future exobiology research. The Committee On Space Research (COSPAR) has established some planetary protection guidelines, based on the Outer Space Treaty. These guidelines impose requirements on spaceflight missions according to target body/mission type combinations.

The objective of this Standard is to ensure that the proper procedures to control the microbiological contamination in controlled environments are in place to meet the planetary protection constraints.

1 Scope

This standard establishes the principles and basic methodology for microbiological control of cleanrooms and associated controlled environments with planetary protection constraints.

This standard does not address:

- the microbiological contamination control of spaceflight hardware;
- molecular contamination control. Reference is made to other documents;
- fire and safety regulations; for these, see regulatory requirements and other national or local documentation.

This standard does not lay down the methods for determining the microbiological and particulate cleanliness levels. Reference is made to other documents.

This standard may be tailored for the specific characteristic and constraints of a space project in conformance with ECSS-S-ST-00.

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