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Edition 1.0 2015-07

TECHNICAL REPORT

Fire prevention measures on converters for high-voltage direct current (HVDC) systems, static var compensators (SVC) and flexible ac transmission systems (FACTS) and their valve halls

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CONTENTS

FOREWORD 5
1 Scope 7
2 Normative references 7
3 Terms and definitions 7
4 Fire hazards in valves and valve halls 13
4.1 General 13
4.2 Possible causes 13
4.2.1 Valve insulation failure 13
4.2.2 Loose connections or high resistance joints in the power circuit 13
4.2.3 Valve component failures 14
4.2.4 Semiconductor device level connections 15
4.2.5 Coolant system problems 16
4.2.6 Failure of valve hall bushings 17
4.2.7 Failure of surge arresters 17
4.2.8 False operation of deluge system 17
4.2.9 Other valve hall equipment 17
4.2.10 Work in and around valve hall 17
4.3 Assessment of possible consequences 18
5 Valve hall layout and access 18
5.1 Physical arrangements 18
5.1.1 General 18
5.1.2 Present practices 19
5.1.3 Specific provisions 19
5.2 HVDC valve hall construction 19
5.2.1 General 19
5.2.2 Valve hall construction 20
5.3 Means of egress 20
6 Supervision of valve components and other valve hall equipment 20
6.1 General 20
6.2 Supervision of valve components 21
6.2.1 General 21
6.2.2 On-line monitoring 21
6.2.3 Off-line checks and inspection 22
6.3 Supervision of other valve hall equipment 22
7 Fire detection systems 23
7.1 General 23
7.2 Detection and operating principles 23
7.2.1 General 23
7.2.2 Air sampling systems 23
7.2.3 Infra-red beam smoke detectors 23
7.2.4 Arc detector systems 24
7.2.5 Infra-red flame detectors 24
7.2.6 Ultraviolet (UV) flame detectors 24
7.2.7 Imaging video camera systems 24
7.3 Guidelines for valve hall fire detection 24
8 Fire suppression systems 24

8.1 General 24
8.2 Design considerations for an installed fire suppression system 25
8.3 Types of fire extinguishing agents 26
8.3.1 List of agents 26
8.3.2 Carbon dioxide 26
8.3.3 Inert gases 26
8.3.4 Hydro fluorocarbons 26
8.3.5 Other gases 27
8.4 Installation requirements 27
8.5 Guidelines for fire extinguishing agents 27
9 Vent management 28
9.1 General 28
9.2 Design considerations 29
9.2.1 General 29
9.2.2 Natural ventilation 29
9.2.3 Forced ventilation 30
9.2.4 Design 30
10 Control and integration of fire detection, fire protection and converter control systems 30
10.1 General 30
10.2 Fire alarm classification 31
10.2.1 General 31
10.2.2 Classification by detection principle 32
10.2.3 Classification by detection objective 32
10.2.4 Detection system reliability 33
10.3 Fire control system 33
10.3.1 General 33
10.3.2 Basic system functions 33
10.3.3 Other system components 34
10.3.4 Outline of system design 34
10.4 Guidelines for integrated fire control systems 35
11 Fire fighting and maintenance 35
11.1 General 35
11.2 Role of station and fire fighting personnel 35
11.2.1 General 35
11.2.2 Actions in case of a fire 35
11.2.3 Fire fighting 36
12 Guidance for purchaser specifications 36
12.1 General 36
12.2 Purchaser specification 36
12.2.1 General 36
12.2.2 Semiconductor valves 37
12.2.3 Other valve hall equipment 38
12.2.4 Valve hall construction 38
12.2.5 Fire detection systems 38
12.2.6 Fire suppression systems 39
12.2.7 Vent management system 39
12.2.8 Fire alarm and control systems 39
Annexe A (informative) Valve hall fire hazards and survey of fire incidents 40

A.1 General 40
A.2 Hazard categories 40
A.3 Reports from HVDC users 41
A.4 Reported incidents 42
A.4.1 Overheating of valve components due to reduced cooling 42
A.4.2 Valve component failures 44
A.4.3 Loose or high resistance connections in the load current carrying circuit 57
A.4.4 Failure of auxiliary circuit electrical connections 58
A.4.5 Insulation failures 58
A.4.6 Failures of equipment associated with the valve hall 61
A.4.7 False alarms 62
A.4.8 Unknown causes 63
A.5 Conclusion and recommendations 63
Bibliography 65

Figure 1 – Types of ventilation 29
Figure 2 – Possible arrangements and interconnections of an integrated fire detection and control system 32

Table 1 – Fire extinguishing agents 26
Table A.1 – HVDC converters owners/suppliers reference list (May 2012) 41

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FIRE PREVENTION MEASURES ON CONVERTERS FOR HIGH-VOLTAGE DIRECT CURRENT (HVDC) SYSTEMS, STATIC VAR COMPENSATORS (SVC) AND FLEXIBLE AC TRANSMISSION SYSTEMS (FACTS) AND THEIR VALVE HALLS

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IEC/TR 62757, which is a technical report, has been prepared by subcommittee 22F: Power electronics for electrical transmission and distribution systems, of IEC technical committee 22: Power electronic systems and equipment.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
22F/347/DTR	22F/353A/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

FIRE PREVENTION MEASURES ON CONVERTERS FOR HIGH-VOLTAGE DIRECT CURRENT (HVDC) SYSTEMS, STATIC VAR COMPENSATORS (SVC) AND FLEXIBLE AC TRANSMISSION SYSTEMS (FACTS) AND THEIR VALVE HALLS

1 Scope

IEC TR 62757, which is a technical report, deals with fire prevention measures on converters and their valve halls for high voltage direct current (HVDC) systems, static VAR compensators (SVC) and flexible AC transmission systems (FACTS). It is intended to be primarily for the use of the utilities and consultants who are responsible for issuing technical specifications for new converter valves and valve halls. It concerns fire incidents in HVDC projects using line commutated converters (LCC) or voltage sourced converter (VSC) technology and it is from these projects that most examples of fires and fire incidents are taken. This technical report also addresses converter valves and valve halls for SVC and FACTS.

This technical report provides general recommendations to be considered while preparing specifications for these systems. Specific requirements for a particular project need to be clearly specified and mutually agreed upon between the supplier and the purchaser.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Void.

3 Terms and definitions

For the purpose of this document the following terms and definitions apply.

3.1
alarm system
installation for initiating a fire alarm

3.2
automatic fire detector
device that detects abnormally high temperature, rate of temperature rise, visible or invisible particles, infra-red or visible radiation, or gases produced by a fire

3.3
automatic fire extinguishing system
any system designed and installed to detect a fire and subsequently discharge an extinguishing agent without the necessity of human intervention

3.4
burn, intransitive verb
undergo combustion

[SOURCE: ISO 13943:2008, 4.28]