

1. Record Nr.	UNINA9911006847003321
Autore	Korver W. O. E (Willy O. E.)
Titolo	Electrical safety in flammable gas/vapor laden atmospheres // by W.O. E. Korver
Pubbl/distr/stampa	Norwich, N.Y., : Noyes Publications/William Andrew Pub., c2001
ISBN	1-282-00225-2 9786612002250 0-8155-1695-9
Edizione	[1st ed.]
Descrizione fisica	1 online resource (467 p.)
Disciplina	628.9/22
Soggetti	Flammable gases - Safety measures Fire prevention Electric apparatus and appliances - Safety measures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 426-427) and index.
Nota di contenuto	Front Cover; Electrical Safety in Flammable Gas/Vapor Laden Atmospheres; Copyright Page; Preface; Table of Contents; List of Figures, Tables, and Reports; Figures; Tables; Reports; Part 1: Fundamentals; Chapter 1. Flammable and Combustible Principles of Hazardous Products; A. GENERAL; B. FLAMMABLE AND COMBUSTIBLE LIQUIDS; C. COMBUSTIBLE COKE AND COAL DUST; D. FIRE AND EXPLOSION HAZARDS IN NEC CLASS I LOCATIONS; Chapter 2. Classifying Sources of Hazard; A. SOURCES OF HAZARD; B. WHEN A LOCATION IS HAZARDOUS; C. SAFETY VERSUS HAZARD IN NEC CLASS I LOCATIONS D. REQUIREMENT FOR NEC CLASS I, DIVISION 1, AND DIVISION 2 LOCATIONSChapter 3. The Extent of Explosion Danger for NEC Class I Locations; A. GENERAL; B. THE DIMENSIONAL OUTLINE OF A DIVISION 1 AND DIVISION 2 ZONE; C. QUANTITY OF FLAMMABLE SUBSTANCES VERSUS EXTENT OF EXPLOSION DANGER; D. FACTORS INFLUENCING QUANTITIES OF FLAMMABLE GASES AND VAPORS; E. EARLY AND REMOTE PERMANENT IGNITION SOURCES; F. THE EXTENT OF EXPLOSION DANGER FOR CLASS II FLAMMABLE PRODUCTS; G. TRANSITION ZONES FOR NEC CLASS I LOCATIONS; H. ADDITIONAL DANGER ZONES; I.

DANGER ZONES ABOVE GROUND

J. CLASSIFICATION OF SOURCES OF HAZARD IN PUMP STATIONS OCCUPYING 50, 75, OR 100% FLOOR SPACEK. FUME HOODS; L. STORAGE AND DISPENSING OF FLAMMABLE LIQUIDS; M. SEGREGATION; Chapter 4. Spatial Considerations; A. INDOOR AND OUTDOOR LOCATIONS; B. ROOFED SPACES IN HAZARDOUS AREAS; C. NONHAZARDOUS SPACES ABOVE OR BELOW HAZARDOUS AREAS; D. SPACES GIVING ACCESS TO HAZARDOUS AREAS; Chapter 5. The Degree of Explosion Danger for NEC Class II Locations; A. GENERAL; B. DETAILED REQUIREMENTS FOR NEC CLASS II, DIVISION 1 LOCATIONS; C. DETAILED REQUIREMENTS FOR NEC CLASS II, DIVISION 2 LOCATIONS D. THE DEGREE OF EXPLOSION DANGER IN FOSSIL POWER PLANTSChapter 6. Ventilation Requirements; A. GENERAL; B. NATURAL VENTILATION; C. MECHANICAL VENTILATION; D. APPROXIMATE LOCATION OF MECHANICAL VENTILATION; E. CANOPY FUME HOODS; F. DEMARCATION LINE; G. LOW AND HIGH INTEGRITY SEAL CONNECTORS; H. SAFEGUARDS; I. WIRING DIAGRAMS FOR SAFEGUARDS; Standby Mode; Chapter 7. Electrical Equipment for NEC Class I Locations; A. GENERAL; B. ELECTRICAL EQUIPMENT REQUIRED FOR DIVISION 1 LOCATION; C. ELECTRICAL EQUIPMENT REQUIRED FOR DIVISION 2 LOCATION; D. INTRINSICALLY SAFE ELECTRICAL EQUIPMENT E. MARKING OF ELECTRICAL EQUIPMENTF. CONSTRUCTION OF EXPLOSION-PROOF ENCLOSURES; G. GROUPING OF ELECTRICAL EQUIPMENT; Chapter 8. Electrical Equipment for NEC Class II, Group F Locations; A. GENERAL; B. CLASS II, DIVISION 1 LOCATIONS; C. CLASS II, DIVISION 2 LOCATIONS; Chapter 9. Intrinsically Safe Equipment and Wiring; Chapter 10. Installation of Electrical Instruments in Hazardous Locations; A. TYPE Z PURGING; B. TYPE Y PURGING; C. TYPE X PURGING; Chapter 11. Hydrogen Gas; Chapter 12. Cathodic Protection; Chapter 13. Static Electricity Chapter 14. Groundings of Tanks, Pipelines, and Tank Cars

Sommario/riassunto

This book provides comprehensive coverage of electrical system installation within areas where flammable gases and liquids are handled and processed. The accurate hazard evaluation of flammability risks associated with chemical and petrochemical locations is critical in determining the point at which the costs of electrical equipment and installation are balanced with explosion safety requirements. The book offers the most current code requirements along with tables and illustrations as analytic tools. Environmental characteristics are covered in Section 1 along with recommended electrical ins