1. Record Nr. UNINA9911004852303321

Autore	Korver W. O. E (Willy O. E.)
Titolo	Classifying explosion-prone areas for the petroleum, chemical, and related industries / / by W.O.E. Korver
Pubbl/distr/stampa	Park Ridge, N.J., U.S.A., : Noyes Publications, c1995
ISBN	1-282-76923-5 0-08-094608-9 9786612769238 1-282-01353-X 9786612013539 0-8155-1644-4
Descrizione fisica	1 online resource (443 p.)
Disciplina	363.11/966 20 363.11966
Soggetti	Industrial buildings - Fires and fire prevention Fire departments - Standards
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. 418-420) and index.
Nota di contenuto	Front Cover; Classifying Explosion-Prone Areas for the Petroleum, Chemical and Related Industries; Copyright Page; CONTENTS; INTRODUCTION; SECTION 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. Requirements for NEC Class I, Div. 1 and Div. 2 Locations CHAPTER 3. THE EXTENT OF EXPLOSION DANGER FOR NEC CLASS I LOCATIONSA. General; B. The Dimensional Outline of a Div. 1 and Div. 2 Zone; C. Quantity of Flammable Substances Versus Extent of Explosion Danger; D. Factors Influencing Quantities of Flammable Gases or 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 Space; K. Fume Hoods L. Storage and Dispensing of Flammable LiquidsM. 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, Div. 1 Locations; C. Detailed Requirements for NEC Class II, Div. 2 Locations; D. The Degree of Explosion Danger in Fossil Power Plants; CHAPTER 6. VENTILATION REQUIREMENTS; A. General; B. Natural Ventilation
C. Mechanical VentilationD. Approximate Location of Mechanical Ventilation; E. Demarcation Line; F. Safeguards; G. Wiring Diagrams for Safeguards; CHAPTER 7. ELECTRICAL EQUIPMENT FOR NEC CLASS I LOCATIONS; A. General; B. Electrical Equipment Required for a Div. 1 Location; C. Electrical Equipment Required for a Div. 2 Location; D. Intrinsically Safe Electrical Equipment; E. Marking of Electrical Equipment; F. 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 Div. 1 LocationsC. Class II, Div. 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. GROUNDING OF TANKS, PIPELINES, AND TANK CARS; CHAPTER 15. GROUNDING REQUIREMENTS FOR ELECTRICAL EQUIPMENT; A. General; B. Internal and External Grounding Conductors; C. Supplementary Ground System CHAPTER 16. APPLICATION OF SEALS IN NEC CLASS I LOCATIONS

Sommario/riassunto

The degree of danger in the atmosphere of a hazardous location needs to be determined prior to selecting an acceptable electrical equipment installation. If maximum safety is the predominant factor in determining the type of electrical installations, the cost of electrical equipment will be extremely high. If low cost of electrical installation is the predominant factor, safety to personnel and equipment may be unacceptably low. It is, therefore, necessary to find a point of balance at which the cost and safety requirements are both satisfied and acceptable. In nine out of ten cases, a