

1. Record Nr.	UNINA990000678510403321
Autore	Emilia-Romagna <Regione>
Titolo	Gente, famiglie, case : trasformazioni sociali e demografiche e nuove esigenze abitative / Regione Emilia-Romagna ; a cura del Consorzio Regionale fra gli istituti autonomi per le case popolari dell'Emilia Romagna
Pubbl/distr/stampa	Milano : Franco Angeli, 1982
Descrizione fisica	416 p. : ill. ; 22 cm
Collana	Serie di architettura ; 10
Disciplina	301.54
Locazione	DINST FARBC
Collocazione	01 GA 5078 URB.LE B 1008 URB.LE B 1380
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	In testa al frontespizio: Ricerca per la normativa tecnica regionale per l'edilizia residenziale pubblica

2. Record Nr.	UNINA9910143239003321
Autore	Hanna Steven R
Titolo	Wind flow and vapor cloud dispersion at industrial and urban sites [[electronic resource] /] / Steven R. Hanna, Rex E. Britter
Pubbl/distr/stampa	New York, : Center for Chemical Process Safety of the American Institute of Chemical Engineers, c2002
ISBN	1-282-78341-6 9786612783418 0-470-93561-8 0-470-93560-X 1-59124-575-3
Descrizione fisica	1 online resource (228 p.)
Collana	CCPS concept book
Altri autori (Persone)	BritterR. E. <1946->
Disciplina	363.7392 628.5/3/015118 628.53015118
Soggetti	Atmospheric diffusion - Mathematical models Hazardous substances - Environmental aspects - Mathematical models Vapors - Mathematical models Electronic books.
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 and index.
Nota di contenuto	Wind Flow and Vapor Cloud Dispersion at Industrial and Urban Sites; Contents; Preface; Acknowledgments; List of Symbols; 1 Introduction; 1.1. Background; 1.2. Objectives of This Book; 1.3. Overview; 1.4. Definition of Scenarios and Modeling Scales; 2 Overview of Meteorology and Atmospheric Dispersion; 2.1. Definitions of Concepts and Terms; 2.2. Engineering Background; 2.3. Survey of Currently Available Methods for Classifying Dispersion Coefficients for a Variety of Surface Types; 2.3.1. Introduction to Discussion of Effects of Surface Features 2.3.2. Use of a Simple Gaussian Dispersion Model to Understand the Effects of Roughness2.3.3. Situations Where Winds, Stability and Underlying Terrain Vary in Time and/or Space; 2.3.4. Methods for Accounting for Surface Roughness Length and Displacement Length in Dispersion Models; 2.4. Survey of Experiments Showing Effects of

Surface Roughness Obstacles on Dispersion; 2.4.1. Dispersion of Clouds with Mass- Weighted Mean Heights Greater Than the Roughness Obstacle Height, H_r ; 2.4.2. Dispersion of Clouds with Mass- Weighted Mean Heights Less Than the Roughness Obstacle Heights, H_r

3 Methods for Characterizing the Effects of Surface Roughness Obstacles on Flow

3.1. Required Flow Characteristics for Input to Transport and Dispersion Models; 3.2. Consideration of Flow Above and Below the Tops of the Obstacles; 3.3. Flow above the Surface Roughness Obstacles; 3.3.1. Definition of Surface Roughness Length, z_o , and Displacement Length, d , as They Relate to Flow Characteristics Such as Wind Speed; 3.3.2. Methods for Estimating z_o , and d from Wind Observations; 3.3.3. Size of Surface Area that Influences Flow at a Given Height

3.3.4. Estimation of z_o and d Based on Knowledge of Surface Roughness Obstacles' Dimensions and Geometric Relations (the Morphological Method)

3.3.5. Overview of Land Use Category Methods for Estimating z_o and d ; 3.3.6. Estimation of z_o for Surface Conditions Varying in Space; 3.4. Flow Through an Obstacle Array; 3.4.1. Extent of the Roughness Sublayer; 3.4.2. Wind Velocity Fields within and Near Obstacle Arrays; 3.4.3. Model Comparison with Experimental Data; 3.4.4. The Turbulence Field within the Obstacle Array; 3.4.5. Extensions to Other Effects within the Obstacle Array

3.4.6. Summary of Recommendations for Wind Speed and Turbulence within Obstacle Arrays

3.5. Summary of Recommended Methods for Estimating z_o , d , and Flow Characteristics Such as Wind Profiles. Friction Velocity (u^*), and Turbulence Velocities in Urban and Industrial Areas; 3.5.1. Definition of Region of Interest (from Source to Receptor); 3.5.2. Determination of z_o and d ; 3.5.3. General Simple Formulas for u^* , $u(z)$, and Turbulent Velocities; 3.5.4. Selection of an Appropriate Mean Wind Speed and Stability

3.5.5. Estimates of Urban and Industrial Geometric Parameters H_r , f , and p Using the ROUGH Code

Sommario/riassunto

A key component of risk reduction is reducing the potential consequences that could result from toxic or flammable releases. The science of vapor cloud dispersion has advanced significantly in recent years, but one of the long-standing challenges has been in accounting for dispersion around buildings, equipment, and similarly sized geologic and man-made features. With current concerns about terrorism in industrial and urban sites, improving consequence modeling within industrial and urban sites is more important than ever. This new definitive book advances the science of vapor cloud dispersion.