Record Nr. UNINA9910815555403321 Groundwater vulnerability: chernobyl nuclear disaster / / edited by **Titolo** Boris Faybishenko [and four others] Pubbl/distr/stampa Hoboken, New Jersey:,: John Wiley & Sons,, 2015 ©2015 **ISBN** 1-118-96220-6 1-118-96222-2 1-118-96221-4 Descrizione fisica 1 online resource (138 p.) Collana Special Publications;;69 Disciplina 628.161 Groundwater - Pollution - Computer simulation Soggetti Groundwater - Pollution Water - Pollution potential Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Groundwater Vulnerability: Chernobyl Nuclear Disaster; Copyright; Contents; Abstract; Introduction: Importance of Lessons Learned from Assessment of Groundwater Vulnerability at Chernobyl; Chapter 1 Methods of Groundwater Vulnerability and Protectability Assessment: 1.1. Method of Hydrogeological Zoning; 1.2. Index Methods; 1.3. Parametric Methods; 1.4. Modeling Methods; Chapter 2 Chernobyl-Born Radionuclides In Geological Environment; Chapter 3 Preferential Flow and Migration Zones in Geological Environment; 3.1. State of Problem Study; 3.2. PFMZ Classification and Occurrence 3.3. Methodological Approaches of PFMZ Study3.4. Indicators of PFMZ Activity in Depressions; 3.5. Preliminary Evaluations of PFMZ Influence on Upper Groundwater; 3.6. Practical Importance of PFMZ; Chapter 4 Methodology of Groundwater Vulnerability and Protectability Assessment; 4.1. General Consideration; 4.2. Vulnerability and Protectability Assessment for Upper Groundwater (Unconfined Aquifer); 4.3. Vulnerability and Protectability Assessment for Confined Aguifers: Chapter 5 Groundwater Vulnerability and Protectability to Chernobyl-Born Radionuclide; 5.1. Upper Groundwater

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The Chernobyl Nuclear Power Plant (NPP) disaster that occurred in Ukraine on April 26, 1986, was one of the most devastating in human history. Using this as a case study, the AGU monograph Groundwater Vulnerability: Chernobyl Nuclear Disaster is devoted to the problem of groundwater vulnerability, where the results of long-term field and modeling investigations of radionuclide transport in soil and groundwater, within the Ukrainian part of the Dnieper River basin (Kyiv region of Ukraine), are discussed. The authors provide a comprehensive review of existing literature on the assessment of gr