What is the Risk Management Series?

The Risk Management Series (RMS) is a new FEMA series directed at providing design guidance for mitigating multihazard events. The objective of the series is to reduce physical damage to structural and nonstructural components of buildings and related infrastructure, and to reduce resultant casualties during natural and manmade disasters.

The RMS is intended to minimize conflicts that may arise from a multihazard design approach. A multihazard approach requires a complex series of tradeoffs. Security concerns need to be balanced with requirements in terms of earthquakes, floods, high speed winds, accessibility, fire protection, and aesthetics, among others. Designing to mitigate natural hazards should avoid considering manmade hazards as an afterthought, but rather as a critical concern to be studied early during the project cycle. Natural hazards are the largest single contributor to catastrophic or repetitive damage to communities nationwide. Manmade hazards can be categorized as rare events with a potential high impact and very difficult to predict.

For more information, please visit www.fema.gov/plan/prevent/rms/index.shtm, or e-mail, Milagros Kennett at riskmanagementseriespubs@dhs.gov
FEMA 389  
Primer for Design Professionals: Communicating with Owners and Managers of New Buildings on Earthquake Risk

This Primer is directed at educating building owners and managers about seismic risk tools that can be effectively and economically employed by them during the building development phase – from site selection through design and construction – and the operational phase. This document introduces and discusses seismic risk management; guidance for identifying and assessing earthquake-related hazards during the site selection process; emerging concepts in performance-based seismic design; and seismic design and performance according to building types.

FEMA 424  
Design Guide for Improving School Safety in Earthquakes, Floods, and High Winds

FEMA 424 is intended to provide guidance for the protection of school buildings and their occupants against natural hazards, and concentrates on grade schools (K-12). The focus is on the design of new schools, but the repair, renovation, and extension of existing schools is also addressed. The manual introduces concepts on multihazard design and performance-based design and presents a general description and comparison of the hazards, including charts that show where design against each hazard interacts with design for other hazards.

FEMA 454  
Designing for Earthquakes: A Manual for Architects

This publication is intended to explain the principles of seismic design for those that have less rigorous technical backgrounds in engineering and seismology. The primary intended audience of this publication is architects. This includes practicing architects, architectural students, and faculty in architectural schools who teach structures and seismic design. Chapters include: the Nature of Earthquake and Seismic Risk; Site Evaluation and Selection; Earthquake Effects on Buildings; Seismic Issues in Architectural Design; the Regulation of Seismic Design; Seismically Resistant Design – Past, Present, and Future; Existing Buildings: Seismic Evaluation and Retrofit; and Nonstructural Design Philosophy.

FEMA 543  
Design Guide for Improving Critical Facility Safety from Flooding and High Winds – Training Course

This manual concentrates on critical facilities (hospitals, schools, fire and police stations, and emergency operations centers). It is based on the behavior of critical facilities during Hurricane Katrina and makes recommendations on the performance of these types of buildings. It includes extensive information on the impact of storm surges to the Gulf area. The manual is accompanied by a two-day training course.

FEMA 577  
Design Guide for Improving Hospital Safety in Earthquakes, Floods, and High Winds

This publication provides design information for the construction of new hospitals and rehabilitation of existing ones with the purpose of improving their performance during the immediate aftermath of various hazard events. This manual is concerned with factors such as performance-based design and continuity of operations for this type of building. It provides a multihazard approach highlighting conflicts and benefits to consider when designing.

Incremental Seismic Rehabilitation Series

- FEMA 395, Schools (K-12)
- FEMA 396, Hospitals
- FEMA 397, Office Buildings
- FEMA 398, Multifamily Apartments
- FEMA 399, Retail Buildings
- FEMA 400, Hotels and Motels

These publication provide building administrators with the information necessary to assess and implement a program of incremental seismic rehabilitation in different building types. Each manual consists of three parts: Critical Decisions for Earthquake Safety, Planning and Managing the Process for Earthquake Risk Reduction in Existing Buildings, and Tools for Implementing Incremental Seismic Rehabilitation.