



**Information Sheet: Fire Research and Regulation Knowledge Base, Aixa Belen-Ojeda (NRC/RES/DRA)**

**The Risk**

The Individual Plant Examination of External Events (IPEEE) program and experience from actual fire events identified that fire can be a significant or even dominant contributor to nuclear power plant (NPP) risk, depending on design and operational conditions. During the last 30 years, NRC has undertaken many studies to better understand fire hazards, fire events, and fire risk in NPPs.

**The Needs**

The Office of Nuclear Regulatory Research (RES), Fire Research Branch (FRB) initiated the Fire Research and Regulation Knowledge Base Project to assemble the collection of NRC fire related publications issued over the past 30 years. Inspectors, licensees, reviewers, stakeholders, and new NRC staff will all benefit from this collection of regulations, guidance and technical bases for fire safety requirements in NPPs. This collection addresses this need by creating a single database that contains over 30 years worth of regulatory and scientific knowledge on fire safety and fire risk in NPPs.

**The Applications**

The Fire Research and Regulation Knowledge Base is a user-friendly database programmed based on MS Excel 2003 and Visual Basic for Applications (VBA). This database is divided into two main parts: regulatory knowledge and technical knowledge.

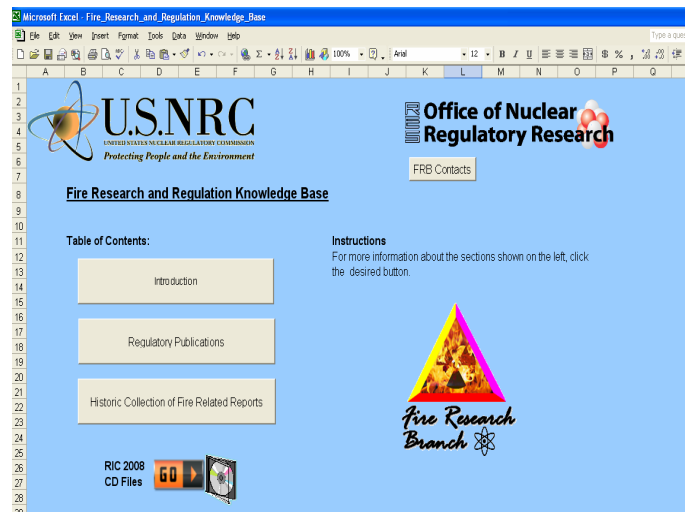
The regulatory knowledge information provides the user information needed during activities such as the inspection or review process. It includes: 10 CFR Part 50, guidelines for fire protection in nuclear power plants, fire inspection manuals, fire inspection procedures, generic letters, bulletins, information notices, circulars, administrative letters, regulatory issues summaries, and regulatory guides. This part will save the user considerable time because all the relevant fire documents are gathered and organized in one easy to use CD.

The technical knowledge information includes technical publications (NUREGs, NUclear REGulatory Commission technical reports), which serve as the background information to the regulatory documents. It includes reports of NRC-sponsored fire experiments, studies, and probability risk assessments (PRAs). These documents often provide the technical bases and

insights for the fire protection requirements and guidelines. They are classified as follows:

- NUREG are reports prepared by NRC Staff
- NUREG/CR are reports prepared by NRC contractor
- NUREG/BR are brochures prepared by NRC Staff
- NUREG/CR are conference proceedings prepared by NRC staff or contractors

The Fire Research and Regulation Knowledge Base is an ongoing project. The RES Fire Research Branch intends to update this CD at the end of every year to include new regulatory documents and technical reports.



**Figure 1. Screenshot of the Fire Research and Regulation Knowledge Base.**

**Program Management**  
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**For More Information**  
Contact Aixa Belen-Ojeda at 301-415-6216 or visit the NRC website at <http://www.nrc.gov>.