



# Process for Requesting a Copy of the Code

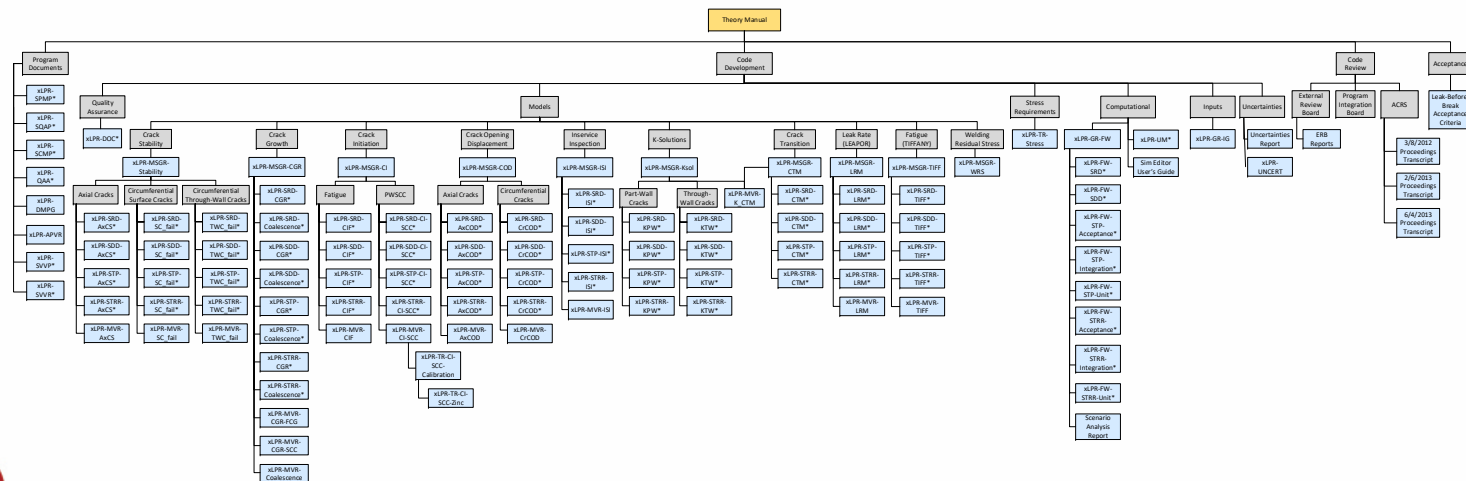


## PROBABILISTIC FRACTURE MECHANICS CODE

# xLPR Code & Supporting Documentation Full Scope

- Software Elements (*Source and Executable*)
- User Manual
- Input Databases
- Project Summary Technical Reports
- Training Materials
- Software Quality Assurance Records

xLPR Version 2 Document Matrix





## **What Is Being Released?**

- Initial public release:
  - Executable Software Elements
  - User Manual
  - Input Databases
  - Training Materials
  
- Future release through xLPR User Group:
  - xLPR quality assurance pedigree
    - Source Code
    - Software Quality Assurance Documentation
    - Maintenance Documentation



# **Who is eligible for access to xLPR?**

- Applicant is:
  - Legally recognized U.S. entity
  - Legally recognized foreign regulatory entity or its technical support organization
  - Foreign educational institution
  - Foreign commercial entity
- Any individual end user is:
  - U.S. citizen
  - Noncitizen national of the U.S.
  - Individual lawfully admitted to the U.S. for permanent residence
  - A citizen of an Approved non-U.S. Destination



## **Approved non-U.S. Destinations**

<b>Argentina</b>	<b>Hungary</b>	<b>Slovenia</b>
<b>Australia</b>	<b>Indonesia</b>	<b>South Africa</b>
<b>Belgium</b>	<b>Italy</b>	<b>Spain</b>
<b>Bulgaria</b>	<b>Japan</b>	<b>Sweden</b>
<b>Canada</b>	<b>Lithuania</b>	<b>Switzerland</b>
<b>Croatia</b>	<b>Morocco</b>	<b>Taiwan</b>
<b>Czech Republic</b>	<b>Netherlands</b>	<b>Turkey</b>
<b>Finland</b>	<b>Poland</b>	<b>United Arab Emirates</b>
<b>France</b>	<b>Republic of Korea</b>	<b>United Kingdom</b>
<b>Germany</b>	<b>Romania</b>	<b>Vietnam</b>
<b>Greece</b>	<b>Slovakia</b>	

*Note: Countries not listed may  
be considered upon request*



## PROBABILISTIC FRACTURE MECHANICS CODE

# How is xLPR being released?

### Starting from NRC.gov

- ✧ Navigate to [[About NRC](#) > [How We Regulate](#) > [Research Activities](#) > [Obtaining the Codes](#)]
- ✧ Select "xLPR" – read and follow the link

### Starting from EPRI.com

- ❖ Click on search icon at top right
- ❖ Type "xLPR" in the search page
- ❖ Press [Enter]
- ❖ Select "xLPR V2.1" from the search results

- xLPR V2.1 release abstract page will be displayed
- Follow instructions displayed on page to initiate xLPR V2.1 request process
- Applicant must sign End User License Agreement
- Instructions sent to access through a secure file transfer site



# PROBABILISTIC FRACTURE MECHANICS CODE

## From NRC.gov

U.S. NRC  
United States Nuclear Regulatory Commission  
Protecting People and the Environment

HOME | FAQ | GLOSSARY | FACILITY LOCATOR | WHAT'S NEW | SITE HELP | INDEX A-Z | CONTACT US | EMAIL UPDATES | LISTEN TO PAGE

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REPORT  
A SAFETY CONCERN

HOW WE REGULATE

- Rulemaking
- Guidance Development
- Generic Communications Program
- Standards Development
- Licensing
- Certification
- Inspection
- Assessment of Performance for Operating Facilities
- Enforcement
- Investigations
- Allegations
- Events Assessment
- Generic Issues
- Research**
- Risk Assessment
- Performance Assessment for Waste Disposal and Decommissioning
- Advisory Activities
- CRGR Reviews
- Adjudication (Hearings)

Home > About NRC > How We Regulate > Research Activities

### Research Activities

The regulatory research program sponsored by the U.S. Nuclear Regulatory Commission (NRC) addresses issues in the three arenas of [nuclear reactors](#), [nuclear materials](#), and [radioactive waste](#). The research program is designed to improve the agency's knowledge where uncertainty exists, where safety margins are not well-characterized, and where regulatory decisions need to be confirmed in existing or new designs and technologies. The NRC's annual [Regulatory Information Conference \(RIC\)](#) provides a forum for presentations and discussions about the agency's research activities. Information gained from the research program is documented in our [NUREG-series publications](#) and is used in developing [regulatory guides](#). Some of these publications provide documentation and information on the use of technical [computer codes](#) that are used in research, modeling, and analysis.

For more information on research activities see the following:

- [Nuclear Reactor Safety Research](#)
- [Nuclear Materials Safety Research](#)
- [Radioactive Waste Safety Research](#)
- [Fire Research Program](#)
- [The Radiological Protection Computer Code Analysis and Maintenance Program \(RPMAP\)](#)
- [Digital Instrumentation and Controls \(I&C\) Research](#)
- [State-of-the-Art Reactor Consequence Analyses \(SOARCA\)](#)
- [Computer Codes](#)
- [Obtaining the Codes](#)
- [Probabilistic Flood Hazard Assessment](#)
- [Accident Sequence Precursor \(ASP\) Program](#)

RELATED INFORMATION

- [Level 3 PRA Project](#)
- [Human Factors Research \(video\)](#) [EXIT](#)

PRINT

About  
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Research

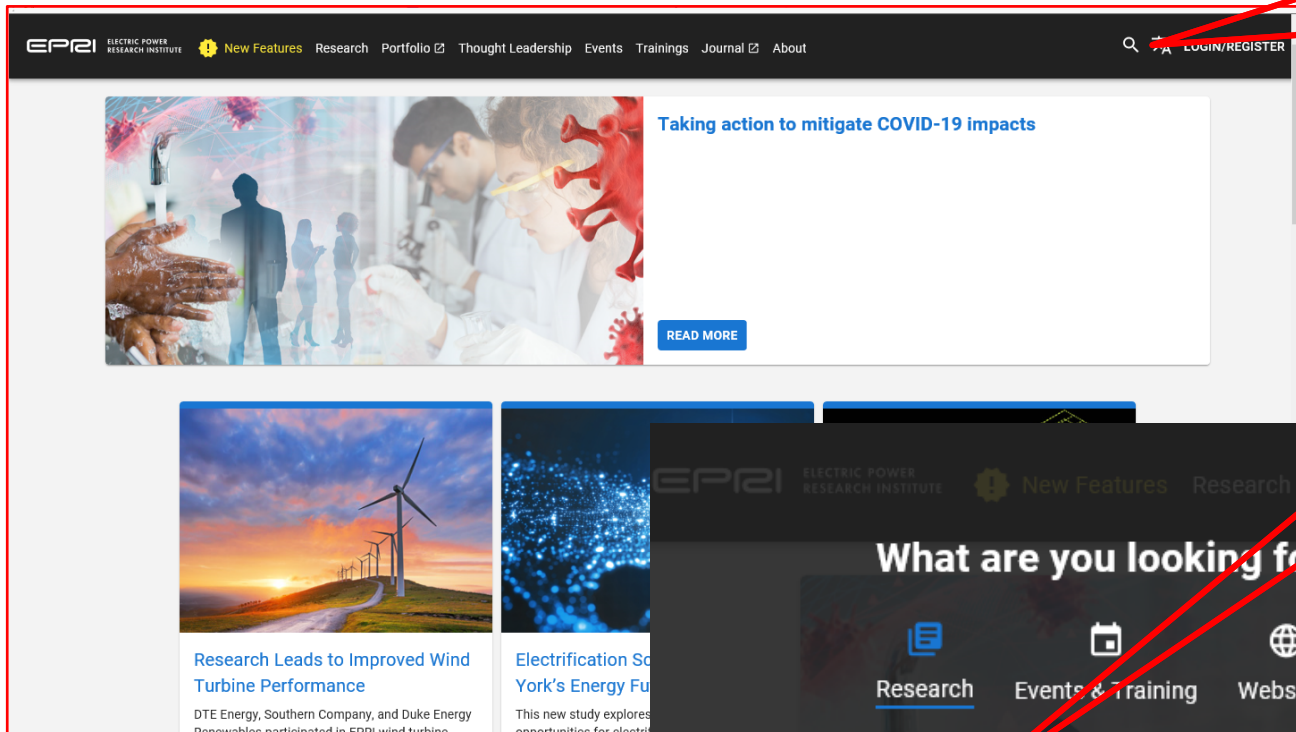
Access  
Obtaining  
the Codes  
page



## PROBABILISTIC FRACTURE MECHANICS CODE

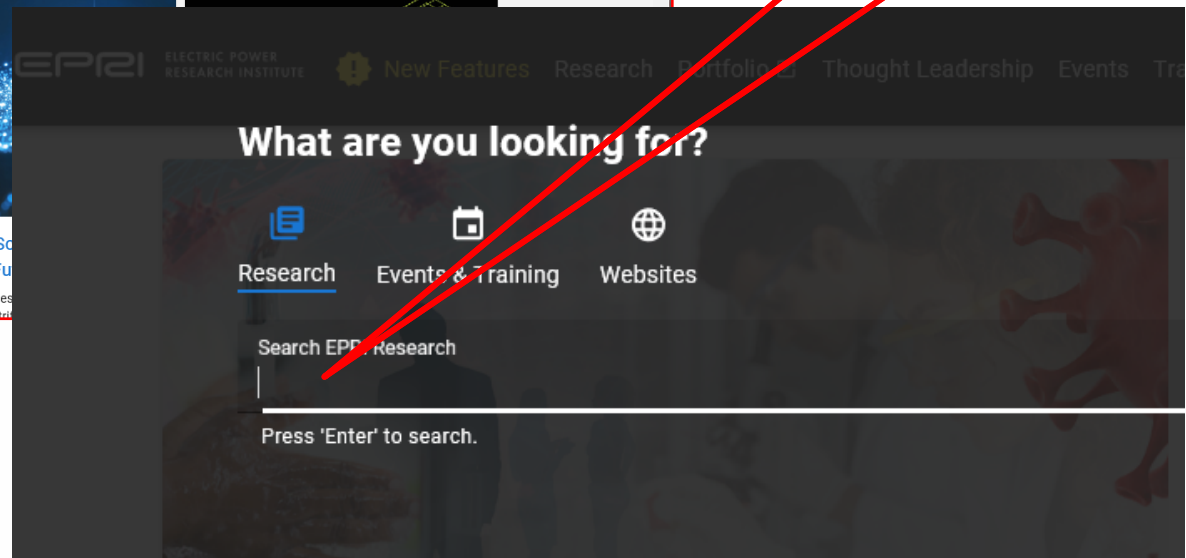
# EPRI.com Homepage

(New look coming in May)



Click on search  
icon here to  
open search  
feature

Type "xLPR"  
here, press  
[Enter]









## PROBABILISTIC FRACTURE MECHANICS CODE

### xLPR V2.1 Abstract page

(example reflecting new look coming in May)

Follow instructions  
here to initiate  
Request process

EPRI ELECTRIC POWER RESEARCH INSTITUTE **New Features** Research Portfolio Thought Leadership Events Trainings Journal About

← PDU - Distributed Energy Resources and the Customer

**Quick Insight: Light-Based Technologies for Air and Surface Disinfection**

Details		
Product ID	Date Published	Document Type
3002019267	Apr 07, 2020	Technical Brief

**Abstract**

With the current proliferation of a novel virus around the world, what light-based technologies are available to reduce the spread of pathogens, and assist in disinfecting air and surfaces?

Ultraviolet (UV) light irradiation is an established effective method for inactivating airborne and surface pathogens, including viruses, bacteria and spores, known in the industry as Ultraviolet Germicidal Irradiation (UVGI). UVGI has been used for many years in a variety of configurations for pathogen destruction, both for human health considerations and for equipment maintenance reduction. UV light in the range of 220-280 nm (known as UVC) has been used in configurations without human exposure. There is significant literature about efficacy and application for UVC type applications.

Recently, LED technology development has led to a new class of lighting with the potential for disinfection capabilities at a longer, human compatible wavelength in the range of 400 nm. This emerging technology offers promise of enabling broad disinfection of air and surfaces to take place in the presence of people, which is not possible with UVC systems.

**No Charge**

This Product is publicly available

[Access instructions](#)

**Keywords**

Lighting LED Disinfection Ultraviolet (UV)

Ultraviolet Germicidal Irradiation (UVGI) 405nm

**Notes**

For further information about EPRI, call the EPRI Customer Assistance Center at (800) 313-3774 or email [askepri@epri.com](mailto:askepri@epri.com).

**Having Trouble Downloading?**



## When is xLPR being released?

- Final testing and preparation of the release package is underway
- **Thursday, May 28, 2020, is “go live” date**



## Is additional software required?

- Windows 10
  - Excel 365
  - GoldSim Player 11.1.7 (*free download*)
- or*
- GoldSim Pro 11.1.7 (*fee-based license*)



## What is next?

- Near-term
  - Training resources provided with code
  - Webinar series planned in conjunction with “go-live” release date
- Longer-term
  - Organize xLPR User Group
    - Fee-based membership
    - Access to quality assurance pedigree records and source code
    - Other benefits



## PROBABILISTIC FRACTURE MECHANICS CODE

### Meeting Agenda

Introduction and Opening Remarks

Program History and Perspectives

xLPR Version 2 Code Overview and Features

Code Demonstration

Code Applications

Process for Requesting a Copy of the Code

### Future Training Series

Questions and Answers

Closing Remarks