

RISK-INFORMED 50.46  
AND LARGE-BREAK  
LOCA DBA  
PUBLIC MEETING  
MAY 18, 2000

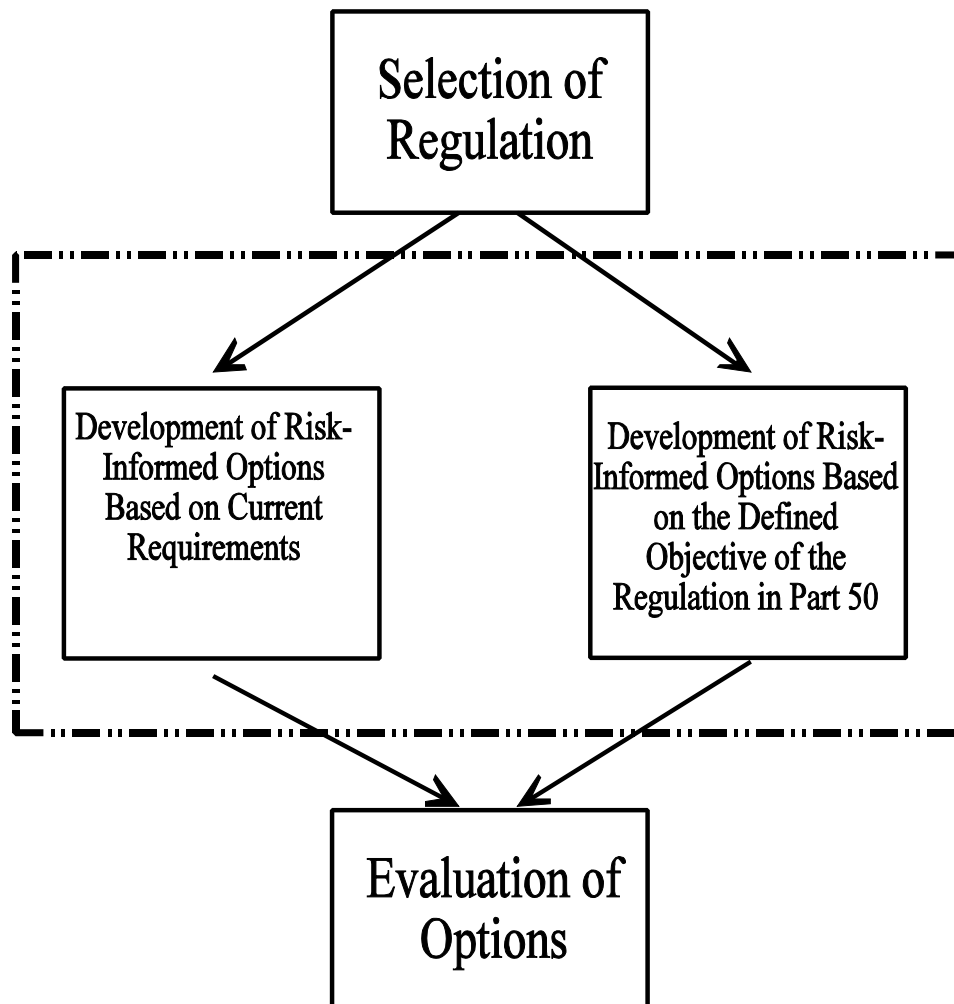
# AGENDA

- |                 |  |
|-----------------|--|
| 9:00am-10:30am  | NRC current status on risk-informing 10 CFR 50.46 and other regulatory requirements for design basis large-break LOCAs |
| 10:30am-10:40am | Break  |
| 10:40am-11:40am | WOG current status on program for redefining the large-break LOCA licensing basis                                      |
| 11:40am-12:00pm | Discussion of future activities and possible options for NRC/industry cooperation                                      |

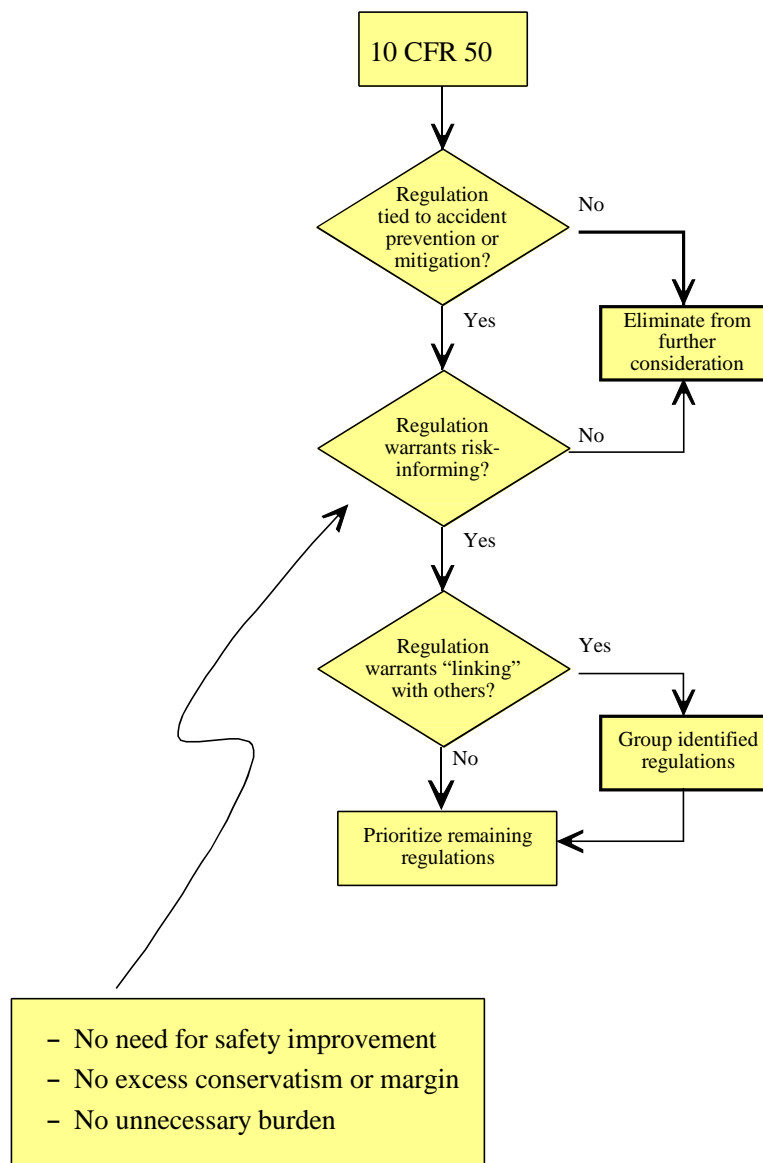
# NRC PRESENTATION -- OUTLINE

- Approach
- Current Status
- Schedule

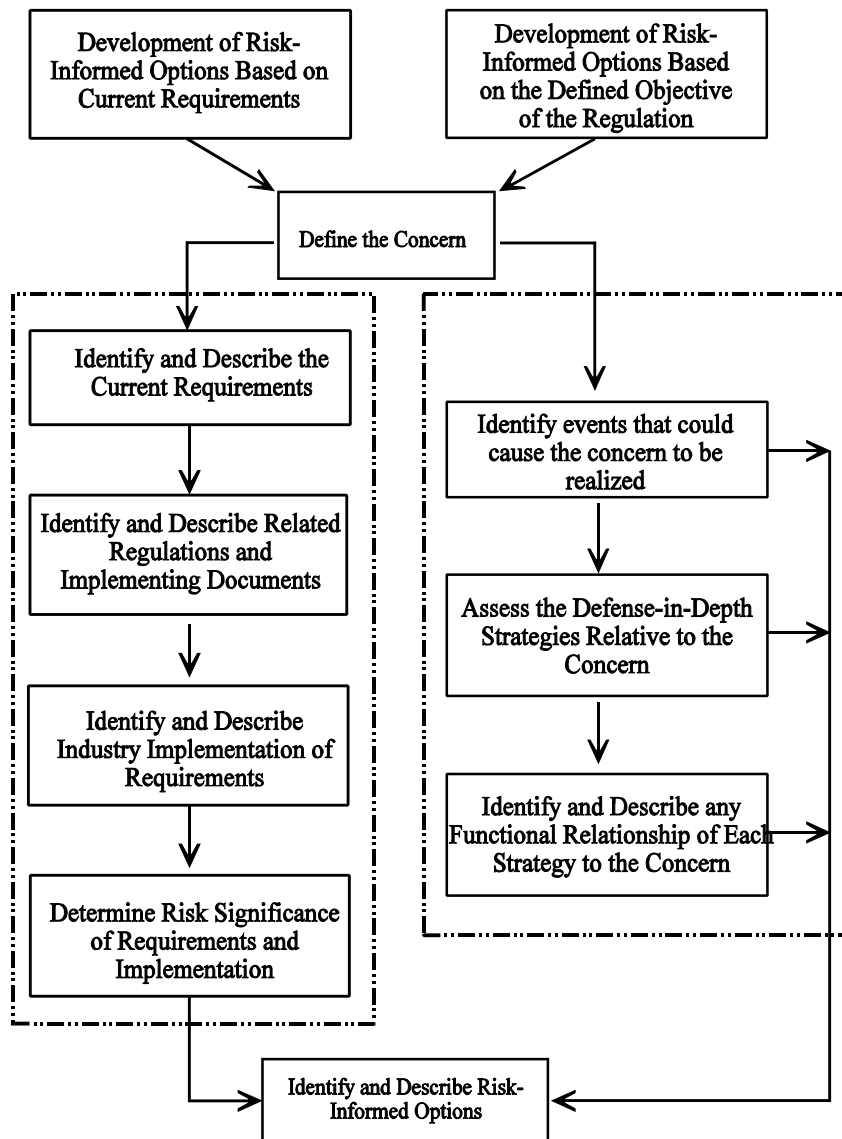
# GENERAL APPROACH -- THREE STEPS



# APPROACH: SELECTION OF REGULATION



# APPROACH: DEVELOPMENT OF OPTIONS



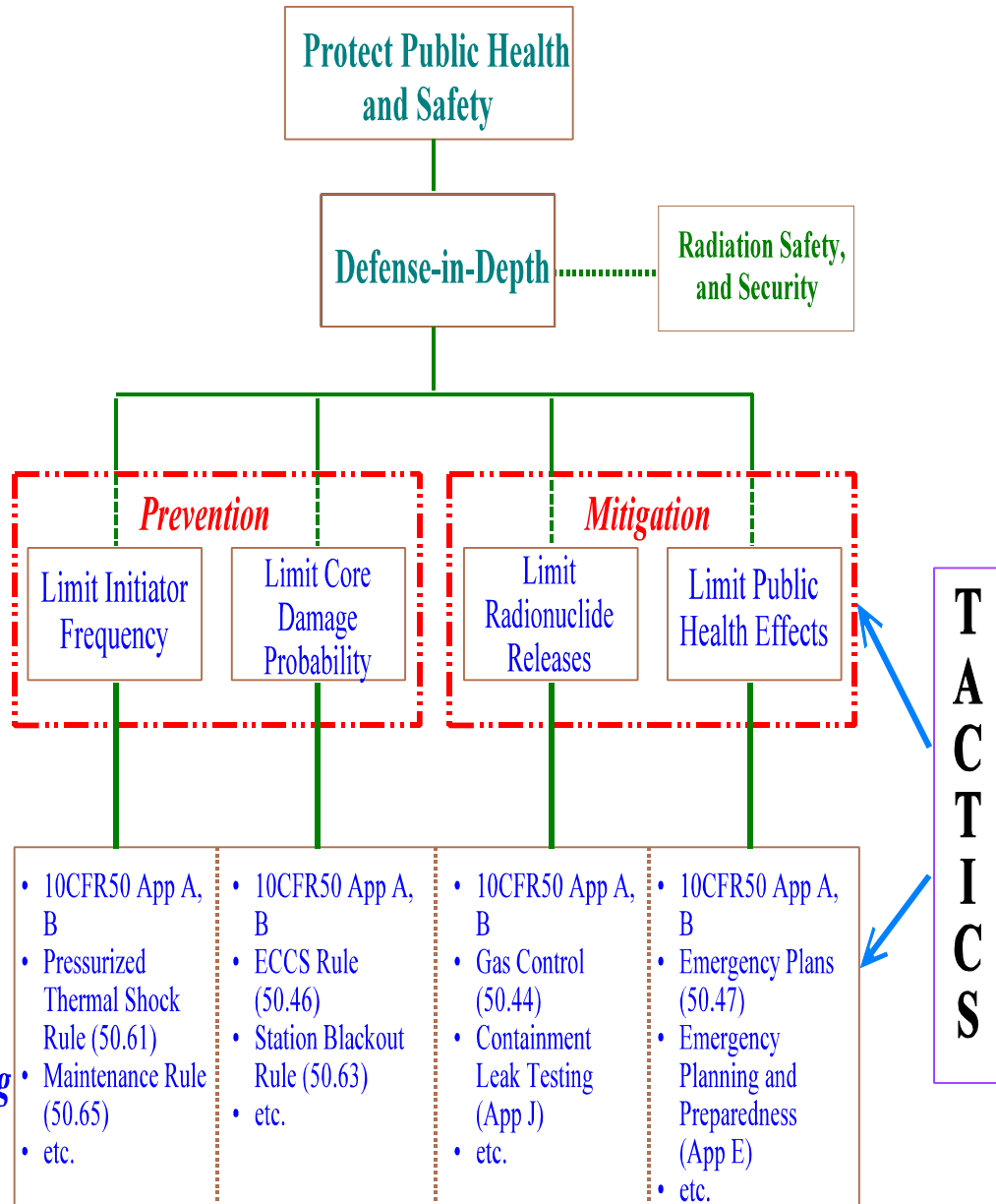
# APPROACH: FRAMEWORK

*Goal*

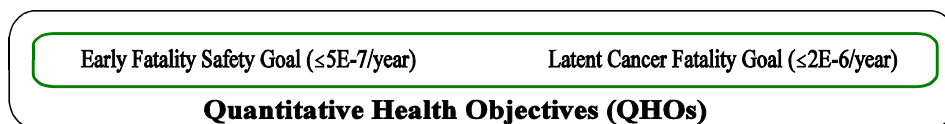
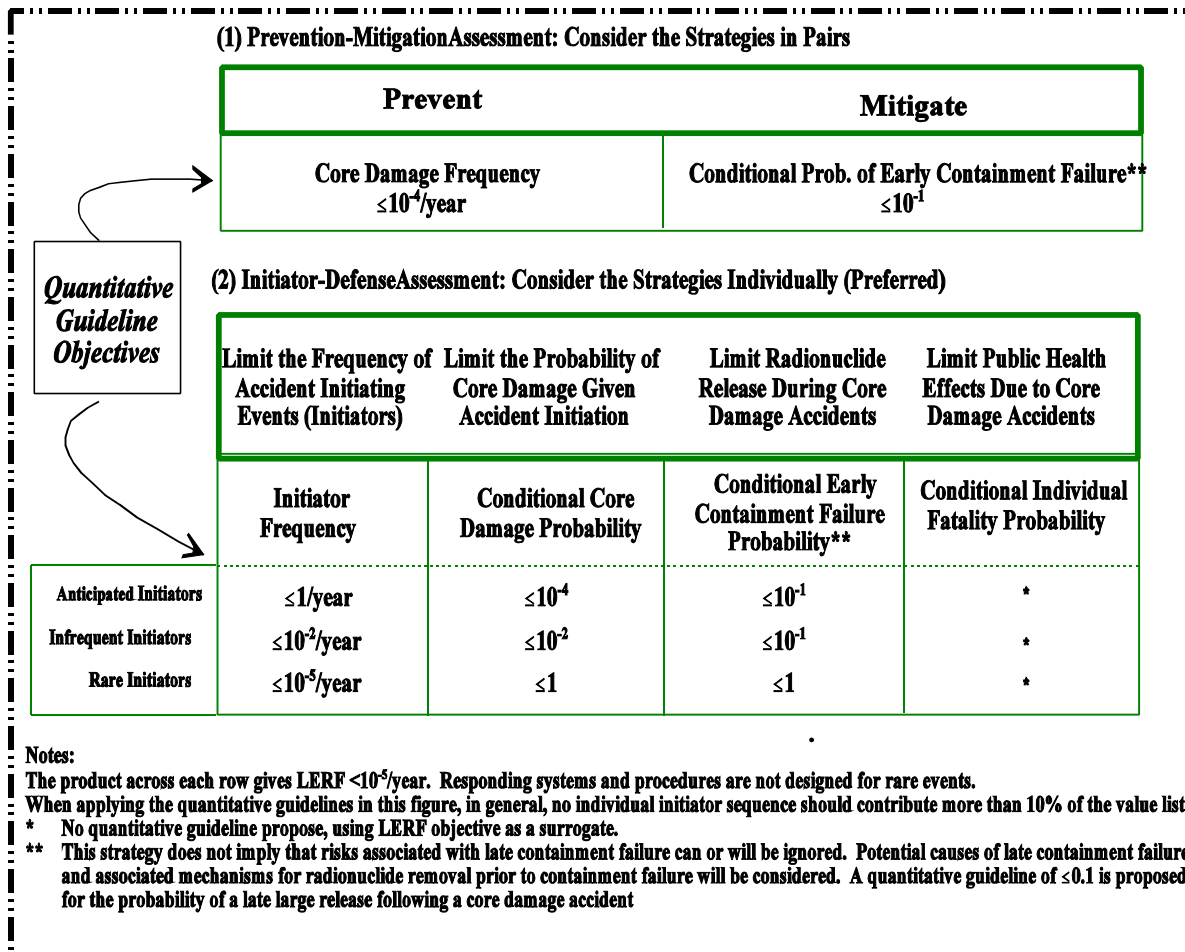
*Approach*

*Strategies*

*Supporting  
Regulations  
and  
Implementing  
Documents*



# APPROACH: QUANTITATIVE GUIDELINES





# DEVELOPMENT OF OPTIONS: REVISING CURRENT REQUIREMENTS

- (1) Identify and describe the current requirements
- (2) Identify and describe related regulations and implementing documents
- (3) Identify and describe industry implementation of the requirements
- (4) Determine risk significance of requirements and implementation
  - Assess against the four strategies and the quantitative guidelines
  - Assess for possible elimination
  - Consider other cornerstones
- (5) Identify and describe risk informed options:
  - Deletion of the current requirement
  - Keeping the current requirement as is
  - Revision and/or enhancement of the current requirement
    - ▶ risk insights from plant specific PRAs
    - ▶ industry experience
    - ▶ consistency with the quantitative guidelines
    - ▶ reasonable cost/burden
    - ▶ proven technology
    - ▶ suitability for performance-based compliance monitoring

# DEVELOPMENT OF OPTIONS: DEVELOPING ALTERNATIVE REQUIREMENTS

1. Identify events capable of causing the concern to be realized
2. Assess the defense-in-depth strategies relative to the concern
3. Identify the functional relationship of each strategy to the concern
4. Identify risk-informed options

## APPROACH: EVALUATION OF OPTIONS

- Eliminate options not meeting the CDF and LERF quantitative guidelines
- Comparable risk implications
  - Preferable option imposing least burden
- Differing risk implications
  - Preferable option offering most safety benefit per unit cost
- Safety benefit – assessed in terms of incremental risk relative to the quantitative guidelines
- Cost – both licensee and NRC, considers both implementation and maintenance (e.g., additional or savings)

# SCHEDULE

May 18	Public meeting on 50.46 and LBLOCA DBA
Aug-Sep	Public meeting
Sep-Nov	ACRS sub-committee on 50.46 and LBLOCA DBA
Sep-Nov	ACRS full committee on 50.46 and LBLOCA DBA
Dec 28	Recommendations due to Commission

# NRC/INDUSTRY COOPERATION

- Periodic, regular meetings
- Exchange of data