



USQ Process Applicability

Presentation to the DOE N&FSP
Workshop

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10 CFR 830

§ 830.203 Unreviewed safety question process.

“(d) The contractor responsible for a hazard category 1, 2, or 3 DOE nuclear facility must **implement the DOE approved USQ procedure** in situations where there is a:

- 1) Temporary or permanent **change in the facility as described** in the existing documented **safety analysis**;
- 2) Temporary or permanent **change in the procedures as described** in the existing documented **safety analysis**;
- 3) Test or experiment not described in the existing documented safety analysis; or
- 4) Potential inadequacy of the documented safety analysis because the analysis potentially may not be bounding or may be otherwise inadequate.”

USQ Process Change History

DATE	COMMUNICATION	COMMENT
Feb. 2004	OA assessment cites issues with SRS USQ process regarding inadequate screening.	
Mar. 2004	(DOE-SR) requests EM-1 to establish a USQ task team; no change to SRS USQ procedure nor screening practice at this time.	"DOE SR disagreed with that conclusion since significant comments supporting the Team position were based upon a conservative reading of conflicting guidance in Implementation Guide 424.1-1." (this re 2/04 OA report)
May 2004	Meeting in DC on USQ issues with HQ and SAWG members from across the Complex.	Initiated at SAWG meeting at LLNL. Team Led by Andrew Vincent and Dick Englehart. Participation from across the complex. Included discussion of what "as described" means in the rule.
June 2004	DOE SR Corrective Action Plan:	SRS-04/07/2004-0013-I: "No corrective actions will be taken at this time."
Sept. 2004	DOE-SR initiated USQ team	Reviewed of use of numerical guidelines for discernible increase, and DOE approval of categorical exclusions
Oct. 2004	EM Supplemental Guidance on the USQ Process, Golan (DOE-EM)	Addressed screening, to include "non-evaluative" concept, and direction to use sections 2.1, 2.2, 2.3 of the Guide.
Nov. 2004	DOE-SR sent EM Supplemental Guidance to NSC and ABSC for discussion.	Not directing action.
Oct. 2005	HQ report "Status of Unreviewed Safety Question Program Implementation"	"In most cases, these deficiencies stem from reliance on guidance in the DOE USQ guide that is not fully consistent with 10 CFR 830 requirements."
Feb. 2006	NNSA (SRS) assessment of USQ	"multiple instances where the design of Safety Significant equipment was changed without requiring an evaluation"
Mar. 2006	Facility CAP re NNSA (SRS) assessment of USQ	training
July 2006	DOE USQ Guide 424.1 revised, Guide not self-consistent, but allows existing SRS screening method.	Section B.14, EFCOG Issues. "It has been argued..."

DATE	COMMUNICATION	COMMENT
June 2009	SRNS initiated independent Assessment (New Contract)	Reviewed ~300 USQ documents. Challenged number of screens as warranting evaluation.
Oct. 2010	DOE-SR MAR	"DOE considers it inappropriate to screen a modification..."
May 2011	USQ procedure 11Q, 1.05 revised	Removed numerical guidelines for discernible increase, and required DOE approval of categorical exclusions. No change for as vs. is, in that DOE Guide revision added B.14.
June 2011	DOE SR Nuclear Safety Council	"The current procedures are being followed as far as the letter of the procedure. DOE concern that the contractor may not be exercising prudent judgment."
Jul. 2012	DOE-SR directs SRNS (and SRR) to estimate impact of requiring USQ Evaluations for all physical modifications	OSQA-12-0063 SRNS-H5000-2012-00154. SRNS responded with 5-day letter. Team formed, including DOE, to define scope expectations.
Jan. 2013	SRNS Response: one-time cost \$2.2M, recurring annual cost \$3.8M for no added value.	Letter SRNS-H5000-2013-00021
Aug. 2014	8/12 DOE-SR issue letter of direction as in scope 8/19 SRNS Response 5-day letter - unfunded	DOE-SR requested HQ formal feedback, but HQ declined. OSQA-14-0089 SRNS-U1000-2014-00173
Oct. 2014	SRNS Implementation Plan & Schedule	SRNS-U1000-2014000223. Called for DOE concurrence
Sept. 2015	DOE Issues Letter of Direction	TSD-15-0123. Acknowledged BCP required
2018/2019	10CFR830 & G 424.1 Comments	Pending resolution
April 2019	SR Letter of direction rescinded	Similar discussion on use-as-is NCRs - no new action
May 2019	USQ procedure revision approved and implemented	As described at the Las Vegas N&FSP Workshop

DOE G 424.1-1A

B.14.1 Screening

It has been argued that the definition of a USQ in 10 CFR 830.3 and the conditions for entering the USQ process in 10CFR830.203(d), which refer to the existing documented safety analysis, allow screening out of proposed changes to a facility if the change does not involve anything in the existing safety analysis. For example, the definition of a USQ includes the situation where “the probability or the consequences of an accident or the malfunction of equipment important to safety previously evaluated in the documented safety analysis could be increased.” Also, for example, the USQ process must be entered in situations where there is a “temporary or permanent change in the facility as described in the existing documented safety analysis.” This has been described as the “as versus is” controversy. That is, it is argued that the arbiter of a USQ situation is the existing documented safety analysis, rather than the potential for increased risks, whether or not described in the DSA.

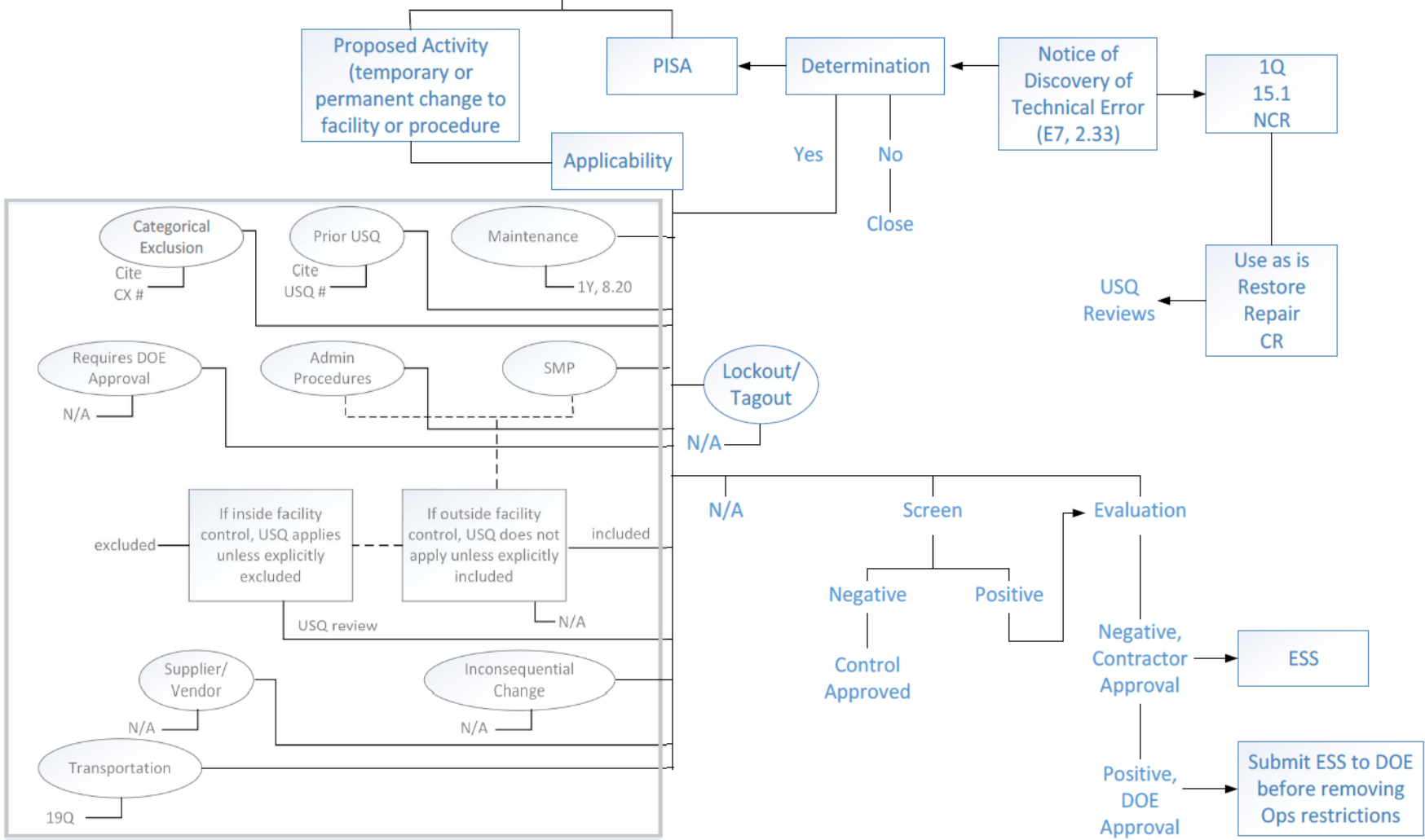
To act on the Rule requirement to “...implement the DOE approved USQ procedure in situations where there is a Temporary or permanent change...”

- a gross read of the phrase “*as described in the existing documented safety analysis*” has been essentially “if there is any exact wording change to anything that is described, explicitly or implicitly in any way in the entirety of the Documented Safety Analysis then the criteria in the 830.3 definition of ‘Unreviewed Safety Question’ must be addressed”. (i.e. evaluate almost everything)

To act on the Rule requirement to “...implement the DOE approved USQ procedure in situations where there is a Temporary or permanent change...”

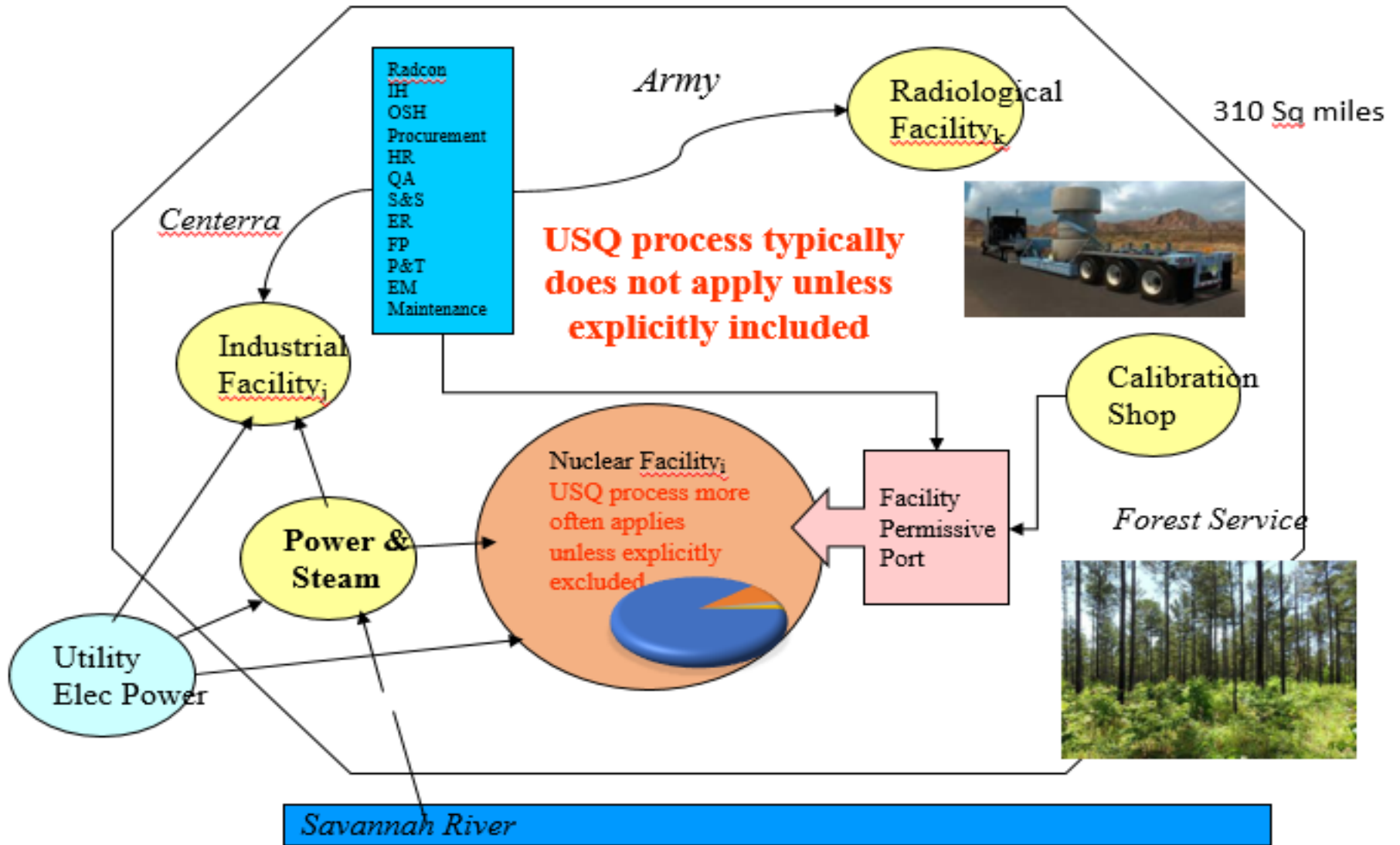
- necessarily requires the decisionmaker to know what the documented safety analysis says, and its relevance to potential impact on the criteria in the 830.3 definition of “Unreviewed Safety Question”.
- Thus, only a subset of what might casually be called *changes* are in practicality ‘*changes that warrant explicit evaluation*’ against the criteria for final documentation in a USQ determination for DOE approval where the situation constitutes a USQ.
- Consider that many activities do not warrant an 830.203(c) evaluation.
- These changes can be addressed by routine configuration management.

10 CFR 830 --- DOE G 424.1-1B
 TWD 420.1C --- 11Q, 1.05

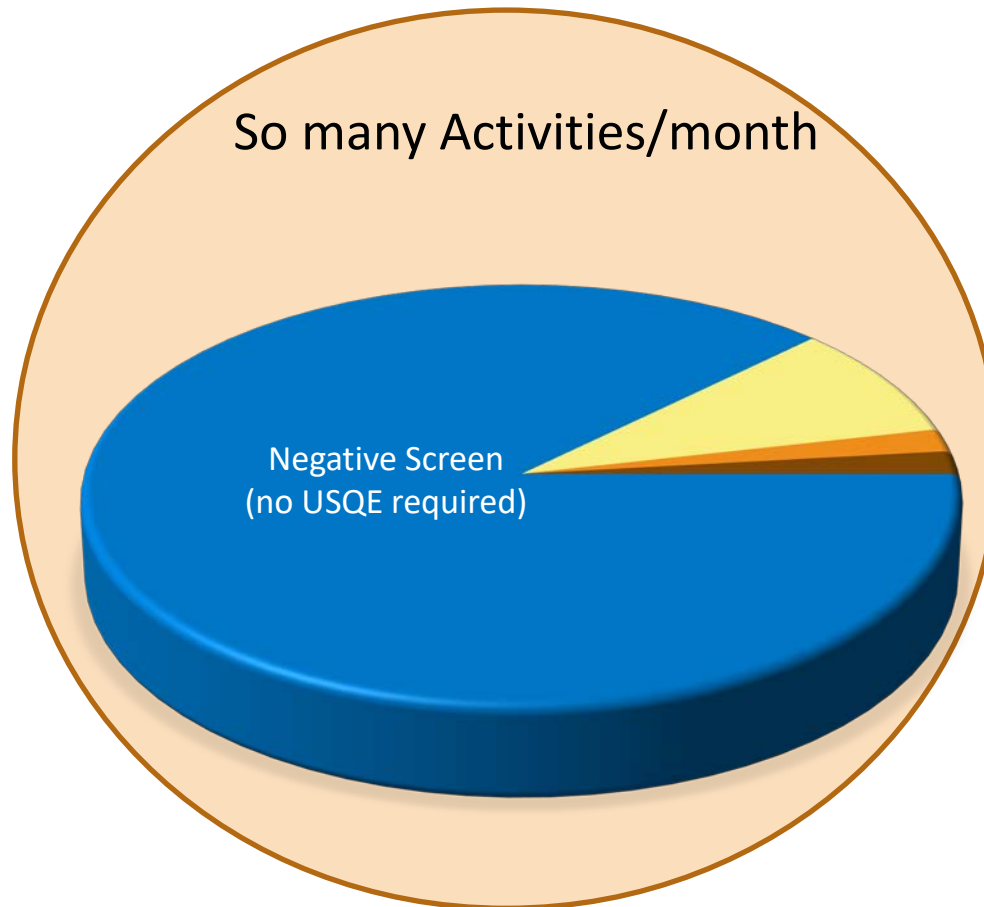


USQ Process Application

- In determining **process applicability**, the following items **do not** require USQ review when modified.
 1. Administrative Procedures
 2. Safety Management Program (SMP) Implementing Procedures
 3. Supplier and Vendor Procedures and Documents
 4. Inconsequential Change
 5. Maintenance
 6. Lockout/Tagout
 7. Categorical Exclusions
 8. Prior USQ Review Documents
 9. Transportation
- **Entering screening**, consider if a structure, system, or component (SSC) or Procedure performs some function or set of functions that are credited to perform those functions by the way they are documented in the safety basis.

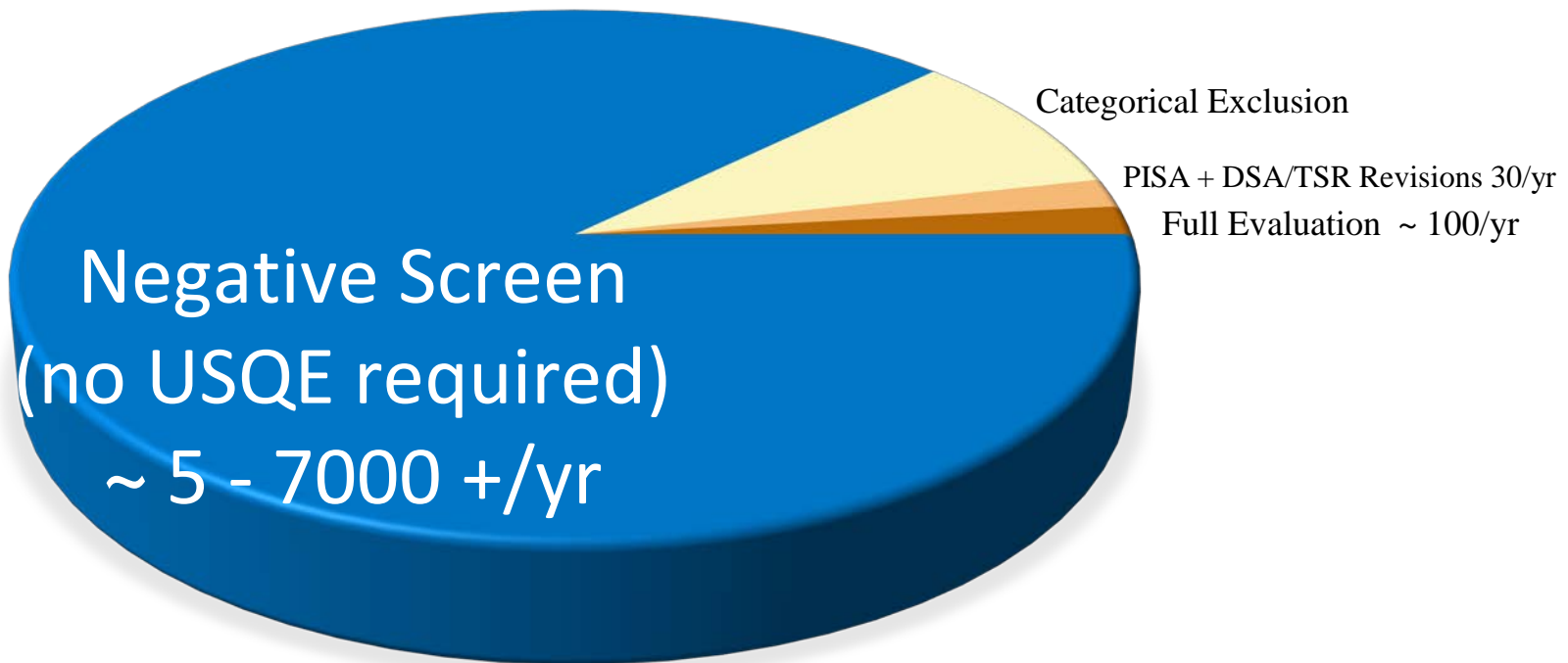


Nuclear Facility; in its Fenceline



e.g. 500 work packages/month,
Procedure changes/month, etc.

~ Dozen Nuclear Facilities



"Good ideas are not adopted automatically. They must be driven into practice with courageous patience."

Adm. Hyman Rickover