

PWR Owners Group / BWR Owners Group
NRC K/A Catalog Revision
PA-OSC-0139

Charles Sawyer, Duke Energy
PWR Owners Group
Chairman, Training Working Group

Objectives

Purpose

- To summarize the results of the Joint Owners Group Program to update NUREG-1122 and NUREG-1123.
- Obtain NEI Licensed Operator Focus Group Endorsement of recommended revision to the Generic Section of the KA Catalog.

Background

January 17, 2006 Meeting

- Meeting with NRC to resolve NRC concerns about KA Catalog program.
 - BWROG endorsed program and announced participation
 - NRC requested additional KA's to be added in Section 4.0
 - JOG Training Group agreed to survey additional KA's

Background

February 16, 2006 Telecon

- NRC requested specific changes
 - additional wording changes to current KA's
 - new KA's relating to chemistry control and conservative decision making, etc.
 - All negotiated changes, including NRC editorial changes have been incorporated.
- NRC endorsed continuation of program and agreed to consider NUREG revision

Method

Second survey administered from April 3, 2006 through June 5, 2006.

- 87 KA's (new and revised) were rated
- 171 participants completed survey
 - Participants were licensed incumbents, training professionals and examiners
 - 101 PWR (23 sites)
 - 59 BWR (20 sites)
 - 11 NRC

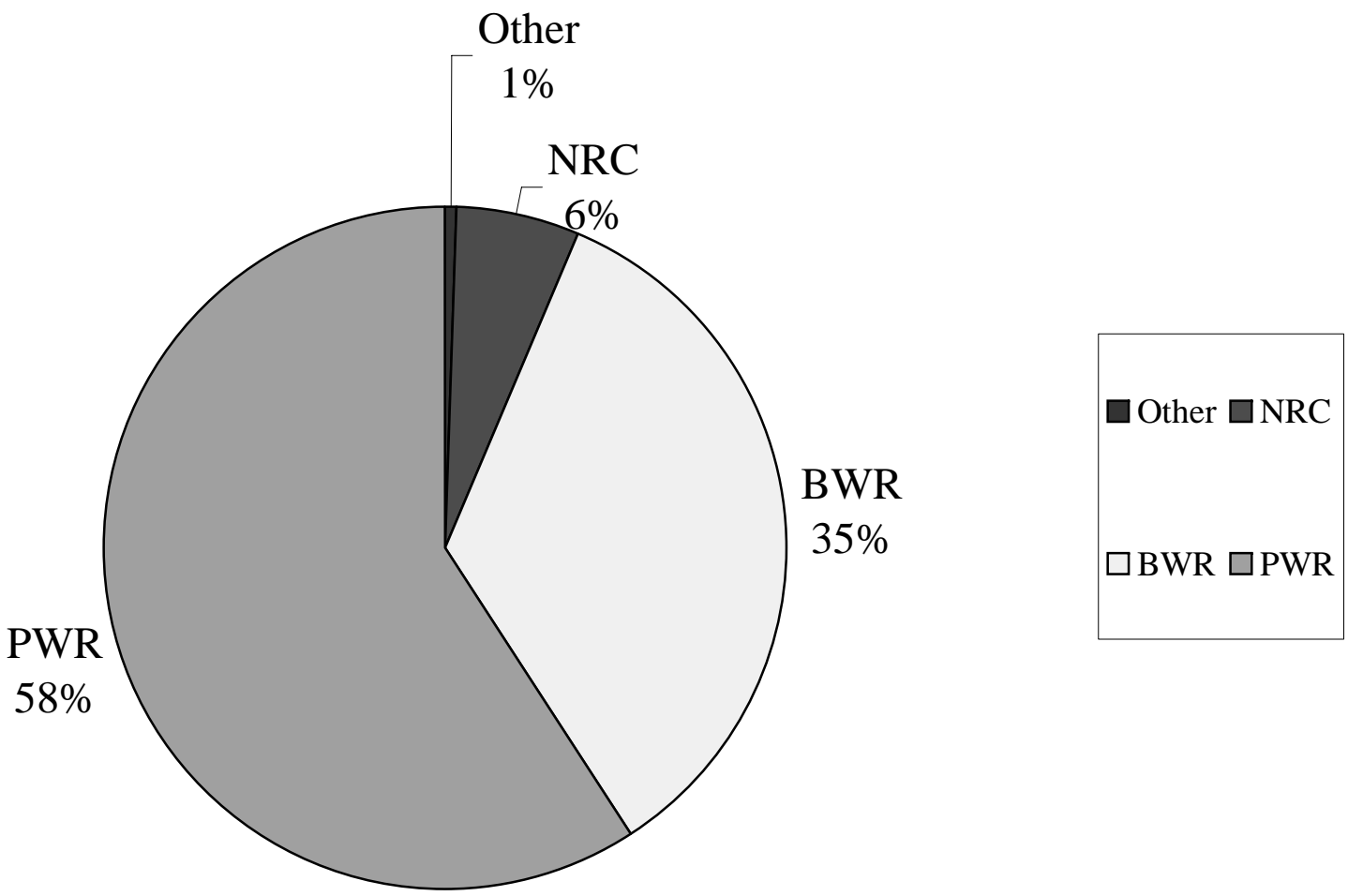
BWR Participating Sites

Browns Ferry (TVA)	6	LaSalle (Exelon)	2
Brunswick (Progress)	3	Limerick (Exelon)	3
Clinton (AmerGen)	3	Nine Mile (Constellation)	3
Columbia (Energy NW)	2	Oyster Creek (Entergy)	3
DAEC (FPL)	3	Peach Bottom (Exelon)	3
Dresden (Exelon)	3	Perry (First Energy)	3
Fermi (DTE)	4	Pilgrim (Entergy)	1
Grand Gulf (Entergy)	2	River Bend (Entergy)	3
Hatch (Southern)	6	Susquehanna (PPL)	2
Hope Creek (PSE&G)	1		

PWR Participating Sites

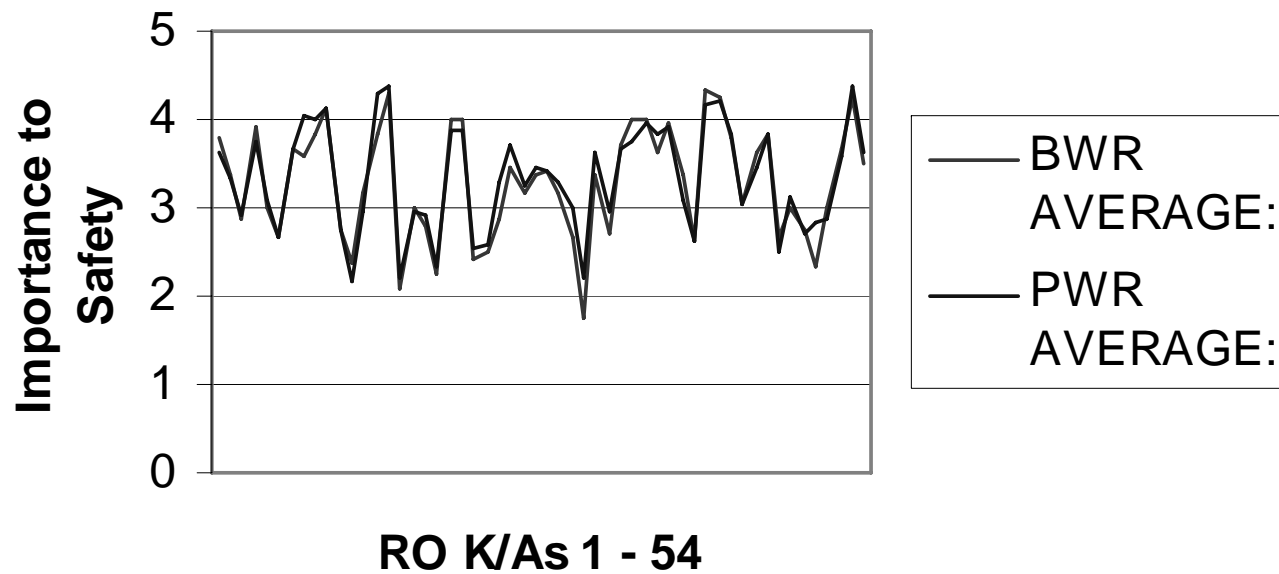
Beaver Valley (FENOC)	11	Oconee (Duke)	6
Braidwood (Exelon)	4	Palisades (NMC)	3
Callaway (Ameren)	2	Palo Verde (Pinnacle)	3
Catawba (Duke)	3	Prairie Island (NMC)	2
Comanche Peak (TXU)	1	Salem (PSEG/Exelon)	3
Cook (American Electric)	3	Sequoyah (TVA)	1
Diablo Canyon (PG&E)	5	South Texas (STP)	14
Farley (Southern Nuclear)	1	VC Summer (SCANA)	4
Ginna (Constellation)	4	Vogtle (Southern Nuclear)	4
Harris (Progress Energy)	2	Waterford (Entergy)	1
Kewaunee (NMC)	2	Wolf Creek (Wolf Creek)	14
McGuire (Duke)	8		

Respondent Distribution



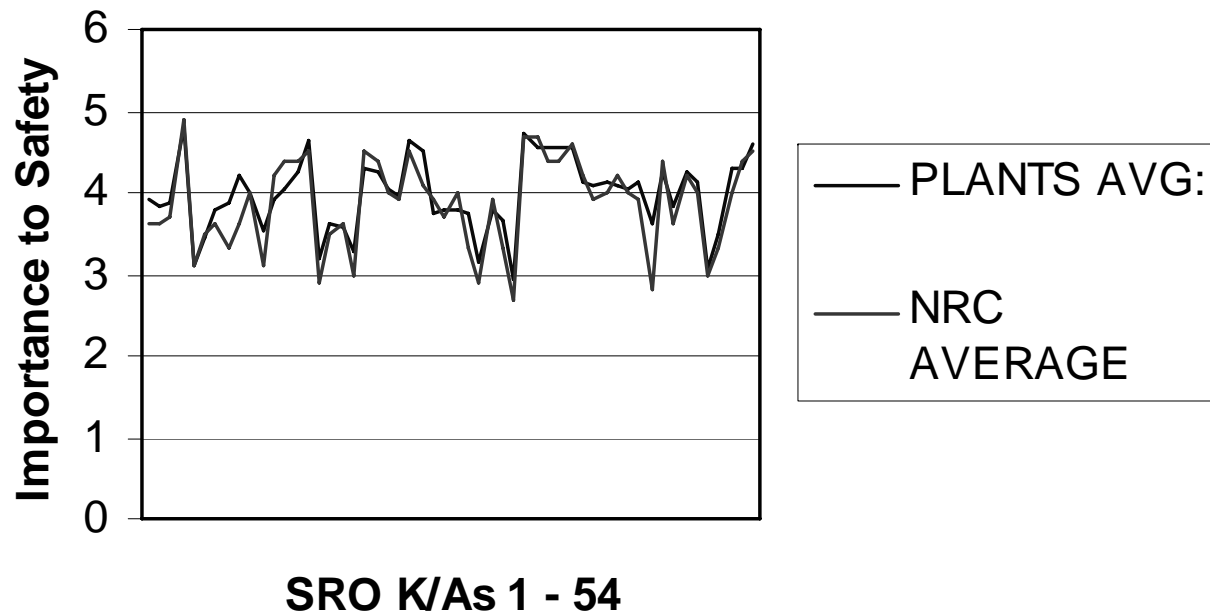
BWR vs. PWR

BWR vs PWR Importance Ratings $r = .96$ over all ratings



NRC Examiners vs. Industry Ratings

NRC Examiners vs. Industry Ratings
 $r = .93$ over all ratings



Importance to Safety Ratings

- Average Importance Ratings Calculated for RO and SRO jobs for 87 K/As
- Four K/As rated less than 2.5 (2.3%)—all were for RO jobs
- Percentage of K/As in Section 2 appropriate for testing on site-specific RO licensing exam would increase to 93% of the K/As versus 70% in the current Section 2
- Five new K/As, in addition to the revised Section 2.3, were added to the catalog.

Importance to Safety Ratings

Current Section 2.0

- 90 out of 129 K/As are testable for Initial License RO exam (70%)
- 129 out of 129 K/As are testable for Initial License SRO exam (100%)
- 56 out of 129 K/As are testable for License Requalification RO exam (46%)
- 114 out of 129 K/As are testable for License Requalification SRO exam (88%)

New Revision to Section 2.0

- 114 out of 121 K/As are testable for Initial License RO exam (94%)
- 121 out of 121 K/As are testable for Initial License SRO exam (100%)
- 95 out of 121 K/As are testable for License Requalification RO exam (79%)
- 120 out of 121 K/As are testable for License Requalification SRO exam (99%)

Importance Ratings Below 2.5

Four K/As had average importance ratings under 2.5 for the RO job, as expected since each of these K/As was revised to address SRO job responsibilities

- K/A 31: Ability to approve release permits.
 - RO Importance Rating: 2.0; RO SD .89
- K/A 16: Knowledge of the process from making design or operating changes to the facility.
 - RO Importance Rating: 2.2; RO SD .73
- K/A 12: Knowledge of the fuel-handling responsibilities of SROs.
 - RO Importance Rating: 2.2; RO SD .94
- K/A 19: Knowledge of the process for controlling temporary design changes.
 - RO Importance Rating: 2.3; RO SD .70

Improvements to Subsection 2.3, Radiation Protection

- The average importance ratings for the revised K/As are substantially higher than the ratings for the K/As in current Subsection 2.3.
- None of the importance ratings for the revised K/As had SDs greater than 1.0.
- Revising Subsection 2.3 adds six testable K/As for Licensed Reactor Operator Requal Exams, whereas, current Subsection 2.3 has no RO K/As ≥ 3.0 .

Overall Results

- The demographic characteristics of the respondents to the second survey were very similar to those of the respondents in the first survey.
- Different groups of respondents gave very similar importance ratings. Most importantly, no systematic differences were found in the ratings provided by operations personnel from PWRs and BWRs.
- These results indicate that it is acceptable to use the importance ratings from the two surveys to replace those in Section 2 of both NUREG-1122 and NUREG-1123.

Overall Results– cont'd

- Overall, the results of this second survey demonstrated that the large majority of the revised and new K/As are acceptable for inclusion in revisions to NUREG-1122 and NUREG-1123.
- The majority of importance ratings obtained for the revised and new K/As exceeded 2.5 with little variability in the participants' importance ratings.

Request for Endorsement

- JOG Training Group requests that the NEI LOFG endorse the proposed revision to NUREG-1122 and NUREG-1123
- JOG Training Group also recommends that KA's dealing with site chemistry processes be reworded to remove site specificity and included in the Generic Fundamentals section.
 - See New KA 50 – 51 in WCAP – xxxx, Attachment B

Questions?