1Q/2008 ROP Action Matrix Summary

The assessment program collects information from inspections and performance indicators (PIs) in order to enable the agency to arrive at objective conclusions about the licensee's safety performance. Based on this assessment information, the NRC determines the appropriate level of agency response, including supplemental inspection and pertinent regulatory actions ranging from management meetings up to and including orders for plant shutdown. The Action Matrix Summary listed below reflects overall plant performance and is updated regularly to reflect inputs from the most recent performance indicators and inspection findings. Security information is not publicly available and the associated performance indicators and inspection findings are not integrated into the Action Matrix Summary.

Notes have been added to plants that are not in the licensee response column of the Action Matrix.

The substantive cross-cutting issues are available on the ROP Substantive Cross Cutting Issues Summary page for each of the plants.

Licensee Response Column	Regulatory Response Column	Degraded Cornerstone Column	Multiple/Repetitive Degraded Cornerstone Column	Unacceptable Performance Column
Arkansas Nuclear 1	Browns Ferry 1[1]	Cooper[2]	Palo Verde 3[3]	
Arkansas Nuclear 2	Byron 1[4]	Farley 1[5]		
Beaver Valley 1	Byron 2[6]	Farley 2[7]		
Beaver Valley 2	Comanche Peak 1[8]	Fort Calhoun[9]		
Braidwood 1	Grand Gulf 1[10]	Palo Verde 1[11]		
Braidwood 2	Hatch 2[12]	Palo Verde 2[13]		
Browns Ferry 2	Perry 1[14]			
Browns Ferry 3	River Bend 1[15]			
Brunswick 1	Vogtle 1[16]			
Brunswick 2	Vogtle 2[17]			
Callaway				
Calvert Cliffs 1				
Calvert Cliffs 2				
Catawba 1				
Catawba 2				
Clinton				
Columbia Generating Station				
Comanche Peak 2				
Crystal River 3				
D.C. Cook 1				
D.C. Cook 2				
Davis-Besse				
Diablo Canyon 1				
Diablo Canyon 2				
Dresden 2				
Dresden 3				
Duane Arnold				
Fermi 2				
FitzPatrick				
Ginna				

Harris 1
Hatch 1
Hope Creek 1
Indian Point 2[18]
Indian Point 3[19]
Kewaunee
La Salle 1
La Salle 2
Limerick 1
Limerick 2
McGuire 1
McGuire 2
Millstone 2
Millstone 3
Monticello
Nine Mile Point 1
Nine Mile Point 2
North Anna 1
North Anna 2
Oconee 1
Oconee 2
Oconee 3
Oyster Creek
Palisades
Peach Bottom 2
Peach Bottom 3
Pilgrim 1
Point Beach 1
Point Beach 2
Prairie Island 1
Prairie Island 2
Quad Cities 1
Quad Cities 2
Robinson 2
Saint Lucie 1
Saint Lucie 2
Salem 1
Salem 2
San Onofre 2
San Onofre 3
Seabrook 1
Sequoyah 1
Sequoyah 2
South Texas 1
South Texas 2
Summer
Surry 1
Surry 2

Susquehanna 1
Susquehanna 2
Three Mile Island 1
Turkey Point 3
Turkey Point 4
Vermont Yankee
Waterford 3
Watts Bar 1
Wolf Creek 1

- Note 1: Browns Ferry Unit 1 is in the Regulatory Response Column due to one White Performance Indicator for Unplanned Scrams in the Initiating Events Cornerstone originating in 4Q/2007.
- Note 2: Cooper Nuclear Station is in the Degraded Cornerstone Column because of two White findings in the Mitigating Systems Cornerstone. The first White finding was associated with the licensee's failure to identify and correct Emergency Diesel Generator Number 2 voltage regulator components that contributed to an emergency diesel generator failure on January 18, 2007. The second White finding issued on June 13, 2008 and involved two procedures used by operators to bring the plant to a safe shutdown condition in the event of certain postulated fire scenarios. The procedures could not be performed as written. The exit for the White finding was conducted on March 18, 2008
- Note 3: Palo Verde, Unit 3 is in the Repetitive Degraded Cornerstone because of one Yellow finding originating in 4Q2004 remaining open (see below discussion), and one White finding in the Mitigating Systems Cornerstone originating in 4Q2006. The white inspection finding was associated with failures of the Unit 3, Train A, emergency diesel generator on July 25 and September 22, 2006. The underlying performance deficiencies involved a failure to establish appropriate instructions for performing corrective maintenance activities on a relay, and the failure to identify and correct the cause of erratic relay operation prior to installation of the relay into the emergency diesel generator voltage regulator circuit. On June 21, 2007, a CAL was issued to the licensee in response to their shift to Column 4 of the action matrix. An IP 95003 inspection was conducted during the fourth quarter of CY 2007. At the time of the inspection, the licensee had not completed the actions associated with the Yellow and White findings. The IP 95003 report is expected to be issued on or before February 1, 2008. The licensee will receive an updated CAL incorporating the results of the 95003 supplemental inspection and review of the site improvement plan following issuance of the IP 95003 report.
- Note 4: Byron Unit 1 is in the Regulatory Response Column due to one white finding in the Initiating Events Cornerstone originating in 1Q2008.
- Note 5: Farley Unit 1 is in the Degraded Cornerstone Column due to a White PI in the Mitigating System Cornerstone for Cooling Water System issues originating in 3Q/ 2007, and a parallel White Performance Indicator Finding in the Mitigating System Cornerstone for both units regarding breaker failures issued in the 3Q/2007. Farley Unit 1 reported a new White Performance Indicator for Emergency AC Power Systems in the Mitigating Systems Cornerstone 1Q/2008. An FAQ will be submitted by the licensee regarding the White PI for Emergency AC Power Systems in the Mitigating System Cornerstone.
- Note 6: Byron Unit 2 is in the Regulatory Response Column due to one white finding in the Initiating Events Cornerstone originating in 1Q2008.
- Note 7: Farley Unit 2 is in the Degraded Cornerstone Column due to a White PI in the Mitigating Systems Cornerstone for RHR issues originating in 2Q/2007, a parallel White Performance Indicator Finding in the Mitigating Systems Cornerstone for both units regarding breaker failures issued in the 3Q/2007, and a yellow finding in the mitigating systems cornerstone originating in the 3rd quarter 2007.
- Note 8: Comanche Peak, Unit 1 is in the Regulatory Response Column based on a White finding associated with the Mitigating Systems Cornerstone. The finding was issued on February 29, 2008 and involved exceeding the Technical Specification allowed outage time for emergency diesel generators when diesel generator 1-02 was rendered inoperable due to painting activities resulting in paint being deposited on at least one fuel rack in a location that prevented motion required to support operation of the diesel generator. This caused diesel generator 1-02 to fail to start during a surveillance test on November 21, 2007. A 95001 supplemental inspection will be conducted at a future date to assess the

adequacy of the licensee's corrective actions.

▲ Note 9: Fort Calhoun Station is in the Degraded Cornerstone Column based on two White findings both associated with the Mitigating Systems Cornerstone. The finding was issued on December 7, 2007 and involved inadequate corrective actions and improper maintenance on emergency diesel generators. The NRC completed the onsite portion of the 95002 supplemental inspection in 1Q2008. The NRC concluded that Fort Calhoun Station adequately addressed the Safety Systems Functional Failure Performance Indicator, that was White for one quarter, and the second White finding associated with inadequate maintenance and post-maintenance testing on a containment spray header isolation valve. However, Fort Calhoun Station inadequately addressed the White finding associated with inadequate maintenance procedures for the failed field flash relay and auxiliary contacts on an emergency diesel generator. Consequently, this finding will remain open, and will be considered in the assessment process, pending the completion of a future NRC inspection to verify satisfactory completion of corrective actions.

▲ Note 10: Grand Gulf Nuclear Station is in the Regulatory Response Column because of a White performance indicator for Unplanned Scrams per 7000 Critical Hours. The performance indicator crossed the Green-White threshold due to a March 21, 2008 main generator trip and subsequent reactor scram. The IP 95001 inspection will be conducted after the licensee completes a review and identifies corrective actions to address the causes for the multiple scrams which resulted in the White performance indicator.

▲ Note 11: Palo Verde Nuclear Generating Station, Units 1, and 2 are in Degraded Cornerstone Column because of one Yellow finding in the Mitigating Systems Cornerstone originating in 4Q2004. The significance determination for this final Yellow finding and corresponding Notice of Violation were issued on April 8, 2005. A supplemental inspection completed in December 2005, determined that the Yellow finding would remain open because of inadequate root and contributing causes and ineffective corrective actions. A followup supplemental inspection, completed in September 2006, also determined that the Yellow finding would remain open because of ineffective corrective actions involving root causes and programmatic concerns involving questioning attitude, technical rigor, and operability determinations. An IP 95003 inspection was conducted during the fourth quarter of CY 2007. At the time of the inspection, the licensee had not completed the actions associated with the Yellow finding.

▲ Note 12: Hatch Unit 2 is in the Regulatory Response Column due to a White PI in the Mitigating Systems Cornerstone for High Head Safety Injection system issues originating in 2Q/2007.

▲ Note 13: Palo Verde Nuclear Generating Station, Units 1, and 2 are in Degraded Cornerstone Column because of one Yellow finding in the Mitigating Systems Cornerstone originating in 4Q2004. The significance determination for this final Yellow finding and corresponding Notice of Violation were issued on April 8, 2005. A supplemental inspection completed in December 2005, determined that the Yellow finding would remain open because of inadequate root and contributing causes and ineffective corrective actions. A followup supplemental inspection, completed in September 2006, also determined that the Yellow finding would remain open because of ineffective corrective actions involving root causes and programmatic concerns involving questioning attitude, technical rigor, and operability determinations. An IP 95003 inspection was conducted during the fourth quarter of CY 2007. At the time of the inspection, the licensee had not completed the actions associated with the Yellow finding. The adequacy of licensee corrective actions will be reviewed during CAL followup inspections.

▲ Note 14: Perry is in the Regulatory Response Column due to one white performance indicator in the Mitigating Systems Cornerstone originating in 1Q2007.

▲ Note 15: River Bend Station is in the Regulatory Response Column because of a White performance indicator for Unplanned Scrams per 7000 Critical Hours. The performance indicator crossed the Green-White threshold due to a March 5, 2008 scram due to a main turbine generator electro-hydraulic control speed sensor circuit failure. The IP 95001 inspection will be conducted after the licensee completes a review and identifies corrective actions to address the causes for the multiple scrams which resulted in the White performance indicator.

▲ Note 16: Both units are in the Regulatory Response column due to a White finding in the Emergency Preparedness cornerstone originating in 3Q/2006.

▲ Note 17: Both units are in the Regulatory Response column due to a White finding in the Emergency Preparedness cornerstone originating in 3Q/2006.

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Note 18: On December 19, 2007, the EDO approved the deviation memo to continue to provide heightened oversight for Indian Point Units 2 and 3 through calendar year 2008, or until Entergy meets the criteria defined in the deviation memo. The deviation from the Reactor Oversight Process Action Matrix includes oversight activities to monitor licensee actions to: 1) characterize and remediate groundwater contamination found onsite, and 2) improve the reliability of the emergency siren system.

▲ Note 19: On December 19, 2007, the EDO approved the deviation memo to continue to provide heightened oversight for Indian Point Units 2 and 3 through calendar year 2008, or until Entergy meets the criteria defined in the deviation memo. The deviation from the Reactor Oversight Process Action Matrix includes oversight activities to monitor licensee actions to: 1) characterize and remediate groundwater contamination found onsite, and 2) improve the reliability of the emergency siren system.

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