

## 2Q/2007 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. [Physical Protection](#) 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
<a href="#">Arkansas Nuclear 1</a>	<a href="#">Beaver Valley 1<sup>1</sup></a>	<a href="#">Brunswick 1<sup>2</sup></a>	<a href="#">Palo Verde 3<sup>3</sup></a>	
<a href="#">Arkansas Nuclear 2</a>	<a href="#">Beaver Valley 2<sup>4</sup></a>	<a href="#">D.C. Cook 1<sup>5</sup></a>		
<a href="#">Braidwood 1</a>	<a href="#">Brunswick 2<sup>6</sup></a>	<a href="#">D.C. Cook 2<sup>7</sup></a>		
<a href="#">Braidwood 2</a>	<a href="#">Byron 2<sup>8</sup></a>	<a href="#">Fort Calhoun<sup>9</sup></a>		
<a href="#">Browns Ferry 1</a>	<a href="#">Calvert Cliffs 1<sup>10</sup></a>	<a href="#">Kewaunee<sup>11</sup></a>		
<a href="#">Browns Ferry 2</a>	<a href="#">Clinton<sup>12</sup></a>	<a href="#">Oconee 1<sup>13</sup></a>		
<a href="#">Browns Ferry 3</a>	<a href="#">Cooper<sup>14</sup></a>	<a href="#">Oconee 2<sup>15</sup></a>		
<a href="#">Byron 1</a>	<a href="#">Dresden 2<sup>16</sup></a>	<a href="#">Oconee 3<sup>17</sup></a>		
<a href="#">Callaway</a>	<a href="#">Duane Arnold<sup>18</sup></a>	<a href="#">Palo Verde 1<sup>19</sup></a>		
<a href="#">Calvert Cliffs 2</a>	<a href="#">Farley 2<sup>20</sup></a>	<a href="#">Palo Verde 2<sup>21</sup></a>		
<a href="#">Catawba 1</a>	<a href="#">Hatch 2<sup>22</sup></a>			
<a href="#">Catawba 2</a>	<a href="#">Indian Point 3<sup>23</sup></a>			
<a href="#">Columbia Generating Station</a>	<a href="#">Nine Mile Point 1<sup>24</sup></a>			
<a href="#">Comanche Peak 1</a>	<a href="#">Oyster Creek<sup>25</sup></a>			
<a href="#">Comanche Peak 2</a>	<a href="#">Perry 1<sup>26</sup></a>			
<a href="#">Crystal River 3</a>	<a href="#">Turkey Point 3<sup>27</sup></a>			
<a href="#">Davis-Besse</a>	<a href="#">Vermont Yankee<sup>28</sup></a>			
<a href="#">Diablo Canyon 1</a>	<a href="#">Vogtle 1<sup>29</sup></a>			
<a href="#">Diablo Canyon 2</a>	<a href="#">Vogtle 2<sup>30</sup></a>			
<a href="#">Dresden 3</a>				
<a href="#">Farley 1</a>				
<a href="#">Fermi 2</a>				
<a href="#">FitzPatrick</a>				
<a href="#">Ginna</a>				
<a href="#">Grand Gulf 1</a>				
<a href="#">Harris 1</a>				
<a href="#">Hatch 1</a>				

[Hope Creek 1](#)  
[Indian Point 2<sup>31</sup>](#)  
[La Salle 1](#)  
[La Salle 2](#)  
[Limerick 1](#)  
[Limerick 2](#)  
[McGuire 1](#)  
[McGuire 2](#)  
[Millstone 2](#)  
[Millstone 3](#)  
[Monticello](#)  
[Nine Mile Point 2](#)  
[North Anna 1](#)  
[North Anna 2](#)  
[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](#)  
[River Bend 1](#)  
[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 4](#)  
[Waterford 3](#)  
[Watts Bar 1](#)  
[Wolf Creek 1](#)

- ▲ Note 1: Beaver Valley Units 1 & 2 are in the Regulatory Response Column due to one White inspection finding in the Emergency Preparedness cornerstone originating in 3Q2006. The White finding involved inadequate dose assessment identified during the June 2006 emergency preparedness exercise. The supplemental inspection (95001) for the White finding was completed in June 2007. The results of the supplemental inspection will be considered in the performance assessment process during the mid-cycle review in 3Q2007.
- ▲ Note 2: Brunswick Unit 1 is in the Degraded Cornerstone Column due a White finding in the Mitigating Systems Cornerstone, originating in 1Q/2007, and a White performance indicator in the Mitigating Systems Cornerstone (Emergency AC Power Systems), originating in 2Q/2006.
- ▲ Note 3: Palo Verde Unit 3 is in the Repetitive Degraded Cornerstone Column because of one Yellow finding originating in 4Q2004 remaining open (see above 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. The effectiveness of the licensee's corrective actions will be evaluated during the 95003 supplemental inspection.
- ▲ Note 4: Beaver Valley Units 1 & 2 are in the Regulatory Response Column due to one White inspection finding in the Emergency Preparedness cornerstone originating in 3Q2006. The White finding involved inadequate dose assessment identified during the June 2006 emergency preparedness exercise. The supplemental inspection (95001) for the White finding was completed in June 2007. The results of the supplemental inspection will be considered in the performance assessment process during the mid-cycle review in 3Q2007.
- ▲ Note 5: D.C. Cook Unit 1 is in the Degraded Cornerstone Column due to one yellow performance indicator in the Emergency Preparedness Cornerstone originating in 2Q2007. Siren test failures in 2Q2007 were conservatively reported pending resolution of an associated frequently asked question.
- ▲ Note 6: Brunswick Unit 2 is in the Regulatory Response Column due to a White performance indicator in the Mitigating System cornerstone (Emergency AC Power Systems) in 2Q/2006.
- ▲ Note 7: D.C. Cook Unit 2 is in the Degraded Cornerstone Column due to one yellow performance indicator in the Emergency Preparedness Cornerstone originating in 2Q2007. Siren test failures in 2Q2007 were conservatively reported pending resolution of an associated frequently asked question.
- ▲ Note 8: Byron Unit 2 is in the Regulatory Response Column due to one white performance indicator in the Mitigating Systems Cornerstone originating in 2Q2006.
- ▲ Note 9: Fort Calhoun Station is in the Degraded Cornerstone Column, Mitigating Systems, because of a White performance indicator for six safety system functional failures (April 17, 2007) and a White finding for an improperly installed containment spray valve that rendered one train of containment spray inoperable for an operating cycle (NRC EA-07-047, May 29, 2007). In addition, the MSPI performance indicator may be White for Emergency AC Power, following the resolution of an FAQ concerning the counting of unavailability.
- ▲ Note 10: Calvert Cliffs Unit 1 is in the Regulatory Response Column due to one White inspection finding in the Mitigating System cornerstone originating in 3Q2006. The White finding involved inadequate design control that resulted in the incorrect over-current trip setting for the 1A emergency diesel generator support system supply breaker. The supplemental inspection (95001) for the White finding was completed in January 2007. Based on the results, this finding will be removed from consideration in the performance assessment process in 3Q2007.
- ▲ Note 11: Kewaunee is in the Degraded Cornerstone Column due to one yellow finding in the Mitigating Systems Cornerstone originating in 1Q2007, one white performance indicator in the Mitigating Systems Cornerstone originating in 1Q2007, and one white performance indicator in the Initiating Events Cornerstone originating in 4Q2006.
- ▲ Note 12: Clinton is in the Regulatory Response Column due to one white finding in the Mitigating Systems Cornerstone originating in 3Q2006.
- ▲ Note 13: Oconee Unit 3 continues in the Degraded Cornerstone Column due a White finding in the Mitigating Systems Cornerstone, originating in 4Q/2006, and a White finding [against all 3 units] in the

Mitigating Systems Cornerstone, originating in 3Q/2006. Oconee Units 1 and 2 are also in the Degraded Cornerstone Column due to the 3Q/2006 White Mitigating System finding and a White performance indicator [against all 3 units] in the Mitigating Systems Cornerstone (Emergency AC Power Systems), originating in 4Q/2006.

- ▲ Note 14: Cooper Nuclear Station is in the Regulatory Response Column because of a White performance indicator for the Mitigating Systems Performance Index, Emergency AC Power Systems. This was due to the Emergency Diesel Generator Number 2 over voltage trip on January 18, 2007, which was caused by a failed voltage regulator card. Additionally, there was an Emergency Diesel Generator failure to run in the past 36 months because of a failed lube oil fitting.
- ▲ Note 15: Oconee Unit 3 continues in the Degraded Cornerstone Column due a White finding in the Mitigating Systems Cornerstone, originating in 4Q/2006, and a White finding [against all 3 units] in the Mitigating Systems Cornerstone, originating in 3Q/2006. Oconee Units 1 and 2 are also in the Degraded Cornerstone Column due to the 3Q/2006 White Mitigating System finding and a White performance indicator [against all 3 units] in the Mitigating Systems Cornerstone (Emergency AC Power Systems), originating in 4Q/2006.
- ▲ Note 16: Dresden Unit 2 is in the Regulatory Response Column due to one white performance indicator in the Initiating Events Cornerstone originating in 3Q2006.
- ▲ Note 17: Oconee Unit 3 continues in the Degraded Cornerstone Column due a White finding in the Mitigating Systems Cornerstone, originating in 4Q/2006, and a White finding [against all 3 units] in the Mitigating Systems Cornerstone, originating in 3Q/2006. Oconee Units 1 and 2 are also in the Degraded Cornerstone Column due to the 3Q/2006 White Mitigating System finding and a White performance indicator [against all 3 units] in the Mitigating Systems Cornerstone (Emergency AC Power Systems), originating in 4Q/2006.
- ▲ Note 18: Duane Arnold is in the Regulatory Response Column due to one white finding in the Emergency Preparedness Cornerstone originating in 4Q2006.
- ▲ Note 19: Palo Verde 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. The effectiveness of the licensee's corrective actions will be evaluated during the 95003 supplemental inspection.
- ▲ Note 20: Farley Unit 2 is in the Regulatory Response Column due to a White performance indicator in the Mitigating Systems Cornerstone (Residual Heat Removal System), in 2Q/2007.
- ▲ Note 21: Palo Verde 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. The effectiveness of the licensee's corrective actions will be evaluated during the 95003 supplemental inspection.
- ▲ Note 22: Hatch Unit 2 is in the Regulatory Response Column due to a White performance indicator in the Mitigating Systems Cornerstone (High Pressure Injection System), in 2Q/2007.
- ▲ Note 23: Indian Point Unit 3 transitioned to the Regulatory Response Column due to one White performance indicator (PI) in the Initiating Events cornerstone originating in 2Q2007. The White PI was related to exceeding the limit for Unplanned Scrams per 7000 Critical Hours. On December 21, 2006, the EDO approved the deviation memo to continue to provide heightened oversight for Indian Point 2 and 3 plants through calendar year 2007, or until the licensee 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 24: Nine Mile Point (NMP) Unit 1 is in the Regulatory Response Column due to one White inspection finding in the Mitigating System cornerstone originating in 1Q2007. The White finding involved a failure to ensure the integrity of NMP's licensed operator re-qualification exams for Unit 1, calendar years 2005 and 2006. The supplemental inspection (95001) for the White finding is scheduled for November 2007.
- ▲ Note 25: Oyster Creek is in the Regulatory Response Column due to one White inspection finding in the Emergency Preparedness cornerstone originating in 3Q2005. The White finding involved an inadequate response to an event involving grassing of the intake structure. The finding remains open for greater than four quarters pending additional supplemental inspection to confirm that broad corrective actions have been implemented. The supplemental inspection (95001) for the White finding was completed in June 2007. The results of the supplemental inspection will be considered in the performance assessment process during the mid-cycle review in 3Q2007.
- ▲ Note 26: Perry is in the Regulatory Response Column due to one white performance indicator in the Mitigating Systems Cornerstone originating in 1Q2007.
- ▲ Note 27: Turkey Point Unit 3 is in the Regulatory Response Column due to a White Finding in the Initiating Events cornerstone (a loss of all decay heat removal event). (Originated 3rd Qtr 2006)
- ▲ Note 28: Vermont Yankee is in the Regulatory Response Column due to one White inspection finding in the Public Radiation Safety cornerstone originating in 4Q2006. The White finding involved a Vermont Yankee radioactive material shipment to another site that exceeded Department of Transportation regulatory specifications for external radiation exposure rate on the surface of the affected package. The supplemental inspection (95001) for the White finding is scheduled for July 2007.
- ▲ Note 29: Vogtle Unit 1 is in the Regulatory Response Column due to a White finding in the Emergency Preparedness Cornerstone, originating in 3Q/2006. Vogtle Unit 2 is also in the Regulatory Response Column due to the same White finding as on Unit 1, as well as a White performance indicator in the Mitigating Systems Cornerstone (Cooling Water Systems) in 4Q/2006.
- ▲ Note 30: Vogtle Unit 1 is in the Regulatory Response Column due to a White finding in the Emergency Preparedness Cornerstone, originating in 3Q/2006. Vogtle Unit 2 is also in the Regulatory Response Column due to the same White finding as on Unit 1, as well as a White performance indicator in the Mitigating Systems Cornerstone (Cooling Water Systems) in 4Q/2006.
- ▲ Note 31: On December 21, 2006, the EDO approved the deviation memo to continue to provide heightened oversight for Indian Point 2 and 3 plants through calendar year 2007, or until the licensee 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.