

**2Q/2006 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.

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="#">Braidwood 1<sup>1</sup></a>	<a href="#">Kewaunee<sup>2</sup></a>	<a href="#">Perry 1<sup>3</sup></a>	
<a href="#">Arkansas Nuclear 2</a>	<a href="#">Braidwood 2<sup>4</sup></a>	<a href="#">Palo Verde 1<sup>5</sup></a>	<a href="#">Point Beach 1<sup>6</sup></a>	
<a href="#">Beaver Valley 1</a>	<a href="#">Brunswick 1<sup>7</sup></a>	<a href="#">Palo Verde 2<sup>8</sup></a>	<a href="#">Point Beach 2<sup>9</sup></a>	
<a href="#">Beaver Valley 2</a>	<a href="#">Brunswick 2<sup>10</sup></a>	<a href="#">Palo Verde 3<sup>11</sup></a>		
<a href="#">Browns Ferry 2</a>	<a href="#">Byron 2<sup>12</sup></a>			
<a href="#">Browns Ferry 3</a>	<a href="#">Callaway<sup>13</sup></a>			
<a href="#">Byron 1</a>	<a href="#">Crystal River 3<sup>14</sup></a>			
<a href="#">Calvert Cliffs 1</a>	<a href="#">Farley 1<sup>15</sup></a>			
<a href="#">Calvert Cliffs 2</a>	<a href="#">Farley 2<sup>16</sup></a>			
<a href="#">Catawba 1</a>	<a href="#">Millstone 2<sup>17</sup></a>			
<a href="#">Catawba 2</a>	<a href="#">Oyster Creek<sup>18</sup></a>			
<a href="#">Clinton</a>	<a href="#">Palisades<sup>19</sup></a>			
<a href="#">Columbia Generating Station</a>	<a href="#">Quad Cities 1<sup>20</sup></a>			
<a href="#">Comanche Peak 1</a>	<a href="#">South Texas 2<sup>21</sup></a>			
<a href="#">Comanche Peak 2</a>	<a href="#">Summer<sup>22</sup></a>			
<a href="#">Cooper</a>	<a href="#">Surry 1<sup>23</sup></a>			
<a href="#">D.C. Cook 1</a>	<a href="#">Surry 2<sup>24</sup></a>			
<a href="#">D.C. Cook 2</a>	<a href="#">Turkey Point 3<sup>25</sup></a>			
<a href="#">Davis-Besse</a>	<a href="#">Turkey Point 4<sup>26</sup></a>			
<a href="#">Diablo Canyon 1</a>				
<a href="#">Diablo Canyon 2</a>				
<a href="#">Dresden 2</a>				
<a href="#">Dresden 3</a>				
<a href="#">Duane Arnold</a>				
<a href="#">Fermi 2</a>				
<a href="#">FitzPatrick</a>				
<a href="#">Fort Calhoun</a>				
<a href="#">Ginna</a>				
<a href="#">Grand Gulf 1</a>				
<a href="#">Harris 1</a>				
<a href="#">Hatch 1</a>				
<a href="#">Hatch 2</a>				
<a href="#">Hope Creek 1<sup>27</sup></a>				
<a href="#">Indian Point 2<sup>28</sup></a>				
<a href="#">Indian Point 3<sup>29</sup></a>				
<a href="#">La Salle 1<sup>30</sup></a>				
<a href="#">La Salle 2<sup>31</sup></a>				
<a href="#">Limerick 1</a>				

[Limerick 2](#)  
[McGuire 1](#)  
[McGuire 2](#)  
[Millstone 3](#)  
[Monticello](#)  
[Nine Mile Point 1](#)  
[Nine Mile Point 2](#)  
[North Anna 1](#)  
[North Anna 2](#)  
[Oconee 1](#)  
[Oconee 2](#)  
[Oconee 3](#)  
[Peach Bottom 2](#)  
[Peach Bottom 3](#)  
[Pilgrim 1](#)  
[Prairie Island 1](#)  
[Prairie Island 2](#)  
[Quad Cities 2](#)  
[River Bend 1](#)  
[Robinson 2](#)  
[Saint Lucie 1](#)  
[Saint Lucie 2](#)  
[Salem 1<sup>32</sup>](#)  
[Salem 2<sup>33</sup>](#)  
[San Onofre 2](#)  
[San Onofre 3](#)  
[Seabrook 1](#)  
[Sequoyah 1](#)  
[Sequoyah 2](#)  
[South Texas 1](#)  
[Susquehanna 1](#)  
[Susquehanna 2](#)  
[Three Mile Island 1](#)  
[Vermont Yankee](#)  
[Vogtle 1](#)  
[Vogtle 2](#)  
[Waterford 3<sup>34</sup>](#)  
[Watts Bar 1](#)  
[Wolf Creek 1](#)

- ▲ Note 1: Braidwood Unit 1 is in the Regulatory Response Column due to one white finding in the Public Radiation Cornerstone originating in 2Q2006.
- ▲ Note 2: Kewaunee is in the Degraded Cornerstone Column due to one white finding in the Mitigating Systems cornerstone originating in 3Q2005 and one yellow finding in the Mitigating Systems cornerstone originating in 4Q2005.
- ▲ Note 3: Perry is in the Multiple/Repetitive Degraded Cornerstone Column due to the Mitigating Systems Cornerstone being degraded with multiple White findings for greater than 4 consecutive quarters. In particular, the ESW pump failure finding from 3Q2003 is being held open in accordance with MC 0305 for greater than 4 quarters because corrective actions were ineffective and the pump failed again in May 2004. This finding, in conjunction with the 4Q2003 finding involving inadequate venting of the RHR/LPCI keep fill system, which is also being held open in accordance with MC 0305 for greater than 4 quarters pending the implementation of effective corrective actions to address performance deficiencies, resulted in greater than 4 consecutive quarters in the Degraded Cornerstone Column and placed the plant in the Multiple/Repetitive Degraded Cornerstone Column.
- ▲ Note 4: Braidwood Unit 2 is in the Regulatory Response Column due to one white finding in the Public Radiation cornerstone originating in 2Q2006.
- ▲ Note 5: Palo Verde Nuclear Generating Station, Units 1, 2 and 3 are in the 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. The supplemental inspection was completed in December 2005. The team determined that the Yellow finding would remain open, because not all of the licensee's root and

contributing causes were fully developed, many of the corrective actions were narrowly focused or ineffective, and effectiveness reviews were not adequate. The licensee subsequently informed the NRC that they have completed additional corrective actions and are ready for the followup IP 95002 inspection. Region IV conducted the onsite portion of the followup inspection the week of July 24, 2006. Additional in-office review will occur between July 31- August 11, 2006.

- ▲ Note 6: Point Beach Unit 1 is in the Multiple/Repetitive Degraded Cornerstone Column due to a red finding and a yellow finding in the Mitigating Systems Cornerstone originating in 1Q2002 and 1Q2003 respectively. Both findings are being held open in accordance with IMC 0305 for greater than 4 quarters pending the implementation of effective corrective actions to address performance deficiencies. In addition, a white finding in the Emergency Preparedness Cornerstone originating in 4Q2005 is not being considered in the action matrix due to a deviation approved by the EDO.
- ▲ Note 7: Brunswick Unit 1 is in the Regulatory Response column due to a White performance indicator in the Mitigating Systems Cornerstone (Emergency AC Power systems) originating in 2Q/2006.
- ▲ Note 8: Palo Verde Nuclear Generating Station, Units 1, 2 and 3 are in the 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. The supplemental inspection was completed in December 2005. The team determined that the Yellow finding would remain open, because not all of the licensee's root and contributing causes were fully developed, many of the corrective actions were narrowly focused or ineffective, and effectiveness reviews were not adequate. The licensee subsequently informed the NRC that they have completed additional corrective actions and are ready for the followup IP 95002 inspection. Region IV conducted the onsite portion of the followup inspection the week of July 24, 2006. Additional in-office review will occur between July 31- August 11, 2006.
- ▲ Note 9: Point Beach Unit 2 is in the Multiple/Repetitive Degraded Cornerstone Column due to two red findings in the Mitigating Systems Cornerstone originating in 1Q2002 and 1Q2003 respectively. Both findings are being held open in accordance with IMC 0305 for greater than 4 quarters pending the implementation of effective corrective actions to address performance deficiencies. In addition, a white finding in the Emergency Preparedness Cornerstone originating in 4Q2005 is not being considered in the action matrix due to a deviation approved by the EDO.
- ▲ Note 10: Brunswick Unit 2 is in the Regulatory Response Column due to a White performance indicator in the Mitigating Systems Cornerstone (Emergency AC Power Systems) originating in 2Q/2006.
- ▲ Note 11: Palo Verde Nuclear Generating Station, Units 1, 2 and 3 are in the 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. The supplemental inspection was completed in December 2005. The team determined that the Yellow finding would remain open, because not all of the licensee's root and contributing causes were fully developed, many of the corrective actions were narrowly focused or ineffective, and effectiveness reviews were not adequate. The licensee subsequently informed the NRC that they have completed additional corrective actions and are ready for the followup IP 95002 inspection. Region IV conducted the onsite portion of the followup inspection the week of July 24, 2006. Additional in-office review will occur between July 31- August 11, 2006.
- ▲ Note 12: Byron Unit 2 is in the Regulatory Response Column due to one White Performance indicator originating in 2Q2006 in the Mitigating Systems Cornerstone (MSPI, Heat Removal System)
- ▲ Note 13: Callaway Plant is in the Regulatory Response Column because of a White MSPI for the Heat Removal System. This was due to failures of pumps resulting in the unavailability of auxiliary feedwater system.
- ▲ Note 14: Crystal River 3 is in the Regulatory Response Column due to a White inspection finding in the Mitigating Systems cornerstone originating in 3Q/2005.
- ▲ Note 15: Farley Unit 1 is in the Regulatory Response Column due to a White performance indicator in the Mitigating Systems cornerstone (Cooling Water Systems) originating in 2Q/2006.
- ▲ Note 16: Farley Unit 2 is in the Regulatory Response Column due to a White performance indicator in the Mitigating Systems cornerstone (Cooling Water Systems) originating in 2Q/2006.
- ▲ Note 17: Millstone 2 is in the Regulatory Response Column due to one WHITE Performance Indicator in the Initiating Events Cornerstone originating in 1Q2006. The WHITE Performance Indicator was related to unplanned scrams with loss of normal heat removal.
- ▲ Note 18: Oyster Creek is in the Regulatory Response Column due to one WHITE inspection finding in the Emergency Preparedness (EP) Cornerstone originating in 3Q2005. The WHITE finding involved an inadequate response to an event involving grassing of the intake structure.
- ▲ Note 19: Palisades is in the Regulatory Response Column due to one White Performance indicator in the Mitigating Systems cornerstone originating in 2Q2006 (Mitigating Systems Performance Index, High Pressure Injection System)
- ▲ Note 20: Quad Cities Unit 1 is in the Regulatory Response Column due to one white finding in the Mitigating Systems Cornerstone originating in 2Q2006.
- ▲ Note 21: South Texas Project, Unit 2 is in the Regulatory Response Column because of a White MSPI for Emergency AC Power Systems. This was due to a major failure of Emergency Diesel Generator 22 on December 9, 2003, which required significant time to repair.
- ▲ Note 22: Summer is in the Regulatory Response Column due to a White inspection finding in the Public Radiation Cornerstone (Failure to Properly Prepare a Radioactive Material Package for Shipment) originating in 1Q/2006.
- ▲ Note 23: Surry Units 1 and 2 are in the Regulatory Response Column due to a White inspection finding in the Emergency Preparedness Cornerstone originating in 1Q/2006. During a Full Scale Exercise Critique, the licensee did not identify a weakness associated with a risk-significant planning standard (RSPS).
- ▲ Note 24: Surry Units 1 and 2 are in the Regulatory Response Column due to a White inspection finding in the Emergency Preparedness

Cornerstone originating in 1Q/2006. During a Full Scale Exercise Critique, the licensee did not identify a weakness associated with a risk-significant planning standard (RSPS).

- ▲ Note 25: Turkey Point Units 3 and 4 are in the Regulatory Response Column due to a White finding in the Mitigating System Cornerstone (AFW inoperable) which originated in 4Q/2005. In the 1Q/2005, the Heat Removal System Unavailability PI (AFW) for both units was White. However, with the implementation of the MSPI, it changed back to Green.
- ▲ Note 26: Turkey Point Units 3 and 4 are in the Regulatory Response Column due to a White finding in the Mitigating System Cornerstone (AFW inoperable) which originated in 4Q/2005. In the 1Q/2005, the Heat Removal System Unavailability PI (AFW) for both units was White. However, with the implementation of the MSPI, it changed back to Green.
- ▲ Note 27: Hope Creek - On July 29, 2005, the EDO approved a renewal of a Deviation from the ROP Action Matrix to provide a greater level of oversight for the Salem and Hope Creek Generating Stations. The Deviation includes oversight activities to monitor licensee improvement efforts in SCWE (Safety Conscious Work Environment) and related performance attributes.
- ▲ Note 28: Indian Point 2 and 3 - On October 31, 2005, the EDO approved a Deviation from the ROP Action Matrix to provide a greater level of oversight for the Indian Point 2 and 3 plants. The Deviation includes oversight activities to monitor licensee action to: 1) Characterize and remediate tritium found onsite, and 2) improve the reliability of the emergency siren system.
- ▲ Note 29: Indian Point 2 and 3 - On October 31, 2005, the EDO approved a Deviation from the ROP Action Matrix to provide a greater level of oversight for the Indian Point 2 and 3 plants. The Deviation includes oversight activities to monitor licensee action to: 1) Characterize and remediate tritium found onsite, and 2) improve the reliability of the emergency siren system.
- ▲ Note 30: LaSalle Unit 1 has a white inspection finding in the initiating events cornerstone originating in 2Q/2005 was determined to be an old design issue in accordance with IMC 0305, and is not considered as an input to the assessment program.
- ▲ Note 31: LaSalle Unit 2 has a white inspection finding in the initiating events cornerstone originating in 2Q/2005 was determined to be an old design issue in accordance with IMC 0305, and is not considered as an input to the assessment program.
- ▲ Note 32: On July 29, 2005, the EDO approved a renewal of a Deviation from the ROP Action Matrix to provide a greater level of oversight for the Salem and Hope Creek Generating Stations. The Deviation includes oversight activities to monitor licensee improvement efforts in SCWE (Safety Conscious Work Environment) and related performance attributes.
- ▲ Note 33: On July 29, 2005, the EDO approved a renewal of a Deviation from the ROP Action Matrix to provide a greater level of oversight for the Salem and Hope Creek Generating Stations. The Deviation includes oversight activities to monitor licensee improvement efforts in SCWE (Safety Conscious Work Environment) and related performance attributes.
- ▲ Note 34: \*Waterford Unit 3: Discrepant PI inspection completed, but the report has not been issued.