

## 1Q/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="#">Ginna<sup>5</sup></a>	<a href="#">Perry 1<sup>6</sup></a>	
<a href="#">Browns Ferry 3</a>	<a href="#">Braidwood 1<sup>7</sup></a>	<a href="#">Kewaunee<sup>8</sup></a>		
<a href="#">Byron 1</a>	<a href="#">Braidwood 2<sup>9</sup></a>	<a href="#">Oconee 1<sup>10</sup></a>		
<a href="#">Callaway</a>	<a href="#">Browns Ferry 2</a>	<a href="#">Oconee 2<sup>11</sup></a>		
<a href="#">Calvert Cliffs 2</a>	<a href="#">Brunswick 2<sup>12</sup></a>	<a href="#">Oconee 3<sup>13</sup></a>		
<a href="#">Catawba 1</a>	<a href="#">Byron 2<sup>14</sup></a>	<a href="#">Palo Verde 1<sup>15</sup></a>		
<a href="#">Catawba 2</a>	<a href="#">Calvert Cliffs 1<sup>16</sup></a>	<a href="#">Palo Verde 2<sup>17</sup></a>		
<a href="#">Columbia Generating Station</a>	<a href="#">Clinton<sup>18</sup></a>			
<a href="#">Comanche Peak 1</a>	<a href="#">Cooper<sup>19</sup></a>			
<a href="#">Comanche Peak 2</a>	<a href="#">Dresden 2<sup>20</sup></a>			
<a href="#">Crystal River 3</a>	<a href="#">Duane Arnold<sup>21</sup></a>			
<a href="#">D.C. Cook 1</a>	<a href="#">Farley 2<sup>22</sup></a>			
<a href="#">D.C. Cook 2</a>	<a href="#">Fort Calhoun<sup>23</sup></a>			
<a href="#">Davis-Besse</a>	<a href="#">Nine Mile Point 1<sup>24</sup></a>			
<a href="#">Diablo Canyon 1</a>	<a href="#">Oyster Creek<sup>25</sup></a>			
<a href="#">Diablo Canyon 2</a>	<a href="#">Quad Cities 1<sup>26</sup></a>			
<a href="#">Dresden 3</a>	<a href="#">Summer<sup>27</sup></a>			
<a href="#">Farley 1</a>	<a href="#">Surry 1<sup>28</sup></a>			
<a href="#">Fermi 2</a>	<a href="#">Surry 2<sup>29</sup></a>			
<a href="#">FitzPatrick</a>	<a href="#">Turkey Point 3<sup>30</sup></a>			
<a href="#">Grand Gulf 1</a>	<a href="#">Vermont Yankee<sup>31</sup></a>			
<a href="#">Harris 1</a>	<a href="#">Vogtle 1<sup>32</sup></a>			
<a href="#">Hatch 1</a>	<a href="#">Vogtle 2<sup>33</sup></a>			
<a href="#">Hatch 2</a>				
<a href="#">Hope Creek 1</a>				
<a href="#">Indian Point 2<sup>34</sup></a>				

[Indian Point 3<sup>35</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 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](#)

[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 were 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.

▲ Note 2: Brunswick Unit 1 Final SDP was issued on April 20 leading to the unit entering Degraded cornerstone for a White Finding involving EDG #1 inoperability in combination with a previous White PI for emergency

AC Power System. The White Finding was effective on February 28, 2007, the date of the AV.

- ▲ Note 3: Palo Verde, Unit 3 is in the Repetitive Degraded Cornerstone 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 K-I relay, and the failure to identify and correct the cause of erratic K-I relay operation prior to installation of the relay into the emergency diesel generator voltage regulator circuit.
- ▲ Note 4: Beaver Valley Units 1 & 2 were 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.
- ▲ Note 5: Ginna is in the Degraded Cornerstone Column due to one Yellow performance indicator (PI) in the Emergency Preparedness cornerstone originating in 1Q2007. The Yellow PI was related to Emergency Response Organization Drill Participation.
- ▲ Note 6: Perry is in the Multiple/Repetitive Degraded Cornerstone Column due to one white performance indicator in the Mitigating Systems Cornerstone originating in 1Q2007 and due to the Mitigating Systems Cornerstone being degraded with multiple white findings being held open for greater than 4 consecutive quarters. In particular, the white finding initiated in 3Q2003 associated with the ESW pump failure was 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. In addition, the white finding initiated in 4Q2003 for inadequate venting of the RHR/LPCI keep fill system was also held open in accordance with MC 0305 for greater than 4 quarters pending the implementation of effective corrective actions. Corrective Action Letter (CAL) followup inspections were satisfactorily completed and the CAL was closed during 1Q2007; therefore, the white findings were closed and the licensee entered the Regulatory Response Column effective April 1, 2007.
- ▲ Note 7: Braidwood Unit 1 is in the Regulatory Response Column due to one white finding in the Public Radiation Cornerstone originating in 2Q2006.
- ▲ Note 8: 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 9: Braidwood Unit 2 is in the Regulatory Response Column due to one white finding in the Public Radiation Cornerstone originating in 2Q2006.
- ▲ Note 10: All Oconee units are in the degraded cornerstone column due to a white MSPI in emergency AC power (4Q/2006) and a white finding in the mitigating systems cornerstone (the SSF flood wall breach) effective 3Q/2006.
- ▲ Note 11: All Oconee units are in the degraded cornerstone column due to a white MSPI in emergency AC power (4Q/2006) and a white finding in the mitigating systems cornerstone (the SSF flood wall breach) effective 3Q/2006.
- ▲ Note 12: The unit in the Regulatory Response column due to a White performance indicator in the Mitigating System cornerstone (Emergency AC Power Systems) originating in 2Q/2006.
- ▲ Note 13: All Oconee units are in the degraded cornerstone column due to a white MSPI in emergency AC power (4Q/2006) and a white finding in the mitigating systems cornerstone (the SSF flood wall breach) effective 3Q/2006.
- ▲ Note 14: Byron Unit 2 is in the Regulatory Response Column due to one white performance indicator in the Mitigating Systems Cornerstone originating in 2Q2006.
- ▲ Note 15: 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.

▲

- Note 16: Calvert Cliffs Unit I was 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 on January 25, 2007.
- ▲ Note 17: 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.
- ▲ Note 18: Clinton is in the Regulatory Response Column due to one white finding in the Mitigating Systems Cornerstone originating in 3Q2006.
- ▲ Note 19: 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 20: Dresden Unit 2 is in the Regulatory Response Column due to one white performance indicator in the Initiating Events Cornerstone originating in 3Q2006.
- ▲ Note 21: Duane Arnold is in the Regulatory Response Column due to one white finding in the Emergency Preparedness Cornerstone originating in 4Q2006.
- ▲ Note 22: White MSPI for RHR cooling water initiating in 1Q 2007.
- ▲ Note 23: Fort Calhoun Station is in the Regulatory Response Column because of a White performance indicator for the Mitigating System Performance Index, Emergency AC Power Systems. This was because of the recent field flash failures on February 14 and 16, 2007 of Emergency Diesel Generator 1 which placed the indicator in the present column.
- ▲ Note 24: Nine Mile Point (NMP) Unit 1 was 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 5, 2007.
- ▲ Note 25: Oyster Creek was 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.
- ▲ Note 26: Quad Cities Unit 1 is in the Regulatory Response Column due to one white finding in the Mitigating Systems Cornerstone originating in 2Q2006.
- ▲ Note 27: The unit 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 28: Both units 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 29: Both units 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 30: The unit 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 31: Vermont Yankee was 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.

- ▲ Note 32: Both units are in the Regulatory Response column due to a White finding in the Emergency Preparedness cornerstone originating in 3Q/2006. Based on the NRC identifying additional unavailability hours, the licensee re-reported MSPI for cooling water as White in 4Q/2006.
- ▲ Note 33: Both units are in the Regulatory Response column due to a White finding in the Emergency Preparedness cornerstone originating in 3Q/2006. Based on the NRC identifying additional unavailability hours, the licensee re-reported MSPI for cooling water as White in 4Q/2006.
- ▲ Note 34: 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 tritium found onsite, and 2) improve the reliability of the emergency siren system.
- ▲ Note 35: 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 tritium found onsite, and 2) improve the reliability of the emergency siren system.