

Exelon Generation Company, LLC  
Dresden Nuclear Power Station  
6500 North Dresden Road  
Morris, IL 60450-9765

www.exeloncorp.com

SVPLTR # 05-0017

April 29, 2005

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Dresden Nuclear Station, Units 2 and 3  
Renewed Facility Operating License Nos. DPR-19 and DPR-25  
NRC Docket Nos. 50-237 and 50-249

**Subject:** Response to Substantive Cross-Cutting Issue Concerning Human Performance

- References:**
1. Letter from M. A. Satorius (NRC) to C. M. Crane (Exelon Generation Company, LLC), "Annual Assessment Letter – Dresden Nuclear Power Station (Report 05000237/200501; 05000249/200501)," dated March 2, 2005
  2. Letter from S. A. Reynolds (NRC) to C. M. Crane (Exelon Generation Company, LLC), "Mid-Cycle Performance Review and Inspection Plan – Dresden Nuclear Power Station (Report 50-237/05-01; 50-249/05-01)," dated August 30, 2004

In Reference 1, the NRC stated that a substantive cross-cutting issue in the area of human performance, originally identified during the mid-cycle performance review (i.e., Reference 2), continued to be a concern through the end-of-cycle assessment period. Although the number and significance of human performance cross-cutting issues have decreased slightly at Dresden Nuclear Power Station (DNPS), the NRC based its decision on examples cited in Reference 1 in which human performance issues sharing the common causal factor of personnel errors and involving various departments at the site continued through the third and fourth quarters of 2004. In Reference 1, the NRC requested that Exelon Generation Company, LLC (EGC) provide a written response within 60 days of the letter. This letter is our response to this request.

EGC acknowledges that instances of inadequate personnel human performance have occurred at DNPS. In response, EGC has taken steps to insure that station personnel select and apply appropriate human performance error prevention techniques commensurate with the importance of assigned tasks to minimize the frequency and consequences of events. These actions have been integrated into a Human Performance Improvement Plan (HPIP).

The human performance issue was entered into the DNPS corrective action program. The first corrective action was to develop the HPIP. It is a living document to identify the actions to mitigate the causal and contributing factors causing human performance events, provide focus,

A001

and track progress on the improvement items. Additionally, EGC has validated that the actions described in the HPIP adequately addresses the examples cited in References 1 and 2.

The primary causal factor identified was insufficient site leadership engagement and oversight. Key elements related to this causal factor were that management did not correctly convey and reinforce expectations for procedure and work package adherence, and that management/supervision did not enforce fundamentals. For that reason, corrective actions have first targeted managers and supervisors. EGC expects that managers/supervisors will establish expectations for procedure use that take into account the complexity of the task, the skills and training of the worker, the extent of supervisory involvement, and the potential consequences of improper performance. EGC also expects managers/supervisors to establish expectations for the use and reinforcement of error prevention tools in every work setting.

The following are salient examples of corrective actions that target management engagement:

- Management/supervision to participate in paired observations,
- Management/supervision to participate in out of the box evaluations applicable to the leadership fundamentals,
- Management/supervision to attend training on coaching and mentoring, and
- Management/supervision to provide additional oversight to work being performed and the processes being used to perform the work.

The paired observations and out of the box evaluations have identified weaknesses in supervisory coaching and mentoring. The out of the box evaluations evaluated managers and first line supervisors on leadership fundamentals, standards, and expectations. Prior to resuming supervisor responsibilities the individuals were remediated on any deficiencies on the leadership fundamentals, expectations, and standards set forth by the station and department management. The paired observations are a reiteration of the expectations and standards and provide the directors and managers an opportunity to ensure alignment and the established standards and expectations are adhered to. The results from these observations will be used as measures of supervisor qualifications and gauge additional remediation that may be necessary. EGC is schooling our supervisors and managers on coaching and mentoring skills; this effort will continue during the second quarter of 2005. The training will include the skills that are necessary to provide effective coaching and mentoring, identification of techniques for using the skills, and an opportunity to practice the skills in order to obtain sustainability. Future results from paired observations and out of the box evaluations will be used as measures of supervisor qualifications and gauge any remediation that may be necessary.

Ongoing monitoring of employee performance indicates that personnel performance is improving and that the rate and significance of events is declining. However, EGC is mindful that improvement is still needed in this area and will continue to focus the requisite attention and resources to further reduce the number, significance, and underlying causes of human performance errors. The HPIP is a living document, in that actions to improve personnel performance will continue to be added as improvement opportunities are identified.

Inadequate procedures and work packages were identified as a second causal factor for human performance inadequacies. Completed corrective actions have resulted in progress to date in work package quality. Measures are in place to improve Operations department procedures. We have been effective at identifying the improvements and now we must increase our focus on completing the pending procedure changes.

Implementation of the HPIP has resulted in an overall improvement in human performance. EGC monitors the number of department and station clock resets as one measurement of human performance improvement. A clock reset occurs when an issue is related to human performance or equipment reliability. The table below lists the clock resets that are attributed to human performance.

Clock Resets

Department	2003	2004	2005 (1 <sup>st</sup> Qtr)
Operations	13	14	3
Maintenance	28	30	2
Engineering	11	12	1
Rad Protection	13	9	1
Chemistry	3	9	0
Station	4	5	0

This summer, EGC will perform an effectiveness review of corrective actions and determine whether adjustments need to be made.

EGC is strengthening performance monitoring initiatives to aid in detecting and avoiding declines in human performance. This will allow early detection of potential adverse trends such that corrective actions can be taken to immediately arrest and reverse the substandard performance, thereby enabling EGC to make prompt improvements and ensure success in our commitment to sustainable, high levels of personnel performance at DNPS.

If you have any questions concerning this letter, please contact Mr. Pedro Salas, DNPS Regulatory Assurance Manager, at 815-416-2800.

Respectfully,



Danny G. Bost  
Site Vice President  
Dresden Nuclear Power Station

cc: Regional Administrator - NRC Region III  
NRC Senior Resident Inspector Dresden Nuclear Station