



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

**OFFICE OF THE
INSPECTOR GENERAL**

June 3, 2013

MEMORANDUM TO: R. William Borchardt
Executive Director for Operations

FROM: Stephen D. Dingbaum **/RA/**
Assistant Inspector General for Audits

SUBJECT: MEMORANDUM REPORT: AUDIT OF NRC'S
INFORMATION TECHNOLOGY READINESS FOR THREE
WHITE FLINT NORTH (OIG-13-A-19)

The Office of the Inspector General (OIG) conducted this audit to evaluate the readiness of information technology (IT) during the transition to Three White Flint North (3WFN). Through interviews with Nuclear Regulatory Commission (NRC) staff, analysis of IT contracts, and direct observation, OIG auditors found:

- NRC tested IT infrastructure in 3WFN.
- NRC has plans for moving and testing IT systems in 3WFN.

As a result, OIG determined that NRC has performed appropriate IT system deployment planning and testing, and that these measures provide adequate IT readiness at 3WFN. Therefore, OIG makes no recommendations.

OBJECTIVE

The audit objective was to evaluate NRC's IT readiness during the transition to 3WFN.

BACKGROUND

The NRC headquarters campus in Rockville, Maryland, comprises three buildings: One White Flint North, Two White Flint North, and the recently completed 3WFN. NRC planned this new building to provide adequate office space for all headquarters employees on one centralized campus, replacing NRC offices located at four separate leased spaces in Montgomery County, MD.

Prior to moving staff into 3WFN, NRC must ensure that the IT infrastructure is in place to allow staff to be fully functional in the new facility. This includes ensuring that IT systems currently located at other NRC headquarters facilities are transported to 3WFN, installed, and tested so that employees have access to the systems needed to do their jobs. The Office of Information Services plays a key role in these activities, and coordinates its work with other offices that will occupy workspace in 3WFN.

NRC has moved its Professional Development Center and Office of the Chief Human Capital Officer to 3WFN. Staff from other NRC offices will occupy 3WFN in 2013 as NRC revises its move schedule to align with new General Services Administration space requirements.

RESULTS

IT Readiness Requires Pre-Deployment Testing

NRC policy and industry best practice guidance establish standards for ensuring readiness of IT systems prior to deployment. Specifically, NRC Management Directive 2.8, *Project Management Methodology*, requires testing to verify that requirements have been implemented, and to identify and correct defects before system deployment. Similarly, the Institute of Electrical and Electronics Engineers recommends software system testing in relation to the operating environment, as well as evaluation of test results. In short, IT systems should undergo testing and necessary corrective action to ensure readiness for users upon deployment.

NRC Tested IT Infrastructure in 3WFN, and Has Plans for System Deployments in 3WFN

Based on interviews, contract analysis, and direct observation, OIG determined that NRC tested IT infrastructure in 3WFN and has appropriate plans for future system deployments in 3WFN.

Infrastructure testing included network connectivity and individual workstation testing.¹ NRC and its network maintenance contractor have procedures to move staff IT equipment into their new 3WFN workspace, and for testing this equipment before staff return to work. Some data systems, such as High Performance Computing,² have separate contracts that provide for equipment setup and testing in 3WFN. Further, NRC's new Operations Center in 3WFN will undergo several months of testing to familiarize staff with the facility and its IT equipment, including mock exercises designed to simulate incident response scenarios involving NRC headquarters and regional personnel.

IT Readiness in 3WFN Is Adequate

OIG auditors concluded that NRC has performed appropriate IT system deployment planning and testing, and that these measures provide adequate IT readiness at 3WFN.

CONCLUSION

OIG conducted this audit to evaluate IT readiness during the transition to 3WFN. Through analysis of documentation and interviews with NRC staff, OIG found that NRC has taken appropriate measures for deploying and testing IT systems in 3WFN. Therefore, OIG makes no recommendations.

AGENCY COMMENTS

OIG held an end-of-fieldwork meeting on April 23, 2013, to brief agency staff on the audit results. OIG provided agency staff with a draft report for comment. Staff reviewed the draft report and offered no comments.

¹ NRC conducted testing of electrical and other infrastructure in 3WFN at the end of the building's construction phase in 2012.

² NRC's High Performance Computing System is used to perform nuclear reactor safety analysis, such as fluid dynamics computations.

SCOPE AND METHODOLOGY

We reviewed NRC guidance, industry best practice documents, and relevant Government Accountability Office and OIG reports to develop criteria for this audit. To assess NRC's performance, we interviewed NRC staff, analyzed 3WFN planning documents and IT support contracts, and toured NRC's new Operations Center in 3WFN. OIG audited the IT readiness at 3WFN and conducted our work at NRC headquarters from January 2013 through April 2013. Throughout the audit, auditors were aware of the possibility or existence of fraud, waste, or misuse in the program.

We conducted this performance audit in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. This audit was conducted by Beth Serepca, Team Leader; Paul Rades, Audit Manager; and Neil Doherty, Senior Auditor.