

VA Office of Inspector General

OFFICE OF AUDITS AND EVALUATIONS



Veterans Health Administration

*Audit of
the Non-Recurring
Maintenance Program*

May 7, 2014
13-00589-137

ACRONYMS AND ABBREVIATIONS

ARRA	American Recovery and Reinvestment Act of 2009
CAM	Capital Asset Manager
CSI	Clinical Services Initiative
FCA	Facility Condition Assessment
NRM	Non-Recurring Maintenance
OCAMES	Office of Capital Asset Management Engineering and Support
OIG	Office of Inspector General
PTR	Project Tracking Report
SCIP	Strategic Capital Investment Plan
VA	Veterans Affairs
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network

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Report Highlights: Audit of VHA's Non-Recurring Maintenance Program

Why We Did This Audit

Veterans Health Administration (VHA's) Non-Recurring Maintenance (NRM) program expenditures increased from about \$824 million in FY 2008 to \$1.8 billion in FY 2013. During this same period, VHA's reported facility maintenance backlog increased from \$7.2 billion to \$10.7 billion. This audit assessed how effectively VHA's NRM program addressed its most significant maintenance needs.

What We Found

VHA needs to increase the effectiveness of its NRM program. VA had reasonable assurance that NRM program funds were used for allowable NRM purposes. However, VHA did not have an adequate process to track how much of the over \$1.8 billion NRM funds medical facilities spent to address its nearly \$10.7 billion identified facility maintenance backlog. VHA's Facility Condition Assessment (FCA) inadequately assessed risks to patient safety and underestimated repair costs by \$12.3 billion. Lastly, 74 of the 150 NRM construction projects reviewed were not completed within 1 year of their initial planned completion date.

This occurred because VHA did not have an adequate process to track their NRM project expenses and adequately monitor expected results. VHA's FCA did not assess patient safety risks, and provide reasonable cost estimates for identified maintenance deficiencies. Additionally, VHA does not routinely monitor NRM project schedules.

As a result, VHA has not been able to adequately identify how it is using NRM funds to achieve program goals or ensure projects are prioritized to correct significant maintenance deficiencies, including serious patient safety issues. In addition, VHA cannot ensure that their annual NRM budget requests are accurate or that they are taking timely corrective actions on NRM projects that miss project milestones.

What We Recommended

We recommended the Under Secretary for Health; Executive in Charge for the Office of Management and Chief Financial Officer; and the Principal Executive Director, Office of Acquisition, Logistics, and Construction standardize NRM accounting procedures, provide program guidance, assign risk levels, estimate more accurate repair costs, and monitor NRM project milestones.

Agency Comments

The responding VA officials concurred with our recommendations and submitted acceptable corrective action plans.

A handwritten signature in black ink that reads "Linda A. Halliday".

LINDA A. HALLIDAY
Assistant Inspector General
for Audits and Evaluations

TABLE OF CONTENTS

Introduction.....	1
Results and Recommendations	2
Finding VHA Needs To Increase the Effectiveness of its Non-Recurring Maintenance Program.....	2
Recommendations	12
Appendix A Background.....	15
Appendix B Scope and Methodology	16
Appendix C Statistical Sampling Methodology	18
Appendix D Under Secretary for Health Comments.....	21
Appendix E Executive in Charge for the Office of Management and Chief Financial Officer Comments.....	25
Appendix F Principal Executive Director of Office of Acquisition, Logistics, and Construction Comments	26
Appendix G Office of Inspector General Contact and Staff Acknowledgments	29
Appendix H Report Distribution	30

INTRODUCTION

Objective This audit assessed how effectively the Veterans Health Administration's (VHA's) Non-Recurring Maintenance (NRM) program addressed VHA's most significant maintenance needs in its medical facilities.

NRM Program Purpose The NRM program's purpose is to maintain a safe and efficient medical facility infrastructure. According to its annual budget submission, VHA uses the NRM program as its primary means of addressing its facility maintenance backlog, which represents their most significant infrastructure needs. In addition, VHA uses NRM funding for Clinical Service Initiatives (CSI), green energy projects, infrastructure improvements, and sustainment.

Non-Recurring Maintenance Program NRM program expenditures have risen from about \$824 million in FY 2008 to approximately \$1.8 billion in FY 2013. These expenditures include about \$971 million in *American Recovery and Reinvestment Act of 2009* (ARRA) funds that supplemented the NRM program during the last 5 years. NRM projects valued at over \$1 million require approval from VA's Strategic Capital Investment Plan (SCIP) Board. Veterans Integrated Service Networks (VISNs) approve NRM projects below \$1 million.

Facility Condition Assessment VA contracts for Facility Condition Assessments (FCAs) to estimate its maintenance backlog. Contractors perform FCAs at each medical facility once every 3 years on a rotating basis. Infrastructure systems in each building receive A thru F grades based on their condition. Systems in poor or critical condition are graded D or F and are considered deficiencies that should have been addressed in previous years. For the purpose of this report, we will refer to VHA's D and F graded FCA deficiencies as its maintenance backlog.

NRM Program's Role in VA's SCIP In FY 2010 VA adopted SCIP, a 10-year strategic plan that governs VA's capital projects funded through their major construction, minor construction, leasing, and NRM programs. SCIP is designed to address eight strategic performance gaps within VA. The Facility Condition Gap is one of SCIP's performance gaps and is aimed at reducing VA's maintenance backlog. VA established a goal of reducing their maintenance backlog by 9.5 percent per year over a 10-year period beginning in FY 2012.

The following appendixes provide additional information.

- Appendix A provides details on the NRM program and SCIP.
- Appendix B provides details on our scope and methodology.
- Appendix C provides details on statistical sampling methodology

RESULTS AND RECOMMENDATIONS

Finding

VHA Needs To Increase the Effectiveness of Its Non-Recurring Maintenance Program

VHA needs to increase the effectiveness of its NRM program by implementing an adequate process to track NRM funds used to address its most significant maintenance needs. VA established an annual goal of reducing its overall maintenance backlog by 9.5 percent and had reasonable assurance that NRM program funds were used for allowable NRM purposes. However, VHA could not track the amount of NRM funds that were spent to address its nearly \$10.7 billion facility maintenance backlog within the over \$1.8 billion of FY 2012 program expenditures. The maintenance backlog increased at all eight medical facilities we visited. Additionally, VHA's FCA was inadequate in assessing patient safety risks and its cost estimates were inaccurate. Lastly, 74 of the 150 NRM projects reviewed were completed more than 1 year after their initial planned completion date.

These issues occurred because:

- VHA did not have an adequate process to track how much NRM funds medical facilities spent toward addressing the maintenance backlog, and some medical facilities did not assign an individual accounting code to track NRM expenses for each project below \$1 million.
- VHA did not have adequate procedures to determine if medical facilities met SCIP's performance goal of reducing the overall maintenance backlog by 9.5 percent annually.
- VHA's FCA did not adequately assess patient safety or access to care risks associated with identified maintenance deficiencies.
- FCA contractors did not provide reliable cost estimates on identified maintenance deficiencies.
- VHA did not routinely monitor NRM project schedules and performance.

VHA was unable to adequately track NRM program expenditures to determine whether they addressed their most significant maintenance needs. In addition, using unreliable cost estimates to remediate significant deficiencies compromises VHA's ability to ensure that they are submitting a reliable NRM budget request annually. Lastly, VHA does not provide adequate assurance that they are taking timely corrective actions on NRM projects, especially projects that significantly miss planned project milestones.

**Spending on
Maintenance
Backlog Not
Tracked**

Although VHA had reasonable assurance that NRM program funds were used for allowable NRM purposes they cannot adequately determine how much of the over \$1.8 billion of FY 2012 NRM expenditures they spent to address the maintenance backlog. We accounted for about \$241 million that VHA spent for green energy production goals. However, VHA could not clearly show how much of the remaining over \$1.6 billion was spent to address the maintenance backlog, meet renovation needs, sustain the infrastructure from becoming deficient, or establish CSI clinics.¹

VHA categorized costs to upgrade and replace building infrastructure systems as infrastructure improvement and categorized maintenance and repair activities to keep facilities in good working order, including renovation, as sustainment. This methodology did not allow VHA to determine the amount of resources applied to reducing its maintenance backlog since the program did not separately identify these costs. The U.S. Government Accountability Office's *Standards for Internal Control in the Federal Government* states that accurate and timely recording of transactions and events are necessary for management to control operations and make decisions.

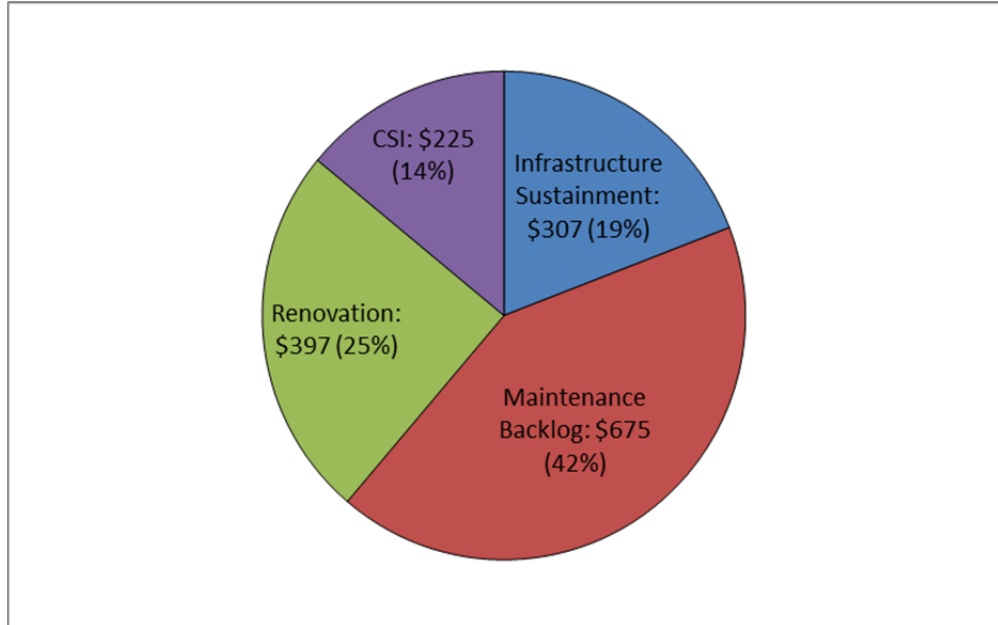
We identified how VHA spent the over \$1.6 billion in FY 2012 to address VA medical facility NRM needs by reviewing a statistical sample of 161 medical facility projects at 8 VA medical facilities, including 6 ARRA projects, and estimating NRM spending by category. The ARRA projects were similar in scope and purpose to the non-ARRA projects we reviewed, except that none of the ARRA projects reviewed were used for CSI.

We collaborated with the facility engineers at our sampled sites to identify the NRM funds used to address the maintenance backlog by identifying all of the deficiencies addressed by each project and estimating the portion of the project costs used to address those deficiencies. We categorized the remaining project costs as infrastructure sustainment, renovation, or CSI. Appendix A provides more information on renovation and CSI.

¹ VHA identified about \$45.9 million used to establish new CSI clinics using funds approved for this use in FYs 2011 and 2012. However, they were unable to identify the CSI spending for projects approved prior to FY 2011.

Figure 1 provides our estimate of FY 2012 NRM spending, including ARRA funds.

**Figure 1. FY 2012 NRM Estimate Spending by Category
(in millions)**



Source: VA Office of Inspector General analysis of each sampled project's purpose and cost data

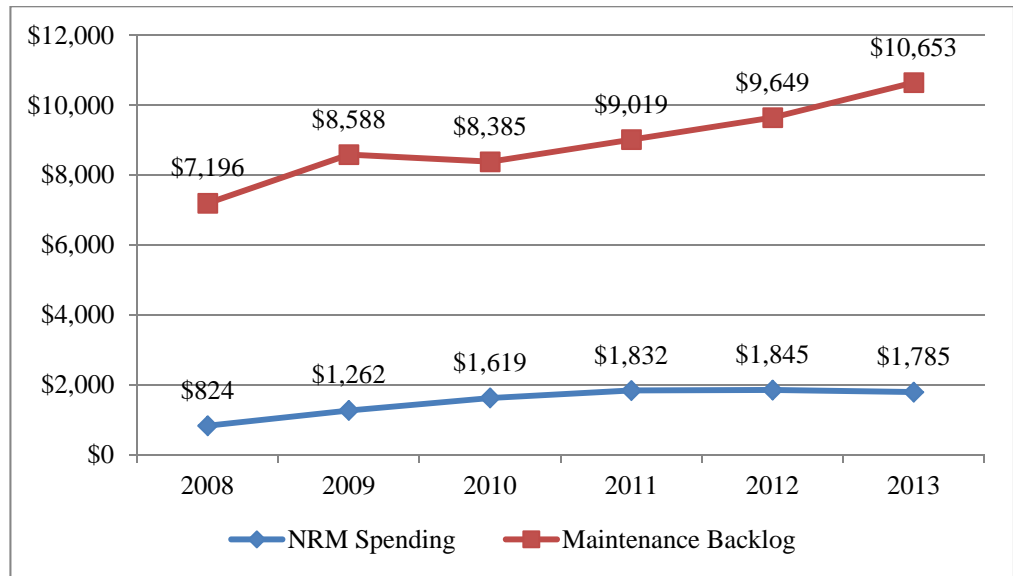
VA needs to determine how NRM funds are spent and if it is achieving maintenance backlog reduction goals established by SCIP. Without determining how NRM funds are used VHA will be unable to accurately predict the funding levels required to support each NRM spending category. In addition, identifying how VA medical facilities use their funds to address each category will improve VHA's ability to ensure actual spending levels reflect VHA's competing priorities, such as addressing identified maintenance needs, sustaining and renovating facilities, and establishing high priority clinics.

In addition, five of the eight sampled medical facilities did not assign individual accounting codes to track their NRM project expenses for projects under \$1 million, which amounted to about \$13.7 million of over \$92.7 million of our total sample value. These facilities combined all of their NRM projects that were less than \$1 million under a single accounting code for each fiscal year. Without individual accounting codes for each project, VHA relied on facility engineers to enter project data manually on Project Tracking Reports (PTRs). VA officials stated that not having individual accounting codes for these projects made it difficult to monitor NRM spending adequately.

Maintenance Backlog Continues to Increase

VHA's reported facility maintenance backlog has steadily increased from nearly \$7.2 billion in FY 2008 to almost \$10.7 billion in FY 2013. This occurred despite VA's goal of reducing the overall backlog by 9.5 percent per year starting in FY 2012 and NRM expenditures increasing from about \$824 million in FY 2008 to almost \$1.8 billion in FY 2013. Figure 2 shows the growth of VHA's maintenance backlog and expenditures from FY 2008 through FY 2013.

Figure 2. NRM Maintenance Backlog and Expenditures (in millions)



Source: VA OIG analysis of VA provided data

Annual NRM spending used to address VHA's maintenance backlog is insufficient to meet their 9.5 percent reduction goal. Also, with unreliable FCA cost estimates used for budget planning and implementation, VA's budget requests lack assurance that VHA can effectively address their significant needs in a timely manner.

The maintenance backlog increased at all eight medical facilities in our sample. In the 3-year period between FCA assessments, the 8 facilities addressed about 370 "D" and "F" deficiencies but added a little over 1,120 of these deficiencies to the FCA.² The reported estimates to address these deficiencies increased from about \$488.5 million to approximately \$648.5 million over the same 3-year period.

² FCAs are conducted every 3 years on a rotating basis. The dates the FCAs were conducted at our sample sites varied.

Table 1 provides the number of maintenance backlog deficiencies at the eight facilities and Table 2 provides the estimated cost to address those deficiencies.

Table 1. Number of “D” and “F” Deficiencies

Facility Location	Previous FCA	Added	Corrected	Most Recent FCA	Change
Little Rock, AR	532	56	6	582	9.4%
Tucson, AZ	261	231	31	461	76.6%
West Palm Beach, FL	28	37	11	54	92.9%
Des Moines, IA	103	54	50	107	3.9%
Battle Creek, MI	515	376	127	764	48.3%
Albany, NY	124	103	45	182	46.8%
San Juan, PR	87	89	14	162	86.2%
Murfreesboro/ Nashville, TN	365	175	85	455	24.7%
Totals	2,015	1,121	369	2,767	37.3%

Source: *OIG analysis of VA provided FCA data*

**Table 2. Estimated Cost to Address “D” and “F” Deficiencies
(in millions)**

Facility Location	Previous FCA	Added	Corrected	Most Recent FCA*	Change
Little Rock, AR	\$ 131.6	\$ 0.5	\$ 0.10	\$ 139.2	5.8%
Tucson, AZ	\$ 32.5	\$ 15.5	\$ 5.30	\$ 44.0	35.4%
West Palm Beach, FL	\$ 13.1	\$ 14.4	\$ 6.10	\$ 26.7	103.8%
Des Moines, IA	\$ 15.4	\$ 12.1	\$ 7.10	\$ 23.4	52.6%
Battle Creek, MI	\$ 44.9	\$ 22.5	\$ 9.30	\$ 65.7	46.3%
Albany, NY	\$ 92.7	\$ 60.9	\$ 59.60	\$ 106.4	14.8%
San Juan, PR	\$ 80.0	\$ 102.5	\$ 22.80	\$ 158.9	98.5%
Murfreesboro/ Nashville, TN	\$ 78.3	\$ 26.5	\$ 13.60	\$ 84.3	7.7%
Totals	\$ 488.5	\$ 254.9	\$123.90	\$ 648.5	32.8%

Source: *OIG analysis of VA provided FCA data*

*Note – Cost estimates on the most recent FCA are adjusted for inflation from the previous FCA review and therefore are higher than the previous estimate plus deficiencies added during the 3-year period.

These increases occurred despite VA NRM program officials' assertion that addressing maintenance backlog deficiencies was the highest priority use for NRM funds. However, VHA only used about \$675 million (42 percent) of the over \$1.6 billion spent in FY 2012 to address the maintenance backlog. In addition, VHA spent approximately \$307 million (19 percent) of its FY 2012 NRM resources addressing infrastructure sustainment issues to prevent its structures from deteriorating and adding to the maintenance backlog. This was about \$422 million less than the over \$729 million VHA's sustainment model predicted was needed to prevent the maintenance backlog from growing. Appendix A provides additional information on the sustainment model.

The maintenance backlog will continue to grow unless VA prioritizes addressing it. Although the purpose of the NRM program is to maintain a safe and efficient medical facility infrastructure, VA only spent about 61 percent of their NRM funds to address identified maintenance deficiencies and prevent future FCA deficiencies. The remaining 39 percent of NRM funds were used to address priorities other than maintaining the existing infrastructure, such as reconfiguring space to change its function and new construction for high priority clinics under the CSI category.

*Facilities Do
Not Expect To
Accomplish
Their SCIP
Objectives*

To ensure that VA medical facilities prioritized their NRM funds effectively, they are required to submit a SCIP plan to VA's Office of Asset Enterprise Management detailing how they plan to address each of their 8 SCIP gaps, which includes reducing their maintenance backlog by 95 percent within 10 years. However, medical facility officials stated that since budget resources were not allocated based upon maintenance backlog needs and projects over \$1 million had to be approved by the SCIP Board, there was no expectation that each facility would receive sufficient resources to accomplish their SCIP plan objectives.

VHA was unable to determine if medical facilities achieved their maintenance backlog reduction goals and did not have the ability to track the amount of resources spent to address specific deficiencies. Therefore, it was difficult to ensure that individual medical facilities followed their annual SCIP plans and addressed maintenance deficiencies as proposed. About 98 percent of our sampled projects were approved prior to SCIP being implemented. Since the new SCIP procedures have been in place, VHA is still unable to track how NRM resources are spent and determine if the prioritization of NRM projects has improved.

VHA needs to establish budgeting mechanisms and guidance to ensure that their NRM resources are addressing VHA's highest priorities since VHA must use its limited NRM funds to address a variety of infrastructure needs. Associating the spending approved to address specific gaps with progress toward addressing those gaps would provide VHA with reasonable assurance

that the facilities are effectively executing their approved SCIP plans to address the facilities most significant maintenance needs.

**Maintenance
Backlog
Jeopardizes
Patient Safety**

Despite VHA's large maintenance backlog, VHA's FCA does not adequately identify maintenance deficiencies that may pose patient safety or access to care risks if the deficient system failed. Identifying these high risk deficiencies would help VHA to ensure that VA medical facilities address them timely. Another tenet of *Standards for Internal Control in the Federal Government* states that controls are an integral part of an organization's planning, implementing, reviewing, and accounting for Government resources and achieving effective results. Management controls, such as conducting risk assessments and implementing financial controls, are fundamental for identifying and addressing major performance and management challenges in the Federal Government.

VA medical facilities' aging infrastructure poses risks to patient safety and access to care. VHA records show they have about 5,500 buildings with an average age of about 52 years, more than 2 years over their expected 50-year useful life. The FY 2013 FCA contains almost 57,000 poor or critical rated deficiencies. This makes it essential that VHA perform risk assessments of its maintenance backlog to identify critical deficiencies and ensure that the NRM program fulfills its purpose of ensuring that VA's infrastructure is safe and efficient. Following are two examples of recent infrastructure failures that have received media attention.

- In March 2013, the VA Nebraska-Western Iowa Health Care System closed the hospital's operating room suite for about 10 weeks to perform emergency repairs to their air handling system. Facility engineers stated that the FCA identified the air handling system deficiencies at least 4 years prior to the critical failure. However, facility management delayed developing an NRM proposal to address the deficiency because it began design work to replace the medical facility in FY 2011. According to the VISN Capital Asset Manager (CAM), insufficient major construction funding delayed construction of the new facility by at least 8 years. At current major construction funding levels, construction will not begin before FY 2021. Due to the air handling system repairs, the facility is conducting risk assessments of other infrastructure deficiencies to prevent further system failures before the major construction project is completed. The facility estimated that they spent about \$2.4 million to perform 998 surgical procedures outside the medical facility during the 10 weeks that the operating room suite was closed.
- In August 2013, the Martinsburg VA Medical Center found mold in an air conditioning system, which required the facility to close its domiciliary for over 5 weeks. This system was more than 10 years past its useful life. Facility engineers stated that the FCA had identified the deficient system more than 4 years before the critical failure

occurred. Facility staff stated that they did not create a SCIP proposal to repair the system until FY 2013 because of competing priorities for NRM funds. The SCIP business case submitted by the facility did not highlight the safety issues associated with the maintenance need and the proposal was rejected. VA officials stated that if the safety concerns had been identified, the proposal would have significantly improved its chances for approval. The facility used emergency funds to address the breakdown, but did not address other deficiencies in the domiciliary that the proposed SCIP project would have addressed. During the 5-week shutdown of the domiciliary, we estimated that the medical facility incurred about \$340,000 of hotel costs to house displaced veterans. In addition, the facility was unable to enroll 69 new veterans into the treatment programs provided by the domiciliary.

Identifying deficiencies with safety or assess risks timely is critical to ensure VA medical facilities have enough time to correct the deficiencies before a system fails. Although projects under \$1 million are selected and approved annually, a SCIP project proposal submitted in FY 2014 will be scored, and if approved in FY 2015, will receive design funds in FY 2016 and construction funds in FY 2017. With such a long time between proposal submission and construction, it is critical that high-risk projects are identified, proposed, and approved timely. In addition, the long funding timeframe makes it difficult for VA medical facilities to address issues quickly when a system shows signs of deteriorating more quickly than anticipated.

*FCA Risk
Analysis Not
Performed*

FCA contractors were required to assign deficiency grades based on the likelihood of an infrastructure system failing but were not required to identify whether a system failure would result in risks to patient safety or access to care. In addition, VA medical facilities do not perform an adequate risk analysis of their FCA deficiencies to determine whether the deficiencies pose patient safety risks or may delay access to care. VA's SCIP Board and VISN officials rely on VA medical facilities to provide project proposals to address the facilities' most significant maintenance needs. These officials evaluate the maintenance needs and approve proposed projects based on the project proposal descriptions. However, in many of the project proposals we reviewed, these descriptions were brief and several were as short as a single sentence.

With such little information available, it is difficult for approving officials to quantify risks to patient safety or interruptions to care or to know the costs of alternative solutions. VA officials stated that they updated SCIP safety criteria and provided training to improve responses to business case safety questions in FY 2014. However, VHA's current NRM project prioritization process provides inadequate assurance that projects to address patient safety and access to care risks are submitted and approved.

As a result of VHA's growing maintenance backlog, it is critical that the deficiencies which have the greatest impact on patient safety or access to care are identified and addressed promptly. Without controls in place to assure patient safety and access to care issues are prioritized, VHA is at higher risk of unnecessary patient safety risks and potential interruptions to care to our nations' veterans.

**Actual Repair
Costs Are
Significantly
Higher Than
FCA Estimates**

We compared the actual cost of correcting FCA deficiencies as identified by VA medical center engineers to the contractors' estimates and determined VHA likely spent more than double the contractors' FCA estimates on its completed projects. In FY 2012, we estimated VHA spent about \$675 million to address FCA deficiencies valued at approximately \$314 million. This occurred because the repairs required about \$362 million more to complete than the FCA estimated. Following are examples that illustrate unreliable FCA estimates.

- In FY 2008, a facility's FCA identified an electrical switchboard deficiency and estimated it would cost about \$63,000 to repair. In FY 2010, the facility began a project to repair the deficiency which was projected to cost about \$410,000 according to the project's Independent Government Estimate. The facility completed the correction in FY 2012 at a cost about \$371,000.
- In FY 2006, a facility's FCA identified an air handling deficiency and estimated it would cost about \$575,000 to repair. In FY 2008, the facility began a project to correct the deficiency which was projected to cost almost \$2.3 million for the construction phase according to the project's Independent Government Estimate. A subsequent FCA conducted in FY 2009 broke down the deficiency into several subcomponents at a revised total cost of almost \$1.5 million. The facility completed the correction in FY 2014 at a cost of about \$2.7 million.

In both of these examples, facility engineers confirmed that the scopes of work only addressed what was necessary to correct the FCA deficiencies.

FCA cost estimates are unreliable because the cost estimates do not include operational impact costs to correct the deficiency or contracting costs, and there were no procedures in place to ensure cost estimates were reviewed prior to FCA contractor payment. Cost estimates could be reviewed by comparing a sample of the contractors' cost estimates to historical project costs to determine if an adjustment factor is needed. The FCA contractors usually completed two medical facility FCA evaluations per week. According to VA records, the 8 medical facilities we visited averaged about 43 buildings and more than 1 million square feet on each campus. In light of identifying significant differences between the FCA provided cost estimates and VHA's experienced cost to address the deficiencies, we question the

quality of the FCA assessments and the contractor's ability to accomplish such work in a short time frame.

Further, as a result of underestimating FCA costs, we estimated VHA's FY 2013 maintenance backlog was about \$22.9 billion, approximately \$12.3 billion (115 percent) more than their current FCA estimate of about \$10.7 billion. Without accurate cost estimates, VHA is unable to provide a reliable annual NRM budget request for resources needed to achieve their goal of reducing VHA's maintenance backlog.

**NRM Projects
Not Completed
on Schedule**

At the 8 VA medical facilities we visited, 150 of the 161 NRM projects reviewed had executed a construction contract. The remaining 11 were design-only projects without construction activity. Table 3 provides a summary of the 150 NRM projects' actual or expected timeliness.

Table 3. Project Timeliness of NRM Projects Reviewed

Project Timeline vs. Schedule	Number of Projects Reviewed	Percentage of Projects Reviewed
Met Initial Planned Date	20	13
Within 6 Months	33	22
Over 6–12 Months Beyond	23	15
Over 1–2 Years Beyond	40	27
Over 2 Years Beyond	34	23

Source: OIG analysis of VA provided project and contract data

VA medical facilities did not complete NRM projects on schedule because VHA and VISN officials did not routinely monitor NRM project schedules. Facility engineers complete a monthly PTR that shows the project phase, current obligations levels, and percent of work completed. The PTR was available to the VISN CAM and VHA's Office of Capital Asset Management Engineering and Support (OCAMES) officials.

The VISN CAMs we interviewed stated that their primary role was to prioritize and approve projects and ensure that NRM funds were obligated by the end of each fiscal year. They do not have specific project monitoring requirements. For example, none of the VISN CAMs conducted on-site inspections of the NRM projects that we reviewed and the CAMs did not verify the accuracy of the PTR data. In addition, the VISN CAMs did not routinely monitor the PTRs to identify and inform VHA of medical facilities' NRM projects that were not meeting project milestones.

NRM project delays also prevented new NRM projects from starting on schedule and impeded facilities' ability to address other infrastructure needs. For example, in FY 2012 a medical facility's NRM projects averaged 32 months behind schedule, with one project being over 68 months late. These delays were so significant that the facility had to decline significant NRM project funding the VISN had made available to the facility in FY 2012. This prevented the medical facility from addressing their current maintenance backlog of approximately \$158.9 million.

As a result of insufficient project reviews and reporting, VHA cannot demonstrate it is taking timely corrective actions on NRM projects that are not meeting their project milestones.

Conclusion

Although VHA had reasonable assurance that NRM program funds were used for allowable NRM purposes, they did not have an adequate process to track how much NRM funds medical facilities spent toward addressing the maintenance backlog. Therefore, VHA has not been able to adequately identify how it is using NRM funds to achieve program goals. Without adequate program management processes, VHA does not know whether they are addressing their highest priority needs or if they will achieve their performance goals. They also need to assess FCA deficiencies to identify patient safety risks, develop a mechanism to accurately estimate its maintenance backlog to develop reliable annual NRM budgets, and identify NRM projects that are not meeting their milestones in order to take timely corrective actions. Until these issues are addressed, VHA will continue to lack assurance that it is effectively using NRM funds to correct their facilities' infrastructure deficiencies and meet the healthcare needs of veterans.

Recommendations

1. We recommended the Under Secretary for Health establish a process to track VA medical facilities' expenditure of Non-Recurring Maintenance Program funds toward addressing the maintenance backlog.
2. We recommended the Under Secretary for Health establish procedures to ensure VA medical facilities' projects address the Facility Condition Assessment deficiencies as approved under the Strategic Capital Investment Plan.
3. We recommended the Under Secretary for Health establish procedures to identify non-recurring maintenance projects that are not meeting milestones to ensure that timely corrective actions are taken.
4. We recommended the Under Secretary for Health develop clearly defined criteria for assigning risk levels to building infrastructure systems reviewed by Facility Condition Assessment contractors.

5. We recommended the Executive in Charge for the Office of Management and Chief Financial Officer increase financial accountability by implementing standardized accounting procedures for tracking non-recurring maintenance projects' financial performance.
6. We recommended the Principal Executive Director, Office of Acquisition, Logistics and Construction instruct contract engineers to assign risk levels to identified maintenance deficiencies based on the Veterans Health Administration criteria.
7. We recommended the Principal Executive Director, Office of Acquisition, Logistics, and Construction review Facility Condition Assessment estimating processes and procedures to ensure compliance with industry best practices.
8. We recommended the Principal Executive Director, Office of Acquisition, Logistics, and Construction review historical project costs to determine an effective adjustment factor to better estimate contract costs to complete the repair of identified maintenance deficiencies.

**VHA
Management
Comments**

The Under Secretary for Health concurred with Recommendations 1 through 4 and provided corrective action plans. The Under Secretary stated that VHA will continue to track NRM obligations and expenditures in the Financial Management System and link to the associated projects in the VHA Capital Asset Database, include reviews to ensure VA medical facility projects address the FCA deficiencies as approved under the SCIP plan in a timely manner, and review project milestones established in the project application and take corrective action when necessary. VHA will also develop clearly defined criteria for assigning risk levels to building infrastructure systems reviewed by FCA contractors. VHA plans to have all of the corrective actions implemented by September 30, 2014. Appendix D provides the full text of the Under Secretary for Health's comments.

**Office of
Management
and Chief
Financial
Officer
Management
Comments**

The Executive in Charge for the Office of Management and Chief Financial Officer concurred with Recommendation 5 and provided a corrective action plan. The Executive in Charge stated that the Office of Management is in the process of developing standardized accounting procedures to enhance financial accountability and track VHA's NRM financial performance and plans to have all of the corrective actions implemented by October 2014. Appendix E provides the full text of the Executive in Charge for the Office of Management and Chief Financial Officer's comments.

**Office of
Acquisition,
Logistics, and
Construction
Management
Comments**

The Principal Executive Director for the Office of Acquisition, Logistics, and Construction concurred with Recommendations 6 through 8 and provided corrective action plans. The Principal Executive Director stated the Office of Acquisition, Logistics, and Construction (OALC) will modify the scope of the FCA contracts to require assessors to indicate the "Risk Level" for grade D and F deficiencies within 120 days of receiving the criteria defined by VHA in OIG Recommendation 4. OALC will also review FCA

estimating procedures to ensure procedures align with industry standards and best practices. OALC's Office of Construction and Facilities Management, in cooperation with OCAMES and the VA medical facilities, will sample completed VHA NRM projects and determine what can be done to align the FCA estimate with contract costs. OALC plans to complete these studies by September 30, 2014. Appendix F provides the full text of the Principal Executive Director for the Office of Acquisition, Logistics, and Construction's comments.

OIG Response

The Under Secretary's, Executive in Charge's and Principal Executive Director's comments and corrective action plans are acceptable and responsive to the intent of the recommendations. We will monitor implementation of these planned actions and will close the recommendations when we receive sufficient evidence demonstrating progress in addressing the identified issues.

Appendix A Background

***Allowable
Uses of NRM
Funds
Increased
Under
OCAMES***

In FY 2008, OCAMES issued guidance to fund renovation projects up to \$10 million through the NRM program. Prior to this change in guidance, renovation projects exceeding \$500,000 that included a change in the functional use of space required Minor Construction Appropriation funding. This change increased the allowable uses of NRM funds to include projects that changed functional use of space regardless of whether or not the project addressed any FCA deficiencies.

VHA began funding CSI projects using NRM funds in FY 2009. A CSI project can use up to \$5 million to add space for five different strategic clinical initiatives. These initiatives include:

- Women's health
- Mental health
- Polytrauma
- Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn clinics
- High-cost/high-tech equipment installation

***SCIP Strategic
Performance
Gaps***

Annually VA creates a new 10-year SCIP plan for each VA medical facility that addresses the following eight strategic performance gaps.

- Access
- Utilization
- Workload
- Space
- FCA condition
- Energy
- Security
- Emergency preparedness

***Sustainment
Model***

OCAMES uses a Department of Defense sustainment model to calculate the NRM Program funds necessary to maintain VHA's facilities in good working order. The sustainment model estimates the annual resources needed to sustain a building with no existing FCA deficiencies and prevents building systems from becoming deficient. The sustainment model uses cost factors to estimate the amount of resources needed based on the building's age, use, size, and geographical location.

Appendix B Scope and Methodology

Audit Scope

We conducted our audit work from December 2012 through February 2014 to determine if VA medical facilities had effectively addressed its most significant maintenance needs.

We identified NRM projects for our universe using multiple data sets from the OIG Data Analysis Division. The Data Analysis Division extracted data from VA's Financial Management Systems' payment history and vendor files. The data sets included payments VA made for NRM projects during the 12-month period, October 1, 2011, through September 30, 2012.

We developed a sampling methodology that reviewed all NRM projects incurring expenditures over \$50,000 during FY 2012 at each of the eight sampled VA medical facilities. The eight facilities in our sample were:

- Central Arkansas Veterans Healthcare System, Little Rock/North Little Rock, AR
- Southern Arizona VA Health Care System, Tucson, AZ
- West Palm Beach VA Medical Center, West Palm Beach, FL
- VA Central Iowa Health Care System, Des Moines, IA
- Battle Creek VA Medical Center, Battle Creek, MI
- Albany VA Medical Center: Samuel S. Stratton, Albany, NY
- VA Caribbean Healthcare System, San Juan, PR
- Tennessee Valley Healthcare System, Nashville/Murfreesboro, TN

For each selected NRM project, we evaluated whether it met VA funding requirements under the NRM program, addressed identified maintenance deficiencies, and determined if any NRM program policies were violated.

Methodology

We reviewed each of the 161 selected NRM projects' proposal, approval, related contracts, and visited project work locations. At each sample medical facility, we reviewed the FCA and the facility's plan to address its maintenance backlog. We interviewed medical facility management and finance and engineering staff to determine if projects were properly approved, within budget, and on schedule. Additionally, we reviewed governing laws, regulations, and related policies and procedures. We discussed program requirements, organizational responsibilities, and operational procedures with VA and VHA program management officials.

Fraud Detection

We included audit steps to identify potentially fraudulent activities. In addition, we developed specific audit steps to determine what controls, if

any, were in place to identify any potentially fraudulent NRM construction transactions.

Data Reliability

To achieve the audit's objectives, we relied on computer-processed data from the VA's Financial Management System. We assessed the reliability of the systems' data by tracking payment transactions to invoice records. Additional data reliability tests included steps to identify any missing data in key fields and data outside of our period of performance. Based on these tests, we concluded the data used was sufficiently reliable to meet our audit's objective.

Government Standards

Our assessment of internal controls focused on those controls relating to our audit objectives. We conducted this performance audit in accordance with generally accepted government auditing standards. These 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Appendix C Statistical Sampling Methodology

We selected a stratified random sample of NRM expenditures to identify all NRM projects that incurred expenses in FY 2012. We then sampled those projects to determine if NRM funds were used appropriately.

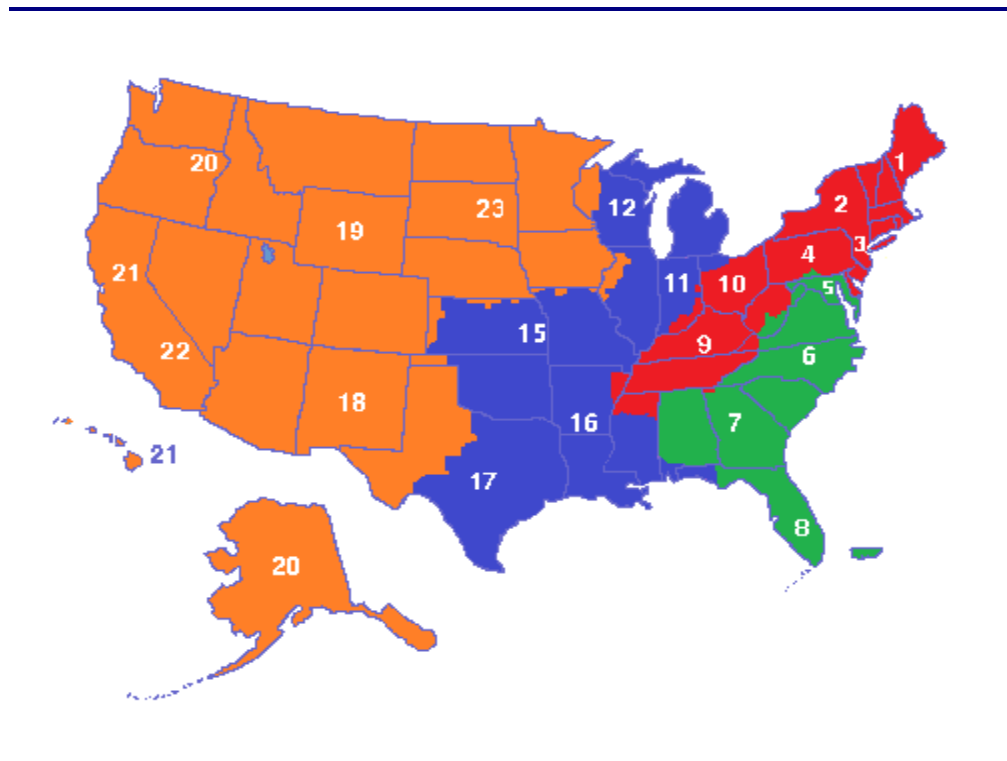
Population

The NRM program spent about \$1.8 billion in FY 2012. To ensure all NRM projects were captured in our sample population, we included all NRM payment transactions processed in FY 2012. Our sample included six ARRA projects and four projects approved under SCIP.

Sampling Design

We stratified the population into four geographical regions with roughly equal amounts of NRM expenses. We selected contiguous VISNs which resulted in the lowest variance of expenditures between regions and provided common geographical distinctions. The VISNs within the four regions are shown in Figure 3.

Figure 3. VISN Geographical Regions



Source: VA OIG analysis of NRM FY 2012 expenditures

We selected two VA medical facilities from each region and reviewed all projects with NRM expenditures of \$50,000 or more during FY 2012. This resulted in a sample of 161 projects and allowed us to capture over 95 percent of the expenditures and maintain acceptable degrees of freedom at the eight sampled sites.

Weights

We calculated estimates in this report using weighted sample data. Sampling weights were computed by taking the product of the inverse of the probabilities of selection at each stage of sampling. We performed a two-stage random site selection. Each stage used expenditures equally as weighting for selection.

Projections and Margins of Error

We used a 90 percent confidence interval and the mid-point of our estimates for our projections. The margins of error and confidence intervals are indicators of the precision of the estimates. If we repeated this audit with multiple samples, the confidence intervals would differ for each sample, but would include the true population value 90 percent of the time. Table 4 provides our projections and margins of error of FY 2012 NRM expenditures by category.

Table 4. Projections and Sampled FY 2012 Non-Recurring Maintenance Funds (in millions)

Category	Sample Estimate	Margin of Error	90 % Confidence Interval		CV (%)
			Lower 90%	Upper 90%	
Infrastructure Sustainment	\$307	\$104	\$203	\$411	20.5
Maintenance Backlog	\$675	\$273	\$402	\$948	24.4
CSI	\$225	\$158	\$67	\$383	42.4
Renovation	\$397	\$113	\$284	\$510	17.2
Green Energy	*\$241	N/A	N/A	N/A	N/A
Total NRM Expenditures	\$1,845				

Source: VA OIG statistical analysis of sampled VA medical facilities Non-Recurring Maintenance Projects

* About \$241 million in Green Energy expenditures is an actual total therefore figure is unadjusted

Table 5 provides our projections and margins of error of the percentage of FY 2012 NRM expended by category.

Table 5. Projections and Sampled FY 2012 Non-Recurring Maintenance Funds (Percentage of Total)

Category	Sample Estimate	Margin of Error	90 % Confidence Interval		CV (%)
			Lower 90%	Upper 90%	
Infrastructure Sustainment	19.2%	6.5%	12.7%	25.7%	20.5
Maintenance Backlog	42.1%	17.0%	25.1%	59.1%	24.4
CSI	14.0%	9.9%	4.2%	23.9%	42.4
Renovation	24.8%	7.1%	17.7%	31.8%	17.2

Source: VA OIG statistical analysis of sampled VA medical facilities Non-Recurring Maintenance Projects

Since the purpose of the sample was to estimate the total amount spent for each category, we adjusted our sample category results to equal the actual FY 2012 spending of about \$1.8 billion rather than the over \$1.7 billion total sample projection (except green energy which was not an estimate). We did not review about \$117 million in NRM expenses not included in our sample due to timing differences and for projects which spent below \$50,000 in FY 2012. Although we believe the projects contained similar compositions to those which we sampled, if they varied significantly we would expect no material difference to our report's conclusions and recommendations.

Appendix D Under Secretary for Health Comments

Department of Veterans Affairs

Memorandum

Date: March 28, 2014

From: Under Secretary for Health (10)

Subj: OIG Draft Report, Veterans Health Administration Audit of Non-Recurring Maintenance Program (VAIQ 7445328)

To: Assistant Inspector General for Audits and Evaluations (52)

1. I have reviewed the draft report and concur with recommendations 1-4 of the draft report. Attached is the Veterans Health Administration's corrective action plan to address the report's recommendations.

2. Thank you for the opportunity to review the draft report. If you have any questions, please contact Karen Rasmussen, M.D., Director Management Review Service (10AR) at (202) 461-6643, or by email at VHA10ARMRS@va.gov.



Robert A. Petzel, M.D.

Attachment

**VETERANS HEALTH ADMINISTRATION (VHA)
Action Plan**

OIG Draft Report, Veterans Health Administration Audit of Non-Recurring Maintenance Program

Date of Draft Report: February 20, 2014

Recommendations/ Actions	Status	Completion Date
-------------------------------------	---------------	----------------------------

Recommendation 1. We recommend the Under Secretary for Health establish a process to track VA medical facilities' expenditure of NRM funds toward addressing the maintenance backlog.

VHA Comments

Concur

VHA concurs with the recommendation to track VA medical facilities' expenditure of non-recurring maintenance (NRM) funds toward addressing the maintenance backlog. VHA will continue to track NRM obligations and expenditures in the Financial Management System (FMS) and link to the associated projects in the VHA Capital Asset database via the purchase order (PO) numbers. Local facilities management staff will identify the percentage of each project dedicated to each defined project category in the project application in VHA Capital Asset database, allowing for detailed reporting of obligations and expenditures by project category, as recommended.

In process

September 30, 2014

Recommendation 2. We recommend the Under Secretary for Health establish procedures to ensure VA medical facilities projects address the Facility Condition Assessment deficiencies as approved under the Strategic Capital Investment Plan.

VHA Comments

Concur

VHA concurs with the recommendation. VHA has supported the Strategic Capital Investment Plan (SCIP) process and will continue to ensure VA medical facilities projects address the Facility Condition Assessment deficiencies as approved under the Strategic Capital Investment Plan in a timely manner. VHA will include reviews to ensure FCA deficiencies are included with projects correcting deficiencies.

In process

September 30, 2014

Recommendation 3. We recommend the Under Secretary for Health establish procedures to identify non-recurring maintenance projects that are not meeting milestones to ensure that timely corrective actions are taken.

VHA Comments

Concur

VHA will review project milestones established in the project application and take corrective action when necessary.

In process

September 30, 2014

Recommendation 4. We recommend the Under Secretary for Health develop clearly defined criteria for assigning risk levels to building infrastructure systems reviewed by Facility Condition Assessment contractors.

VHA Comments

Concur

VHA will develop clearly defined criteria for assigning risk levels to building infrastructure systems reviewed by Facility Condition Assessment (FCA) contractors. The criteria will consider safety, security, and current and/or future space utilization.

In Process

September 30, 2014

Recommendation 5. We recommend the Executive in Charge for the Office of Management and Chief Financial Officer increase financial accountability by implementing standardized accounting procedures for tracking NRM projects' financial performance.

The Executive in Charge for the Office of Management and Chief Financial Officer will address this recommendation.

Recommendation 6. We recommend the Principal Executive Director, Office of Acquisition, Logistics and Construction instruct contract engineers to assign risk levels to identified maintenance deficiencies based on VHA criteria.

The Principal Executive Director, Office of Acquisition, Logistics, and Construction will address this recommendation.

Recommendation 7. We recommend the Principal Executive Director, Office of Acquisition, Logistics, and Construction review Facility Condition Assessment estimating processes and procedures to ensure compliance with industry best practices.

The Principal Executive Director, Office of Acquisition, Logistics, and Construction will address this recommendation.

Recommendation 8. We recommend the Principal Executive Director, Office of Acquisition, Logistics, and Construction review historical project costs to determine an effective adjustment factor to better estimate contract costs to complete the repair of identified maintenance deficiencies.

The Principal Executive Director, Office of Acquisition, Logistics, and Construction will address this recommendation.

Veterans Health Administration
March 2014

Appendix E Executive in Charge for the Office of Management and Chief Financial Officer Comments

Department of Veterans Affairs

Memorandum

Date: April 9, 2014

From: Executive in Charge, Office of Management, and Chief Financial Officer (004)

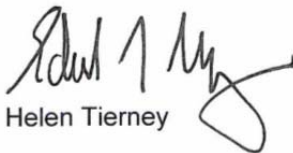
Subj: VA Office of Inspector General (OIG) Draft Report: *Veterans Health Administration, Audit of Non-Recurring Maintenance Program* (Project Number 2013-00589-R8-0033)

To: Assistant Inspector General for Audits and Evaluations (52)

1. The Office of Management (OM) appreciates the opportunity to review the OIG draft report on Veterans Health Administration (VHA's) Non-Recurring Maintenance (NRM) Program. I concur with the report's findings and recommendations.

2. In terms of OIG Recommendation #5 on page 13 of the report, OM is in the process of developing standardized accounting procedures to enhance financial accountability and track VHA's NRM financial performance. OM is developing these procedures and will require implementation in October 2014.

3. If you have any questions, please call me or have a member of your staff contact James M. Sullivan, Director, Office of Asset Enterprise Management, at 202-461-6671.

For  Helen Tierney

Attachment

Appendix F Principal Executive Director of Office of Acquisition, Logistics, and Construction Comments

Department of Veterans Affairs

Memorandum

Date: April 18, 2014

From: Principal Executive Director, Office of Acquisition, Logistics, and Construction (003)

Subj: Revised Draft Report, Audit of VHA's Non-Recurring Maintenance Program, Project Number 2013-00589-R8-0033 (VAIQ 7462420)

To: Assistant Inspector General for Audits and Evaluations (52)

1. The Office of Acquisition, Logistics, and Construction (OALC) has reviewed the revised draft report, "Audit of VHA's Non-Recurring Maintenance Program."
2. OALC respectfully submits the following responses to Recommendations 6–8:

OIG Recommendation 6: We recommend the Principal Executive Director, Office of Acquisition, Logistics, and Construction instruct contract engineers to assign risk levels to identified maintenance deficiencies based on VHA criteria.

OALC Comment: Concur: OALC will utilize the Veterans Health Administration (VHA) prepared criteria for assigning risk levels per the subject Office of Inspector General (OIG) Report Recommendation #4: "We recommend the Under Secretary for Health develop clearly defined criteria for assigning risk levels to building infrastructure systems reviewed by Facility Condition Assessment contractors." This recommendation will be followed by modifying the scope of the Facility Condition Assessment (FCA) contracts so that assessors are required to indicate the "Risk Level" for grade D and F deficiencies. A column will be added to the FCA/Capital Asset Inventory database in which an entry can be made indicating the risk level.

Page 2

Subj: Revised Draft Report, Audit of VHA's Non-Recurring Maintenance Program
Project Number 2013-00589-R8-0033 (VAIQ 7462420)

Target Completion Date: OALC will implement the new requirement to assign Risk Level in accordance with the VHA prescribed criteria within 120 days of receiving the criteria defined by VHA in OIG Recommendation 4. FCA contracts will include VHA-specified criteria to assign the Risk Level for grade D and F deficiencies when performing assessments.

OIG Recommendation 7: We recommend the Principal Executive Director, Office of Acquisition, Logistics, and Construction review Facility Condition Assessment estimating processes and procedures to ensure compliance with industry best practices.

OALC Comment: Concur: OALC will review estimating procedures to ensure procedures align with industry standards and best practice.

Target Completion Date: OALC will implement a study to review FCA estimating procedures to ensure procedures match both Department of Veterans Affairs (VA) standards and best practices in the industry. Further, VA will review the last two FCAs completed to ensure the architect/engineer followed established procedures. The study will be completed no later than September 30, 2014. If the review indicates changes are required in FCA estimating procedures the new procedures will be incorporated in the Fiscal Year (FY) 2015 FCA Program.

OIG Recommendation 8: We recommend the Principal Executive Director, Office of Acquisition, Logistics, and Construction review historical project costs to determine an effective adjustment factor to better estimate contract costs to complete the repair of identified maintenance deficiencies.

OALC Comment: Concur: OALC Office of Construction and Facilities Management (CFM) will follow OIG's recommendation on report page 10, "Cost estimates could be reviewed by comparing a sample of the contractors cost estimates to historical project costs to determine if an adjustment factor is needed." A sampling of completed VHA non-recurring maintenance (NRM) projects will be reviewed by CFM, VHA Office of Capital Asset Management Engineering and Support (OCAMES) and the VA medical center stations. Based on this review OALC will determine what can be done to align the FCA estimate with contract cost.

Page 3

Subj: Revised Draft Report, Audit of VHA's Non-Recurring Maintenance Program Project Number 2013-00589-R8-0033 (VAIQ 7462420)

Target Completion Date: OALC will evaluate selected NRM projects and FCA estimates to determine the reasons FCA cost estimates and contract cost are not aligned. The study will be completed by September 30, 2014. If corrections to estimates or process are determined they will be implemented with the FY 2015 FCA Program.

3. OALC appreciates the opportunity to comment on your draft report. Should you have any questions regarding this submission, please contact Shana Love Holmon, at (202) 632-4606 or shana.love-holmon@va.gov.



Glenn D. Haggstrom

Appendix G Office of Inspector General Contact and Staff Acknowledgments

OIG Contact	For more information about this report, please contact the Office of Inspector General at (202) 461-4720.
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Acknowledgments	Matthew Rutter, Director Kevin Day Chris Enders Barry Johnson William Maroon Thomas Phillips Steven Toom Orlando Velasquez Theresa Zoun
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Appendix H Report Distribution

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