

Headquarters U.S. Air Force

Integrity - Service - Excellence

CE Operations Regulatory Compliance Within an Asset Management Framework



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Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE MAY 2009		2. REPORT TYPE		3. DATES COVERED 00-00-2009 to 00-00-2009	
4. TITLE AND SUBTITLE CE Operations Regulatory Compliance Within an Asset Management Framework				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Air Force Civil Engineer Center,AFCEE/TDNQ,2261 Hughes Ave., Suite 155,JBSA Lackland ,TX,78236				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES Presented at the NDIA Environment, Energy Security & Sustainability (E2S2) Symposium & Exhibition held 4-7 May 2009 in Denver, CO.					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 32	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



- **Air Force is lagging in efforts to sustain critical infrastructure**
- **Air Force transformations have created challenges**
 - **Staff reductions**
 - **Shifts in funding guidance**
 - **Reorganization of CE squadrons**
 - **Transition to Asset Management organization**
 - **Changes in roles and responsibilities**
 - **Loss of institutional knowledge**
- **How can Asset Management staff help CE Ops maintain compliance under Asset Management?**



Policy Changes

- **2001 – Change in ECP and SRM funding guidelines**
 - Projects needed to sustain environmental compliance of critical infrastructure funds under SRM
 - CE Ops staff are not broadly knowledgeable of specific compliance requirements, regulatory deadlines, funding policies, and historical activities, and future requirements
 - Large learning curve for CE Ops
- **2005 – Program Budget Decision (PBD) 720**
 - 40,000 military cut; CES reorganized from 8 to 6 flights
- **2006 – Air Force Smart Operations for the 21st Century (AFSO 21)**
 - Reduce budget for installation support by 20% by 2020
 - Reduce size of physical plant by 20% by 2020



Policy Changes

The magnitude of the learning curve for CE Operations staff is large:

- NPDES permit compliance
- Pretreatment systems (OWS, GT)
- Septic Tanks and Leach Fields
- Sanitary Sewer Overflow (SSO) prevention
- Capacity, Management, Operation, and Maintenance (cMOM) compliance
- Sewage lift station alarms and inspections
- Reclaimed wastewater reuse compliance
- Stormwater Pollution Prevention
- Construction Stormwater Permitting and Erosion and Sedimentation Control
- Post-Construction Best Management Practices (BMP)
- Stormwater BMP monitoring, inspections, repairs, and operations and maintenance
- Drinking water maximum contaminant levels (MCL)
- Backflow prevention
- Stage 2 Disinfection Byproduct Rule compliance
- Coliform Rule
- Lead and Copper Rule
- Source Water Protection and Wellhead Protection
- Arsenic Rule
- Water Rights
- Spill Prevention, Control, and Countermeasure (SPCC) compliance
- Facility Response Plan (FRP) compliance
- Aboveground Storage Tank (AST) compliance
- Underground storage tank regulations



Trends in Enforcement Actions

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Year	CWA Enforcement Actions	SDWA Enforcement Actions
2003	4	1
2004	6	1
2005	6	3
2006	20	7
2007	14	20
2008	11	7



Asset Management Paradigm Shift

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- **The transition to asset management is driven by Executive Order (EO) 13327, *Federal Real Property Asset Management*, published in February 2004:**
 - **Develop and implement an asset management planning process to promote the efficient and economical use of federal real property assets**
 - **Establish appropriate performance measures to evaluate the costs and benefits involved with acquiring, repairing, maintaining, operating, managing, and disposing federal real property assets**
 - **Determine life cycle cost estimates associated with prioritized actions to improve the operation and management of federal real property assets.**



Asset Management Paradigm Shift

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- **Old paradigm for sustaining critical infrastructure:**
 - **Suffer budget cuts, staff reductions, deployments**
 - **Accomplish minimum compliance requirements**
 - **Operate in a “run-to-failure” mode**
- **New paradigm:**
 - **Manage assets to achieve desired Levels of Service**
 - **Reduce deferred maintenance**
 - **Practice sustainable O&M**
 - **Balance performance, risk, expenditures over lifecycle**
 - **Make risk-based decisions according to mission dependency**



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Proposed Conceptual Model

- **Embrace Change**
- **Eliminate Stovepipes**
- **Seize Opportunities**
- **Enable Fact-Based Decisions**



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Embrace Change

Your cheese is about to be moved

- **Change Happens**

They keep moving the cheese

- **Anticipate Change**

Get ready for the cheese to move

- **Monitor Change**

Smell the cheese often so you know when it's getting old

- **Adapt To Change Quickly**

The quicker you let go of old cheese, the sooner you can enjoy new cheese

From: *Who Moved My Cheese*, Spencer Johnson, MD



Embrace Change

- **Asset Management, and specifically Activity Management Plans, will provide a framework for achieving compliance and managing change**
 - **Facilitates collaboration between organizations**
 - **Improves documentation of critical information**
 - **Warehouses compliance milestones**
 - **Eliminates the need to do things twice (ready access)**
 - **Creates an Executive Summary of current conditions and forecasted needs**



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Eliminate Stovepipes

- **Become a recognizable resource**
- **Develop a local resource tool**
- **Establish a reference library**
- **Track new and recurring requirements**
- **Facilitate regulatory agency coordination**
- **Support compliance issue resolution**
- **Review new projects**
- **Support GeoBase as an Asset Management tool**
- **Brief Leadership**



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Eliminate Stovepipes

Become a recognizable resource

- **Get out of your office**
- **Make sure CE Ops and shop-level staff know you**
- **Make regular shop visits**
 - **Not to critique or inspect**
 - **To develop good lines of communication and good working relationships**
- **Establish yourself as a recognizable resource**



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Eliminate Stovepipes

Develop a local resource tool

- **Help staff know who to contact for support**
- **Ideally hosted on the installation web site**
- **Provide printable lists**
 - **Points of contact**
 - **Areas of responsibility**
 - **Key initiatives**
- **Advertise the location and benefits of this resource tool**



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Eliminate Stovepipes

Establish a reference library

- **DW Master Plans**
- **Wellhead Protection Plans**
- **Source Water Protection Plans**
- **Sanitary Surveys**
- **Backflow Surveys**
- **Water Distribution Models**
- **Water Rights Documentation**
- **Reference your classified Water Vulnerability Assessment on the SIPRNET**
- **WW Master Plans**
- **Infiltration/Inflow Studies**
- **OWS Studies**
- **SW Pollution Prevention Plans**
- **Spill Prevention, Control, and Countermeasure Plans**
- **Contingency Response Plans**



Eliminate Stovepipes

Track new and recurring requirements

- **Asset Management staff are most familiar with compliance requirements**
- **CE Ops staff will have to program SRM projects to accomplish recurring compliance requirements**
- **There is a need to anticipate these requirements**
- **Prepare checklists of requirements and deadlines**
- **Brief CE Ops regarding required projects**
- **Projects should be programmed several years in advance**
- **Don't let recurring requirements fall through the cracks**



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Eliminate Stovepipes

Facilitate regulatory agency coordination

- **Asset Management staff are the most familiar with regulatory agency representatives**
- **Invite CE Ops staff to participate when agency staff make site visits and conduct inspections**
- **Facilitate open lines of communication**
- **Raise awareness of issues that the agency considers important**



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Eliminate Stovepipes

Review demolition, renovation, and new projects

- **Construction SW permitting**
- **SW runoff controls**
- **Post-construction BMP**
- **BMP inspection and maintenance**
- **Awareness of OWS, GT, septic tanks**
- **Proper abandonment of underground utilities, UST, OWS, etc.**
- **Spill Prevention Control and Countermeasure requirements**
- **Asbestos abatement**
- **Adequacy of existing utilities to support new construction**



Eliminate Stovepipes

Support GeoBase as an Asset Management tool

- **Become familiar with the GeoBase information for your critical infrastructure**
- **Review for accuracy and identify data gaps**
- **Ensure contractor scopes of work include the collection and submittal of geospatial information**
- **Require a minimum number of utility attribute fields be populated**
- **Support the development of GPS data quality standards**
- **Ensure preservation and filing of “as-built” drawings**



Eliminate Stovepipes

Brief Leadership

- **Use the momentum generated by asset management to gain attention**
- **Summarize issues in bullet papers**
- **Forecast the resources and timeframes required for compliance**
- **Warn of impending train wrecks and offer solutions**
- **Define the regulatory and mission penalty for non-compliance**
- **Ask Leadership to encourage collaboration between sister organizations**



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Seize Opportunity

- **Seek first to understand and then to be understood¹**
- **Cross train**
- **Program for sustainability**
- **Synergize¹**

¹ *The 7 Habits of Highly Successful People*, Stephen Covey



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Seize Opportunity

Seek first to understand and then to be understood

- **Learn the concepts, methods, and vocabulary of asset management**
- **Express your needs in asset management terms**
- **The Utilities Activity Management Plan (AMP) is the Executive Summary of your activity**
- **Ensure your compliance and sustainability needs are represented in the AMP or they will be invisible**
- **Seize opportunities created by this new way of doing business**



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Seize Opportunity

Cross train

- “The cost of training is high but the cost of ignorance is higher”¹
- Seek opportunities for no-cost or low-cost training
- Short-term training goals and methods
 - Fundamental compliance issues
 - Sustainable O&M practices
 - Co-participate in regulatory agency visits
 - Participate as an observer during an ESOHCAMP
 - Tackle a joint initiative with a sister organization

¹ Mark Hall, P2 Manager, Shaw AFB



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Seize Opportunity

Cross train (cont.)

- **Long-term training goals and methods**
 - **Curb the loss of institutional knowledge**
 - **Mitigate the effects of staff reductions and the retirement of the aging workforce**
 - **Develop a mentor/protégé program**
 - **Support succession planning**



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Seize Opportunity

Program for Sustainability

■ Old Objectives

- Suffer budget cuts, staff reductions, deployments**
- Accomplish minimum compliance requirements**
- Operate in a “run-to-failure” mode**

■ New Objectives

- Manage assets to achieve desired Levels of Service**
- Reduce Deferred Maintenance**
- Practice Sustainable O&M**



Seize Opportunity

Program for sustainability

- **Develop comprehensive asset inventories and condition assessments**
- **Improve maps and GeoBase data**
- **Conduct phased projects to repair and modernize degraded infrastructure and reduce deferred maintenance**
- **Develop O&M manuals and continuity books**
- **Request adequate annual O&M budgets and resources to achieve Levels of Service indefinitely**
- **Help CE Ops define, program and justify necessary projects**



Seize Opportunity

Synergize

- Synergy – when two people cooperate to produce far better results than either could alone ($1+1=3$)
- Synergy is not compromise, but “Win-Win”
- Working together to achieve a common goal can have improved results:
 - Improved efficiency
 - Reduced costs
 - Improved results
 - Greater visibility
 - Greater support from Leadership



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Enable Fact-Based Decisions

- **Seek input from all relevant stakeholders**
- **Accurately characterize the quality of your data**
- **Track all of your responsibilities even if you cannot do them all**



Enable Fact-Based Decisions

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Seek input from all relevant stakeholders

- **CE Ops will own the Utilities AMP, but will not have all the data and answers**
- **Other stakeholders include:**
 - **Asset Managers**
 - **Compliance Staff**
 - **Utility Shop**
 - **Bioenvironmental Engineering**
 - **Fire Department**
 - **Readiness**
 - **Antiterrorism Office**
- **The AMP is the Executive Summary for your activity**



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Enable Fact-Based Decisions

Accurately characterize the quality of your data

- You must assign a level of confidence to your data
- Be honest or you will not receive high priority funding
- Example:
 - Accurate utility maps and GeoBase information are very important
 - Many bases do not have accurate, complete, field-verified geospatial data
 - It is important to characterize your needs accurately



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Enable Fact-Based Decisions

Track all of your responsibilities...

...even if you cannot do them all!

- **Many bases cannot complete 100% of their RWP**
- **Some have edited the RWP to manageable levels**
- **Do not report 100% completion of the RWP when you have deleted important requirements – you will short change your installation**
- **Capture the real cost of compliance and sustainability**
- **Justify the needs for future projects and additional resources**
- **Provide Leadership with the information they need to make fact-based decisions**



Summary

- **The Air Force is lagging in efforts to sustain critical infrastructure**
- **Air Force transformations have created challenges**
- **The implementation of Asset Management represents a paradigm shift and requires new approaches, new thinking, and a change in culture**
- **Asset Management staff should use the conceptual model presented in this course to help CE Ops maintain compliance under the new Asset Management framework.**



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Thank you!

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