

## **Secretary of Defense Environmental Award Category Environmental Quality - Team**

### **Introduction**

The Missile Defense Agency (MDA) is a research, development, and acquisition agency within the Department of Defense. Our workforce includes approximately 8,202 personnel (2,227 government, 121 military, 3,047 contractors, and 2,807 other governmental agency staff and contractors, etc.) in multiple locations at host Service installations and test ranges across the United States and around the world (MDA does not hold any real property).

Our mission is to develop, test, and field an integrated, layered, ballistic missile defense system (BMDS) to defend the United States, its deployed forces, allies, and friends against all ranges of enemy ballistic missiles in all phases of flight. As we develop, test, and field an integrated BMDS, the MDA works closely with the Combatant Commanders (e.g. Pacific Command, Northern Command, etc.) who will rely on the system to protect the United States, our forward deployed forces, and our friends and allies from hostile ballistic missile attack.

MDA is committed to maximizing the mission assurance and cost effectiveness of our management and operations through continuous process improvement. This philosophy is thoroughly embraced within our Environmental Management System (EMS), which serves as the framework for our Environmental Management Program.

### **Background**

MDA's Environmental Management Program (DPFE) led by Mr. Eric Sorrells, is a division of the Facilities, Military Construction (MILCON), and Environmental Management Directorate (DPF), led by Mr. Martin Duke, and provides environmental management support to the entire Agency and specifically to MDA's Environmental Executive and Deputy Director, Mr. John James, Jr. (DX). Mr. Sorrells also serves as the "Management Representative" responsible for executing the day-to-day EMS activities and interfacing with our Sustainability Integrated Project Team (SIPT) that includes representatives from organizations across the Agency. MDA relies heavily on this SIPT to help identify environmental aspects (and determine significance), set objectives and targets, implement action plans, and review and track EMS internal self-assessment results. We identify the DPFE Staff and SIPT members and their roles in Table 1.

### **Awards and Services**

MDA DPFE was awarded the 2010 Team Award for Environmental Stewardship for our management and leadership of MDA's Sustainability Working Group (comprised of staff from around the Agency to assist in implementing MDA's programs for complying with the requirements of EO 13423/13514), and MDA's 2011 Team Award for EMS Implementation and Conformance.

**Table 1 – DPFE Staff and SIPT Members**

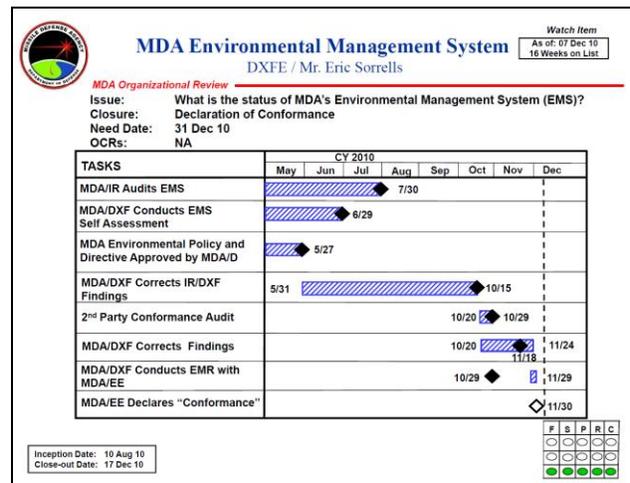
| <b>Name</b>       | <b>Office</b> | <b>Primary Role</b>                  |
|-------------------|---------------|--------------------------------------|
| Greg Avila        | DX            | SIPT - Emergency Response            |
| Mickey Beavers    | IC            | SIPT - Electronics                   |
| Kevin Call        | GC            | SIPT - General Counsel               |
| Brandi Carrizo    | DS            | SIPT - Document Control              |
| Larry Cooper      | DPF           | SIPT - Facilities                    |
| Buff Crosby       | DPFE          | Environmental Support, SOPs          |
| Donna Davis       | DOH           | SIPT - Human Resources               |
| Dave Dennis       | DPF           | SIPT - Facilities / Recycling        |
| Martin Duke       | DPF           | Functional Manager                   |
| Cynthia Etheredge | IR            | SIPT - Internal Review (audits)      |
| Mark Etheridge    | DPFE          | Environmental Support, SOPs          |
| William Farrell   | DPF           | SIPT - Facilities                    |
| Howard Finkel     | DPFE          | Environmental Support, EMS           |
| Bill Garcia       | DPF           | SIPT - Purchasing                    |
| Leah Garton       | PA            | SIPT - Public Affairs                |
| Ellis Gilliland   | DPFE          | Environmental Support, SOPs          |
| Connie Gipson     | DPF           | Environmental Support, SOPs          |
| Robert Halbert    | QS            | SIPT - Safety                        |
| Joy Hall          | DOH           | SIPT - Training                      |
| Edward Hazly-Ward | DPF           | SIPT - Facilities / Supplies         |
| John James, Jr.   | DX            | MDA Environmental Executive          |
| Gail Keefe        | DX            | SIPT - Emergency Response            |
| Barney Klehman    | DA            | SIPT - Acquisition                   |
| Rick Lehner       | PA            | SIPT - Public Affairs                |
| Howard Lockwood   | DPF           | SIPT - Facilities                    |
| Jerome McNair     | DPF           | SIPT - Facilities / Supplies         |
| Tom Perkins       | DPF           | SIPT - Facilities / Recycling        |
| Scott Pillet      | IC            | SIPT - Facilities / Environ. Support |
| Claudia Prosser   | DPF           | SIPT - Purchasing                    |
| Gerald Prosser    | DPF           | SIPT - Facilities                    |
| Eric Sorrells     | DPFE          | Management Representative            |
| Dan Spiegelberg   | DPFE          | Environmental Support, SOPs          |
| Bill Swofford     | DPFE          | Environmental Support, SOPs          |
| Brendan Sweeney   | DPFE          | Environmental Support, SOPs          |
| Joe Venable       | DPFE          | Environmental Support, SOPs          |
| Whitt Walker      | DPF           | Environmental Support, SOPs          |
| George Wheeler    | DPFE          | Environmental Support, SOPs          |
| Helen Wisner      | DAC           | SIPT - Acquisition                   |
| Bernie Zipp       | IR            | SIPT - Electronics                   |

## Accomplishments

The Missile Defense Agency (MDA) is required by Executive Order 13423 (*Strengthening Federal Environmental, Energy, and Transportation Management*, January 26, 2007) and DoD Instruction (DoDI) 4715.17 (*Environmental Management System*, April 15, 2009) to develop and implement an Environmental Management System (EMS) that conforms to both DoDI 475.17 and the International Organization for Standardization (ISO) 14001: 2004 (E) International Standard for EMS. On November 30, 2010, MDA's Environmental Executive, Mr. David M. Altwegg, reported to the Deputy Under Secretary of Defense for Installations and Environment (DUSD I&E) that MDA had fully implemented an EMS that was in conformance with DoDI 4715.17 and ISO 14001.

In the months leading up to Mr. Altwegg's declaration and reporting to DUSD I&E, the MDA EMS Assessment Team worked diligently and professionally to finalize and implement MDA's EMS, which provides the tool and structure to improve management of environmental issues, associated business processes, and ultimately, the sustainability of MDA's mission (see Exhibit 1).

As part of this effort, the EMS Assessment Team documented the elements of MDA's Environmental Management Program, described the specific procedures MDA used to ensure quality and consistency in our work, as well as provide for continuous improvement – a task that was further complicated by MDA's Environmental Management Program having undergone multiple reorganizations – and culminated in the publication of MDA's Directive for Environmental Management (May 27, 2010), MDA's EMS Instruction (October 14, 2010), and MDA's Environmental Management Program Standard Operating Procedures (October 7, 2010).



**Exhibit 1 - EMS Conformance Schedule**

### EMS Conformance Action Items

| Task   | Responsible Party | Due                               | Complete                          |
|--|-------------------|-----------------------------------|-----------------------------------|
| 1. Complete Instruction edits and send to EMS WG for review  | Will              | Aug 10                            | Aug 10                            |
| 2. Prepare staff package for signature for Instruction and issue signed document. Address CAR May 2010-14.               | Howard            | DS Staff Sept 24 w/5 Oct suspense | Oct 14                            |
| 3. Formally issue Eric's SMR designation   | Marty             | Aug 10                            | Aug 10 Memorandum for Director IR |
| 4. Complete Short EMP Policy revisions, formally issue and pre-socialize it with D and DX                                | Amanda/Howard     | Sept 3                            | Sept 1                            |
| 5. Determine how to make Env. Policy public availability and execute. Address CAR May 2010-2                             | Brendan/Howard    | Oct 1                             | Sept 7, Prepare to verify CAR     |
| 6. Document permits and compliance documents. Combine with list of NEPA documents, FONSI's, RODs. Address CAR May 2010-5 | Mark/George       | Aug 12                            | Aug 27, Prepare to verify CAR     |

**Exhibit 2 - EMS Conformance Action Item Tracking Sheet**

In 2010, the EMS Assessment Team both conducted an internal assessment and underwent an MDA/IR (Internal Review) assessment of MDA's EMS, which identified a total of 25 Corrective/Preventative Action Requests (CARs). The EMS Assessment Team met weekly to track all open actions items (see Exhibit 2) and corrected all 25 CARs (see Exhibit 3); issued MDA's

| Corrective/ Preventive Action Request (CAR) # | Issue Date | OPR (Name, Office) / OCR (Name, Office) | Problem/Deficiency                              | CAR Completion Date | CAR Evidence*  | Closure Date |
|---|------------|---|---|---------------------|--|--------------|
| May 2010-01                                   | 7-7-10     | Sorrells, DXFE/Siensen, DXH             | Env. Policy awareness                           | 24 Aug 2010         | #2 MDA directive 4700.01<br>#41 DXH roster of required training  | 19 Oct 2010  |
| May 2010-02                                   | 7-7-10     | Sorrells, DXFE/Lehner, PA               | Env. Policy public availability                 | 26 Aug 2010         | Posted Policy (See Link)   | 19 Oct 2010  |
| May 2010-03                                   | 7-7-10     | Sorrells, DXFE/TBD                      | Annual review of env. aspects                   | 23 Aug 2010         | #5 Aspects Spreadsheets  | 19 Oct 2010  |
| May 2010-04                                   | 7-7-10     | Sorrells, DXFE/TBD                      | Integrate PESHE and aspects ID process          | 9 Aug 2010          | #16 EMS Instruction (note need to verify after 2011 Aspects Review)  | 19 Oct 2010  |
| May 2010-05                                   | 7-7-10     | Sorrells, DXFE/TBD                      | Identifying applicability of legal requirements | 12 Aug 2010         | #38 Permits & Requirements   | 19 Oct 2010  |
| May 2010-06                                   | 7-7-10     | Sorrells, DXFE/TBD                      | Link O&Ts with SEAs                             | 17 Sept 2010        | #5 Aspects Spreadsheets  | 19 Oct 2010  |
| May 2010-07                                   | 7-7-10     | Sorrells, DXFE/TBD                      | Expand communication of O&Ts                    | 24 Aug 2010         | #7 Env. Strategic Plan, #8 Sustainability Matrix, #33 24 Aug 10 SIPT Minutes, #35 20 April 10 SIPT Brief and Minutes | 19 Oct 2010  |

**Exhibit 3 - Corrective Action Tracking Log**

Environmental Policy as a poster for display at MDA facilities and on MDA’s internal and external websites (See Exhibit 4); published articles on MDA’s Shield and the Communications Roundtable to educate MDA employees on their personal environmental responsibilities and what to expect if the auditors randomly selected them to be interviewed during the upcoming EMS conformance audit (see Exhibit 5); and conducted multiple Sustainability Workgroup meetings to prepare the workgroup members that played crucial roles in MDA’s Sustainability Program and therefore were going to be interviewed in the internal, MDA/IR, and second party audits.



**MDA’s Environmental Management System (EMS) To Be Audited**

**What:** An independent audit of the MDA EMS (and its personnel) is being conducted to determine if MDA is in conformance with DoDI 4715.17, Executive Orders 13423/13514, and MDA Directive 4700.1

**Where:** HSV Oct 20-22 and NCR Oct 25-29

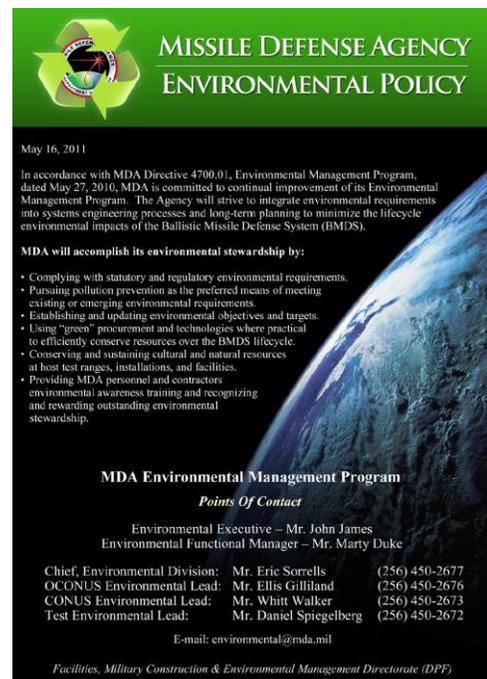
**How:** Auditors will interview MDA personnel with defined roles, as described in MDA EMS documentation and will also randomly select a few MDA personnel in HSV and NCR

**What Do You Need To Know to Help MDA Pass this Audit?**

- MDA has an Environmental Management Program – MDA/DX is the Environmental Executive and MDA/DXF executes
- MDA has an Environmental Policy – See the Communication Roundtable and Posters
- Environmental Awareness Training – Complete the course before the Audit
- Environmental Incidents – Call Security Operations Center, BMDS Watch Officer, or send an email to: [environmental@mda.mil](mailto:environmental@mda.mil)
- Overall Objective – Minimize MDA’s environmental footprint whenever feasible

**Exhibit 5 - EMS Conformance Notice**

EMS resulted in significant cost savings to MDA, rather than hiring contractors (at a cost of approximately \$50K). MDA only paid the travel costs for one auditor. The Team completed numerous tasks leading up to the Second Party Conformance Audit, including setting up document repositories; scheduling and logistics for 43 interviews; coordinating logistics for travel; use of MDA payment system; visitor access requirements; preparing biographies for the



**Exhibit 4 - MDA Environmental Policy Poster**

The EMS Assessment Team then worked with DUSD I&E to obtain auditors to conduct an independent (or second party) Conformance Audit of MDA’s EMS. The Team’s securing of two US Air Force auditors to audit MDA’s

Auditors for use in various presentations; scheduling and preparing briefing materials for pre- and post-briefings; and coordinating with DS to put the upcoming conformance audit on MDA's Calendar of Significant Events in Huntsville and the NCR.

On October 20-29, 2010, two US Air Force auditors from the Air Force Center for Engineering and the Environment and the Air Force Institute of Technology, conducted the Second Party EMS Conformance Audit (see Exhibit 6). During the eight-day audit, the EMS Assessment Team supported the auditors interviews with 43 MDA personnel in Huntsville, the NCR, and Colorado Springs, provided requested documents and records of environmental compliance activities, and helped MDA personnel respond to audit questions.



**Exhibit 6 - EMS Conformance Audit Out-Brief (from L to R: Ms. Strobbe, Ms. Winnie, and Mr. Altwegg)**

No major non-conformities were identified (see Exhibit 7); however, even more remarkable, **MDA was the first organization to pass the auditors' review on the first try.**

| <b>Findings by EMS Element</b> |   | MAJ      | MIN      | IMP OPS  | STRENGTHS | POS      | Health |
|--------------------------------|---|----------|----------|----------|-----------|----------|--------|
| Plan                           | Scope and Policy                              | 0        | 0        | 0        | 1         |          | Green  |
|                                | Environmental Aspects                         | 0        | 0        | 2        | 0         |          | Green  |
|                                | Identifying Legal Requirements                | 0        | 0        | 0        | 1         |          | Green  |
|                                | Objectives, Targets, EMPs                     | 0        | 0        | 1        | 1         |          | Green  |
| Do                             | Resources, Roles & Responsibilities           | 0        | 0        | 0        | 2         |          | Green  |
|                                | Training and Awareness                        | 0        | 0        | 1        | 1         |          | Green  |
|                                | Communication                                 | 0        | 0        | 0        | 1         | 1        | Green  |
|                                | Documentation                                 | 0        | 0        | 0        | 1         |          | Green  |
|                                | Document Control                              | 0        | 0        | 0        | 0         | 1        | Green  |
|                                | Operational Controls                          | 0        | 0        | 2        | 8         | 1        | Green  |
|                                | Emergency Preparedness / Response             | 0        | 0        | 0        | 0         |          | Green  |
| Check                          | Monitoring / Measurement                      | 0        | 0        | 0        | 3         |          | Green  |
|                                | Compliance Eval, Legal Rqmts                  | 0        | 1        | 1        | 0         |          | Yellow |
|                                | Nonconformity, Corrective & Preventive Action | 0        | 0        | 1        | 1         |          | Green  |
|                                | Records / Control of Records                  | 0        | 0        | 0        | 0         |          | Green  |
|                                | Internal Audit                                | 0        | 0        | 1        | 1         |          | Green  |
| Act                            | Management Review                             | 0        | 0        | 0        | 1         |          | Green  |
| <b>TOTALS</b>                  |   | <b>0</b> | <b>1</b> | <b>9</b> | <b>22</b> | <b>3</b> |        |

**Exhibit 7 - Second Party EMS Conformance Audit Findings by EMS Element**

Our process for evaluating environmental compliance at leased facilities was the sole minor nonconformity.

The auditors were thoroughly impressed with MDA's EMS and are going to use portions of our system and examples of successful implementation that they observed to benchmark other Services' EMS against and offer as examples of best management practices (See Exhibit 8).

## Positive Findings & System Strengths

- High level awareness
- EMS Training and survey to capture GHG info
- Policy promotion – available on public web page, intranet, and virtually all offices
- Extensive documentation for outlining roles & responsibilities
- **Strong document control system with exceptional archive for historic/cancelled documents**
- Good processes for identifying legal & other requirements
- Vehicle fleet management centralized and going green, uses **FAST** receipts for reporting
- NEPA process goes above requirements – MDA adopts the most protective ESOH requirements
- **Strong Internal Communications/Public Affairs. Good use of MDA Shield & Roundtable emails**
- **Green Procurement initiatives**
  - **Outstanding supply store management**
    - Green bars to indicated GPP items
    - Reuse program
    - School Donations
  - **Use of Velocity program to track GPP items**
  - **Green Procurement Plan developed by DA and DX**
  - **Centralized electronics stewardship, meeting EPEAT goals by 95%**
- **Recycling**
  - Computer donation
  - Packaging reuse
  - Employee providing beverage recycling capability
- Sustainable Buildings

### Exhibit 8 - Summary of EMS Auditor's Positive Findings and Strengths

Examples of the auditors' observations include:

- Whole-hearted support of the EMS by MDA leadership, especially from DX and DPF
- A Sustainability Integrated Product Team that is capable and highly motivated – with special recognition of our pollution prevention, recycling (PCs, packaging, office supplies, etc.), and green procurement efforts
- An effective environmental training regime and high level of environmental awareness among personnel (nearly 5,000 members of the MDA workforce had already completed the training)

- Excellent communication of MDA's Environmental Policy via the Agency's public web page, intranet, and posters displayed in hallways and common areas
- Extensive documentation for outlining environmental roles and responsibilities
- A strong document control system with exceptional archiving of historic or cancelled documents
- An impressive recycling program implemented by employees throughout the Agency
- An effective vehicle fleet management process--centralized and committed to going green
- A National Environmental Policy Act (NEPA) process that goes above requirements, adopting the most protective environmental requirements.

In summary, the broad scope of these accomplishments required the sustained and focused effort of MDA's EMS Assessment Team to successfully implement MDA's EMS. These accomplishments, the majority of which occurred at no real cost, set precedents for the Agency that will help MDA conserve resources, save money, comply with environmental laws and regulations, and reduce the environmental footprint of our mission activities without compromising the quality of mission support activities. And, as noted, these accomplishments are transferrable to other DoD acquisition agencies. Lastly, MDA was able to accomplish all of these efforts through a careful strategy of communication, collaboration, and dedication that exemplifies the best of the behaviors critical to the successful declaration of conformance of an EMS. This team richly deserves recognition for their unparalleled dedication to duty, loyalty, and the wealth of knowledge MDA's EMS Assessment Team brings to MDA's Environmental Management Program.