FY 2012 Secretary of Defense Environmental Awards Program – Army Nomination – Overseas Installation USAG Vicenza, Italy

Introduction

USAG Vicenza is a diverse, rapidly expanding base with a multitude of important missions. The USAG Vicenza's primary mission is to provide base support operations and installation management services for our Soldiers, their Families, and Civilian employees. Services provided include engineering, transportation, customs, supply,



Geographical overview of USAG Vicenza

equipment maintenance, security, safety, money management, contracting, legal, youth activities, child care, personnel, adult education community health support, public affairs, recreation, and travel.

USAG Vicenza consists of 540 buildings on 460 acres in the heart of Vicenza, Italy, a city of 150,000 people located in northern Italy, about 72 kilometers west of Venice. USAG Vicenza population has seen steady growth over the last few years and currently has over 11,000 active duty, Civilian personnel, and Status of Forces Agreement (SOFA)-sponsored Family members. In spite of the great strain this has placed on resources, USAG Vicenza continues to provide exceptional service to its 32 tenant/unit commands, as well as the Vicenza community at large. USAG Vicenza has accomplished this, while maintaining the highest environmental standards and sponsoring new initiatives to make environmental programs even more effective.

Background

The US Army Garrison (USAG) Vicenza is located within the Veneto Region (Regione Veneto) in northeastern Italy. It manages six Cantonment Areas totaling 460 acres (187 hectares). The population is about 6,700 people, of whom 4,400 are military and 2,300 Civilian.

The U.S. Army Garrison Vicenza was constituted May 1936 as the 22nd Quartermaster Regiment and re-designated in April 1942 as the 22nd Quartermaster Truck Regiment. It participated in three campaigns in Italy during World War II, beginning in 1943, earning the Army's Meritorious Unit Commendation. The 22nd Quartermaster Regiment was inactivated in October 1945. The unit reactivated as the 22nd Area Support Group in Italy in October 1985. In October 2005 the 22nd ASG became the USAG Vicenza, as part of the Army's Standard Garrison Organization (SGO).

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As part of IMCOM, the USAG Vicenza's mission is to provide base support operations and installation management services for Soldiers, their Families and Civilian employees. The Garrison conducts deployment operations in support of the U.S. Army Africa (USARAF), 173rd Airborne Brigade Combat Team (173d ABCT) and other tenant units, to include running a modern deployment support facility at Aviano Air Base. The USAG Vicenza Garrison also conducts law enforcement and force protection operations in conjunction with the Host Nation.

Military readiness is critical to the security and well-being of our nation, and military operations and training must be maintained, in perpetuity, to achieve such readiness. Military training and operations are fundamentally dependent on natural resources, built infrastructure, the well-being of our personnel and Family members, and public support. The USAG Vicenza, located at Caserma Ederle in northern Italy, continually strives to operate in a way that seeks a balance of these factors to support the mission indefinitely into the future.

The USAG Vicenza Directorate of Public Works (DPW) is responsible for the environmental management of the Garrison. The Garrison redeclared Environmental Management System (EMS) compliance in November 2011 and uses EMS principles in managing all environmental work. A keystone of the organization at the USAG Vicenza is a group of highly professional personnel (beyond environmental) utilizing their various areas of expertise and experience to meet the critical needs of the Garrison in an innovative and sustainable manner.

Summary of Accomplishments

EMS

The garrison EMS addresses the significant aspects and impacts of facility operations, but also addresses the larger requirements of the goals for agencies set forth in several Presidential Executive Orders (EOs). That is, the installation EMS seeks to reduce raw materials consumption, including energy and water; reduce the generation of solid and hazardous waste; utilize sustainable building practices in new construction and renovation; and utilize environmentally preferable products and services.

The Garrison's environmental aspects were compiled, reviewed and evaluated for significance by a cross-functional team as part of the installation's international Organization for Standardization (ISO) 14001-conformant EMS. Significant aspects include energy consumption; the generation of solid waste; and the use of hazardous materials such as petroleum, oil and lubricants (POL), paints, solvents, pesticides/herbicides, acids. Successful implementation of EMS Objectives, Targets and Programs is facilitated and tracked through regularly scheduled EQCC meetings, which are managed by the Garrison Commander and attended by a diverse cross-section of installation personnel.

The Garrison conducts detailed annual audits of the EMS that cover key elements of the EMS and include necessary and sufficient information for Senior Leadership to assess whether the installation is in conformance with all ISO 14001 requirements and internal EMS procedures, and in compliance with applicable legal and other requirements. The results of internal audits are also used for making decisions and authorizing actions that need to be taken by installation personnel to ensure the continual improvement of the overall environmental program.











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The USAG Vicenza recently completed and began implementation of an Installation Sustainability Plan (ISP). The 25-year plan, specifically designed to dovetail with the Installation Management Campaign Plan (IMCP), assigns each Line of Effort (LOE) and action plan with the proper Directorate. In this way, the ISP distributes ownership of the plan, creating a truly installation-wide endeavor and not an Environmental Division or Public Works initiative.

The Garrison has also issued a memorandum that dictates policy for the use of air conditioning systems on post. The policy is designed to optimize the operation of heating/cooling systems, better manage energy installation-wide, and conserve Army dollars.

Waste Reduction Efforts (all media areas)

In Italy, recycling is a legal requirement and not an option. The USAG Vicenza has a robust recycling program that includes paper (white paper, newspaper, magazines, and paper packaging), corrugated cardboard, glass and cans (all glass and metal cans), plastic (including styrofoam), organic waste (all food scraps, pet litter), electronics, toner cartridges, batteries and expired medicine. Segregation and separation are undertaken by custodial staff and the materials are deposited in the appropriate recycling containers for pickup. Thanks to its constant efforts, USAG Vicenza managed to more than triple the amount of urban waste recycled in less than 10 years, from 15% in 2001 to surpassing 56% in 2012.

The garrison also operates an "ECO Center", which accepts all recyclables and includes additional containers for scrap metal. Personnel at the ECO Center serve as the liaison between the U.S. Army and the host nation authorities to assure the recycling program meets the host nation requirements and to enable efficient execution of the recycling program.

USAG Vicenza has developed programs to implement environmentally preferable technologies at the Garrison. P2 Opportunity assessments identify areas where innovative technologies can promote more efficient and sustainable use of resources. Technologies in the program include:

- Compostable waste dehydrators to reduce organic/food waste and produce a reusable by-product est savings 25k yearly.
- Shop towel recycling as an alternative to the single use and disposal of shop towels est savings 35k ٠ yearly.
- Ultrasonic parts cleaning units to replace low VOC solvent machines est savings 26k yearly. •
- Used lead-acid battery and used oil recycling at no cost to the Garrison est savings 42k yearly.

Ozone depleting substances (ODS) in all refrigeration equipment, including air conditioning systems, are managed in compliance with applicable regulation. All Class I ODS were removed and 68% of Class II ODS have been removed. Removal of all Class II ODS equipment will be completed in FY13.

Energy Management

The Garrison also includes an aggressive energy management program that continues to pursue projects to achieve our goal of becoming "Net-Zero". These projects include:

\$8.4 million in photovoltaic (PV) panel projects at numerous buildings on the Garrison to provide 1.5MW of electricity. Utilizing renewable power will result in savings estimated at more than \$1 million per year.















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- The Garrison provides the bulk of it's heating and cooling through a co-generation central energy plant (CoGen CEP). The Plant was updated from a pre-existing central heating plant into a dual fuel facility that is 35% more efficient than the old, single fuel design. The CoGen CEP was also modified, along with the installation's electrical grid, to have the capability to power mission critical facilities when commercial power is off-line.
- The CoGen CEP will soon be upgraded to include an absorber and high efficiency centralized chiller, taking advantage of low/no cost steam and hot water to make chilled water. This will lower the consumption of non renewable natural resouces and save estimated \$250K per year.



Greg Vallery, USAG Vicenza DPW shows Assistant Secretary of the Army for Installations, Energy and Environment Katherine Hammack, USAG Vicenza central Energy Plant.

Sustainable Design

Technical features used for the construction of new buildings include state-of-the art concepts including: motion/occupancy sensors; window contact sensors to control cooling and heating systems; use of local or regional recycled and recyclable materials in construction; enhanced construction waste management to reuse/recycle construction and demolition (C&D) waste; water-saving (low-flow) plumbing fixtures; use of low emitting volatile organic compounds and zero chlorofluorocarbon (CFC)-based refrigerants; and energy monitoring and control systems to limit excessive utility consumption. Implementation of these concepts in new construction allowed: recycling 95% of C&D waste; saving 42% in energy; reducing water use by 36%; increasing the purchase and use of regional materials over 40% vice typical construction. These reductions and savings are now the standards for new construction and renovation projects at the Garrison.

The Del Din Multiple Facilities Complex is a 151-acre, \$400M military construction (MILCON) project to build a new base to house four Army battalions and their Brigade Headquarters. Once complete, Del Din will set a new standard for sustainable base development. The entire facility, which was designed to reach LEED Silver per the construction contract, is on pace to be certified LEED Gold under the LEED Rating System for Campus - New Construction. Energy savings obtained implementing LEED cerification will save the Garrison \$1.1 million per year.

All new buildings and renovations on the Garrison are accomplished in a sustainable manner. This is achieved by involving designers and contracting personnel as early as possible in the process. At USAG Vicenza, new contracts mandate achievement of LEED certification, or implementing the criteria and providing documentation that allow the Garrison to apply for the certification. In the last few years, seven buildings were constructed to achieve LEED Silver and are currently under evaluation by the Italian or U.S. Green Building Council.







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Community Relations

As previously mentioned, the installation ECO Center provides a central location for disposition of recyclables. The ECO Center also serves as an educational tool, where school-aged children can learn about the importance of recycling and waste minimization. ECO Center personnel provide assistance to tenant facilities by assessing their operations and making recommendations for compliance with Host Nation Environmental Laws and Requirements. The center coordinates and schedules training classes to educate the community on the procedures and benefits of recycling. The ECO Center also provides educational material for the local media to elevate public awareness regarding recycling and the various environmental programs and services available through the Garrison.

Earth Day events:

USAG Vicenza attaches a great value on information, education and awareness as a way to stress the importance of good environmental stewardship.

Throughout Earth Week, initiatives were implemented on the Garrison, including:

- Tours of the ECO Center CoGen CEP, and a vehicle maintenance shop, for DODDS elementary and middle school students, and classroom presentations for 1st graders;
- Tree planting a the DoDDS complex;
- An "Earth Day" booth at the Post Exchange (PX) Food Court with free environment-related handouts and giveaways;
- An "Earth Day" Art/Essay/Photo contest, for DoDDS students from elementary through high school.



USAG Vicenza Deputy Garrison Commander plants a tree with the DoDDS students

- A "Trashion Show", where Middle School students created clothing from recycled materials.
- Articles in the community newspaper and a banner over the main street.

Energy Awareness Month events:

USAG Vicenza is aware of the importance of good energy-saving habits, both at home and at work, and promotes energy awareness as a way to save valuable resources and Army dollars without decreasing comfort and well-being.

To spread the knowledge on this critical subject, many activities are undertaken by the Garrison each October during Energy Awareness Month. They include banners and posters displayed in highly visible places, articles in the community newspaper, and an information booth at the PX. Commercials



Visitors to the Energy Awareness booth received energyrelated information, handouts and giveaways.



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containing information on energy conservation and awareness are advertised in different media, including television and radio via the Armed Forces Network, and in the community newspaper all year round. Additionally, classroom presentations discussing energy awareness and conservation, and alternative energy sources were delivered to Vicenza Middle School students.

National Pollution Prevention Week events:

In celebration of National Pollution Prevention week, Garrison personnel met with various organizations and tenants of the USAG Vicenza to evaluate their current environmental practices and work operations, and look for opportunities to reduce hazardous and solid waste, save Army dollars and improve work process performance. An information booth was set up to share with the community ways the Army is reducing pollution and solid waste by procuring greener products, reusing hazardous materials, and implementing a robust recycling program. Organizations involved in these activities included Italian regulators, the Italian Base Commander, Municipality and Regional representatives, AAFES, DFMWR, USAG Vicenza Fire Department, the 173d ABCT, SETAF, IMMA and Ammunition Supply Point #7.

Local Community (HN) acknowledgments:

The relationship with the local community is excellent and is maintained through initiatives to promote sustainability in conjunction with commercial interests. In this context, meetings and conferences, in the form of an open house, have been held with local companies and local authorities to demonstrate the results achieved with LEED certified buildings and the sustainably designed Del Din campus.

Additionally, the Garrison celebrated the mutual commitment to a healthy environment with Command representatives and delegations from surrounding villages as part of our annual "Meet the Mayors event.

Environmental Planning and Analysis

A cornerstone of environmental planning at the Garrison is the Environmental Review (ER) process. Similar to NEPA in the US, ER is used to evaluate the effect of proposed actions on the environment during the planning and decision process at the same time as technical, economical and other factors are considered. The ER process ensures the Garrison meets the intent of EO 12114. Though facilitated by the Environmental Division, the ER process is lead by the "owner" of the action, project or mission requirement. The project proponent makes decisions about and validates the integration of environmental considerations into the project-planning process.

The USAG Vicenza has also developed a "Green Council", a dynamic cross-functional team, to provide Executive-Level leadership and guidance to Garrison units, tenants and organizations in achieving the federally-mandated requirements of EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance. Metrics are being developed to measure progress against EO 13514 requirements and progress toward those metrics are tracked on a scorecard, and briefed and reviewed at quarterly Green Council meetings.

A Green Council can be replicated in any organization with an environmental oversight/ advisory committee and any organization subject to the requirements of EO 13514. The cross functional team concept ensures you have the right people at the table to make the decision to meet the requirements of the EO 13514 and align with your local requirements for compliance as we have by adopting the metrics in the Army Installation Campaign Plan. Our Green Council concept and P2 technology initiatives have







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been shared with our Army Regional Office (IMCOM-E) to share with other Army Garrisons. Other Federal Agencies can also benefit from these initiatives.

Green Council Charter:

<u>Mission</u>: The USAG Vicenza Green Council will provide a forum for education, professional discussion, developing goals and benchmarking progress. The Green Council shall review and evaluate plans, monitor implementation and compliance, facilitate exchange of information on successful sustainability programs and practices, lessons learned, and record progress in the following areas:

- Increases in the purchase and fleet operation of alternative fuel, hybrid, plug-in-hybrid, and electric vehicles;
- Reductions in energy intensity through the use of energy efficient equipment, lighting, and implementation of energy conservation programs; LED lighting installed Garrison wide
- Increases in the utilization of fuel and energy/power from renewable resources; PV panels installed
- Increases in building performance through the construction of new facilities and the renovation of existing facilities in accordance with adopted sustainability strategies; Green Building Design const.
- Increases in water conservation through the installation of water efficient landscaping, building fixtures, and the implementation of water conservation programs; Water saving devices installed
- Increases in procurement of environmentally preferable products, goods, and services from sustainable resources; Green products used vice harsh solvents and cleaners in motor-pools
- Reductions in the use of chemicals and toxic materials as a mechanism for pollution prevention; P2 technologies reduced Hazardous Waste disposal by 30% yearly
- Increases in compliance in the utilization of environmental management systems.

The Green Council is comprised of core membership from all USAG Vicenza Divisions, Directorates, Tenants and Organizations.

Conclusion

As a result of Army transformation initiatives, the USAG Vicenza is experiencing a period of steady, significant growth in facilities, land area and population. Thanks in large measure to the efforts described in this narrative, the USAG Vicenza is well positioned to manage the increased demand on energy, water and raw materials. Despite the Garrison "footprint" increasing by 151 acres and approximately 4,000 soldiers and their Families, implementation of a solid environmental program is allowing savings of \$2 million per year in energy, lowering water use by 36% and keeping a focus squarely on the triple bottom line of sustainability: mission, community and the environment.

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