Appendix B: Federal Agency Profiles

U.S. Navy

I. Organization

The organizational lead on construction for the Navy and Marine Corps, including green building, is Naval Facilities Engineering Command (NAVFAC). <http://www.navfac.navy.mil>
The Office of the Chief Engineer has the lead on sustainable development policies and standards. <http://www.navfac.navy.mil/cheng>
Also, NAVFAC Engineering Services <http://navyenergy.nfesc.navy.mil> hosts a Navy Energy Website <http://navyenergy.nfesc.navy.mil>.

Contact: Mr. Dennis Talton, NAVFAC, 757-322-4211, <taltondo@efdlant.navfac.navy.mil>

II. Baseline Data

The Department of Navy (DoN), which includes the Marine Corps, has total facility space of approximately 612 million square feet. In 2001, DoN had 91 new building design and construction projects. DoN also leases 57.5 million square feet.[5] Of DoD's 6,425 locations worldwide, DoN has 488 or seven percent of them.

Compared to FEMP estimates, DoN has 30 percent of DoD's square footage, and about 20 percent of the total square footage of the Federal government. This puts DoN second only to the Army in the size and extent of its property portfolio.

III. Policies and Resources

DoN began on a course toward sustainable building 10 years ago. At that time, the Navy started conducting research on the topic with the American Institute of Architects, USGBC, and Rocky Mountain Institute and launched an eight-building pilot.

In 1997, DoN began the Whole Building Design Guide (WBDG) <http://www.wbdg.org>, which now has eight Federal agency partners (including DoD) and has been managed by the National Institute of Building Sciences since 2000. The WBDG follows DoN's philosophy of incorporating sustainability requirements into its mainstream specifications and guidelines, rather than leaving them as a unique add-on. Within the WBDG, the Construction Criteria Base includes DoN building standards, specifications and guidance.

The sustainable systems management initiative also demonstrates this philosophy by combining the concept of environmental management systems and business management systems, covering several "business lines", including Capital Improvements, Real Estate, Engineering, Environmental, Base Development, and Base Operations Support. Another element of the DoN

[5] http://navyenergy.nfesc.navy.mil/

approach to sustainable building is the goal of greening Navy facilities without adding to design and construction costs.

Policy Memos:

- PDPS 98-01 (6/18/98), Design of Sustainable Facilities and Infrastructure
  - Applies to all projects; no increase in first cost or design costs; key is integrated design

- PDPS 98-02 (6/18/98), Criteria Supporting Design of Sustainable Facilities
  - Industry-based guidance.

- PDPS 98-03 (6/18/98), Procurement of Sustainable Facilities – AE Contracts
  - Architects and engineers must demonstrate "knowledge and demonstrated experience in applying sustainability concepts and principles to facilities and infrastructure problems through an integrated design approach."

- Memo, 7/2/02, Adopting the U.S. Green Building Council's LEED™ Rating System, from J.W. Wright, Chief Engineer: LEED™ (at least Certified) required as a tool and metric; submission for LEED™ certification not required.

IV. Results and Case Studies

- Bachelor Enlisted Quarters (MCPON Plackett Manor), Great Lakes Naval Training Center, IL <http://www.epa.gov/opptintr/epp/pilot/navybeqcase.htm>
  - LEED™ 1.0 Certified; CTC 2000 award; ES 2001 showcase award; CTC 2000 award; 2001 Federal Energy Saver Showcase Award
  - $55 million, 365,000 square feet ($150/sq ft)
  - Exceeds ASHRAE 90.1-1989 by 24 percent with high insulation and reflective roofing.

- Washington Navy Yard, DC
  - Building 33 renovation
    - $95,000 investment yielded $58,000 savings per year – less than two-year payback.
    - Features include moving from ambient to task lighting.
    - Monitoring energy use closely.

  - Naval Sea Systems Command HQ
    - Three structures, 1 million square feet, $165 million budget
    - Low Impact Development Pilot Projects
    - Bioretention strips and cells, tree box filters at paved areas, constructed wetlands, stormwater detention strips

- Navy's Energy Demonstration Facility, Building 850, Port Hueneme, CA (completed 2001) <http://www.nbvc.navy.mil/PublicWorks/energy_showcase/bldg850.htm> http://www.ctg-net.com/Energetics/CBC-showcase/Web%20Site/history/showcase.htm.
    - Zero energy building, photovoltaics, natural ventilation
    - AIA/COTE 2002 Top Ten Green Projects
    - Completed 2001

- Naval Academy Academic Complex Repairs (completed 2001)
    - Renovation of two buildings; $30 million budget;
    - Added skylights, raised ceilings.

- P-293/Sailor Ashore Program, Norfolk, VA
    - $54 million budget, 95,000 square feet.
    - Seeking LEED™ Silver.