



ASC ENGINEERING FACT SHEET

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Propulsion Environmental Working Group



DESCRIPTION

US Air Force Instruction (AFI) 21-104, paragraph 2.6, establishes the PEWG. The AFI requires the PEWG to form and lead a government and industry collaboration to solve propulsion industrial base environmental problems. At the same time, the Joint Propulsion Coordinating Committee (JPCC), a body comprised of the Air Force, Navy, and Army executive leads for propulsion and power systems established the JPCC Hazmat Subcommittee to oversee joint

SUMMARY

PROBLEM:

■ Environmental and safety issues and pollution prevention opportunities affect all members of the propulsion community: government acquisition, sustainment, and operations in all services within DoD, as well as our private sector counterparts in the engine manufacturing industry. In the absence of an effective collaboration method each of these activities will frequently attack the same problems independently, an inefficient use of limited resources.

SOLUTION:

■ The Propulsion Environmental Working Group (PEWG) provides a forum for communication and an effective method for cooperation across the DoD and industry propulsion communities. The Group's mission is to reduce the use and release of hazardous materials in propulsion and power systems and support processes.

environmental efforts. Subsequently, the PEWG was chartered to function as the working group tasked to carry out JPCC directives. The USAF member (OC-ALC/LR) is currently the senior member

of the JPCC, and the Director, Propulsion Development Systems Office, is currently the PEWG Chair. However, the executive functions of the PEWG are managed by the environmental program manager collocated from the Acquisition Environmental, Safety, and Health Directorate, ASC/ENV, to the Propulsion Development Systems Office's Advanced Projects Division, ASC/LPJ.

The JPCC has chartered the PEWG to "...establish a forum for DoD and propulsion industry collaboration to identify and resolve common environmental issues and promote introduction and use of environmentally advantaged industrial materials and processes..." (PEWG Charter, 16 Apr 98). To accomplish this mission, the PEWG meets twice a year to discuss emerging issues and opportunities as well as those already identified. When a problem or opportunity is brought to the PEWG, the Group first determines if it is common to more than one member, and if any work is already being done to arrive at a solution. If the problem has been solved and the solution is not proprietary, the solution is shared with the Group. Otherwise, the Group may decide to undertake a joint project to arrive at a solution. The interested parties form a technical working group (TWG) to plan and execute the joint project. Normally, one or more of the government activities will seek funding for the project. If the industry representatives are interested in the solution, they will contribute engineering or technical man-hours. The technical working group will meet independently of the PEWG general membership, on a schedule they determine. They will report back to the PEWG at the semi-annual meetings.

PEWG membership currently includes Air Force, Navy, and Army activities, Defense Contract Management Agency, as well as industry representatives. Air Force participants come from ASC, OC-ALC, OO-ALC, the Air Force Research Laboratory, and various using commands. Naval Air Systems Command (NAVAIR) and Naval Sea Systems Command (NAVSEA) are active members,

as well as, the Naval Aviation Depots at Cherry Point, Jacksonville, and North Island. Army Aviation, Armament, and Missile Command (AMCOM) is a standing member. Active industry participants include GE Aircraft Engines, Pratt & Whitney, Pratt & Whitney Canada, Rolls-Royce Corporation, Honeywell Engines & Services, Williams International, The Boeing Company, Engelhard Industries, Advanced Surfaces and Processes, Inc., and Dynamics Research Corporation (DRC). The PEWG also collaborates with the DoD Hard Chrome Alternatives Team (HCAT), Joint Group on Pollution Prevention (JG-PP), HQ AFMC P2IPT, Aerospace Industries Association (AIA), National Center for Manufacturing Sciences (NCMS), Department of Energy (DOE) National Laboratories, NATO Research Technology Organization, Applied Vehicle Technology Panel (NATO RTO AVT), and the Deputy Under Secretary of Defense for Environmental Security (DUSD-ES).

Successful projects have included the elimination of Class I ozone-depleting chemicals, reduction in EPA-17 solvents, and finding an alternative for zinc chromate primers used in gas turbine engines. Current projects include finding a lead-free dry film lubricant for anti-galling/ anti-fretting and anti-seizing applications, several projects seeking alternative processes to hard chrome plating, and engineered solutions to help DoD depots comply with the 1998 Aerospace National Emission Standards for Hazardous Air Pollutants (NESHAPs) rules.

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