

# Executing **Certified Performance**

*Lockheed Martin offers certified performance, lean processes and Six Sigma capabilities — delivering on customer value in products and services.*

Using industry-specific disciplined principles and tools; we continue to achieve world-class levels.

## **10 CFR 50 Appendix B Quality Management System**

*“The Code of Federal Regulations, Title 10 Part 50 Appendix B” “Appendix B to Part 50 — Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants”*

Appendix B Code of Federal Regulations defines the minimum quality assurance requirements for U.S. civil nuclear power plants.

Nuclear power plants and fuel reprocessing plants include structures, systems and components that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public. This appendix establishes quality assurance requirements for the design, manufacture, construction, and operation of those structures, systems, and components. The pertinent requirements of this appendix apply to all activities affecting the safety-related functions of those structures, systems, and components. These activities include designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling and modifying.

The topics covered by Appendix B are: Organization; Quality Assurance Program; Design Control; Procurement Document Control; Document Control; Control of Purchased Material, Equipment, and Services; Identification and Control of Materials, Parts, and Components; Control of Special Processes; Inspection; Test Control; Control of Measuring and Test Equipment; Handling, Storage, and Shipping; Inspection, Test, and Operating Status; Nonconforming Materials, Parts, or Components; Corrective Action; Quality Assurance Records; and Audits.



**LOCKHEED MARTIN**

*We never forget who we're working for®*



# Executing **Certified Performance**

## **ASME NQA-1-1994 Quality Management System**

*“Quality Assurance Requirements for Nuclear Facility Applications — American Society of Mechanical Engineers”*

**ASME NQA-1-1994** is accepted by the NRC as a means to meet the requirements of 10 CFR 50 Appendix B. This standard provides requirements and guidelines for the establishment and execution of quality assurance programs during siting, design, construction, operation and decommissioning of nuclear facilities. This Standard reflects industry experience and current understanding of the quality assurance requirements necessary to achieve safe, reliable, and efficient utilization of nuclear energy, and management and processing of radioactive materials. The Standard focuses on the achievement of results, emphasizes the role of the individual and line management in the achievement of quality, and fosters the application of these requirements in a manner consistent with the relative importance of the item or activity.

## **AS9100 Quality Management System**

**AS9100** is a widely adopted and standardized quality management system for the aerospace industry. It was introduced to the Society of Automotive Engineers in the Americas and the European Association of Aerospace Industries in Europe in October 1999 by aerospace. AS9100 fully incorporates the entirety of the current version of ISO 9000, while adding additional requirements relating to quality and safety. All major aerospace manufacturers and suppliers worldwide require compliance and/or registration to AS9100 as a condition of doing business with them.

## **ISO 9001-2000 Quality Management System**

**ISO 9000** is a family of standards for quality management systems. ISO 9000 is maintained by ISO, the International Organization for Standardization and is administered by accreditation and certification bodies. Requirements in ISO 9001 (one of the standards in the ISO 9000 family) include:

- A set of procedures that cover all key processes in the business
- Monitoring processes to ensure they are effective
- Keeping adequate records
- Checking output for defects, with appropriate and corrective action where necessary
- Regularly reviewing individual processes and the quality system itself for effectiveness
- Facilitating continuous improvement

Lockheed Martin Corporation  
Nuclear Systems & Solutions  
459 Kennedy Drive  
Archbald, Pennsylvania 18403  
Telephone: +1 570 803 2161  
nss.solutions@lmco.com

© 2011 Lockheed Martin Corporation  
11Ar002nss PIRAORL201102013

A company or organization that has been independently audited and certified to be in conformance with ISO 9001 may publicly state that it is “ISO 9001 certified” or “ISO 9001 registered.” ISO 9001:2000 Quality Management Systems – Requirements is intended for use in any organization which designs, develops, manufactures, installs and/or services any product or provides any form of service. It provides a number of requirements which an organization needs to fulfill if it is to achieve customer satisfaction through consistent products and services which meet customer expectations. Lockheed Martin is certified to ISO 9001:2000.

## **ISO 14000 Environmental Management System**

**ISO 14001** is the international specification for an Environmental Management System (EMS). It specifies requirements for establishing an environmental policy, determining environmental aspects and impacts of products/activities/services, planning environmental objectives and measurable targets, implementation and operation of programs to meet objectives and targets, checking and corrective action, and management review. ISO 14000 is similar to ISO 9001 quality management in that both pertain to the process (the comprehensive outcome of how a product is produced) rather than to the product itself.

## **2005 Recipient: Shingo Prize for Manufacturing Excellence**

The Shingo Prize is regarded as the premier manufacturing award recognition program for North America. As part of the Shingo Prize mission and model, the Prize highlights the value of using lean/world-class manufacturing practices to attain world-class status.

The mission of The Shingo Prize is to build Operational Excellence in organizations through the promotion of “True North” principles of Lean, Lean systems of management and the wise application of Lean tools and techniques across the entire organizational enterprise. The Shingo Prize achievement criteria provide a framework for identifying and evaluating world-class operational competence and performance.

