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**PROVIDING QUALITY CUSTOMER SERVICES IN A RESEARCH AND
DEVELOPMENT PROJECT MANAGEMENT ORGANIZATION**

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ABSTRACT

Sandia National Laboratories (SNL) is one of the U. S. Department of Energy's (DOE) largest multiprogram laboratories and is managed by Martin Marietta Corporation. The Defense Programs Division is a 700-person organization that manages weapons-related R&D projects. A Management Services (MS) organization was established for the division in April 1992. This organization's primary functions are to serve as the Vice President's Deputy for Operations and to assist managers and staff with services such as corporate-required training, environmental safety and health (ES&H) functions, space planning, and to challenge administrative barriers and non-programmatic requirements. MS relies totally on customer funding. The customers' bottom line for measuring MS performance is the number of hours saved. Quarterly customer satisfaction surveys are conducted. Customers rate the quality of services provided, review the hours saved, and identify services that can be improved. This paper discusses a total quality management approach for managing customer relationships and shares lessons learned.

Introduction. The Management Services organization is part of Sandia National Laboratories (SNL) Defense Programs Division, which manages weapons-related R&D projects. The primary goal of MS is to save the time, money, and efforts of line managers and staff by increasing better use of their human resources, and to resolve non-programmatic issues that continually crop up and may detract from the technical mission of line organizations.

Management Services formulates policies, practices, and procedures for line organizations and oversees quality

assurance (QA). It manages Division councils, meetings, newsletters, and other forms of communication. Management Services responds to requests from external customers for non-programmatic information. It also consults with line managers and staff on how to improve the use of physical facilities, conduct of operations, and meeting requirements of environmental safety and health (ES&H).

Customers. Since they pay for services rendered, all persons and organizations who are part of the Defense Programs Division (hereafter referred to as "the Division") are considered internal customers: vice president, center directors, department managers, and

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staff members. External customers are those outside SNL, such as DOE, the Department of Defense (DoD), and design and production agencies.

Suppliers. How about persons and organizations outside the Division but who are still within SNL and need information or request services from the Division? Although technically "customers," they are considered "suppliers" because their primary role is to assist the Division in servicing "external" customers.

Internal-Customer Requests.

Whenever it receives requests for services from line organizations or individuals within the Division, Management Services first determines if its response will improve the line's performance. If it does add value, MS works with the requester in order to maximize responsibility, authority, and efficiency. However, if it is obviously more efficient to work at a higher level, it will be done. Some examples of the latter are the following:

- ◆ management of space and facilities
- ◆ ES&H concerns
- ◆ quality assurance
- ◆ division policies and procedures
- ◆ defense against bureaucratic processes that detract from the Division's mission and cause valueless overhead costs.

External-Customer and Supplier Requests. Requests for generic services that originate from suppliers and outside agencies (e.g., DOE, DoD) are handled such that they lessen the impact on Division line organizations, managers, and staff. Some examples of such services are the following:

- ◆ ES&H concerns

- ◆ security
- ◆ long-range space management
- ◆ facility support
- ◆ conduct of operations
- ◆ upward feedback to management
- ◆ performance review
- ◆ Savings Bond and charity drives.

Structure. The Operations Center Director is responsible and accountable for the Management Services organization. Management Services, as a team, is part of the Operations Center. The team meets weekly to discuss projects, news items, and other pertinent information. Information on individual projects is updated at least monthly, and a status report is submitted to the Director weekly. The team consists of the following:

- ◆ quality and ES&H manager and staff
- ◆ organization-effectiveness manager
- ◆ two secretaries (half-time)
- ◆ project manager who integrates all services and manages customer and supplier relationships.

For Fiscal Year 1993, Management Services had a budget of \$642K and supported five full-time equivalents (FTE) and two contract personnel.

Customer Services. Management Services provides Division policies, procedures, or practices (PP&P) to the indicated customers. When there is a need for a Division-wide PP&P, the team comes up with a plan by evaluating the reason for the need, deciding what is to be included in the PP&P, a schedule for developing the plan, and a process to distribute and implement the PP&P. The primary customer is the vice president. Some examples of PP&P are the following:

- ◆ trip reports

- ◆ news bulletins
- ◆ collecting and analyzing ES&H hazard/risk data.

Challenging bureaucratic processes.

The team has developed and implemented a process to identify and challenge non-productive, unreasonable, and costly requirements created by bureaucratic processes. The primary customers are Division directors and managers.

External, non-programmatic requirements. When external customers and suppliers impose requirements on the Division, the team implements them in the least-intrusive manner possible. This is done by negotiating the content of the requirement in advance, evaluating it for cost and reasonableness and, if so, jointly developing a plan to implement it. The primary customers for this service are the Division managers and staff. An example of a requirement is corporate-required training, which has been centralized and is conducted twice per year. Such training includes security, ES&H, safety, and emergency response awareness.

Crises and one-time problems.

During day-to-day operations, crises or problems arise on a one-time or emergency basis. The team serves as a "barrier buster" and provides ad hoc support to resolve the problem as efficiently and timely as possible. The primary customers for this service are Division staff members. Some examples of such problems are property management inventory improvement, E-mail standardization and usage, and unilaterally-issued surveys.

Division space. The team is developing a plan that identifies space requirements for the Division for the next five years. It is expected to be implemented during the third quarter of Fiscal Year 1994. The primary customers will be the Division vice president and directors. Some examples of what the plan will address include:

- ◆ Laboratories site-conversion plan and database computerization
- ◆ space transaction forms computerization
- ◆ ad hoc requests for space
- ◆ resolution of issues between Facilities and Division organizations.

Quality processes. The team is developing a plan to define quality processes for the Division. The plan will include means to implement the Conduct of Operations required by DOE's Quality Assurance (QA), identify key metrics such as customer satisfaction and project management and ways to maintain them, identify and train personnel in the tools and techniques of QA, and identify and improve key processes in the Division. The primary customers will be the vice president, directors, managers, and staff. A couple of examples of such processes are coordinating SNL President's Quality Award and applying Malcolm Baldridge criteria to operations.

Human resources. The team is developing a plan that will identify long-range staffing needs of the Division. The plan will define skills required to meet strategic objectives, career development policies, training plans, and staffing. Its primary customers will be the vice president, directors, managers, and staff.

Master database. Many of the

customer-driven objectives of the team require timely and accurate information. The team is developing a plan that will incorporate corporate and division data to provide information on personnel, facilities, training, budget, hazards, and ES&H. The requirements for each subordinate database will be negotiated with the stakeholders, and the team will develop a plan that will address cost and performance. The primary customers will be the vice president and directors. Some examples of data are computerized current space usage configuration and a Division personnel database system.

ES&H. SNL's Line Implementation Working Group (LIWG) provides a mechanism for notifying the Division of upcoming ES&H requirements. The team's ES&H coordinators support LIWG by attending meetings, developing plans to implement requirements, and being a source of information for all ES&H matters. The primary customers are the vice president, directors, and managers.

Customer/Supplier relationships.

The team has developed processes for evaluating customer satisfaction that are implemented on a quarterly basis. It is also developing a win-win process for streamlining relations with suppliers. The primary customer is Division management.

Beginnings. The Division's vice president initiated Management Services as a one-year experiment to see if it would add value to Division operations. The customers--who took part in the study--included staff, managers, directors, and the vice president. Line directors were to share the cost of that first year. Their evaluations determined the worth of the Operations Center and if

it would survive the first year of existence.

The Management Services team, with the help of directors and key managers, came up with a way to negotiate requirements and measure customer satisfaction: *it prioritized requirements and treated them accordingly.* It held monthly meetings with customers. Once a quarter, it evaluated and documented its findings. A large part of these findings centered around a quantitative metric termed "net hours saved by line personnel."

To help track this metric, the team keeps a log of requests for services and actions it has taken. For each request, it calculates the net hours saved. Once a quarter, the team submits a report to managers, directors, and the vice president which includes the tabulated log with its metrics. The table below summarizes the Fiscal Year 1993 data for the key metrics that customers use to evaluate the services provided. All data in the table are reviewed and approved by customers.

FY93 Qtr.	Hours Saved	\$K Saved	Rating*
1	3,119	\$177K	3.7
2	4,030	\$224K	3.5
3	1,835	\$126K	3.9
4	2,210	\$153K	4.2
Totals	11,194	\$680K	3.8 Avg.

*Rating Scale: 5 = Very Satisfied

Lessons Learned. As with almost any start-up organization, there are more things that need to be done than there are resources available to accomplish them. Typical start-up issues include budget definition and spending plan, personnel requirements (expertise,

education, experience, knowledge about parent organization, etc.), identifying customers and requirements--a list could go on and on.

Some of the issues above were a priori solved by the customer group that recommended the creation of Management Services (e.g., budget, personnel, customer requirements). The fundamental issue facing the start-up group was the ability to solve, intervene, placate, and discuss problems with suppliers on a timely basis. In fact, since day one, response time in getting back to the customer on whatever the issue might be was most often within hours or a very few days.

Initial interactions with customers at monthly meetings typically resulted in 10 to 15 action items being handed over to Management Services. By and large, all action items were handled successfully by the time of the next monthly meeting, and most within days.

A great deal of personal attention was paid to all customers at the onset of Management Services formation. Customers gave Management Services one year to demonstrate its effectiveness and consequently all staff felt the pressure to perform effectively, efficiently, and with quality products. Personal attention has been a strength. With the successful results from Fiscal Year 1993, customers decided to fund MS another year.

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L. Paul Page began his career at Sandia National Laboratories in 1989 as a member of laboratory staff. He currently is the project manager for the Management Services organization. During his 20 year career, Paul has worked at two U. S. Department of Energy laboratories, the UNM School of Medicine, and served as vice president of group that conducted management training for DOE. Primary areas of interest are systems evaluation, analysis, and design, and developing start-up organizations.

This work performed at Sandia National Laboratories is supported by the U. S. Department of Energy under contract DE-AC04-94AL85000.

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The image is a high-contrast, black-and-white graphic. It features four distinct horizontal bands. The top band is composed of four vertical rectangles of varying widths, with the central one being the widest. Below this is a thick, dark, horizontal bar. The third band is a thick, dark, diagonal bar sloping upwards from left to right. The bottom band is another thick, dark, horizontal bar. The entire graphic is set against a white background.

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