

DYNMCDERMOTT PETROLEUM OPERATIONS COMPANY

MALCOLM BALDRIGE NATIONAL QUALITY AWARD APPLICATION





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Award Fee: A semiannual fee paid or awarded to SPR's management and operations contractor based on performance.

Award Fee Board: A group of Department of Energy senior managers that reviews the reports of Performance Evaluation Committees and recommends to the Fee Determination Official the amount of fee to be awarded to the management and operations contractor.

Bayou Choctaw, Louisiana: SPR storage site located near Baton Rouge, Louisiana.

Behavioral Safety Program: An employee-managed safety program in which employees critique each other's safety practices.

Big Hill, Texas: SPR storage site located southwest of Beaumont, Texas.

Bryan Mound, Texas: SPR storage site located near Freeport, Texas.

Centra: The electronic document management system that DM uses to store current versions of policies, procedures, work instructions, technical drawings, etc. Centra's workflow process is used to route documents for formal review and comment.

Commercialization: The SPR process of selling or leasing underutilized facilities that used primarily in drawdowns (e.g., pipelines or terminals) to reduce costs and raise revenues. The SPR retains the right to use the facilities in a drawdown.

Degassification: The process for removing dissolved gases from oil in SPR caverns so oil can be drawn down safely.

Drawdown: Process of selling SPR oil in a Presidentially declared emergency, removing it from storage and distributing it to buyers.

Drawdown Readiness Review: Quarterly in-depth assessment of SPR capabilities for meeting drawdown requirements.

Environmental Protection Agency (EPA) National Environmental Performance Track (NEPT): A program that recognizes and encourages facilities that have a sustained outstanding record of environmental compliance and performance, employ environmental management systems, and are committed to continued environmental improvement and public outreach. NEPT facilities have a systematic approach to managing environmental responsibilities and take extra steps to prevent pollution and be good corporate neighbors. They must demonstrate sustained performance; show commitment to environmental improvement, public outreach, and performance reporting; and pass an EPA inspection to become members. SPR is a charter member. Fill: Oil acquired and deposited into SPR storage sites. Used as both noun and verb.

Foreign Trade Zone: A duty free storage facility. Our Big Hill storage site is a Foreign Trade Zone subzone, which allows commercial enterprises to store oil without paying customs duties and some taxes. We attained the designation in 1998 to improve the possibility of leasing storage in return for payment in oil, which we would use to increase fill.

Fossil Energy: The Office of the Assistant Secretary for Fossil Energy, which is largely a research and development organization, is SPR's parent organization within the Department of Energy.

Heating Oil Reserve: A 2-million-barrel northeast heating oil reserve in steel tanks that the SPR is creating and managing by contracting with industry. It is a 2000 administration initiative.

Heavy crude oil: High-density crude oil. Usually lower quality and used for making a lower percentage of light products, like heating oil and gasoline, and heavier products, like residual fuel.

Incentive Fee: Fee set aside in an award fee contract as an incentive for meeting specified levels of high performance in important contract areas.

ISO 9001 (Quality Management Systems): ISO 9001 (Quality Management Systems) is a rigorous set of international standards for quality management systems designed to help organizations set up and operate quality management systems, meet customer requirements, control processes, and improve continuously. ISO 9001 stipulates the requirements for a quality management system and is based on eight principles: customer focus, leadership, involvement of people, process approach, systems approach to management, continuous improvement, factual approach to decision making, and mutually beneficial supplier relationships. International Organization of Standards auditors certify whether organizations meet these standards. The series has been adopted in more than 90 countries and implemented by thousands of public and private manufacturing and service organizations to demonstrate their commitment to quality and their pursuit of excellence in all phases of their operations.

ISO 14001 (Environmental Management Systems): ISO 14001 is a rigorous set of international standards for environmental management systems designed to help organizations improve their level of environmental performance. ISO 14001 stipulates the requirements for an environmental management system. International Organization of Standards auditors certify whether organizations meet these standards. External certification as an ISO 14001 organization demonstrates to the surrounding community, the public, and international business that the organization has developed and implemented management systems designed to improve its products and

services, maintain environmental compliance, reduce pollution and waste, and foster continuous self-assessment.

Level I Criteria: Overall performance criteria issued by the Program Office.

Level II Criteria: System criteria issued by the Project Management Office.

Level III Criteria: Detailed design criteria issued by the Project Management Office.

Level IV Criteria: Criteria issued within DM to track operational level milestones.

Life Extension Program A major design and construction program (1993-1999) that replaced aging equipment and systems; standardized and simplified hardware, electrical, instrumentation and control systems; and extended the life of storage sites to the year 2025.

Light crude oil: Low density crude oil. Usually higher quality and used to make a higher percentage of light products, like gasoline and heating oil, than heavier crude oils.

Maintenance Performance Appraisal Report (MPAR): Monthly weighted index that measures SPR Maintenance Program performance.

Management and Operating (M&O) contractor: Operates SPR storage sites, pipelines, and equipment. Also called management and operating contractor.

Milestones: Hierarchical system of milestones. Level I are Deputy Assistant Secretary milestones; Level II are Project Manager milestones; Level III are Assistant Project Manager milestones; and Level IV are contractor milestones.

Occupational Safety and Health Administration (OSHA) Voluntary Protection Program (VPP): A select group of 600 facilities out of 6,500,000 under Occupational Safety and Health Administration (OSHA) jurisdiction that have designed and implemented outstanding safety and health programs. VPP certification demonstrates that a facility has established effective management systems to protect its workers and include workers in safety planning and implementation.

PBViews: Electronic measuring system used for DM's Performance Measurement and Management System (PMMS).

Performance Evaluation Committee (PEC): Four committees that evaluate performance of the management and operations contractor in major functional areas. They provide bimonthly evaluations and feedback to the contractor and make semiannual reports on the contractor's performance to the Award Fee Board.

Performance Evaluation Management Plan (PEMP): Annual plan for management and operations contractor that defines what will be evaluated and what fees will be awarded for different levels of performance.

Performance Measurement Management System: The system that DM uses to manage activities relative to measuring and reporting performance to DOE, performance of internal processes, and of activities associated with compiling data for management reporting, preparation, and presentation of data for Project Review.

Performance Plan: Annual statement of SPR performance objectives and measures.

Performance Report: Annual report on SPR performance against performance measures.

Program Office: SPR headquarters, located in Washington, D.C.

Program Review: Quarterly one- or two-day meeting where SPR leadership and staff review organizational performance and initiate actions.

Project Management Office (PMO): SPR field organization, headquartered in New Orleans.

Project Review: Monthly meeting to review and discuss contractor's performance. Participants include the management and operations contractor, architectural and engineering contractor, Sandia National Laboratory, and Defense Contract Management Agency.

Royalty Oil or Royalty-in-Kind (RIK): Royalties paid in crude oil not money. The SPR is obtaining royalty oil paid to the Department of the Interior by oil producers under our strategic initiative to obtain additional crude oil without appropriated funds.

Readiness Review Board: A design approval board, composed of everyone who worked on a design or who will implement the design, which determines that a design is safe and ready to be turned over to operations for implementation.

SAP: DM's automated system that uses SAP R_3 software to manage administrative, control, and financial functions.

Service Enterprise Resource Plan (SERP): Massive reengineering of automated administrative, control, and financial systems.

Six Sigma: improvement methodology; six sigma refers to variation in a process that is so small that the resulting products and services are 99.9997% defect free.

Sour crude oil: Crude oil with a high percentage of sulfur by weight.

Star Among Stars: Environmental Protection Agency Region VI (Dallas) annual program to recognize outstanding performance among VPP facilities. Requirements include injury and lost workday injury rates 50 percent below national averages for comparable organizations.

Strategic Plan: Annual plan that states DM's and DOE's SPR strategic goals, which are linked to Fossil Energy and Department of Energy plans and to the Secretary of Energy's Annual Performance Agreement with the President.

Sweet crude oil: Crude oil with a low percentage of sulfur by weight.

Vapor pressure control: Same as degasification.

Voluntary Protection Program (VPP): The OSHA Voluntary Protection Program is a partnership between OSHA, management, and the employees in which each commits to support a safety and health program that goes above and beyond the minimum legal requirements.

West Hackberry, Louisiana: SPR storage site located near Lake Charles, Louisiana.

Work Authorization Directives (WADs): Formal annual instructions to SPR's management and operations contractor that contain detailed work requirements, performance objectives, minimum levels of performance, and stretch goals.

ABBREVIATIONS

ATS – Assessment Tracking System
BATS – Budget Adjustments Tracking System
BC – Bayou Choctaw
BH – Big Hill
BM – Bryan Mound
BPS – Boeing Petroleum Services
BWXT – BWX Technologies, Inc.
CEO – Chief Operating Officer
CFR – Code of Federal Regulations
COMETS – Crude Oil Movement Event Tracking System
CPM – Critical Performance Measure
CSC – Computer Services Corporation
DEAR – DOE Acquisition Regulation
DM – DynMcDermott Petroleum Operations Company
DOE – Department of Energy
EAC – Environmental Advisory Committee
EDM - Electronic Document Management
EEOC – Equal Employment Opportunity Commission
EMS – Environmental Management System
EPA – Environmental Protection Agency
E2P2-EPA Pollution and Prevention Goals
ERT – Emergency Response Team
ES&H – Environmental Safety & Health
ESS – Employee Self Service System
FAR – Federal Acquisition Regulation
FMEA - Failure Modes and Effect Analysis
FTE – Full Time Equivalent
FY – Fiscal Year
GAAP – Generally Accepted Accounting Principles

GPRA - Government Performance and Results Act

IA – Independent Assessment
ICPI – Integrated Continuous Performance Improvement
IDP – Individual Development Plan
IMTT – International Matex Tanks & Terminals
ISM – Integrated Safety Management
ISSM - Integrated Safeguards and Security Management
JPMC – Joint Performance Management Council
LAN – Local Area Network
LAN/WAN – Local Area Network/Wide Area Network
LDEQ – Louisiana Department of Environmental Quality
LWD – Lost Workday
M&O – Management & Operations
MMB – Million Barrels
MMBD – Thousand Barrels
MPAC – Material Performance Appraisal Compilation
MPAR – Maintenance Performance Appraisal Report
NEPT – National Environmental Performance Track
NOFPEN – New Orleans Federal Performance Excellence Network
OASIS - Oil Accountability Subsidiary Information System
O&M – Operations & Maintenance
OSHA – Occupational Safety and Health Administration
PBX – telephone system
PEC – Performance Evaluation Committee
PEMP – Performance Evaluation and Measurement Plan
PI – Performance Improvement
PMMS – Performance Measurement Management System
PMO – Project Management Office
PO – Project Office
PRIDE – Personal Readiness is Drawdown Excellence
QA – Quality Assurance
OED Quality Eurotian Danlaymont

RAA – Responsibility, Authority, and Accountability SAP – Systems, Applications, and Programs SAT – Systematic Approach to Training SDB – Small/Disadvantaged Business SERP – Service Enterprise Resource Plan SPEAR – Supplier Performance Evaluation and Rating SP&C – Strategic Performance & Communications SPP – Strategic Planning Process SPR – Strategic Petroleum Reserve SPRPMO – Strategic Petroleum Reserve Project Management Office SWOT – Strengths, Weaknesses, Opportunities, and Threats TCEQ – Texas Commission for Environmental Quality TDC – Technical Data Center TRACE – Chemical Analysis of Trace Metals (software application) TX - Texas VPP – Voluntary Protection Program WAD - Work Authorization Directive WAN – Wide Area Network WH – West Hackberry

PREFACE: ORGANIZATIONAL PROFILE

DynMcDermott Petroleum Operations Company is a federal government "prime" contractor committed to mission readiness...to a safe and healthy work environment...to applying commercial best practices...to efficiency initiatives...to an integrated quality system...and to providing safe and secure energy for the nation's future.

DynMcDermott Petroleum Operations Company (DM), located in New Orleans, LA, is the sole Management and Operating (M&O) Contractor for the Department of Energy (DOE) Strategic Petroleum Reserve (SPR). Formed in 1993, DM successfully re-competed its contract and as of April 2003 received a new contract through 2008 with renewal options through 2013. By contract, DOE is our only customer. The contract is performance based, which enables the company to earn performance award fee every year based on specific DOE mission-driven performance expectations. DM is a management company with no assets, liabilities, or debt. We generate cash based on our service and performance results. The majority of our operating expenses are paid by DOE and the performance fee determines DM's profit. How well we achieve the DOE mission-driven performance expectations determines our level of profitability. DM is considered one of the top performing federal contractors by DOE and is the only company in Louisiana to win the Baldrige based Louisiana Quality Award three times (1996, 2001 and 2003). We received a 2004 Baldrige Site Visit and used the Feedback Report to close the gaps to move beyond the 2004 Scoring Descriptor Band Number 5. Our Big Hill oil storage site in Texas was the recipient of the 2005 Texas Quality Award. This document, describes a unique federal contract for a strategic DOE project that is quite different from any traditional business. In fact, quoting a 2004 examiner, "DM functions more like an extension of the Department of Energy than it does a For-Profit business".

DM is owned by a corporate partnership of: California-based Computer Science Corporation (CSC) (60%) which acquired our former owner, DynCorp, in March 2003; New Orleansbased BWXT Federal Services, Inc.; (McDermott International) (30%); California-based Jacobs Federal Engineering (5%); New Orleans-based International Matex Tank & Terminals Petroleum Management (IMTT) (5%).

P.1 ORGANIZATIONAL DESCRIPTION

P.1a Organizational Environment

(1) <u>Product / Service and Delivery</u> The SPR, a national strategic asset, was established by the Energy Policy and Conservation Act of 1975 in the aftermath of the 1973 Arab oil embargo. The SPR is unique and has become a global benchmark in oil storage and is credited with the creation of most of the technology to accomplish the SPR mission "to store petroleum to reduce the adverse economic impact of a major petroleum supply interruption to the United States and carry out obligations under the International Energy Program". The SPR is the largest emergency crude oil reserve in the world and is highly visible when oil prices rise or when

global conflicts cause a potential of oil supply interruptions. The SPR is America's energy insurance against disruptions to the world's flow of crude oil. The SPR is a member of the International Energy Agency, composed of 26 member countries. Membership in the International Energy Agency requires that the SPR meet international standards for emergency oil reserves equivalent to at least 90 days of net oil imports for the previous year. The existence of the SPR, resulting systems, processes, and measures are based on this strategic requirement.

In the event of oil supply interruption, and following an order from the President of the United States, the SPR is poised to distribute crude oil to refineries. This is one of our most important value creation processes and is known as "Drawdown." Following the terrorist event on September 11, 2001, President George W. Bush ordered DOE to fill the reserve to capacity. We are currently filling the reserve and as of May 2005, a total of 692 million barrels of oil is in storage. (Crude oil is traded in 42-gallon barrels, which is a unit of measure.) Total SPR storage capacity is about 700 million barrels of oil located in 62 large underground salt caverns at two sites in Louisiana and two sites in Texas. These storage caverns, which each hold approximately 11.2 million barrels of oil, were created by solution mining also known as leaching - or hollowing out - salt domes with fresh water injected at high pressure. Our storage approach has won engineering awards for being much less expensive and safer than other large-scale storage methods. It is considered a global benchmark studied by other countries, such as Japan, Germany, China, Russia, India, South Korea, Philippines, and Thailand *Figure 7.1-3*.

Delivery Mechanisms: DM employs the maintenance and operations workforce that is responsible for all the DOE facilities, including the SPR's infrastructure of pipelines. pumps, motors, and other equipment that ensures the reserve is ready to respond rapidly to an energy emergency. SPR facilities are connected through a nationwide commercial pipeline and terminal distribution network to oil refineries and other processing facilities. This commercial network can move the oil quickly to designated points of need within nationally mandated timeframes. During non-emergency operations, a complex set of exchange agreements exists between DOE and numerous commercial oil companies to facilitate the filling of the SPR under normal day-to-day operating conditions. This is standard industry practice and ensures product and system viability. At full storage capacity, the SPR can support the country's crude oil requirements for 90 days. The only emergency sale of oil authorized by the President was during Operation Desert Storm; although in 1999, a 30 million barrel Drawdown was ordered by President Clinton to offset high heating oil costs in the U.S. Northeast.

Figure P.1-1 Main Service and Delivery

- Main Service: Management and Operations of the DOE Strategic Petroleum Reserve
- **Delivery**: Performance-based Contract

(2) <u>Organizational Culture</u> DM's organizational culture is measured via Organizational Capital Readiness System **1.1a(1)** and is structured yet flexible, helping create a cooperative, productive work environment and provide value for stakeholders. Our unique "Values Based" Strategic Plan defines our culture with a set of core values and related success factors (*Figure 2.1-3*). These values are the foundation of our performance management system and all strategic performance measures.

The Strategic Plan, the top of our hierarchy of plans, flows through the organization to work authorizations and to our contractors. Project Reviews and weekly staff meetings enable DOE and DM to review progress and plan improvements in working reviews that promote two-way communication and collaborative decision-making. There is a structured annual performance fee process for evaluating and rewarding our performance based on results. Our flexible work environment complements this systematic approach and helps us adapt to change. Leaders encourage employees to manage their own work. We use many formal and informal teams and partner with DOE, other suppliers, and commercial partners. DM's Operational Readiness System supports our mission and consists of our two most important processes of "Drawdown" and "Fill". We have had four major drawdown readiness exercises in recent years and we are currently filling the SPR.

Our organization chart shows the functional structure that enables DM to successfully meet the needs of DOE. A streamlined reporting structure, complementing the DOE Project Management Office (SPRPMO), provides integration of business functions and has proven to be the most efficient means of managing and operating SPR assets. For process standardization, reporting, mutual support, and communicating purposes, DM's technical and business functions are aligned to support operations in accomplishing the Mission and Vision defined in Figure P.1-2. Administrative support in the form of company-level Strategic Planning. Budget Formulation. Human Resource Management, large-scale Procurement, Operations. Maintenance, and Engineering are all provided through DM corporate headquarters. All oil storage, oil movement, and field-operating functions are conducted at our four sites in Louisiana and Texas. For daily security, operational, and decision-making purposes, each site is run as a separate business unit under the operational control of a Site Director. This structure allows field-level decisions to be made at the lowest possible level of organizational leadership, yet firmly supported by well-defined delegation of authority required to support the decision-making process. This structure reflects the company's decentralized leadership philosophy of "RAA" - Responsibility, Authority, and Accountability.

The genesis of our Purpose, Vision, Mission, and Values is the SPR (DOE) Vision, Mission, and Values, the performance based contract. Our customer-focused processes are directly aligned with DOE's Vision, Mission, and Values. This ensures the creation of strategies, systems, and methods for achieving excellence, stimulating innovation, and building

trust, knowledge, and capabilities. These values and strategies guide all activities and decisions.

Figure P.1-2 Culture Statements

Purpose: Defined by contract to Manage and Operate the DOE Strategic Petroleum Reserve.

Vision: Our vision is to be the industry leader for petroleum storage, distribution, and operations best practices, and assist the SPR in remaining a leader in federal government agency performance.

Mission: Our mission is to excel at delivering safe, secure, environmentally responsible and cost effective SPR operational readiness.

(3) <u>Employee Profile</u> There are no bargaining units. Special safety requirements are applied through job/task/risk assessments and administered through DM Integrated Safety Management (ISM), the Behavioral Safety Program, and Integrated Safeguards and Security Management (ISSM).

Figure P.1-3 Employees by Locations (Six Locations)

New Orleans, LA – Project Management Office	244
Bayou Choctaw, LA – Storage Site	51
Big Hill, TX – Storage Site	91
Bryan Mound, TX – Storage Site	77
West Hackberry, LA – Storage Site	89
Stennis Space Center, MS–Continuity of Operations	2
Total	554

Figure P.1-4 Employees by Category/Type (approx.)							
Location	BH	BM	WH	BC	NO	Total	
Officials/Mgrs	15	16	18	13	50	112	
Professionals:	16	11	11	10	167	215	
Technicians:	6	7	7	5	0	25	
Office/Clerical	5	4	5	3	16	33	
Craft workers	24	24	29	10	2	89	
(skilled):							
Operations	25	12	18	10	2	67	
(semi-skilled):							

Figure P.1-5 Employee Diversity

Location	BH	BM	WH	BC	NO	Total
Females	11	12	9	9	81	122
Asian	1	2	1	0	4	8
African-American	4	0	2	5	23	34
Hispanic	6	8	1	2	8	25
Native American	0	0	0	0	2	2

Figure P.1-6 Education Level (% of Total Workforce)

Location	BH	BM	WH	BC	NO	Total
Doctoral & Law /Master Degrees	1%	1.5%	1%	0	15%	2%
Bachelors Degree	11%	13%	10%	15%	46%	31%

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(4) <u>Major Technologies, Equipment, and Facilities</u> New Orleans employees work in a modern office environment. All employees have personal computers, local area network (LAN), wide area network (WAN), e-mail, intranet, and internet capabilities. We use current office software, upgrade hardware about every two to three years, and link all of our offices through video and teleconference technology. We use computer modeling and simulation to manage operational requirements, estimate future needs, and model the oil industry. Our warehouse and emergency operations center facility at Stennis Space Center in Mississippi is designed to ensure continuity of operations in case of emergency at the New Orleans project management office.

Our four oil storage sites operate independently and are industrial in nature. Our storage caverns extend 4,000 feet underground, identifiable only by piping at the surface. Our five-year, \$330 million Life Extension Program ended in 2000 and extended the life of our facilities through 2025. This program reduced cost and improved efficiencies through a standardized site infrastructure, which reduced the pieces of equipment in our system, and reduced spare parts requirements. Our sites use automated systems to manage fluid movements and monitor process conditions, such as temperatures, pressures, and vibration. Each oil storage site has advanced fire protection system equipment, emergency response personnel and equipment, and a specially trained security force. We routinely use new technologies, such as cement lining for brine disposal pipelines to reduce corrosion and erosion. Because we pioneered our method of crude oil storage, we sometimes develop new technologies to resolve unique problems, such as new sampling and measurement tools as part of our oil degasification effort.

(5) <u>Regulatory Environment</u> We are responsible for the SPR storage facilities located in environmentally sensitive areas near the Gulf of Mexico and are subject to all federal, state, and local environmental, safety, and health laws. Our environmental, safety, and health programs comply with or exceed regulatory requirements through proactive pollution prevention, environmental monitoring, and behavioral safety programs. Our award winning environmental management system is the only North American bulk petroleum storage system to receive ISO 14001 certification and one of only five certified DOE systems. The SPR is a Charter Member of the Environmental Protection Agency's (EPA) National Environmental Performance Track (NEPT). State and federal safe workplace requirements/laws/regulations are standard and DM exceeds all of these. All four storage sites have achieved Star of Stars status through the Occupational Safety and Health Administration's and DOE's Voluntary Protection Program (VPP). The SPR is subject to cargo preference laws administered by the Maritime Administration, Department of Transportation, which generally require half the oil we receive by tanker to be shipped in U.S. flagships. DM's procurement and contracts processes are governed by the DEAR (DOE Acquisition Regulation) and the FAR (Federal Acquisition Regulation). Our processes are regulated by contractually mandated DOE Directives, Orders, Guidelines, and Work Authorization Directives. Financial operations are governed by GAAP (Generally Accepted Accounting Principles).

P.1b Organizational Relationships

b(1) Organizational Structure and Governance System DM's organizational structure and reporting relationships to DOE are depicted in Figure 3.1-1. The Governance system is based on DM values, defined in Figure 1.1-1, and consists of processes identified in Figure 6.1-1. These processes are contractual requirements and ensure accountability, independence in audits, and protection of stakeholders' interest.

b(2) <u>Key Customer / Partner</u> By contract with DOE since the inception of the company in 1993, our only customer is the DOE. There are approximately 90 DOE employees providing oversight for all DM business processes and functions. The level of integration between DOE and DM is so unique and complete, that most of DOE Strategic Plan performance is totally supported and controlled by DM's performance. This business paradigm creates a true partnership that reflects the fact that **"if DM fails – DOE fails"**. This premise sets the stage for this application.

<u>Major Markets</u> Considering our Purpose, the SPR's primary market is the U.S. However, DM has hosted over a dozen members of the International Energy Agency and representatives of foreign governments. DM has benchmarked with Japan and has viewed their oil storage capabilities, oil movement technologies, and plans for increased future strategic reserve capacities. These foreign outreach activities assist the International Energy Agency in improving world energy strategies thereby benefiting the United States.

Customer and Market Key Requirements Figure P.1-7 highlights DM key customer requirements and represents the key services provided. These customer requirements drive the formulation of the process management system and performance measures. Successful accomplishment of these requirements translates into DM performance measurements addressed in Category 2. These are further illustrated as results linked to the DOE/DM Performance Evaluation and Measurement Plan (PEMP) described in Category 4 and as business results. In accordance with the PEMP, DM is evaluated annually. The new five-year contract extension and our consistently high Performance Fee scores (above 90%) indicate DOE's satisfaction with DM's superior performance. The critical nature of the SPR's mission drives DM's mission critical system, which is Operational Readiness. This is priority #1 for the SPR. DM ensures and validates the Operational Readiness system through its key processes of Drawdown and Fill and related support processes. These are reviewed quarterly with our customer, internal assessments, and by external audits conducted by our customer. Due to evolving customer requirements and priorities, measures of success for these key processes are updated periodically. The primary review of these key processes and process measures is conducted during Strategic Planning development sessions.

Figure P.1-7 Key Customer Requirements

- Operational Readiness (Mission critical system)
- Meet Customer Requirements (Contractual)
- Safe, Environmental and Effective Infrastructure

These are achieved through key processes of maintaining and operating the SPR at a SATISFACTORY level or higher (75% or greater). See *Figures. 3.1-2 and 7.2-1*.

(3) Suppliers and Supply Chain Requirements "Partnership" is a core value. "Beneficial Relationships" is the related success factor. These describe our approach to developing long-term, mutually beneficial, ethical, and honest relationships with our suppliers, which has driven innovation through improvements to meet our unique requirements. Figure 6.1-1 identifies the linkage of "Beneficial Relationships" to our value creation processes and Figure 6.2-1 to our key support processes. The goods and services DM acquires are similar to those needed by an oil producing, storage, and pipeline operations company. These include maintenance and operations supplies and services, as well as construction, technical support, and protective services. DM also acquires all goods and services to support maintenance of critical equipment, such as pumps, motors, valves, and pipeline systems. As the M&O contractor for the SPR, DM integrates performance improvement and quality assurance practices to support customer-supplier relationships in order to achieve and maintain the most cost-effective methods of managing the SPR. DM has developed successful supplier relationships with about 460 key suppliers used on an ongoing basis. Seventy-eight percent (78%) of these suppliers are small, disadvantaged, or woman-owned businesses. Some examples are the teaming partner agreements, mentor-protégé program, basic ordering agreements, and DM/parent company subcontracts.

Figure P.1-8 Supply Chain Requirements

- Use of Best Value selection methodologies
- Manage the procurement links of the supply chain regulatory requirements
- Transaction focused (cradle to grave)
- Management by Fact decision making (data)
- · Cost Management through improved operational efficiency
- · Requirements driven
- Reduction in Quality Assurance source inspections
- · Assist in material and production planning
- Use of Pre-Approved Suppliers for critical requirements
- Identify opportunities for innovation and continuous improvement
- User-friendly reporting

(4) <u>Key Supplier/Customer Partnering/Communication</u> <u>Relationships</u> Supplier, subcontractor, and customer relationships are developed as partnerships sharing many of the same improvement methodologies, focusing on the same metrics/goals, and initiating collaborative best practices. Correspondence, site visits, office-sharing, and virtual media are all examples of partnership communications mechanisms.

Figure P.1-9 Key Suppliers

- Security: Worldwide Security Services
- *Emergency Pipeline Repairs*: L.S. Womack, Inc. (Primary)
- Valve Repairs: United Valve & Cooper Cameron Valves
- <u>Actuator Repairs</u>: Envalco Controls Corp.- EIM & Fair Engineering Sales-Rotork
- <u>Pump Repairs</u>: David Brown Pump Company & Sulzer Pumps, Inc.
- Motor Repairs: Grayson Armature Works
- As-Built Drafting/Data Center Services: GEM Technology
- Benefits Corporate Benefit Services of America, Inc.
- <u>401k Invesment</u> Prudential Financial, Inc.

P.2 ORGANIZATIONAL CHALLENGES

P.2a Competitive Environment

P.2a(1) <u>Competitive Position</u> DM was formed solely to be the M&O contractor of the SPR and is contractually prohibited from obtaining other work. DM has successfully demonstrated competitive advantages by earning high performance award scores and earning full five-year contract extensions in 1998 and a new competitively bid contract again in 2003 with options through 2013. DM's Five-Year Strategic and Action Plans are designed to ensure competitiveness beyond 2008. The number and type of qualifying competitors varies with each solicitation period but is generally confined to petroleum management organizations. We have created a barrier to competition through our exceptional performance Halliburton was our only competitor during the 2003 re-bid process.

P.2a(2) Success Determination Factors/Key Changes Unlike our competitors, we have developed a culture of proven excellence that has been recognized throughout the federal government, specifically by DOE and validated by third parties Figure 7.2-9. The application of commercial best practices, cost reduction initiatives, integrated continuous performance improvement, operational benchmarking, mission readiness, systems availability, safety, and an enterprise performance measurement management system are indicative of DM's competitive success factors as the DOE SPR M&O contractor. DM's key changes are changing customer requirements and compliance with local and federal laws and regulations. These are viewed as critical to overall company performance success and are addressed in our Strategic Planning Process (SPP). For example, the Oil Pollution Act of 1990, the Hazardous Liquid Pipeline Act, and Texas and Louisiana's oil/gas drilling and hydrocarbon storage laws and regulations significantly influence operations unique to DM. The published 2000 DOE / EPA Pollution and Prevention Goals (E2/P2) impose increasingly stringent waste accumulation, emission and discharge requirements, and limitations on companies that produce environmental waste or waste-related products. As such, DM has placed critical focus on establishing practices and procedures to better identify,

reduce, and eliminate any and all waste produced by the SPR. This effort is a key customer quality requirement, a key DM business process, critical in the competitive environment, and a key measurement of company performance and customer satisfaction.

P.2a(3) <u>Key Comparative/Competitive Data Sources</u> DM engages in assessments and benchmarking which allow for DOE and industry comparisons. Within industry, key comparative and competitive data is from oil industry corporations, such as Chevron/Texaco, Shell Oil, and oil terminals.

With outside industry, we benchmark analogous processes with our parent companies, (i.e. Computer Science Corporation, BWXT and others), and with thousands of members of a global benchmarking network known as The Benchmarking Exchange. Our efforts are so extensive that since in 2003, with just over 500 employees, we were ranked eighth following the Bank of America, Xerox, NASA in accessing knowledge globally. Additionally, DOE provides some limited access to comparative data for like processes within the DOE complex. (See 3.2b(3) <u>Benchmarking</u>) The uniqueness of the SPR, DOE classified statistical data, and the constraints of a government "prime" contract create restrictions for direct comparisons. However, DM has established determination of best practices as a key to its management system.

P.2b Strategic Challenges

To achieve our Vision, DM's Strategic Planning Process (SPP) provides for assessment to determine our future direction as defined by the "Voice of the Customer," the "Voice of the Business," and the "Voice of the Employee." The challenges below are indicative of the scope of strategic consideration for DM. Each challenge is linked to the strategic objectives in *Figure 2.1-3* (abbreviated as "C") and aligned with the related Success Factor and DM Core Value. Sustainability is integrated into the SPP and has always been part of numerous planning activities such as maintaining a rolling, zero-based, 5-year, detailed, line item budget. Our planning addresses resource allocation to ensure critical processes such as Emergency Preparedness Process.

Figure P.2-1 Key Strategic Challenges

- C-1 Operations (i.e. Drawdown, Fill, Operations)
- C-2 Management Effectiveness
- C-3 Cost Management Efficiency
- C-4 Environmental, Safety & Security
- C-5 Customer Satisfaction (Sustainability)
- C-6 Succession Planning (Sustainability)
- C-7 Knowledge Management
- C-8 Leadership & Communications

P.2c Performance Improvement System

Organizational Performance Improvement Focus DM has 58 employees (11% of workforce) trained as Baldrige

examiners through the Louisiana/Texas Quality Foundation and the national program, which includes all senior staff and the CEO. Our approach to maintain focus on performance improvement is through a successful performance improvement methodology, which is a contractually based business model built on the Baldrige Criteria. This business model consists of adaptive systems, such as a Leadership System, Governance System, ISO 9001 Quality Management System, ISO 14001 Environmental Management, OSHA VPP Safety System, Work Systems, and Security Systems. In addition, DM performance improvement teams have been finalists in 2004/2005 in the International Team Competition at the World Quality Conference. Finally, we manage processes to balance the allocation of budget, assets, and people to achieve goals at the organization, process, and individual or job level. Six Sigma and Lean tools are used to systematically evaluate and analyze process capability and reduce variation and waste. DM has realized significant costsavings, cost avoidance, elimination of redundant work practices, and the implementation of new and innovative business practices through continuous improvement, innovation, and benchmarking. The system is SPR-wide, with 25 trained Six Sigma Black Belts and one Master Black Belt. In 2001, changes to DM's organizational structure have realigned important business functions to better meet customer needs and insure a single focus and integration of DM performance improvement. For example, as part of the CEO's office, the Strategic Performance & Communications Group provides leadership with directed performance improvement, quality management, Six Sigma, activity based management, internal communications, public affairs, management assessment, ISO 9001 registration, and internal Baldrige assessment functions for the company. These functions have for their main objectives the oversight and strengthening of internal company performance and key business process analysis. These efforts are intended to maximize company performance results through the improved alignment of company performance monitoring assets.

Organizational Learning/Knowledge Asset Sharing The DM

workforce of over 300 at our four oil storage sites consists mainly of craftsmen, most of whom have over 15 years of experience. At our New Orleans Project Management office, over 90% of all employees average over 10 years experience, with cross-functional



experience. This workforce uses the latest enterprise systems and manages relationships and mature processes developed over the past 25 years. This is key to internal sharing of information and an important element in the development of our knowledge management system defined in *Item 4.2*. DM's successful performance is based on inter-personal relationships and all forms of communication ensuring that process learning, mistake proofing, and performance status with appropriate actions are widely circulated as lessons learned which is key to performance success. *Figure 7.5-30* is a partial list of Organizational Profile Key Success Factors.

CRITERION 1.0 – LEADERSHIP

1.1 SENIOR LEADERSHIP

1.1a Vision and Values

1.1a(1) Senior Leader Set and Deploy: DM's company leadership is guided by DM Values. These are the basis of governance, organizational culture, and leadership actions. Leadership uses and measures the "Organizational Capital Readiness system". This consists of "the company's culture, (such as the organization's leadership system), the alignment of the workforce to the organization strategies and goals, and knowledge sharing (i.e. best practices and lessons learned) through knowledge management practices. The process used to set Vision and Values is incorporated in Strategic Planning Process as described in 2.1a(1), which includes employees, key suppliers, and partners. The leadership system is described in the relationship map in *Figure 1.1-2*. The CEO takes responsibility for defining the leadership culture within the DM organization. He sets the tone and, using our Values, drives the pace for all senior management actions. DM ensures value is created for all stakeholders through two-way communication system of meeting forums and identification of customer requirements and performance expectations (Figure 4.1-4). The DM CEO and other management personnel steer DM toward vision fulfillment. DM's Vision, Mission (Figure P.1-2), and Values (Figure 1.1-1) are linked and measured. They serve as the foundation for critical company decisions.

Figure 1.1-1 DM Core Values

- MISSION READINESS: To operate the SPR on behalf of the Department of Energy in a safe, secure, environmentally responsible, efficient, and effective manner.
- RESPONSIBLE STEWARDSHIP: Create and sustain a high performance organization characterized by proactive management; an efficient, effective, ethical business environment; fiscal responsibility; systems integration; and adoption of commercial best practices.
- PARTNERSHIPS: Proactively pursue mutually beneficial relationships.
- CUSTOMER SATISFACTION: Exceed Expectations
- SOCIAL RESPONSIBILITY: Operate in a manner that protects employees and the general public and benefits local (key) communities.
- EMPLOYEE DEVELOPMENT and DIVERSITY: Ensure development of a diverse, competent, and motivated workforce.

DM senior leaders set and deploy values, short-term and long-term direction, and performance expectations through strategic planning (*Figure 2.1-3*) and a structured program management system. This system provides a strong orientation to the future and a commitment to both improvement and innovation. It creates an environment for empowerment, agility, and learning. This system includes the Strategic Planning Process (SPP), implementation and

subsidiary plans, management of key value creation and support processes (Figures 6.1-1 & 6.2-1), and performance reviews (Figure **4.1-4**) with employees, key suppliers/partners and DOE. An improvement culture based on Deming's "Plan, Do, Study, Act" (PDSA) model provides a systematic review of organizational performance through regular senior staff meetings, utilization of an effective Performance Measurement Management System (PMMS), and performance oriented interfaces with the DOE. Senior leaders reinforce these systems by empowering employees, and initiative. promoting encouraging continuous improvement. Figure 1.1-2 summarizes how DM leadership integrates essential elements in pursuit of organizational excellence.

Personal Actions Reflect Commitment: Leaders participate with employees to set our Vision and Mission and develop our core values. Our core values are the basis of our success factors. Strategic objectives and action plans provide a structure for responsible stewardship and governance while providing value for stakeholders. This leads to an integration of focus.

DM's leadership effectively deploys, disseminates, and ensures two-way communication of corporate values and expectations throughout the organization. The CEO utilizes monthly and special topic videos, all-hands meetings, organizational staff meetings, award winning newsletter (Esprit), e-mails, and the intranet. DM management also encourages cross-functional teaming and promotes activities in which we examine and reinforce our values and improve performance. For example, 13 of our 15 senior leaders, including the CEO, are trained Baldrige Examiners for Louisiana or Texas and each year, 10% of our mid-level managers are trained as state Baldrige examiners. Six Sigma teams define measure, analyze, improve, and control processes while quality award feedback is systematically used to improve the organization. We conduct drawdown readiness, security, and emergency preparedness exercises designed to ensure that all employees know how their jobs relate to the successful attainment of DM's value of "Mission Readiness." DM's flat organization-just three management levels-also serves to promote effective two-way communication and cooperation throughout all organizational

levels and helps leadership promote our values.

"Values Based" Strategic Planning spans five years and communicates our values, organizational performance requirements, human resource requirements, performance



measures, targets, and the budget to align resources. This plan is revised annually to reflect changes in our environment. We also develop more detailed performance requirements. These are deployed throughout the organization and into our subcontractor contracts.

CRITERION 1.0 -	LEADERSHIP
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Figure 1.1-2 DM Leadership System Relationship Map for Organizational Excellence								
MBNQA	Approach "Plan"	Deployment "Do"	VALUE Results "Study"	Improvement "Act"				
1. Leadership	 Mission, Vision and Values [<i>Figure P.1-2</i> Culture Statements. <i>1.1a(1)</i>] Customers and Stakeholders [<i>Figure 3.1-1, 3.1a(1)</i>] Governance [<i>Figure 1.2-1</i>] 	• Leadership system communicates through multi-level meetings and reviews [<i>Figure 4.1-4, 1.1a</i> (1) and 1.1b(1)]	• Key and organizational performance measures [<i>Figures 2.2-3</i> and <i>4.1-2</i>] and performance reviews [<i>Figure 4.1-4</i>]	 Strategic Plan Improvements based on quality award feedback, Audits (DOE internal, third party) 				
2. Strategic Planning	DM "Values Based" Planning and Performance Measurement Process [<i>Figures 2.1-1, 2, 3</i>]	 Align action plans with strategic plan Performance Scorecard Allocate resources based on budget [2.2a] 	• Two-Way Communications - Regular scheduled reports and reviews [<i>1.1c(1</i>), <i>Figure 4.1-4</i>]	 Conective action based on scheduled reviews [Figure 1.1-5] Annual strategic planning process [Figure 2.1-2] 				
3. Customer Focus	 Customer identification [3.1(a)] Customer needs [Figure 3.1-2] Customer relationship management [3.2a] Customer satisfaction determination [3.2b] 	 Customer segments and studies customers through research and interviews [3.1(a)] Building customer relationships and Keeping Current [3.1(a), 3.2a(4)] 	 Customer Feedback - Award Fee [7.1-1] Third Party - Independent Validation of Performance [<i>Figure 7.2-9</i>] 	 Reviewing and evaluating listening and learning methods [3.1a(3)] Relationship process [3.2a(4)] 				
 Measurement, Analysis & Knowledge Management 	 Track information that supports DM & DOE values and key success factors [4.1a(1)] Benchmark industry [4.1a(2)] Regular reviews to improve measures and system [Figure 4.1-4 and 4.1a(1)] Knowledge Management [4.2b(1)] 	 Communicate values via key success factors which are deployed through processes that are measured [<i>Figure 4.1-4</i>] Hierarchy of performance measures tracks organizational performance and management reviews and provides feedback relative to plans [<i>Figure 4.1-4</i>] Measures development [<i>2.1a(1)</i>] 	 Lagging indicators which are the process results and leading indicators allow predictive forward looking management [<i>Figure 4.1-3</i>] Milestone system tracks performance and initiatives [<i>4.1b(1)</i>]. 	 Organizational performance reviews [Figure 4.1-4] focus on key success factors [Figure 3.1- 2] and opportunities for improvement Link improvements to operational decision making via planning process [Figures 2.1-1 and 2.1-2] 				
5. Human Resource Focus	 Work and job design based on project management concepts and use of teams [5.1a(1 & 2)] Strong support of employee development [5.2] Provide excellent work environment [5.3a(1)] Work with employees to develop potential and improve satisfaction [5.3b] 	 Flat organization [5.1a(1)] Work and improvement teams [5.1a(1)] Training programs [5.2a(1)] Development opportunities [5.1a(2)] Strong safety and health programs [5.3a(1)] Employee satisfaction surveys [5.3c] 	 Employee satisfaction [<i>Figures 7.4-8</i>] Employee well-being [5.3a] Employee Empowerment [<i>Figure 7.4-3</i>] Management Competence [<i>Figure 7.4-2</i>] Safety & Health [<i>Figure 7.5-18 & 19</i>] 	 Improvement teams [5.3b(4)] Benchmarking [7.2a] and [7.3] Employee satisfaction survey 				
6. Process Management	 DM Value Processes [<i>Figure 6.1-1</i>] DM Support Processes [<i>Figure 6.2-1</i>] 	 DM values, criteria, and best practices relative to design, operations, customers, human resources, technology, finance, performance improvement, etc. 	 Performance review by management [<i>Figure 4.1-4</i>] Milestone completions [<i>Figure 7.5-13</i>] 	 Product and service design [<i>Figure 6.1-2</i>] Six Sigma teams review opportunities for improvement Performance Improvement System [<i>P.2 c</i>] Benchmarking [<i>P.2 c and 1.1a(3</i>] 				
7. Business Results	 Strategic Plan defines long-term and annual targets Action plans provide details and functional framework 	 DM planning, operating, and support processes DM hierarchy of performance measures 	 Regular leadership review of key success factor results Project, cost and schedule controls 	Continuous improvement via management reviews, quality council, improvement teams [$P.2c$ and $1.1a(3]$]				

CRITERION 1.0 – LEADERSHIP

1.1a(2) <u>Legal and Ethical Behavior</u> Senior leaders promote an environment that fosters and requires legal and ethical behavior 1.2b(2.) Through their actions and strict adherence to our Code of Ethics (known as the Standards of Business Ethics and Conduct Procedure), DM policies and procedures, DOE Orders, and all state and federal government regulations and our governance system (identified in *Figure 1.2-1*) are implemented.

1.1a(3) Sustainable Organization, Environment for Improvement, Innovation, Agility and Learning DM leaders create sustainability by managing resources, planning, data analysis, subsequent decision making and performance results. An environment that emphasizes empowerment, innovation, and organizational agility is created through the development of trust, ownership of processes and open communications. For example, employees participate in setting strategic objectives and related performance expectations, which include performance against meaningful performance metrics, Figure 2.1-2. Leaders encourage the establishment of stretch goals and involve themselves in the development of individual and organizational performance expectations linked to high level, company-wide performance expectations. Stretch goals push the organization to innovate and identify new and better ways of accomplishing our mission. Employees are provided with timely information relative to these goals and metrics and their importance to organizational performance through our PMMS 4.1a(1). Leadership ensures employee empowerment and continual learning through our high performance, values-based culture. Employees do much of their work through formal and informal teams and are encouraged and rewarded for identifying innovative means to enhance performance and define best practices through our corporate benchmarking process with The Benchmarking Exchange. Individuals and teams generally manage their own work, solve their own problems, and have the capacity for rapid change, as well as, the flexibility and freedom to innovate. For example, the joint DM / DOE Commercialization Team's first solicitation to lease facilities that are used only in drawdown drew no responses from prospective bidders. After conducting industry interviews, the team dramatically simplified the solicitation and made it more like open-ended industry solicitations. There were a number of responses to the new solicitation and several properties were leased providing significant value to the Government. The team's new process won the Vice President's Hammer Award in 1996. The process continues to be updated and serves current needs. We not only reduced operating costs and gained revenues, DOE also shared in our profit-oriented lessees' increased revenues because lease payments are based on pipeline and terminal volumes.

Indicative of this culture is our use of Baldrige-based methods, such as quality award and organizational selfassessments to obtain feedback that forms the basis for organizational improvements. Our leaders support employee development and training. They participate in succession planning to ensure the development of future leaders.

1.1b(1) <u>Communication</u> Figure 1.1-2 (the "Leadership" row) describes how senior leaders communicate with all employees and encourage frank, two-way communication. Senior leaders work to maintain a high level of trust and empowerment through policies that ensure Responsibility, Accountably and Authority (RAA). The CEO has an "Open Door" policy that provides access to all employees. Through training, everyone knows and understands their role. For example, "everyone" has the responsibility and authority to stop an activity that may result in an unsafe work situation. Motivation is enhanced through employee reward and recognition programs instituted by DM's leadership. These programs are used to reinforce our empowerment philosophy and to reward employee actions that contribute towards improvement or enhanced organizational performance.

1.1b(2) Focus on Actions, Improve Organizational Performance, Creating and Balancing Value Senior leaders create a focus on action to accomplish objectives, improve performance through Lean and Six Sigma in 4.1b(1), and attain our Vision. Our mature management system is outlined in the "Strategic Planning" and "Measurement, Analysis and Knowledge Management" rows at Figure 1.1-2. Balancing value for stakeholders in performance expectations is realized through our Strategic Planning & Resource Allocation process identified in Figure 2.1-1. The process ensures commitment by senior leaders and DOE to short and long term performance expectations. Employees are empowered to meet the expectations of DOE by fulfilling DM's Vision, Mission, and Values. This requires all facets of the DM organization to support our mission of filling the Reserve and being fully prepared for Drawdown. We employ methods for management efficiency through benchmarking, the adoption of commercial best practices, continuous performance improvement to reduce cost, and by an unwavering commitment to provide leadership in protecting the environment and the health and safety of our employees.

To ensure alignment, our suppliers, partners and DOE are part of our management, planning, and improvement processes. They participate on Six Sigma teams that have produced breakthrough improvements by reengineering processes. For example, our security contractor, Pinkerton Government Services, participated on a Six Sigma team that drastically improved their payroll and scheduling system and reduced overtime resulting in improved performance and generating millions of dollars in savings (*Figure 7.5-14*). The lesson learned was then integrated into another Six Sigma team to reduce operations overtime. Efficiencies have been obtained through process innovation and human resource reallocation.

DM leaders strongly support organizational improvement and employees are empowered to identify and suggest more effective ways to accomplish the SPR mission. Management has created mechanisms by which employees can initiate, develop, and suggest improvements. This has fostered a culture in which personnel systematically discuss and work at continuous improvement. DM has also implemented a corporately funded "Goal Sharing Program" that rewards and provides incentives for employees to achieve high performance targets.

1.2 GOVERNANCE AND SOCIAL RESPONSIBILITY

1.2a Organizational Governance

The DM governance system is based on clear and consistent communication of DM values, behaviors, and a defined structure with processes to manage planning, control, and improvement. Our "Values Based" Strategic Plan communicates values, ensures linkage, alignment, controls, and accountability. Leadership provides the structure for oversight and management through processes that are continuously measured and improved Figure 1.2-1. These governance processes are derived from best practices and contractual requirements that ensure accountability and independence in internal and external audits along with protection of stakeholders' interests.

1.2a(1) <u>Management accountability</u> DM's operations are objectively assessed and evaluated. Management plays an active role in identifying functions or topical areas requiring oversight based on a "graded approach" philosophy that assesses the perceived risk of each respective activity. This approach serves to enhance the validity and effectiveness of DM's governance system and to ensure that all stakeholder interests are represented and protected. As a federal government contractor, accountability for manager actions is ensured through the governance system and by DOE informal and formal reviews, audits, and assessments.

Fiscal accountability is addressed in our budget formulation and execution process *Figure 2.1-1*, which includes monthly reconciliations and reporting actual cost to budget. DOE monthly reviews require total accountability. The annual financial audit conducted by DM Internal Audit also validates all financial processes and contractual expenditures and effective internal control processes ensure consistent and accurate fiscal accountability of the government funds. DOE approves and validates all financial activity as a function of oversight. DM corporate financials undergo an annual third party financial audit. GAAP standards are adhered to.

Transparency in operations Selection and disclosure of policies are part of our standardized business management system, government regulations, oversight, and performance measurement system as described in 4.1a(1). These practices help strengthen stakeholder trust and confidence in the transparency of the corporate business operation.

<u>Independence</u> is ensured in the audit/assessment process by rotating trained auditors from various functional areas on all audits and ensuring that auditors and assessors are organizationally independent of the function(s) being assessed. DM's senior management team, guiding principles, and commitment to openness also enable these personnel to perform their duties objectively and without fear of reprisal.

Since 1993, internal and external audits and assessments have played a key role in DM's effective governance system. Since 2000, which was the period we received our ISO 9001 and 14001 registrations, our internal audit and assessment systems annually involved approximately 30 employees and expended approximately 2,520 hours. Internal audits addressed all facets of DM's organization including, but not limited to, safety, environmental, security, leased facilities, facility condition surveys, physical inventories. organizational assessments, inspections, pre-appraisals, fixed assets and capital sensitive items audits, vehicle inspections, procurement audits, and personnel property audits. During the same twelve-month period, DOE conducted On-Site appraisals to supplement our audits and assessments. These DOE appraisals involved approximately 20 employees and expended approximately 3,680 hours annually. Although none of these audits revealed major systemic findings or a breach of ethics, they are an effective means by which to ensure comprehensive oversight and governance of DM's contractual responsibilities

<u>Stakeholders' interest</u> DOE, DM employees, DM owners, community, partners, suppliers, and taxpayers' interest are not only protected, but also guaranteed, by the extent and effectiveness of our governance system processes. (*Figure 1.2-1*)

Figure 1.2-1 Governance System				
1.Formal Management Reviews – Figure 4.1-4				
2.DOE (Customer) Audits – Figure 7.6-7				
3.Internal Audits (Business & Legal) - Figure 7.6-4				
4.ISO 9001 Quality Management System – Figure 7.6-3				
5.ISO 14001 Environmental System - Figure 7.6-9				
6.Occupational Safety & Health Administration Voluntary Protection Program (OSHA VPP) <i>Figure 7.6-8</i>				
7.Independent Financial Audits - Figure 7.6-5 and 6				
8.Performance Measurement Management System- 4.1a(1)				
9.CEO / Senior Staff Assessments - 1.2a(2)				
10. DOE Security Clearance – <i>Figure 7.6-2</i>				

1.2a(2) <u>Senior Leaders' Performance & Effectiveness</u> DM evaluates the performance of senior leaders, including the CEO, by measuring the success of leadership in directing limited resources to achieve organizational goals and objectives as defined in the Strategic Plan, the Performance Evaluation and Measurement Plan (PEMP), and associated plans. DOE oversees the CEO and senior leader performance

via the contract and the award fee determination process. The CEO reports to the Board of Directors. The role of the Board is advisory and supportive. The Board assesses the performance of the senior leadership team based on financial results and the attainment of SPR mission requirements. To obtain in excess of 90% of available award fee, the most critical performance measures must be met along with a majority of lower level measures, milestones, and deliverables *Figure 7.6-1*.

DM leadership has a strong improvement orientation and encourages input on senior leader performance from a multitude of sources, including employees. Senior leaders use organizational performance review findings to generate a priority matrix of opportunities to improve performance, which is used by formal teams and external consultants that generate specific recommendations to improve leadership effectiveness and the leadership system. Examples of feedback mechanisms include the Baldrige based Louisiana Quality Award applications, organizational self-assessments, management assessments, DOE assessments, employee surveys and the national Baldrige Applications (each year since 2002).

There are several significant processes through which DM senior management assesses the "Voices" of the Customer, Employee, and Business to review overall company performance and effectiveness of the leadership system:

• <u>Performance Review Process</u> - Senior leaders attend and participate in performance reviews for each major performance area (*Figure 3.1-1*) during Project Reviews. The results are then analyzed and corrective action taken. These reviews allow senior leaders to make timely decisions .for corrective actions as required to maximize performance and customer satisfaction.

• <u>The Organizational Self-Assessment</u> - Senior leaders evaluate and improve DM's leadership system through the Malcolm Baldrige Award criteria-based Vision Award. Each Directorate and Site completes an annual self-assessment through The Benchmarking Exchange, an international benchmarking clearinghouse. Employees who have been trained as Baldrige examiners meet with management representatives of each group to validate the self-assessment and provide feedback. The feedback reports provide strengths and areas for improvement.

• *The Workplace Assessment Survey* - DM's Performance Improvement (PI) department administers an annual company-wide Workplace Assessment Survey. The survey assesses the state of company performance from the employees' perspective. It provides senior leaders with another element of "Voice of the Employee" feedback. DM results are compared to national norms to assess performance relative to industry benchmarks. Employee input received from these surveys is also used to identify areas in need of improvement or management attention and to improve leadership effectiveness in addressing employee issues and concerns. As noted in 5.3 and *Figures* in 7.4, the survey shows senior leaders where company improvement efforts should be focused.

Our key compliance processes, measures, and goals for achieving and surpassing regulatory and legal requirements are defined relative to our value of "Social Responsibility". This value is defined as "ensuring all DynMcDermott leaders and employees understand and promote: sound environmental practices, ethical behavior, and Community Outreach Programs".

1.2b Legal and Ethical Behavior

1.2b(1) Societal Impacts We have a proven record of protecting the environment and all stakeholders including the community where we live and raise our families. DM leadership addresses and demonstrates commitment by integrating world-class business systems that require thirdparty assessments and by making a commitment to excellence and continuous improvement and exceeding all regulatory requirements. Management systems that use third party assessments for validation include ISO 14001 & 9001, OSHA VPP, and the EPA National Environmental Performance Track (NEPT), of which DM is a charter member. The SPR is one of only 350 facilities nationwide accepted by EPA into the NEPT program and DM serves on the Board of Directors of the organization's Participants Association to support advancement of this important program. The SPR is the first U.S. bulk petroleum storage operation to receive ISO 14001 certification and one of the first five facilities so certified in the Department of Energy. All five SPR facilities are both NEPT Charter Members and have been Third Party ISO 14001 certified since 2000. All four of our storage sites have also achieved VPP Star status, which has only been awarded to 600 of 6.5 million eligible facilities. The Louisiana and Texas sites are repeat recipients of state environmental management awards (LEMA and Clean Texas).

Utilizing both third party and internal process assessments, DM systematically assesses the *impact* of our products, services, and operations on society through our planning and performance measurement approach (see Categories 2, 4 and 6). We identify and mitigate societal risk through our planning and communication processes and develop corresponding short-term and long-term strategies in our Strategic Plan. These strategies are linked to SPR DOE and Fossil Energy (headquarters in Washington D.C.) strategic plans and policies. These promote environmentally sound, safe, secure, and healthy operations as demonstrated by significant environmental aspects of our Environmental Management System (EMS) and our commitment to the EPA NEPT programs. DM fully ascribes to the DOE Office of Fossil Energy's commitment, which states that we will strive to eliminate injuries and incidents, promote environmental protection and pollution prevention, adopt the highest standards of performance, ensure management and employee accountability, encourage worker participation, and facilitate public participation.

We translate our strategies for performance and meeting public responsibilities into operating requirements in action plans and annual DOE Work Authorization Directives (WADs) to systematically ensure that all operational activities are conducted in a safe and environmentally responsible manner. WADs are part of the contract and 1) identify organizational functions and technical requirements; 2) provide funding; and 3) specify levels of acceptable performance and targets. WADs are developed annually and reviewed in frequent meetings with DOE counterparts.

Anticipate Public Concerns A voluntary Environmental Advisory Committee (EAC) was established to help us anticipate public concerns by proactively reaching out to the surrounding communities to incorporate public involvement in the SPR decision-making process. The EAC assists us in anticipating public concerns about current and future impact of our operations. The EAC is an external group of scientists, technical experts, and community representatives that provide independent assessments and advice on our environmental and emergency management efforts. We brief the committee on current and future program issues at quarterly meetings. EAC members then discuss these issues in their communities, study them, and report community concerns. The ninemember committee includes members with expertise in engineering, mining, environment. and emergency management, as well as three non-technically oriented community representatives. The EAC provides DM with an important link with the public, the media, and scientific and industrial communities. The EAC also provides DM with invaluable insight into issues of potential concern to the public, thereby ensuring that these concerns are considered and addressed by senior leadership. Formal request for information, comment submittal, and reporting processes ensures the EAC has a feedback mechanism to DM and DOE leadership. Each of our storage sites also belongs to a local emergency planning and response committee with whom we coordinate in the event of an emergency. We partner with local industry to benchmark and identify areas of mutual public concern. SPR personnel also serve on boards that develop industry technical standards, promoting safer and environmentally sound operations, not just for us, but also for industry across the nation.

Nationally, we publish an annual Site Environmental Report that covers both program and individual storage site environmental performance. DOE distributes this report to stakeholders, such as Congressional committees, local governments, and regulatory agencies, and makes it available through the internet. The report includes a tear sheet for submitting comments. Our report was used as a model in a workshop for Department of Energy organizations. In April 2005, the National Association of Environmental Professionals (NAEP) presented its annual *Environmental Excellence Award for Best Environmental Technology* to the Department of Energy's Strategic Petroleum Reserve. **Our key compliance processes, measures, and goals** for regulatory and legal requirements are defined in *Figure 1.2-3* and are directly linked to *Figures 2.1-3 & 6.1-1*. As required by DOE, we use a "*risk based*" approach in managing all of our processes and setting short and long-term goals, which are integrated into our DOE contract. DOE budgetary funding ensures resource allocation to sustain processes that are capable of exceeding industry performance. We review performance against these measures as described in *Figure 4.1-4* (Key Two-Way Communication Stakeholder Performance Reviews). Borrowing from the high integration success in our performance improvement initiatives, we are highly integrated along regulatory processes.

We work with DOE in policy, economic, and financial studies to assess the impact of the SPR on society. Typical examples are our size studies, in which we analyze the economic benefits of different size reserves on the U.S. economy and product reserve studies, in which we evaluate the need for regional petroleum product (e.g., heating oil) reserves.

1.2b(2) <u>Ethical Behavior</u> We promote ethical behavior in all our work throughout the entire organization. Ethics is addressed and measured in the Strategic Plan via our Core Value of "Responsible Stewardship," which is defined as "Create and sustain a high performance organization characterized by proactive management; an efficient, effective and ethical business environment; fiscal responsibility; systems integration; and adoption of commercial best practices."

The Company has formulated and adopted a code of ethics that serves as the foundation for all business practices and decisions. In order to ensure company-wide compliance with DM's code of conduct, the Company maintains a staff position in the legal department that has the primary responsibility of promoting ethical conduct and investigating any lapses of ethical behavior.

Figure 1.2-2 Ethical Behavior				
Key Processes	Indicator - Results			
Ethics Training	Required annually-Figure 7.4-6			
Ethics Process Review Org Assessments – Figure 7.				
Employee Workplace Assessment Survey	Ethics Question – <i>Figure 7.4-11</i> .			
Ethics Hot Line	Ethics Queries – Figure 7.6-10			

DM assesses workforce cultural attitudes relative to ethical standards in the annual Workplace Assessment Survey detailed in 5.3b(3). Results demonstrate that DM "walks the talk" - our code of conduct is our cultural norm. DM also meets all the requirements of the Office of Government Ethics, including providing annual training to employees on the standards of ethical conduct.

Figure 1.2-3 Social Responsibility - Responsibilities to the Public – Key Processes & Goals							
Key Processes	Key Processes Measures Goals 2 / 5 Year						
ISO 14001	Number of Cited Environmental Violations	2005 = Zero	2009 = Zero				
EPA / DOE Pollution and Prevention Goals (E2P2)	Hazardous waste volume in pounds / year (E2P2)	2005 ≤ 2,000	$2009 = \le 800$				
Emergency Preparedness	Spill equipment availability	2005 ≥95%	2009 ≥95%				
OSHA VPP Health & Safety	Lost Work Day Case Rate (based on 200,000 hours)	2005 < 1.1	2009 < 0.9				

CRITERION 1.0 – LEADERSHIP

1.2c Support of Key Communities

We identify key communities as those where we live and work. This includes state and local governments and industry. Organizations who receive community support are selected by DM management in New Orleans and at each of our four operating sites. Our approach to implementing this program is tailored to meet the needs of our different communities, as shown in *Figure 1.2-4*.

Figure 1.2-4 Key Communities						
<u>Site</u>	Lead	<u>Constituent</u>	Primary Approaches			
New Orleans	Public Outreach & Diversity Director	Local community, schools, etc.	Public Outreach Team & Diversity Team			
4 Oil Storage Sites	Site Director / Site Teams	Local community, police & fire departments, schools, etc.	Mutual support agreements, joint emergency planning committee memberships, etc.			

DM has a proactive and generous Community Outreach Program that is funded with corporate contributions to address four areas of focus (Community Outreach, Primary Customer Outreach, Environmental, Safety and Health Outreach, and New Initiatives). DM utilizes a systematic approach to executing this program and, in all cases, ensures that the support provided is consistent with the goals and objectives of the plan. DM management, in New Orleans and at the sites, partners with employees and DOE personnel to ensure that the civic, professional, educational, and charitable activities selected for inclusion represent worthy endeavors and that the objectives of these institutions are consistent with the values espoused by DM.

The DM sites are active in supporting their local communities. Sites, under the leadership of DM site directors, are active in their local communities with a focus on mutual assistance, collaborative emergency planning, support of educational institutions, and charitable organizations capable of providing direct benefits to the residents of the communities in which we live and work.

The beneficial impact on the communities adjacent to our sites is particularly important to our efforts because of the physical impact that our facilities could have and the fact that DM represents a major employer in many of these rural communities. See *Figure 7.6-12* for results of our Community Outreach Activities.

Our sites are members of local emergency planning committees with municipal and other government agencies. Our Bayou Choctaw site recently provided an emergency exit route for its local community after a train incident. Bryan Mound used their expertise to help the Coast Guard, the National Oceanic and Atmospheric Administration, and the State of Texas beach clean up. West Hackberry volunteer firefighters responded to a local house fire.

We are members of mutual support organizations and work with local agencies and industries where our sites are located. We sponsor emergency management and security exercises with the communities. Participants include state, local, and federal organizations, such as state police, sheriffs, fish and wildlife services, fire departments, hospitals, Environmental Protection Agency, and the Coast Guard. New Orleans supports the Lake Pontchartrain Basin Foundation, routinely participating in coastal cleanup efforts. DM has supported the Louisiana National Guard's Youth Challenge program established in 1999, which was recognized in 2004 as the best in the nation in a competition against 26 other state programs.

We contribute to improving the communities by actively participating in a vast array of programs and providing leadership in the community. Our involvement of staff and leadership span the diverse needs of our communities. In New Orleans, we have partnered with DOE employees since 1993 as the corporate sponsor in the Department of Energy's annual high school Science Bowl competition. We assist a local high school by publishing their monthly newsletter and volunteer at a local shelter that provides food and clothing for individuals in need.

Many of our employees and senior leaders are active and serve on the Board of Directors or hold offices in many charities and professional associations, such as the Louisiana Quality Foundation, New Orleans Section of the American Society for Quality, Southwest Louisiana Quality Council, Louisiana Chapter of the National Safety Council, American Society for Nondestructive Testing, American Welding Society, Louisiana Engineering Society, Louisiana Environmental Leadership Committee, Women's Business Council Gulf Coast, American Red Cross, Peoples Free Clinic New Orleans, Down Syndrome and Spina Bifida Associations of Greater New Orleans.

Far beyond anecdote, these approaches represent a learning organization with well-integrated deployment.

CRITERION 2.0 - STRATEGIC PLANNING

2.1 "VALUE BASED" STRATEGY DEVELOPMENT

DM's "Values Based" Strategic Plan is unique to Strategic Planning methodology. This plan provides a synthesis or holistic perspective using a set of Values that defines and aligns how the Company establishes its strategic objectives, enhances competitive position, performance, and future success.

The DM plan is based on a set of six defined Core Values with seven related Success Factors that define specific areas of focus from which to address our key challenges **P.2b**, **Figure P.2-1**. These enable us to achieve our Mission and Vision. Our key objectives (with related strategies), key processes, and performance indicators (with targets) are aligned and linked in **Figure 2.1-3**. The SPP is fully integrated with program planning, implementation, and evaluation processes. It establishes the basis for program performance standards, defines requirements that drive budget and resource management decisions, and provides full accountability for all processes and outcomes.

The "Values Based" Strategic Plan provides governance. It is a system that ensures linkage, alignment, controls, accountability, and effective allocation of resources. The plan addresses our stakeholders (including society's trust) in achieving the DOE Mission - "To store petroleum to reduce the adverse economic impact of a major petroleum supply interruption to the United States and carry out obligations under the International Energy Program" - in the most effective and efficient manner.

By setting the framework for sound program management and accountability, the SPP provides guidance for the development of the Action Plans. DM's strategy development process recognizes the uniqueness of the SPR as a federal government operation dealing with the bulk storage and emergency distribution of crude oil. *Figure 2.1-1* depicts DM's Strategic Planning System, which includes development of strategy 2.1a, objectives 2.1b and action plan development 2.2a, performance projections 2.2b, assessments 4.1a, and information for management review 4.1b(1). This system enables DM to adapt to an ever-changing environment to improve performance, balance stakeholder value, and obtain our Vision, *Figure P.1-2*.

2.1a Strategy Development Process

In 2002, DM senior leaders reengineered the SPP to link directly to the DOE plan to improve customer focus and set direction through a set of clear and visible values. The values, strategies, and performance expectations guide all activities and decisions by employees at all levels and have produced the industry's best in class performance.

Figure 2.1-1 depicts a system of plans and reports integrated with participative reviews where we assess progress, make adjustments, and initiate improvements. This approach is designed to promote employee involvement in decision-making 1.1b(1) and organizational flexibility in managing change 4.1b(2). To ensure alignment with DOE, a DM employee serves on the DOE strategic planning team and assists DOE in their planning process, which goes

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significantly beyond what is required by the Government Performance and Results Act (GPRA). This relationship is unique in the business world *P.1b(2)* because most of DOE Strategic Plan performance is owned and controlled by DM, not DOE. This business paradigm creates a true partnership that reflects, If DM fails – DOE fails.

Figure 2.1-1 Strategic Planning System



2.1a(1) <u>Strategic Planning Process</u> DM conducts strategic planning through a formal strategic planning process (SPP). A Strategic Plan Management Team updates the Strategic Plan annually in a participative process shown in *Figure 2.1-2*. The Strategic Plan Management Team consists of representatives from across the organization and includes members of management and staff. The Director of Operations and Engineering leads the team. Key company participants on the strategic planning team are the CEO, senior leaders, managers, and employees who provide feedback.

The team solicits input from key DOE staff, key suppliers, and the DM Contracts department. The process is designed to involve customer and employees as much as possible and create a sense of buy-in from the customer and ownership from DM staff.

First the team conducts a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis and solicits input from DOE and from all employees on a full range of functions, including customer requirements, operations, employee surveys, maintenance, engineering, budget, human resources, security, environment, safety, and health. Next, the team aligns all the input from DOE, employees, and the SWOT analysis with the DOE Strategic and Performance Plans, the DOE Contract, DOE PEMP, the Company's defined Values and related Success Factors. Objectives are linked to the Success Factors. (each with related strategies), key processes, performance indicators, and targets. For example: Mission Readiness is a value and is defined as "To operate the SPR in a safe, secure, environmentally responsible and effective manner." From the definition of the value a related Success Factor is developed which is how the value will be realized. Operational Readiness is the related Success Factor and is defined as "Maintain successful drawdown and fill capability with the highest degree of confidence in system / equipment reliability." Each Success Factor has aligned Objectives with related strategies, key processes, and performance indicators with targets.

The team prepares a draft making sure that the values-based plan links to the DOE SPR Strategic Plan, which is linked to the DOE Secretary's Annual Performance Agreement with the President of the United States. The team circulates the plan to all staff for comments and holds all-hands meetings to discuss it. Senior leaders review a final draft after which the CEO and Senior Leaders sign the updated plan.

By utilizing Malcolm Baldrige Performance Criteria and Six Sigma improvement tools *P.2c*, leaders are able to balance and redirect resources *1.1.a(3)*. This allows DM to capitalize on its role as the M&O Contractor to DOE while maintaining a constant state of SPR operational readiness to fill and drawdown oil upon direction of the President.

Blind spots in strategic planning are addressed through our structured participative Strategic Planning System Figure 2.1-1 and the Strategic Planning Process Figure 2.1-2 that provides real-time informal feedback and monthly formal review of strategies and performance for the two-year detailed short-term and a five-year long-term horizon. The planning system Figure 2.1-1 and process Figure 2.1-2 address these time horizons and possible blind spots through a cooperative process with DOE that contractually identifies requirements and expectations based on a perpetual five-year forecasted budget cycle. The final annual contractual document with DOE is called the Performance Evaluation and Management Plan (PEMP), which includes the entire scope of work and Work Authorization Directives (WAD) with performance indicators. WADs are part of the contract that 1) identify organizational functions and technical requirements; 2) provide funding; and 3) specify levels of acceptable performance and targets.

This living document is in a state of constant revision based on responses to evolving customer and other environmental requirements. By monitoring, measuring, and assessing customer and employee satisfaction and process capability (Six Sigma), DM strategic and action plans are consistently adjusted to remain in alignment with and supportive of the Company's Vision, Mission, Values, and Objectives.

Figure 2.1-2 Strategic Planning Process



Senior leaders involve the entire organization using a variety of communication media 1.1a(1) to focus on a coordinated deployment of DM strategic policy by negotiating, developing, implementing, and monitoring accomplishment of the short and long-term plans, targets, and measures that support established priorities and objectives. The SPP model used by DM incorporates a perpetual feedback to ensure agility to provide rapid, flexible, customized responses.

2.1a(2) <u>Key Factors in Setting Strategic Direction</u> Our information and data gathering on success factors is best viewed in the context of *Figures 2.1-1* and 2.1-3, which show how our strategic planning, budget, operational planning, supplier management, work, and performance measurement are linked. We systematically analyze data and information as described in 4.1b(1), (Figure 4.1-4) and consider the following key planning and operating environment factors in setting strategic direction during the strategic planning process described in 2.1a(1).

CRITERION 2.0 - STRATEGIC PLANNING

• <u>Strengths and Weaknesses</u> DM's strengths are based on a culture of responsiveness, responsibility, agility and are long-term (five to ten years).

Strengths (derived through SWOT analysis) are:

- Stable, highly experienced and educated workforce;
- Ability to redirect resources (human, assets and budget) is part of each manager's discretion and is accomplished through communication (*Figure 4.1-4*), planning *2.1a(2)* and the budget formulation process (*Figure 2.1-1*);
- Single customer, DOE, allows the development of longterm relationships and trust developed through daily faceto-face communication;
- Ownership of no property or assets; DOE owns all assets; we own knowledge and management systems.

Weaknesses (derived through SWOT analysis) are:

- Maturity of workforce;
- DOE is our sole source for income, by contract.

• <u>Competitive and Mission Environment</u>. The DM Vision and Mission are designed to focus our energy by addressing the competitive environment and DM capabilities relative to potential future competitors. DM is considered the a benchmark and maintains "excellent" customer satisfaction as defined by past DOE performance award fees, which deter potential competition (see *Figure 7.1-1*). The validation of our leadership as a top performing government contractor was confirmed in 2003 with our successfully re-competed contract.

• Shifts in Technology, Markets, Competition and Regulatory Environment: We are the world leader in oil storage innovation and technology. Our leadership is a result of numerous strategies. One of these strategies is the partnership with DOE research labs, such as Sandia National Laboratory where we have access to advanced data analysis and have created new technology. An example is a freeze wall around a salt dome sinkhole to prevent collapse and environmental disaster. In addition, DM led the federal government by being the first federal contractor to fully implement the SAP Enterprise Resource Planning System and has become a benchmark for the federal government and our majority owner, CSC, in the development of a performance management system 4.1a(1). Given that future performance is based on managing change and improving organizational and personal learning, we recognize that new technology provides return on investment and improves knowledge, agility, and communication at all levels. Shifts in Markets and Competition is addressed by the Strategic Plan Management Team during the SPP.

• <u>Long term sustainability</u> is addressed through our contract and ensured by our performance. Our continuity of operations is the focus of our emergency preparedness systems and the Stennis Space Center facility **P.1a(4)**.

• *Executing the Strategic Plan* is ensured through the SPP *Figure 2.1-2*, which incorporated a PDSA methodology.

• *Financial, Societal, Ethical, and Regulatory Risk* We evaluate financial, societal, ethical, and regulatory risks by reviewing processes, standards, and regulations. The DM

proven approach is to exceed all governmental and industry requirements and standards in how we accomplish the DOE Mission. An examples is our "Values Based" SPP governance approach. The process integrates strategic planning and the budget process which produces a financial statement of our planning and program decisions.

• <u>Global Market and National Economy</u> The SPR is the nation's first line of defense against an interruption in petroleum supplies. A disruption would have a major impact on the national economy. We understand the strategic, economic, and political importance of our mission. Our focus on continuous analysis of geopolitical directions can cause an adjustment to strategies and subsequent plans.

Execution of our strategic plan, our long-term sustainability and business continuity systems have been an integral part of our organization design as a federal strategic project and part of our strategic planning system *Figure 2.1-1*.

2.1b Strategic Objectives

2.1b(1) <u>Kev Strategic Objectives</u> DM's Strategic Plan *Figure* 2.1-3 lists fifteen strategic objectives, action plans (with associated processes), performance indicators, goals, control targets (2.2b *Performance Projection*) and a timetable for accomplishing the objectives that address the strategic challenges in *Figure P.2-1*.

2.1b(2) <u>Strategic Objectives Focus on Challenges</u> We address the challenges during our strategic planning process (*Figure 2.1-2*). *Figure 2.1-3* provides the linkage to challenges through the Values and Success Factors which integrate into *Figures 4.1-2*, *4.1-3*, *6.1-1*, *6.2-1*. We ensure a balance in resource allocation, time horizons, and the needs of key stakeholders through our two-way communication stakeholder performance reviews (*Figure 4.1-4*). Balance is also achieved through stakeholder involvement in strategic planning, budget formulation, and action plan development. Once the best option is determined, objectives are included in the Strategic Plan and budget as appropriate.

2.2 Strategy Deployment

2.2a Action Plan Development and Deployment

2.2a(1) <u>Action Plan Development</u> The development of action plans is the responsibility of the departments or work groups responsible for the work. Cross-functional teams develop the action plans if more than one department is involved. The Project Controls Group deploys action plans via our enterprise project scheduling system (described in 4.1b(1)), and communicates time table expectations to process owners as described in 5.1a(1). Our Strategic Planning System (Figure 2.1-1) and change management system (ECP) ensure deployment, adequate resource allocation, control of changes, and control of sustainability of all action plans. Figure 2.1-3 lists our key action plans, related strategic objectives, and key changes in products, markets, and customers. We have many support and subsidiary plans. Our key plans are linked to our Values and Success Factors.

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CRITERION 2.0 - STRATEGIC PLANNING

Figure 2.1-3 DM Values linked to Success Factors, Objectives / Challenges, Action Plans, Indicators, "Control Targets"					
Value & Success	Objectives	Action Plans	Performance	Goal or Target	Projections
Factor	(Key Challenges)		Indicator	2005	2 / 5 Year
VALUE 1	1) Fill SPR	-Fill Plan	-Authorized inventory.	700 MMB	+700 MMB
Mission	2) Maximum	-Drawdown Plan	-Availability	95%	95%
Readiness	Drawdown Rate	-Vapor Pressure Plan	-Drawdown rate	4.39 MMB/D	4.40 MMB/D
Success Factor	3.) Provide effective	-Cavern Integrity Plan	-Cavern Availability	100%	100%
Operational	security program	-Maintenance Plan	-MPAR and MPAC	95%	98%
Readiness	(C-1, 2 & 5)	-Security / Emergency			
		Preparedness Plan	-Plan Goals	100%	100%
VALUE 2	4) Provide an	-Strategic Plan	-Strategic Objectives	100%	100%
Responsible	ethical, high	(5 Year)			
Stewardship	performance	-Internal Audit Plan	-Audit Objectives	100%	100%
Success Factors	organization	100 0001 DI	-Auditing Standards	NT 1 (* * *	G
1)Performance	5) Optimize Best	-ISO 9001 Plan	-ISO 9001 registration	No deficiencies	Same
Excellence	Practices application	- Performance	-Benchmarking	Registration	Same
	10r the SPK $(C \mid 2 \mid 8 \mid 4)$	Improvement Plan	Survey Standings	Ton Ton	Ton Ton
Success Eactors	$(C-1, 2 \approx 4)$	Cost Peduction Plan	Cost Sovings	\$ 20.1 Million	\$ 64 Million
$\frac{Success racions}{2}$	Operations at the	-Cost Reduction Fian	-Cost Savings	\$ 29.1 WIIIIOII	\$ 04 MIIII0II
Management	lowest realistic cost	Management Plan	-Serna Audits	No deficiencies	Same
wanagement	7) Manage oil &	-Real Property	-Annual inventory	i to deficiciteites	Bullie
	nronerty	Management Plan	audits	99%	99%
	(C-1 & 3)	-Supply Services Plan	-Operating cost per	<i>,,,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<i>,,,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	$(0 + \omega s)$	-Operating Cost	barrel	\$0.1664	\$0.1600
		Management Plan		+	+ • • • • • • •
VALUE 3	8) Optimize the	-Shareholder	-Benchmarks & Best		
Partnership	utilization of	Benchmarking	Practices	100%	100%
-	shareholders'	Management Plan			
Success Factor	resources (C-2)		-Performance		
Beneficial	9) Maximize	-Supplier Relationship	Assessment	90%	90%
Relationships	subcontractor	Plan			
	performance and	-Joint Leadership	-DOE / DM Forum	Annual	Annual
	partnering efforts	Strategy Plan			
VALUE 4	10) Meet / Exceed	-Performance	-Meet / Exceed		
Customer	Critical Performance	Evaluation	Performance	1000/	1000/
Satisfaction	Measures	Management Plan	Measures	100%	100%
Success Factor	11) I	T	-% Managers	500/	1000/
Exceed	(11) Improve Our	-Leadership	Trained	50%	100%
Europetations	Customer	Communications Plan	-Customer Survey	90%	100%
Expectations	$(C \mid 1 \mid 2 \mid 2 \mid 4 \mid 5 \mid 8 \mid 8)$	-Communications Plan	-Customer Satisfaction	Establish Dasa	0.00% of base
	$(C^{-1}, 2, 3, 4, 3 \approx 0)$		IVIGUIA	Line	line
VALUE 5 Social	12) Promote Proper	-ISO 14001 Plan	-Certification	Maintain	Maintain
Responsibility	Environmental	-EPA / DOE E nergy	-EPA E2P2	100% 13%	100% 45%
Success Factor	Practices	Efficiency.&	Program Measures	18%. 23%	19%, 24%
Operate in a	13) Be a Proactive	P ollution P revention	-Diversity	,	, , o
Responsible	Community Leader	(E2P2)	Subcontracting		
Socially	(C-1,4, & 8)	-Subcontracting Plan	Performance	100%	100%
Beneficial Manner		-Community Outreach	-Program Goals	95%	95%
VALUE 6	14) Provide a	-Succession Plan	-Plan Goals	70%	90%
Employee	qualified, diverse,	-Knowledge			
Development	and empowered	Management Plan	-Plan Goals	50%	80%
& Diversity	workforce	-Individual			
Success Factor	15) Enhance	Development Plan	-Updated IDP	100%	100%
Human Capital	employee well being	-Employee Well Being	-Employee satisfaction		
Optimization	& satisfaction	/ Health & Safety	surveys / OSHA VPP	55% / maintain	60% / same
	(C-1,2,6, 7 & 8)	-Diversity Plan	Plan Goals	100%	100%

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2.2a(2) <u>Modified Action Plans</u> The establishment and deployment of modified action plans in response to a changing environment is accomplished through individual empowerment and authority 5.1a(1). When additional resources are required, leadership 1.1b(2) uses the Strategic Planning System *Figure 2.1-1* to adapt to change.

2.2a(3) Short- and Long-Term Action Plan Our key shortand long-term action plans are listed in Figure 2.1-3. All action plans are responsive to changing customer needs and changes in U.S. energy security status. Agility is a strategic attribute that is part of DM's culture. The allocation of resources is reflected in action plans and Work Authorization Directives (WADs). To accomplish our goals, we have created valuable alliances with several vendors, (formed during the Life Extension project P.1a(4)), which standardized the operation and maintenance of our sites. One example is the partnership with Emerson Process Management, the supplier of the sites' control systems. In addition to start-up and life-cycle maintenance over the past 10 years, Emerson is currently assisting DM with migration plans for the next generation of our process control systems thereby assisting us in achieving strategic objectives 1, 3, 4, 5, 9 and 10.

2.2a(4) Key Human Resource Requirements and Plans The Human Resources department has identified two strategic objectives to address challenges. In Figure 2.1-3 the 14th objective is to "provide a qualified, diverse, and empowered workforce" and the 15th is to "enhance employee well-being and satisfaction." These objectives have associated action plans to enhance succession planning, knowledge management planning, IDPs, Employee Well Being Plan and Diversity Plan. As we continue to manage the effect of budget reductions, we redesign our organizational structure and jobs to increase employee empowerment and decision-making. An example is the development of an integrated continuous performance improvement (ICPI) system, described in Item 4.1 where organizational the process owner manages performance analysis. Knowledge sharing and organizational learning is fostered by continuous performance improvement defined in 4.2b(1). This not only provides identification and dissemination of best practices, but also provides DM leadership with change management capabilities needed for continuous learning / unlearning processes mandated by an increasing pace of discontinuous change.

2.2a(5) <u>Key Performance Measures</u> Our Strategic Plan sets important overall organizational performance measures. The key metrics are listed in *Figure 2.1-3* (along with our current targets) two and five-year projections and stretch goals. We are an operating organization. Many of our measures have an operational focus, but these key measures are balanced to focus on our employees' and customers' product and service requirements. Our measurement system reinforces organizational alignment through participative development and our enterprise system, which is described in *4.1a(1)*. Our

management system covers all key deployment areas through our contract process. Strategic Plan and budget formulation action plans contain specific issues, solutions, and procedures that are reflected in our annual WADs. These WADs provide work scope, funding, and performance indicators. We communicate the alignment and deployment to key stakeholders through two-way communication performance reviews (Figure 4.1-4). We discuss, review, and revise our objectives, plans, and measures through our participatory SPP and through regular meetings, such as Program and Project Reviews, and staff meetings. These are designed to keep our planning and performance measurement current and to communicate performance status throughout the organization. This ensures that all parts of the organization act in concert and encourages widespread input into improving our performance. In addition, our leadership continuously communicates with employees through videos, meetings, newsletters, home page, intranet, etc. An excellent recent example is a series of drawdown readiness exercises that involved most of the organization. The exercises emphasize an understanding of individual roles in our mission critical process known as the Drawdown.

2.2b Performance Projection

<u>Key Projections</u> Figure 2.1-3 presents projections for our key performance measures. These are taken from our Strategic Plan and the DOE Fiscal Year 2005 Performance Plan. As an organization with mature systems and processes and as per DOE's contract, most of our performance measures and targets are "control measures" in which staying in a range of constant high performance is good and cost effective. Exceeding these controls creates no value to the customer and increases cost. Even though our mission may remain constant, some key performance measures change each year either to improve performance or to adapt to external change. We have current performance and targets for over 1,000 measures which are available in real-time to

employee desktops. The performance measurement system is described in **4.1a(1)**. Our projected performance compares very well with similar organizations and with our past performance. We surpass our key



benchmarks in storage costs which are roughly eight percent (8%) of private industry and seven percent (7%) of Japan National Oil Company costs. The Life Extension Program standardized and simplified our facilities and extended their functional life to 2025, which will reduce future storage costs. When compared to industry, we are a "benchmark" in areas such as environmental protection, safety, 1.2a(1) and employee satisfaction *Catagory* 7.4. Projected gaps in performance are identified through our Performance Measurement Management System 4.1a(1) and addressed by senior leaders 1.1b(2) to close the performance gaps.

CRITERION 3.0 - CUSTOMER AND MARKET FOCUS

3.1 CUSTOMER AND MARKET KNOWLEDGE

DM determines requirements, expectations, and preferences of our only customer (DOE) by contract and by daily interaction and communications P.1b(2). This enables us to understand the "Voice of the Customer," maintain trust and loyalty, and exceed expectations to meet requirements. Our long-term relationships are an important part of an overall listening, learning, and performance excellence strategy.

3.1a Customer and Market Knowledge

3.1a(1) <u>Customer Determination</u> DM's only customer is designated in its exclusive contract with DOE to manage and operate the Strategic Petroleum Reserve. DM is prohibited by the contract from seeking other customers. We identify potential competitors through participation in DOE conferences and during the contract pre-bid cycle. In the 2003 bid process, DM had only one competitor, Halliburton, U.S.A.

Figure 3.1-1 Alignment / Relationship of DOE to DM			
DOE Functional Groups Performance Areas	DM Functional Areas		
Maintenance & Operations	Operations-Engineering (O&E)		
Systems & Projects	O&E & Data Systems		
Management &	Human Resources, Finance,		
Administration	Business Operations,		
	Property Management		
	Environmental Safety & Health,		
	Security & Emergency		
Technical Assurance	Preparedness,		
	Strategic Performance,		
	Quality Assurance		

3.1a(2) Listening and Learning DOE SPRPMO is organized around four major performance areas: Maintenance and Operations, Systems and Projects, Management and Technical Administration, and Assurance. DM's organizational structure (See Organization Chart) is designed to support these areas (Figure 3.1-1). The listening process begins with each of DM's functional representatives meeting face-to-face with their DOE counterpart on a regular basis. The process ends when DOE's requirements are delineated in the contract and supported through mutually agreed upon Work Authorization Directives (WADs), which are developed annually. WADs are part of the contract that: 1) identify the organization function and technical requirements; 2) provide funding; 3) specify detailed levels of acceptable performance and targets. This process develops DOE's Kev Requirements, listed in Figure P.1-7 and Figure 3.1-2. These DOE Key Requirements are the basis for "Key Projections" described in 2.2b.

DM has systematic processes for proactively assessing DOE's requirements and expectations. We begin by assisting DOE in understanding the needs of their customers, the oil refiners. DM personnel participate on DOE's Customer Service Team and assist DOE in gathering their customers' requirements through structured on-site interviews, customer needs and satisfaction surveys, joint government-industry studies, and participation in trade conferences, such as the Offshore Technology Conference. This information is used when DM and DOE jointly adjust operating plans and procedures to accommodate potential recipients of SPR oil. The types of crude oil stored in the Reserve have been carefully selected so that U.S. refiners can process them with little disruption to their operations.

The "Voice of the Customer" can be heard systematically through key planning processes including the DOE SPR Strategic Plan, DOE Performance Plan, DOE Performance Evaluation and Measurement Plan, their Performance Plans, and through numerous interactions with DOE counterparts.

Process improvement and business development is facilitated through our integrated two-way communications system and our physical location (across the parking lot from the DOE office). For example, DM personnel meet regularly with their DOE counterparts to review Organizational Performance Measures *Figure 4.1-2*, representative Leading and Lagging Indicators Figure 4.1-3, and Figure 4.1-4 Two-Way Communication Stakeholder Performance Reviews. During these meetings, we also status daily operations, gauge drawdown readiness, and review organizational performance, and comparative data. This formal review system (informal communication and frequent collaboration) enables us to keep abreast of our customer's requirements and expectations. We work together to determine the best way to develop plans to address DOE's goals and concerns, such as, the incidence of high vapor pressure in some storage caverns. This collaboration resulted in development of a comprehensive Vapor Pressure Program. This current operation is included in Project Review, daily site status reviews, and WAD measures. DOE's concerns are also addressed through our Performance Improvement system **P.2c.** DOE findings are analyzed to determine if a team should be formed to develop a solution using our Performance Improvement or Six Sigma methodology. Each team has a DOE champion to ensure that the customer's needs and expectations are met. Our feedback management system is used to manage feedback vs. complaints, which is used to improve service 3.2a (3).

DM has been performing as M&O contractor for DOE since 1993. This is the longest term of service for any M&O contractor in the history of the SPR dating back almost 30 years. DOE extended DM's original five-year contract under an option for a second five-year period in 1998. DM successfully won its recent contract re-bid, extending the contract to 2008 with renewal options through 2013.

3.1a(3) <u>Keeping Listening and Learning Methods Current</u> DM listens and learns from its customer through the formal performance evaluation feedback processes previously discussed and listed in *Figure 4.1-4* (Performance Reviews). In addition, DOE evaluates DM's internal assessments and

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provides feedback for improvement. At the Sites, Site Directors work closely with DOE Senior Site Representatives in the daily decision-making process. DM managers communicate with the customer almost daily and DM's CEO meets at least weekly with the DOE Project Manager to receive feedback on issues that develop on a week-to-week basis. These frequent meetings help DM to make immediate adjustments to company efforts. DM Directors and managers also meet with their SPRPMO counterparts on a frequent basis to solicit feedback, especially negative feedback, so that DM can take immediate action. These processes are part of

our overall system for determining customer expectations.

3.2 CUSTOMER RELATIONSHIPS AND SATISFACTION

3.2a Customer Relationship Building 3.2a(1) Building Relationships DM's

history of performance excellence and an environment that emphasizes empowerment, innovation, and organizational agility (1.1a(2)) have been pivotal factors in building long term relationships. The close proximity of DM and DOE enables personnel from both organizations to interact on a daily basis. In addition, we share with DOE, key suppliers and subcontractors, the LAN / WAN network (provides access to a vast amount of information in our Electronic Document Management System), Intranet web sites, PBX system, and our Performance Measurement Management System (PMMS) Database, 4.1a(1) pbViews. DOE's computer needs are provided by DM Data Systems, which ensures that DOE requests for service are expedited. Also, in partnership with DOE, we share training resources when appropriate. DM maintains an open meeting policy, inviting DOE personnel to attend meetings and informal teambuilding and problem-solving sessions to ensure that plans and actions address their requirements.

Key Requirements from DOE Strategic Plan	<u>Key</u> <u>Performance Measures</u> 1 Oil Inventory	<u>1-Year Projection</u>	
	1 Oil Inventory		5-Year Projection
DOE VALUE: 1. Public Confidence DOE Success Factor: Oil Inventory Drawdown Readiness and Distribution	2. Drawdown Rate 3. Days to Commence Oil Drawdown 4. Distribution Capability 5. Site Availability 6. Maintenance Performance Appraisal Report	700,000,000 barrels 4.39 MMB/D 13 Days ≥ 120% drawdown rate 95% 95%	743,000,000+ barrels 4.42 MMB/D 11 Days ≥ 120% drawdown rate 95 - 98% 98%
DOE VALUE 2. Responsible Stewardship DOE Success Factor: Fiscal Responsibility and Budgetary Control	 7. Satisfactory Site Security Ratings 8. Operating Cost per Barrel of Storage Capacity which includes DM and DOE cost. <i>Figure 2.1-3</i> is the DM Operating cost per barrel only 	100% < \$0.2184 Per Barrel for DM and DOE combined cost.	100% \$0.207 Per Barrel for DM and DOE combined cost
DOE VALUE 3. Social Responsibility and Citizenship DOE Success Factor: Environment, Safety and Health	 9. # of Cited Environmental Violations 10. Lost Workday Case Rate 11. Hazardous Waste Volume 12. OSHA VPP Star Status at Four Sites 13. Spill Equipment Availability 14. ISO 14001 Registration 	Zero $\leq 1.1/200,000$ hours $< 3,140$ pounds/yearMaintain Star Status $\geq 95\%$ Maintain Certification	Zero $\leq 1.1/200,000$ hours < 539 pounds/yearMaintain Star Status95 - 98%Maintain Certification
DOE Success Factor Local Community Support DOE VALUE 4. Dynamic Teamwork DOE Success Factor: Continuous Improvement	15. Public Outreach Plan Goals 16. ISO 9001 Registration	95% Maintain Certification	95% Maintain Certification

3.2a(2) Key Access Mechanisms Our partnership is based on open access that has developed trust over time. Mechanisms such as the systematic formal review process Figure 4.1-4, the availability of documents and performance measures (through PMMS (pbViews)), with complete access through our LAN / WAN network that provides stakeholders with information they seek. Negative feedback (or complaints) are transmitted through one of several formal review systems such as the Assessment Tracking System (ATS) and during weekly counterpart meetings. Our the two-way communication requirements, which are deployed throughout DM, are supported by our structure and integrated into our systems and processes. We ensure responsiveness to the customer through processes that capture customer expectations and feedback (complaints).

The elements of our formal review system are structured to address DOE's key requirements *Figure 3.1-2*. Information from Project Review is posted on the Intranet and action items are posted in Centra, our electronic document management system. DM Directors, Site Directors, and managers interact with DOE counterparts on a regular basis to discuss ongoing projects, action items, deliverables, and progress on milestones and WADs. This familiarity, based on long-term relationships, has resulted in contact personnel tailoring their responses to the individuals with whom they work as a direct result of learning and internalizing customer's expectations.

3.2a(3) <u>Complaint / Feedback Management</u> Our feedback management system is used to manage feedback (complaints). The system includes our two-way communications system *Figure 4.1-4* and processes that generate feedback through 1) satisfaction / dissatisfaction surveys *Figure 7.2-6*, 2) DM Organizational Assessments *Figure 7.6-4*, 3) DOE On Site Appraisal Findings *Figure 7.6-7*, 4) quarterly performance evaluations from DOE, and 5) the DOE award fee letter. Our partnership with DOE *P.1b(2)* sets us apart from a "normal" business *2.1a*. Feedback is addressed effectively and promptly.

Feedback (complaint) is aggregated in the SPR Assessment Tracking System and analyzed for use by management (JPMC) and process owners. Feedback or nonconformance is identified, corrective actions are developed, deployed, and their control is validated. The corrective action process includes assignment of the action, a definition of the cause(s) of the nonconformance, explanation of the action that will be taken to eliminate the cause, explanation of the action that will be taken to prevent a reoccurrence of the identified problem, and management review / follow-up of the corrective action taken.

We work with DOE and suppliers to identify potential unfavorable trends so they can be addressed. All DM directors and managers are held accountable for resolving feedback (complaint) issues and deficiencies attributed to their area of responsibility. The process we use to analyze data is described in 4.1b(1). The security contractor overtime

example described in 1.1b(2) was a result of an assessment finding.

3.2a(4) <u>Keeping Approaches Current</u> We keep our approach to building relationships and access current with business needs and directions through our two-way communication and feedback (complaint) system, *Figure 4.1-4.* Relation building is strengthened for the organization during the Project Review process when all of our functional groups present performance measures and status on-going projects. Project Review provides feedback that is captured in the Action Tracking System.

The effectiveness of the Project Review process was evaluated in 2003 using the Six Sigma methodology to determine if DM and DOE were getting the best value from the practice. Participants were surveyed to determine whether their needs were being met by the monthly review process. Results indicated that because of our frequent interaction with the customer, the availability of our measures through pbViews 4.1a(1), and our milestone system, a less frequent review cycle would be more helpful. This team effort also revealed that the customer would prefer to use the project review to look into the future. Because the reviews alternate from site to site, requiring a significant amount of travel, a cost savings was realized by the project review redesign. The Six Sigma results improved the Project Review process by improving communications while reducing annual process costs by over \$150,000 through 2008.

3.2b Customer Satisfaction Determination

3.2b(1) <u>Customer Satisfaction</u> Customer satisfaction and dissatisfaction are addressed in DOE Performance Evaluation Committee (PEC) assessments and in the DOE Performance Award Fee assessment. In these assessments, each of DM's performance measures, WADs, and deliverables is assessed using a scale described in the DOE Performance Evaluation and Measurement Plan (PEMP) based on an assessment of contractor performance relative to the critical few performance measures, which is addressed in *Figure 2.1-3* - Objective 10, "Meet / Exceed Critical Performance

Measures". Additional comments are included for events and activities that are not performance measures, WADs, or deliverables. *Item* **7.2** provides results for customer satisfaction.



As our only customer, we concentrate on satisfying DOE's needs that encompass the needs of the four DOE performance areas. All of the measurements included in the assessments are mutually agreed upon and include items that fulfill contractual obligations and items that represent current or potential areas of interest to DOE. DM's goal is to exceed expectations in all areas. Items where feedback is below customer expectations are addressed by management and

CRITERION 3.0 - CUSTOMER AND MARKET FOCUS

management 1.1b(2). Performance results are collected, aligned 4.1a(1), and analyzed 4.1b(1) for improvement.

DM has a Quarterly Customer Survey plan *Figure 2.1-3* - Strategic Objective 11, "Improve Our Customer Relationship". One of the four DOE performance areas is surveyed each quarter so that the entire organization is surveyed annually. This staggered approach enables us to obtain actionable feedback each quarter and generate a culture of constant listening and learning with the ability to rapidly change based on changing customer expectations.

Through this process, DM functional areas are provided with the Customer's Ranking of Areas of Importance and the Customer's Perception of Net Performance in those areas. A Gap Analysis is developed which combines net performance and customer priority in one figure to identify areas where improvement would have the greatest impact on customer satisfaction. The results are shared with DOE and one or two areas are targeted for action.

Figure 3.2-1 DM Value: Customer Satisfaction				
DM Success Factor: Exceed Customer Expectations				
Action Plan Targets				
Performance Indicators	2006	2011		
Performance Evaluation	100%	100%		
Management Plan(PEMP) # CPMs Met / Exceeded				
Leaders Trained	50%	100%		
	% Managers	s Trained		
Customer Rating for	90%	90%		
Communication Favorable Ratings				
Customer Driven Process	Plan	TBD		
Management (QFD)	Implemented			

3.2b(2) <u>Customer Follow-up</u> Our customer follow up processes are both formal and informal. Informally, follow up is "real-time" through continuous communications. The customer is comfortable in expressing desires and expectations. Formally, DM and DOE meet regularly *Figure 4.1-4* to review key performance measures *Figure 4.1-2*, important processes *Figure 6.1-1*, open action items 3.2a(3), status of major projects / initiatives, budget execution, milestone completion, staffing levels, site availability, oil inventory, drawdown issues, fill rates, emergency response preparedness, safety issues, and to develop action plans to ensure successful outcomes.

3.2b(3) <u>Benchmarking</u> DM is considered to be the benchmark globally for crude oil storage and maintains "excellent" customer satisfaction as defined by DOE in the DM Performance Award Fee process. DOE's satisfaction is based on the performance standards we have established. Our past performance has met or exceeded all relevant industry major benchmarks. The high customer satisfaction level is a result of our performance and leadership in industry and government, in particular DOE.

Global Benchmark: For example, our "Operating Cost per Barrel of Storage Capacity", (see *Figure 3.1-2* DOE Requirements from the DOE Strategic & Performance Plans), is roughly \$0.20. This is the lowest cost to store a barrel of oil compared to U.S. industry at \$2.40, European Oil Storage at \$1.60, and Japan's Strategic Oil Reserve at \$3.00.(*Figure 7.1-3*).

DOE Benchmark: In 2001, we were the first DOE contractor to obtain OSHA VPP Star status and we were leaders in obtaining ISO 14001 registration.

Future Benchmark: The completion of the Life Extension Program (which was designed to standardize and simplify our facilities and extend their life to 2025) will allow us to keep future storage costs low. When compared to industry, we are a "benchmark" in vital areas such as environmental protection, safety, and performance improvement. Although DM (as the only provider of oil storage-type services to DOE) does not have competitors, our experience with the contract re-bid provided insight into our standing against competitors involved in that process. Besides benchmarking against organizations with similar equipment and processes, DM subscribes to The Benchmarking Exchange (Benchnet.com), which provides us with access to companies throughout the world. Questions can be posted by any employee in DM or DOE and it will be sent out to all subscribers. Responses are emailed directly to the employee. (See **P.2a**(3))

3.2b(4) <u>Keeping Approaches</u> <u>Current</u> Working closely with the customer to develop our WADs and deliverables enables DM to key in on those areas most important to our customer. When circumstances change suddenly, as they did after September 11, 2001,



we have the agility to revise our plans so that we can accomplish new requirements crucial to the SPR's mission. In this instance, it was necessary to focus on security at the sites in a new way. DM was able to incorporate all security measures that DOE requested.

Our systematic approach to keeping satisfaction determination current with business needs and direction is through three major processes. The first is our two-way communications process described in *Figure 4.1-4;* second are the leadership processes described in 1.1b(2); and third is the benchmarking process described in 3.2b(3). The development and deployment of the evolution of our approaches is a function of DM leadership. The Customer

Survey process described in 3.2b(1) is a recent example of a change in our approach to improve feedback that was initiated in 2003.



4.1 MEASUREMENT, ANALYSIS, AND REVIEW OF ORGANIZATIONAL PERFORMANCE

4.1a Performance Measurement

4.1a(1) <u>Performance Measurement System</u> We set and align organizational direction and resources through the Performance Based Contract with DOE and Strategic Planning System as shown in Figure 2.1-1. We set key organizational level strategic and operational performance measures in the annual Strategic Plan, which is linked to the DOE Strategic Plan's Critical Performance Measures (CPMs). Annual Work Authorization Directives (WADs) are part of the contract that: 1) identify the organization function and technical requirements; 2) provide funding; and 3) specify detail levels of acceptable performance and targets and translate action plans into more detailed operating measures. The WAD "measures" are selected, aligned, integrated, and tracked and are the quantifiable part of our Performance Based Contract. They contain work requirements, performance objectives, minimum level performance, and stretch goals. Resources to meet plan objectives are allocated through our annual Strategic Planning Process and budget formulation process Figure 2.1-1.

Selecting, Collecting, Aligning, Integrating Since the start of the contract in 1993, DM has continuously improved the selection, analysis, integration, accessibility, reliability, integrity, and consistency of data on performance and operational issues. This has been accomplished through strategies such as implementation of an enterprise-wide client-server network, enterprise software (including SAP), document management software repository, and software to manage our Performance Measurement Management System (PMMS). *Figure 4.1-2* identifies key organizational performance measures with related Success Factors, selected measures, approach methodology, use, and results.

The PMMS creates the structure to manage all organizational analysis and preparation, as well as measuring progress relative to achieving strategic objectives and action plans. Submission of the DM Quarterly and Annual Self Assessments are deliverables that are part of the PMMS and required by the contract. This submission includes performance requirements, which are based on the objectives and criteria established for the WAD and PEMP major performance areas. The PMMS manages activities relative to measuring and reporting performance to DOE, performance of internal processes, and of activities associated with compiling data for management reporting, preparation, and presentation for the Project Control Executive Summary Review.

PbViews software manages data and narrative commentary, which is an enterprise wide, real time "dashboard" performance tracking database that consists of over 1,000 linked measures. Performance measures from the individual and work group level to the Strategic Plan goals are linked to the Success Factors and Values *Figure 2.1-3*. This software manages the majority of the data and performance information and is available to DM/DOE employees through any PC connected to the network. In pbViews, performance measures are linked to DM's vision, mission, values, strategic objectives, goals, and indicators. Measures are displayed in a hierarchical structure similar to an organization chart as shown in *Figure 4.1-1*.



Figure 4.1-1 Performance Measurement Management System (PMMS) Database

In pbViews, this structure is called a "View". The system contains briefing books and over 60-targeted reports. Within a View, measures are linked, weighted, graphed, trended, compared to performance since 2000, and, if applicable, compared to benchmarks. Responsibility and authority is given to measure/process owners who enter data and a narrative commentary for each measure detailing performance of activities. An indexing system evaluates a measure's actual performance versus comparative data. This index comparison generates a color for each measure, which affects the higher-level measure color, as it cascades to the top. This "color coding" provides an immediate visual cue, enabling performance variances to be clearly identified. Figure 4.1-1 depicts a View with Mission as the top measure. Combined with our daily reporting system, the PMMS is used by DM and DOE to provide a fact-based system for reporting and decision-making. The net effect is a "dashboard display".

• *Daily Operations* All sites hold daily site status meetings to monitor key site operational performance measures. Site operating data is recorded automatically on a real-time basis in the sites' data historians and is available for analysis in New Orleans through our Process Engineering System. Our milestone system tracks action plan performance at all levels from the top of the organization down to sub-contractors.

• **Overall Performance** We use the performance measures in our Strategic Plan to track overall organizational performance, including both strategic and operational measures. Management reviews the measures at quarterly Project Reviews and Program Reviews. Organizational

functions review individual measures based on risk daily, weekly or monthly. We revise measures periodically because of changes in the external environment, strategic challenges or because we develop better metrics.

4.1a(2) <u>Supporting Decision Making – Innovation</u> The selection and effective use of key comparative data and information to support operational and strategic decision making is determined by the annual performance based PEMP negotiation process with DOE, which is managed by the Business Operations Directorate. This renewal process spans a period from July through August when a complete review of the entire strategic direction, all key data and information, and performance measures are updated during a series of cooperative meetings with DOE.

Key Comparative Data and Information We use internal and industry data as described in P.2a(3) to standardize and improve operations at our storage sites and to enhance our business infrastructure. We completed the five-year, \$330 million major Life Extension Program P.2b(4) that simplified and standardized site infrastructure to extend the life of the sites to 2025 to reduce operating costs. In 2001/2002, we completed and used a major benchmarking study of industry maintenance practices to improve site operations. We completed a benchmarking study of industry to migrate our network infrastructure to a secure server farm design. We exchange information during annual DOE visits with the Japan National Oil Company that administers Japan's strategic reserve. They have benchmarked against us and are adopting our competitive sales modeling process and strategy of using an early release of government oil stocks in an oil supply emergency.

Over the past five years, a performance-focused culture has developed driven by leadership use of the Baldrige criteria as a business model. Consequently, our performance has increased creating an increase in DOE expectations.

A majority of our WAD measures are **"control measures"**. These measures have a lower control level, around 90 percent, which represents a minimum level necessary for maintaining full operations, and an upper control level, around 95 percent, which represents the highest level of sustainable performance attainable given our financial constraints. A majority of our performance measures exceeds the upper limit and are controlled relative to the required resource. It would be prohibitively expensive for us to perform above the upper level for a long period of time.

Innovation and continuous improvement are ingrained in our culture and are systematically supported by our Performance Improvement (PI) system. Like benchmarking, described in 3.2b(3), DM's innovation process are enhanced by the PI Department methodologies. Improvement in cost efficiencies and effectiveness at meeting goals and objectives are driven by analysis using comparative data and information. The PI system includes analysis of: 1) audits and assessments 1.1b, 2) customer satisfaction information 3.2b(1), 3) customer

feedback management (complaint) 3.2a(3), 4) employee feedback through Workplace Assessment Survey 5.3b(1), and 5) diverse PI and Six Sigma teams. The PI system generates ideas to make meaningful changes to improve performance. PI integrates evolutionary process improvement tools with break-through strategy methodologies, such as Six Sigma 3.2a(4) through ICPI.

4.1a(3) <u>Keeping Performance Measurement System Current</u> We evaluate the effectiveness of our strategic and major operational measures during Project Review and Program Reviews, through our quarterly Project Self-Assessment to DOE, and the DOE PEMP Assessment process (which is how we obtain our award fee from DOE). We revise our Strategic Plan annually using a process that promotes discussion of the effectiveness of our measures relative to the changing business needs and global economic and political conditions. Process owners who are defined in our PMMS ensure our performance measurement system is sensitive to changing needs through a daily review of similar processes at the action plan and WAD performance levels, where both DOE and budget changes can precipitate changes in performance measures.

We make process and measurement improvements as a result of our audit processes, improvement activities and employee input. Our Quality Assurance function evaluates the performance of processes and systems. We have improved measures as a result of our organizational self-assessments and analysis of quality award feedback reports. We also use cross-functional PI/Six Sigma teams to improve and develop performance measurements.

4.1b Performance Analysis and Review

4.1b(1) Performance Analysis and Reviews Senior leaders participate with employees and DOE in reviews of organizational performance and capabilities through our Strategic Planning System Figure 2.1-1, SPP Figure 2.1-2, our PMMS 4.1a.and our two-way communication process Figure 4.1-4. Feedback (complaint) is captured, tracked, and managed in our enterprise-wide systems described in 3.2a(3), the project management milestone system (described in next paragraph) and is used to generate improvement opportunities. We use many leading and lagging indicators to monitor and improve performance, especially at the engineering and operating level. Figure 4.1-3 presents a representative cross-section of important leading and lagging indicators and illustrates how we use them. We use causeand-effect indicators at all levels of the organization, from storage site workers (e.g., parts availability affects ability of equipment and site to operate) to top leaders (e.g., vapor pressure affects drawdown rate, employee survey results indicate satisfaction and may affect productivity, network availability affects worker productivity).

Performance review conclusions are validated through analytical methods which range from simple operational analysis to sophisticated statistical sampling, system

modeling, and advanced Six Sigma experimental tools. Mission critical action plans and their changes are tracked in our Project Controls System, which is a four-level (I, II, III, IV) milestone system that leadership uses to monitor and manage progress. Level I Criteria are overall performance criteria issued by the DOE Program Office (PO) and tracked by the DOE Deputy Assistant Secretary in Washington D.C. Level II Criteria are systems criteria issued by the Project Management Office (PMO) and tracked by the DOE Project Manager in New Orleans, to provide additional guidance on design, operations, and maintenance. Level III Criteria are detailed design criteria issued by the PMO and tracked by DOE Assistant Project Managers in New Orleans. Level IV Criteria are DM operational level milestones. Leadership reviews progress through our planning and performance measurement process (Figure 2.1-1) and our performance reviews (Figure 4.1-4). Our leaders are actively involved in our planning process, which links to our organizational performance review. Leaders often initiate analysis of all organizational performance. Performance reports are available to everyone through the intranet and are stored in Centra, our Electronic Data Management system

Since 1995, we have integrated the use of other instruments like quality awards, application feedback reports, self-assessments, and employee surveys to assess organizational performance. Results from such instruments are discussed in management meetings and at All Hands meetings. We link the results of our organizational level analysis to operational decision making through the process of successively more detailed plans, performance measures, and reviews shown in *Figures 2.1-3, 4.1-2,* and *4.1-4.* An excellent example is our analysis of maintenance and operations costs that led to the Life Extension Program. Based on the studies, we embarked on a lengthy program that standardized operations across sites, reduced the amount of equipment and parts required, and enabled us to keep operating costs low.

We systematically review overall organizational performance, including performance on key business results and strategic objectives, at Project Reviews. At these reviews, we analyze deficiencies and improvement possibilities and make decisions. These are reflected as changes in action plans, work assignments, and milestones. *Figure 4.1-4* shows the regular reviews and meetings we use to deploy organizational analysis, including operational and financial analysis, throughout the organization and to suppliers. Leaders also hold regular staff meetings and the DOE Program Office and DOE Project Management Office leaders have weekly videoconferences.

Our hierarchy of successively more detailed plans, performance measures, and reviews flows from senior leadership to the operating level and to sub-contractors. *Figure 4.1-3* provides several leading indicator examples that support how analysis specifically affects daily operations and our Success Factors. For example, our Process Engineering System provides consolidated site operating data to the

Project Management Office. We trend and analyze this data through our preventive maintenance program, failure analysis program, and occurrence reporting system. Site employees report unsafe acts through a system that provides data to site safety councils, where they are analyzed and corrective actions are taken. There are countless other examples. Responsibility for improvements is taken either by a logical organization function or by an improvement team formed to work on it.

4.1b(2) <u>Performance Review Findings</u> All performance review findings are prioritized based on: a) risk, b) how they are deployed inside and outside the organization, and c) associated results with innovative solutions. Considered together, these prioritized findings provide opportunities for technical, business, and operational innovation. Our extensive internal and external communications systems deploy improvement and innovation to workgroup and the functional level through the processes defined in *Figure 4.1-4*, pbViews, and senior leader support as described in *1.1a(1)*.

To ensure alignment, our suppliers and partners are part of our management, planning, and improvement processes. They participate in our PI system, on Six Sigma teams that have produced breakthrough improvements by reengineering processes. For example, our security contractor, Pinkerton Government Services, participated on a Six Sigma team that drastically improved their payroll and scheduling system and reduced overtime resulting in improved performance and generating millions of dollars in savings (*Figure 7.5-14*). The lesson learned was then integrated into another Six Sigma team to reduce operations overtime. Efficiencies have been obtained through process innovation and human resource reallocation.

4.2 INFORMATION AND KNOWLEDGE MANAGEMENT

4.2a Data and information Availability

4.2a(1) <u>Availability and Accessibility of Needed Data and</u> <u>Information</u> Data and information are made available and accessible to stakeholders through a secure network of information systems and associated databases, an integrated electronic document management and enterprise resource program (ERP) system, and enterprise intranet site. Our processes for ensuring efficient and effective communication of critical data and relevant up-to-date information is provided to all users via a secure LAN/WAN, multi-site video conferencing, warm site management (Stennis Space Center) and a series of daily, weekly, monthly, and quarterly meetings.

Our Data Systems function, which manages our information infrastructure, consists of several groups: Enterprise Architecture & Integration, Control Systems, Network Operations, Configuration and Asset Management, Cyber Security, Business Applications, and Technical Services.

DynMcDermott Petroleum Operations Company

CRITERION 4.0 - MEASUREMENT, ANALYSIS AND KNOWLEDGE MANAGEMENT

Figure 4.1	igure 4.1-2 Organizational Performance Measures					
Success <u>Factors</u>	<u>Measures</u>	<u>Approach</u>	<u>Use of Data</u>	<u>Selected</u> <u>Results</u>		
O, E, A, P, C, S, H	1. Oil Inventory	Daily reporting	Monitor progress toward strategic objective of filling to capacity	Figure 7.5 -1		
tion Processes rformance Measure	 Drawdown Rate Days to Commence Drawdown Distribution Capability Site Availability Maintenance - MPAR Site Security 	Daily, hourly, or real-time operational measures	Control operations; identify and resolve problems	Figure 7.5 - 3 Figure 7.5 - 5 Figure 7.5 - 4 Figure 7.5 - 2 Figure 7.5 - 6 Figure 7.5 - 9		
l Per	8. Cost Savings	Monthly accounting	Control overall costs	Figure 7.5 - 12		
Value C DOE Critical	9. Number of Cited Environmental Violations 10. Lost Workday Case Rate	DOE Critical Performance Measures Automated hourly reporting; incident reporting system Daily or monthly monitoring; site audits	Analyze causes of problems and correct; use to support preventive approach	Figure 7.6 - 9 Figure7.5 - 18		
O, E, A, P, C, S, H	Customer Satisfaction and Relationships	Daily, hourly, or real-time operational measures	Improve products and services; build relationships	Figure 7.1 - 1		
ssses scard	Employee Satisfaction	Employee survey and personnel data	Discuss results organization-wide, use to prioritize and make improvements	Figure7.4 - 8 & 9		
ort Proce Iced Score	Training Track expenditures, requirements, and individual development plans; course evaluations		Assure that employees are using developmental opportunities; improve courses	Figure7.4 - 6 & 7		
Supp Balan	Employment, Retention & Diversity	Track retention, total, and minority employment	Monitor work efficiency and diversity accomplishments	Figure 7.4 – 10, 16		
	Sub-Contractors	Monthly reporting of cost and schedule performance (Milestone Completion)	Assess / manage task contract performance; Project Assessment	Figure 7.5 - 13		

Figure 4.1-3 Representative Leading and Lagging Indicators					
<u>Key Success</u> <u>Factors</u>	Leading Indicator	Lagging Indicator	<u>Analysis</u>	<u>Resolution</u>	
O, E, A, C	Parts available, maintenance backlog, mean time between failures	Site Availability	Analysis of maintenance indexes, Process Engineering System data, site operations model, etc.	Formal failure analysis system; corrective actions	
	Vapor pressure	Drawdown Rate, Oil Inventory	Statistical sampling program	Vapor pressure management program	
O, E, A, P, C, S, H	Customer satisfaction results	Performance Award	Analysis of DOE Performance Feedback	Action by Senior staff, Six Sigma teams	
EDSU	Employee survey results Corporate Employee Self-Service System (ESS) in SAP	Turnover, sick leave, length of service, etc.	Analysis by functional work groups and teams; discussion at all hands meetings	Action by quality councils, functional work groups, improvement teams	
Е, Р, З, П	Number of unsafe acts observed	• Lost Workday Case Rate	Site safety council analysis of behavioral safety program data	Corrective actions	
	Third-party and internal findings	Environmental Permit Noncompliances	Internal and third-party (e.g., ISO-14001) assessments	Corrective actions	

*O = Operational Readiness; E = Performance Excellence; A = Asset Management; P = Partnering; C = Responsive Customer Service; S = Operate in a Socially Beneficial Manner; H = Human Capital Optimization

Figure 4.1-4 "Key" Two-Way Communication Stakeholder Performance Review Examples					
<u>Review / Meeting</u>	Participants	<u>Frequency</u>	Measures Reviewed		
Program Review	• DOE Program Office leaders and staff (PO)	Quarterly	Key performance measures		
	DOE Project Management Office (PMO)		 Status of major projects / initiatives 		
	DM Management and operating staff		Budget execution and staffing		
Budget Review	DOE: PO and PMO leaders and budget staff	Annually	 Planned budget vs. previous execution 		
	DM leaders and budget staff		Bottoms up requirements for budget		
Drawdown Readiness	DOE PMO leaders and functional representatives	Quarterly	 Site availability and oil inventory 		
Review	DM leaders and functional representatives		 Drawdown and fill rates 		
	Senior storage site representatives		 Environmental response preparedness 		
	Other contractor senior representatives		Spare parts availability		
Project Assessment	PMO senior staff, program analysts / cost monitors	Monthly	Milestone completion		
	DM staff		 Budget execution, staffing 		
Project Review	DOE PMO leaders and functional representatives	Quarterly or	Staffing levels		
	DM leaders and functional representatives	as Requested	Status of major projects / initiatives		
	Other contractor senior representatives		Open action items		
On-Site Reviews	DOE PMO leaders and staff	Annually	All contractor performance measures		
	Senior storage site representatives	(per-site)			
	DM site managers and staff				
Daily Site Status	All site staff	5 days/week	Barrels of fluid moved		
Meeting	DM site managers and staff		Pumps available and meter runs available		
Performance Evaluation	Performance Evaluation Committees (PEC)	Quarterly	All contractor performance measures		
Strategic Plan Review	• Strategic Planning Team, Leadership, Feedback	Quarterly	• All performance, strategic factors 2.1a(2)		
	from Employees		and challenges <i>Figure P.2-1</i>		
Environmental Advisory	• External group of scientists, technical experts, and	Quarterly	Operations, Environmental and proposed		
Committee	community representatives that provide independent		future planning		
	assessments and advice on our environmental and				
	emergency management efforts				

These functionally related entities form the business unit that ensures the confidentiality, integrity, and availability of process and business data in accordance with DOE requirements and industry-recognized best practices. Central to the success of this function is an overarching, guiding methodology for management of change based on the industry-proven Configuration Management II model. Data Systems uses a structured approach to provide the right tools to the right people at the right time - starting with joint needs assessment analysis and progressing to system test and deployment. Customer involvement in a project's life cycle ensures success. Tools that align people, processes, and technology are used to reduce support costs and improve efficiency. The infrastructure baseline design and documentation is kept current in an electronic product data structure in Centra to ensure system integrity and to provide the basis for technology enhancement and upgrades. Performance results of availability and accessibility is shown in Figures 7.5-27. This level of availability is possible because we:

- Provide a complete electronic solution for creating, maintaining, capturing, storing, archiving, reviewing, approving, modifying, distributing, and dispositioning new or existing documents;
- Safeguard the SPR knowledge resident in documents for the sake of efficient future operations and creativity.

4.2a(2) Hardware and Software Reliability and Security Our Data System function is responsible for reliability of hardware and software configurations, network and communications infrastructures, and cyber security systems. The process we use ranges from structured configuration management policies / procedures to up-todate electronic hardware and software inventory of all components on the SPR, which is mapped to each end-item user. This enables effective customer support, quick Help Desk problem resolutions, and efficient technology upgrades. While our systems are inherently complex, ease of use is ensured by selecting a user-friendly interface in the acquisition of new software by having the user involved in the evaluation process. Cyber Security manages the cyber security stance of the SPR and ensures the confidentiality, integrity, and availability of data in accordance with DOE requirements and industry-recognized best practices.

4.2a(3) <u>Data and Information Continued Availability</u> Data Systems is responsible for data and information availability mechanisms (including software and hardware systems) that are relevant to current business needs and direction. Data Systems conducts analysis of business requirements, design of systems to meet the requirements, benchmarking for best practice solutions, development, or purchase of systems, and maintenance of the systems (including our SAP R/3 system). We work with the DOE Chief Information Officer to provide updates to the strategic five-

year long-range plan. The plan defines the SPR technology migration plan based on the current business infrastructure. In the event of an emergency our Stennis Space Center, MS is the location for Continuity of Operations for all systems *P.1a(4)*.

4.2a(4) <u>Data and Information Availability Mechanisms</u> and Business Needs and Directions

Our systematic approach for keeping data and information availability mechanisms current with changing needs begins with our information systems planning process. This process involves representatives from various DM functions and the DOE Chief Information Officer. Each quarter, Data Systems evaluates our performance according to the 5-year plan and annual updates of our strategic long-range plan. Additionally, based on make / buy decisions, Data Systems develops applications in-house to meet the SPR's unique needs. Some examples of applications developed in-house are: SOEP, DOTS, SOTS, COSMOS, COMETS, and TRACE.

4.2b Organizational Knowledge

<u>Managing Organizational Knowledge</u> Our knowledge management system is dynamic. It is based on hardware and software infrastructure (which is continuously upgraded)and on our communication systems (both internal and external) The software that manages our electronic document data base system is Centra. It includes all engineering drawings, policies, procedures, communications, reports, customer information, and vendor data. Centra employs a powerful search engine, versioning scheme, and interfaces with SAP R/3 to systematically provide access to mission critical information in a user-friendly manner.

The collection and transfer of employee knowledge and knowledge from customer, suppliers, and partners is accomplished through knowledge systems. These systems facilitate development of synergy between the data and information processing capacity of our information technologies and the innovative and creative capacity of human communications.

For example, we have an elaborate system to identify and share lessons learned that was developed internally and benchmarked externally P.2a and P.2c(2). We have institutionalized lessons learned to facilitate efficient handling of routine, "linear," and predictable situations during stable or incrementally changing environments. However, we have learned from the experience of our workforce that change is often discontinuous and there is a need for continuous examination and renewal of the basic premises underlying the "lessons learned" stored in our knowledge bases. The performance improvement (PI) system is our system that not only provides identification and dissemination of lessons learned but also it is our methodology for continuous re-examination of processes.

Our ICPI system provides a method for the review of processes. This review continuously examines best practices

for their currency given changing assumptions about the business environment to keep current with changing needs. The ICPI system provides leadership with change management capabilities needed for continuous learning and unlearning processes mandated by an increasing pace of discontinuous change.

The elements of the ICPI system are based on a business process culture that integrates leadership change management, teams, re-engineering, Six Sigma, Activity-Based Management, Lean enterprise methodology, ISO 9001 and the Baldrige criteria as a business model. These integrated methodologies are used to ensure efficiencyoriented optimization of our knowledge system. Leadership recognizes that unlike information, knowledge is embedded in people and knowledge creation occurs in the process of social interaction, which is facilitated by communication, teamwork, maturity, skills, knowledge, and the experience of our employees.

4.2c Data, Information and Knowledge Quality

Properties of Data, Information, and Organizational Knowledge Leaders provides focus on the criticality of data, information, and organizational knowledge to the successful development and deployment of action plans. Our systematic approaches are described in 2.2a. Properties like integrity are ensured through guidance in policies and procedures. These are validated through internal and customer audits. Timeliness is addressed through the project management controls and scheduling system, which is managed by our Business Operations function. Timeliness is the focus of the project control four-level milestone system, which ensures process owners are involved in monitoring and managing progress and performance. Reliability and accuracy are built into our systems and technology-based conceptualizations that have heuristics embedded in procedures, mathematical models, and programmed logic. As a DOE project, we have a high level of security compared to industry. Security and confidentiality is addressed through a series of policies and procedures and need to know parameters.



Loyola University Six Sigma Black Belts

5.1 WORK SYSTEMS

5.1a Organization and Management of Work

5.1a(1) <u>Empowerment and Innovation</u> DM's value system described in **1.1**a(1), is supported by the Vision and Goals of the Human Resources (HR) Department. Our culture is focused on responsible stewardship of strategic oil reserves for the American people, protecting and developing a diverse workforce, acting ethically in everything we do, and continuously improving. Leadership promotes these values to provide consistency in human resource policies, programs, and practices throughout our organization.

Cooperation, initiative, innovation, and empowerment are the basis of our high performance values-based culture. We are organized and manage work and jobs to support all applicable contract requirements in the most effective manner possible through the WADs that: 1) identify organizational functions and technical requirements; 2) provide funding; and 3) specify levels of acceptable performance and targets. All employees are empowered to innovate and improve processes and complete their work in self-directed informal and formal functionally diverse work groups and/or teams 5.1a (2). Formal teams are chartered, managed, and members trained just in time during the Performance Improvement (PI) process **P.2c**. We adapt to changing business needs through individual empowerment and authority and when additional resources are required, we use teams with members from different functions, disciplines, and locations, including supplier/contractor personnel, to capitalize on diverse skills interdepartmental cooperation. and facilitate We systematically use teams for major initiatives, continuing responsibilities, and improvements.

One major DM initiative, Vapor Pressure, was a new requirement developed as a result of using leading indicators *Figure 4.1-3*. To maximize cooperation, coordination, and ensure that appropriate skills were in place to support this initiative, this project was managed by a cross-functional project team. This included development of work task assignments, job descriptions, recruitment, and training resulting in a successful start-up of the Vapor Pressure plant in April 2004.

DM's Service Enterprise Resource Planning (SERP) Project was a two-year company wide business process improvement project that concluded in 1999. The project focused on implementation of best in class standards. Our business processes were effectively redesigned and reorganized by an empowered multi-functional project team and as a result, our work systems achieve higher scores and enhanced efficiency in several major performance areas.

Our work systems are design to ensure the staff is continuously Drawdown Ready. Our support and technical functions are organized to directly support the workforce that is directly involved with drawdown and fill (i.e. Operations and Maintenance). The WADs define our functions such as operations and maintenance, supported by engineering,

environmental, safety, security, and business entities. Eagle (Every Action is a Great Learning Experience) exercises are conducted periodically to test the ability of the sites and individuals in New Orleans, both at DM and DOE, and in the Program Office in Washington, to respond to a notice from the President to drawdown. The exercise encompasses all 17 steps of the Drawdown Implementation Process and the entire organization to ensure that the requisite skills, resources, and efficient interdepartmental interfaces are in place to support our primary mission in a timely and responsive manner. The exercise is conducted over several weeks based on a sophisticated scenario and participants are expected to perform as they would during an actual drawdown. Evaluators observe the activity and provide feedback to improve processes. We analyze deficiencies and improvement possibilities to support decision making that drives changes to action plans 4.1a (3).

5.1a(2) <u>Work Systems - Diverse Ideas and Cultures</u> DM goes beyond our contractually required affirmative action plan, valuing our employees and the value that their diversity brings to the workplace. Our employee led Diversity Council, with the participation of DOE, develops an annual Diversity Plan that addresses our value of "Employee Development & Diversity" in *Figure 2.1-3* and extends beyond the company into direct involvement with the communities where we live thus providing linkage to the Community Outreach Plan described in *1.2c*. These plans, with leadership's direction described in *1.1a(1)* and two-way communication defined in *Figure 4.1-4*, create an open and receptive culture that fosters the identification and acceptance of new ideas and thinking from our diverse workforce, thus driving change and improvement of our work systems.

5.1a(3) Effective Communication and Skill Sharing Effective communication and skill sharing across diverse work units, jobs, and locations is achieved though a structured project management system and a process and technology standardization approach that integrates work groups and teams. This approach provides challenging work and developmental assignments to expand individual knowledge, skills, and abilities and provide opportunities for advancement. To improve communication and facilitate skill sharing, DM has designed its processes to be identical at each storage site. DM's Life Extension Project replicated equipment, supplies, and work processes, where technically practical, at all four sites. Each storage site was fitted with the same equipment, software, and processes. This streamlined the organization of work and job systems by allowing DM to manage to one standard instead of four, allowing employees the ability to move from site to site when needed with a minimum of orientation and supervision to perform their assigned tasks.

5.1b <u>Employee Performance Management System</u> The DM employee performance management system is supported through the Human Resources (HR) System and Compensation Plan. Our formal approach uses performance

evaluations to manage an employee's career, set work goals, reinforce and reward good performance, provide timely feedback to each employee on their performance, and to establish Individual Development Plans (IDP) that ensure the employee has support for career development. DM strongly supports training and allots resources for individual development. Our employee performance evaluation procedures require that employees' goals directly support organizational goals, action plans Figure 2.1-3, and reinforce an understanding of how their performance contributes to DM's success. Periodically, HR also conducts a complete review of each job to ensure that job descriptions remain relevant to the DM mission and that employee skill requirements remain aligned with business needs and customer requirements. This systematic process provides each employee with the opportunity to participate in the overall evaluation process; supports employee job ownership in support of DM's action plans to achieve the Mission; and facilitates the timely identification of employee training and development needs, as required, to maximize agility and responsiveness to changing mission requirements.

DM uses a number of motivational and reward approaches to build joint acceptance and reinforce high performance work in furtherance of the Company's goals and strategies. One of the most important rewards is employee profit sharing based on DM's performance fee received from DOE, which is based on overall company performance Figure 7.1-1. Employees understand their role in meeting customer expectations, and they share in the financial success of DM, which reinforces the benefits of exceptional team-oriented performance. DM also ensures that pertinent criteria in the review have added weight, such as safety and health issues, as well as particular goals required by the customer. As part of DM's annual merit increase funding process, HR conducts a comprehensive evaluation of the compensation program, which includes a thorough review of industry practices and measurement of key program components, such as salary range structures to ensure that this program is capable of attracting and retaining high performing employees with the appropriate skills. DM participates in a number of national salary benchmarking studies to support this effort and, by using this comparative benchmarking data, DM is able to gauge the competitive market and determine adjustments needed to sustain our competitive position as defined in our Compensation Plan.

5.1c Hiring and Career Progression

5.1c(1) <u>Skills Identification</u> The Strategic Planning process and the technical requirement in the WADs identifies critical projects, which are broken down into jobs / tasks that will be required. Using DOE's Systematic Approach to Training (SAT) methodology from Performance Management, tasks are broken down into the knowledge, skills, and abilities (KSAs) needed. These KSAs indicate the skills required to enable employees to accomplish the tasks. The HR department researches and designs job descriptions based on local, regional, or national job descriptions and validates

these requirements with the aforementioned KSAs to ensure that appropriately skilled personnel are recruited and retained.

5.1c(2) <u>Recruit, Hire, and Retain Employees</u> Although DM has had a low voluntary turnover of less than three percent (<3%) a year since 1999, DM has a systematic approach to recruitment, selection, and hiring of employees known as the Employee Life Cycle process. This process begins with a comprehensive analysis software tool used to determine the demographics of its workforce compared to that of its hiring community. When a position opens within the DM workforce, HR teams with the hiring department to ensure the current position description correctly identifies the tasks, skills, and requirements in support of DM's overall objectives in filling this position. HR also reviews the position grade and corresponding compensation level to ensure the salary grade reflects the responsibilities identified.

DM ensures incorporation of diverse ideas, cultures and thinking into the process by setting Affirmative Action goals and guidelines according to workforce and community analysis. If targeted, additional emphasis is placed in meeting these goals and, in all cases, maximum emphasis is placed on the recruitment of diversity candidates. All jobs are posted on a number of web sites such as Monster.com, DiversityWorking.com, DynMcDermott.com and local newspapers to ensure that DM is recruiting within the community. Applicants' resumes are forwarded to a central corporate recruiter, who screens the applicants and collects voluntary affirmative action characteristics to gauge the effectiveness of the recruiting effort. This process ensures that candidates selected for the interview and, ultimately, the hiring stages meet the qualifications, salary requirements, and represent a cross section of the community.

5.1c(3) Succession Planning DM succession planning for leadership and management positions is conducted through a six (6) phased system. This same process manages career progression for all employees. Phase I requires DM leaders to engage in the Strategic Planning Process (SPP) Figure 2.1-2 to establish DM's organizational strategy and objectives. DM uses the annual SPP to accomplish Phase I. Phase II requires DM leaders to determine workforce education, training, and career development needs/strategies. Phase II requirements are met through DM's Individual Development Plan (IDP) administered through HR. In Phase **III,** DM's Performance Development Department constructs training and development plans to meet the requirements identified in the previous phase. Phase IV requires DM to take employee preservation or retention measures to retain talent. DM's HR department Recruiting, Hiring, and Retention Policies govern this part of the process. In Phase V employee performance is evaluated through a formal process. DM's annual employee performance appraisal process ensures compliance with employee education, training, and development goals. Finally, Phase VI requires DM to monitor and improve its overall Succession Planning Process. DM uses the PDSA methodology 6.1a(3) to ensure

improvement cycles are applied to the six (6) phases of the process.

5.2 EMPLOYEE LEARNING AND MOTIVATION

5.2a Employee Education, Training and Development 5.2a(1) Achievement of Action Plans DOE and DM management policy dictates that all employees receive the training needed to do their jobs and provide career development opportunities thus, ensuring the successful achievement of action plans. To accomplish this, DM uses internal sources (computer-based, as well as instructor-led courses), outside contractors, and a range of external courses to balance short and long-term organization and employee development needs as identified by each employee's IDP or annual training requirements. The IDP, as part of the employee's annual performance appraisal, allows the manager and employee to establish both short and long-term training requirements. DM leadership demonstrates a strong commitment to performance by ensuring that work schedules are arranged so that all employees' education, training, and development needs can be met.

- **Organizational Performance Measurement:** When DM initiated pbViews electronic performance measurement **4.1a(1)**, two levels of training were implemented. System Administrators received two full days of training to enable them to build the views and write formulas for the measures. Individuals who input the monthly data, received one-half day of training.
- **Performance Improvement:** Process improvement teams are chartered to improve process efficiency, solve problems, and make breakthrough improvements. In 2003, DM trained 25 employees as Six Sigma Black Belts **P.2c** to help the company achieve required cost reductions through streamlined processes. Employees selected as team members for traditional performance improvement teams receive just-in-time training on the elements applicable to their specific project from a trained PI Coordinator. When DM first introduced performance improvement, team members were away from their jobs for 3-5 days learning process management or problem solving techniques. With DM's reduced headcount, managers, especially at the sites, can ill afford having employees away from their jobs for training classes that take several days.
- <u>Technological Change</u>: Employees balance developmental learning and career progression with the organization's short and long-term objectives, *Figure 2.1-3*, through the linkage of the employee IDP goals to the products and services available through Performance Development (PD). The PD web site includes two online course directories (one for all courses and one for new hires), request for service forms and instruction, tuition reimbursement information, and web-based courses for professional development. This training is available to all employees for their development and progression needs.

5.2a(2) Addressing Key Organizational Needs

- <u>New Employee Orientation</u>: New-hire training familiarizes new employees with the operations activities, requirements, and responsibilities at the SPR. Videos provide information for new employee orientation, diversity, and records management. A special web page provides links to on-line mandatory training, which they have to complete.
- *Diversity:* DM has formed a Diversity Council, who works with DOE to develop an annual Diversity Plan to address our value of "Employee Development and Diversity" *Figure 2.1-3.* Council members garnered the knowledge and skills needed through workshops, conferences, and government seminars. Our management personnel attended a special workshop designed to increase their understanding of the many facets of diversity and to strengthen our proactive culture. All employees must complete a mandatory Workplace Diversity and Equal Employment Opportunity course each year.
- *Ethical Business Practices:* Each employee must complete the ethical business practices course and sign an acknowledgement of their agreement with the DM policy.
- *Management and Leadership Development:* In 2003, the Performance Improvement department developed a three-year "Managers to Leaders" development program that includes instructor-led courses, Baldrige training, as well as CBTs. A multi-level program targets senior managers as well as supervisors, leads, and team leaders.
- *Employee, Work Place, and Environmental Safety:* Numerous CBT courses promote workplace and environmental safety. Examples of courses that all employees must complete annually are Health Hazard Awareness, Defensive Driving, and ISO 14001. Other identified courses as part of an IDP are Lock Out / Tag Out and Protective Action / Severe Weather, to name a few.

5.2a(3) <u>Employee and Management Input</u> During the annual performance review, the manager and employee work together to identify training that is needed for the employee to accomplish his/her assigned goals as well as for career advancement. If a manager identifies a training need that is common among several employees, he will work with the Training Department to develop it in-house. In addition, the annual workplace assessment addresses training issues.

Subject-matter experts in the workforce write the course material for most of DM's CBTs. Skilled training developers take this material and develop it into the final course for DM employees. Before releasing the CBT to the employee population, it is tested by a sample of employees who advise on the accuracy and the effectiveness of the course.

5.2*a*(4) <u>**Delivery**</u> DM uses a formula based on Subject, Importance, Difficulty, and Frequency of performing the task, as well as input from employees to determine which of many

training methods is most appropriate. For example; management and team training is highly participative, but a short annual course like security refresher might be computer-based. Our drawdown readiness exercises are large simulations that may involve all employees and include customers and oil movements. Videoconference links among all of our work sites enable us to bring people together for training that might otherwise have to travel.

The training department seeks employee feedback throughout their design and delivery process for formal training. Informal training is accomplished by using mentors, especially in craft positions. DM has developed a Performance based Training and Qualification (PBTQ) program for many of our jobs that provides guidance through checklists for most of our informal training.

5.2a(5) Reinforcement Managers and supervisors encourage employees to use their new skills by assigning work that utilizes the training and reinforces the skills to ensure the knowledge is retained for long-term use. DM also reinforces the use of new knowledge and skills by providing employees with "just in time" training so that the new and current knowledge is used immediately and retained. The DM knowledge transfer system is process based and focused on our Mission critical processes. It has three components 1) managing corporate data and information 4.2a, 2) organizational knowledge sharing, which are major cross training events and includes a majority of the employees such as EAGLE Drawdown Exercise described in 5.1a(1); and Field Training Exercises (FTX) for security and emergency preparedness and quarterly Drawdown Reviews, and 3) the sites Performance Based Training and Qualification (PBT&Q) system, which cross trains and ensures knowledge transfer.

5.2a(6) <u>Evaluation</u> Our consistently high level of organizational performance is an indicator of the effectiveness of the education and training we provide. DM uses Kirkpatrick's methodology for evaluating training: Level I evaluations focus on the learner's satisfaction with the course; Level IIs measure the transfer of knowledge; and Level III evaluations measure the application of knowledge and skills in the workplace. Percent of employees completing mandatory training to ensure compliance with customer performance requirements is also tracked *Figure 7.4-5 & 6.*

5.2b Motivation and Career Development

DM recognizes the need to maintain a highly talented workforce especially due to the special needs of the SPR and our recent budget reductions. To accomplish this, each manager works with his employees during the performance evaluation process to review organizational goals and personal goals in relation to the employees position and review the previously agreed upon training plan and update it to enable the employee to achieve his / her stated goals.

DM offers a continuing education reimbursement program for employees. Employees are able to pursue undergraduate,

graduate, and single course study programs. In addition, employees can choose conferences and seminars to develop their potential. Job and career development are part of the annual performance evaluation process. Employees work with their managers to select development objectives for the coming year and together review accomplishment of the previous year's goals.

5.3 EMPLOYEE WELL-BEING AND SATISFACTION

5.3a Work Environment

5.3a(1) Work Place Health, Safety, Security: DM has mature systems that ensure health, safety, security and ergonomics. For example, our Behavioral Safety System is employee driven and uses an observation process to evaluate individuals on workplace health factors, safety, and ergonomic behavior. Any at-risk behaviors observed are discussed with the employee who is being observed. Data, which does not identify individuals, is collected to determine predominant at-risk behaviors by site and target those behaviors for improvement. A Behavioral Safety web page provides a link for each site's program and findings. Site Safety Councils, comprised of employee representatives, and an Executive Safety Council, comprised of senior managers, meet monthly to review all safety findings, recommend corrective actions or solutions, and provide resources to accomplish this. When solutions are not readily identified, the finding is turned over to an improvement team to work the problem in a systematic manner to find a viable solution. Several years ago, an ergonomic consultant surveyed all employees. As a result, each employee received ergonomic equipment, including special chairs, footrests, computer aids, etc., as prescribed by the consultant. New employees can request an observation from one of our safety specialists who orders any special ergonomic accessories.

The Behavioral Safety Steering Committee at each site develops an inventory of at-risk behaviors, including ergonomic factors, used to observe employee behavior, reviews it annually, and revises it to maintain relevance. Any employee can submit a safety concern to the Site Safety Councils. Issues that cannot be resolved through the Safety Council are elevated to the Executive Safety Council. The Safety Department reports to DOE on accidents, vehicle accidents, and lost workdays. Security performance reports on completion of required training and ability to staff all normal and emergency posts with fully qualified personnel. A highly trained security force is in place at each of the sites to observe and respond to any security breach. After 9-11, DOE, with the support of DM and the guard service, implemented a detection K-9 program. Ten dogs were trained along with their handlers to assist in the protection of SPR facilities in New Orleans and the four storage sites. In addition, to an ongoing campaign to keep SPR employees vigilant to their surroundings, each employee is required to take a Security Refresher course annually

All four of our remote sites participate in the OSHA Voluntary Protection Program (VPP) *Figure 7.6-8*, a

partnership between OSHA, management, and employees in which each commits to support a safety and health program that goes above and beyond minimum legal requirements. Employees are empowered to identify and correct workplace hazards and have direct communication with senior management. Management commits to demonstrating support for the program and to an open relationship with employees. OSHA commits to playing a supportive role, rather than an adversarial one. In order to be a Star facility, each site has to have accident rates equal to or less than those of their BLS code (Bureau of Labor Statistics) Figure 7.5-19 and pass a four-day, four-person, on site inspection of their documentation, employee involvement, and physical hazards. All four sites are both OSHA and DOE Star program facilities. Our performance measures and improvement targets are a rollup of all sites.

5.3a(2) Workplace Preparedness DM has a complete emergency preparedness system that includes emergency response teams (ERT) at each of our storage facilities. The teams exercise annually with fully developed scenarios and the involvement of community first response personnel. The Security & Emergency Preparedness staff ensures that the workforce is prepared to deal with disasters of all types. In addition to developing and running the scenarios for ERT, periodic drills are executed at all sites for fire, bomb threat, and severe weather incidents. The local fire department observes and grades the fire drills. Employees receive annual training for severe weather, health hazards, and workplace hazards. Key to ensuring that DM is able to perform its mission during a real disaster is a detailed disaster recovery plan, including an Incident Command Structure, and trained individuals, both DM and DOE, who are required to enact the plan. Included in this plan is a warm site at Stennis Space Center P.1a(4) that enables our business systems to continue to operate. Last year, the plan was put into affect when a hurricane threatened the area. In addition. Data Systems has developed a Web-based / EOC (Emergency Operations Center) as an information and communications tool to be used in emergency conditions. The system was tested during our recent EAGLE Drawdown Exercise when a pipeline explosion was included in the exercise scenario. DM is currently upgrading our EOCs and emergency trailers with state-of-the-art communications equipment.

During the period preceding an anticipated action, employees are informed through Crosstalks issued from DM's Operations Control Center. If non-essential personnel evacuate the site, duty officers staff a 1-800 number to provide employees with status reports.

5.3b Employee Support and Satisfaction

5.3b(1) <u>Key Factor Determination</u> We use several processes to determine key factors that determine employee well-being and satisfaction, which include Strategic Planning and Community Outreach Plan development, direct communication with the CEO such as breakfast with the CEO, survey analysis that identifies categories such as age,

function and location. One of the most important approaches utilizes DM's annual workplace assessment survey, which DM implemented in 1993. The survey was redesigned in 2002 using a core of questions based on the Baldrige criteria to measure employee satisfaction and solicit employee input for improvement and concerns. The resulting data is analyzed in several ways to include company overall, each site overall, by demographic i.e., sex, age, organizational level, department, income level, and length of service. Additional feedback is solicited at forums designed to encourage employee input.

5.3b(2) Services, Benefits, and Policies As part of our

employee benefits program, employees have access to an Employee Assistance Program (EAP) to seek counseling, legal, and financial assistance. Our 401K plan matches 50% of the employee's first 8% pre-tax contribution. DM also



contributes 3.6% of base pay toward a retirement account. We accommodate a diverse workforce, by offering a cafeteria plan to provide each employee control over selecting and paying for Medical benefits. In addition, employees can receive up to \$1,000 annually from a bank set up to pay the first \$2,000 of medical expenses depending on the amount actually spent. They can also apply pre-tax money to pay for anticipated medical expenses not covered by their insurance.

DM has an Employee Diversity Council made up of nonmanagement employees and led by the Corporate Diversity Manager who reports directly to the CEO. This council promotes diversity in the workplace as well as within the community through company events and participation in community outreach programs.

5.3b(3) <u>Assessment Methods</u> The annual workplace assessment described previously is used as a formal assessment method for determining well-being, satisfaction, and motivation. We contract with a company that specializes in employee surveys to administer, analyze, report results, and provide comparisons with similar industries. Employees have an opportunity to voice concerns through a myriad of mechanisms such as All Hands meetings, Quality Council meetings, and staff meetings. Senior staff monitors formal grievances and management maintains an open door policy. The DM CEO personally responds to Issues and Concerns submitted through the DM Home Page.

5.3b(4) <u>Identifying Priorities for Improvement</u> The vendor that administers our workplace assessment provides an extensive report of the results, including a detailed analysis.

The CEO selects a diverse team to review the report and identify actionable areas for improvement. The team develops a plan to address the areas for improvement and senior staff ensures the achievement of the plan goals.



6.0 PROCESS MANAGEMENT

As a mature organization, our process management and measurement system 4.1a(1) is the core of our business management and the focus of our leadership system 1.1a(1). Our listening and learning system 3.1a(2) assists leadership in identifying processes and validating changes in process design based on changing requirements P.2a and Figure 6.1-2. Our Performance Improvement System (P.2c and 4.1b(1)) ensures our process are efficient and effective.

6.1 Value Creation Processes

6.1a(1) <u>Value Creation Process</u> The DOE Vision and Mission, DOE Strategic and DOE Performance Plans, subsequent contractual requirements, and the PEMP determine

our Key Value Creation Processes. We control and are held accountable to the Secretary of Energy in Washington D.C. for the majority of the DOE Critical Performance Measures identified in the DOE Strategic Plan. Value is created for DOE and key stakeholders through the efficient management of key processes and effective obtainment of the DOE strategic goals. They are critical to business success because they are strategic and critical to the Mission, involve the majority of our employees, and produce DOE and stakeholder value. Our key processes for creating customer value are defined in *Figure 6.1-1* and are linked to our Success Factors, DOE Core Values from the DOE Strategic Plan, requirements, measures, standards, and control strategies *P.2b*.

Figure 6.1-1 DynMcDermott Value Creation Process					
<u>Success</u> <u>Factor</u>	DM Key Process (DOE Core Value)	<u>Requirement</u>	<u>Process</u> <u>Measure /</u> <u>Indicator</u>	<u>Standard</u>	<u>Control Strategy</u>
О, Е,	Crude Oil Acquisition Drawdown Process Vapor Pressure Crude Oil Ouglity	Fill SPR Maintain Readiness Vapor Pressure Mitigation	Figures 7.5 - 1,2,3,4,5	Level I Criteria, Storage Quantities and Quality and Crude Oil Spacifications	Purchase when authorized; exchange when advantageous; chtain revealw eil
С	DOE Value Public Confidence	Mugation		Drawdown Readiness Plan	Readiness Exercises Site Exercises & Training
O, E,	 Maintenance Process Cavern Integrity Emergency Preparedness Process DOE Value 	Maintain Readiness Customer Specifications	Figures 7.5 - 6,7,8	• Level I Criteria, Storage Quantities and Quality and Crude Oil Specifications	Daily Operations Monitor Activities (Fluid Movement Procedures) Preventive Maintenance
C	Public Confidence				Manage Cavern Integrity Emergency Management
О, Е, С	Security Process <u>DOE Value</u> Public Confidence	Customer Specifications	Figures 7.5 – 9 7.4 – 6, 7	Level I Criteria Integrated Safeguards & Security Management	 Daily Operations Monitor Activities Training & Assessments
О, С, А	Budget Formulation Budget Execution Cost Reduction <u>DOE Value</u> Responsible Stewardship	 Cost Savings Customer Specification Annual Operating Plan 	Figures 7.5 - 10,11,12	 DOE Budget Order WADs Critical Performance Measure 	 Project Reviews Project Assessments Monitor Crude Oil Quality and Quantity Monitor Performance and Capabilities of Facilities Monitor Storage Integrity
O, E, C, S, H	• ISO 9001 Process <u>DOE Value</u> Dynamic Teamwork	Customer Specifications	Figures 7.6 – 3 4,7 7.5 - 14	• DOE Quality Assurance Order 414.1B	ISO Audits Organizational Assessments Six Sigma
O, E, C, R	Community Outreach OSHA VPP Process ISO 14001 Process DOE Value	Customer Specifications OSHA ISO 14001	Figures 7.6 – 12 7.6 - 9	Integrated Safety Management OSHA JSO 14001	Project Reviews Daily Operations Monitor Activities Worker Safety
S, H	Social Responsibility and Citizenship	Pollution Prevention/Energy Efficiency (E2/P2)	7.5 - 19	•EPA & DOE E2/P2	Environmental Stewardship

*O = Operational Readiness; E = Performance Excellence; A = Asset Management; R=Beneficial Relationships; C = Exceed Customer Expectations; S = Operate in a Responsible Socially Beneficial Manner; H = Human Capital Optimization

DynMcDermott Petroleum Operations Company CRITERION 6.0 - PROCESS MANAGEMENT

6.1a(2)Key Value Creation Process Requirements We determine requirements through a collaborative process with DOE where we incorporate changes in the DOE Mission requirements, DOE Orders, and DOE Strategic Plan into our Strategic Plan, WADs, and implementation of related Action Plans. We incorporate changing customer, supplier, and stakeholder needs in real-time through daily communications and from weekly, monthly, quarterly, and six-month reviews. All of our processes incorporate customer feedback and many processes incorporate supplier feedback, such as security and emergency preparedness. *Figure 4.1-4* defines Performance Reviews, which are used to obtain input for the refinement of the value creation processes. Key requirements for the processes are listed in *Figure 6.1-1*.

6.1a(3) & 6.2a(3) <u>Design of Value Creation Processes and</u> <u>Support Processes</u> The design of the Value Creation Process and Support Processes has evolved over the past 25 years and since 1996 all key processes have been refined using worldclass engineering and business models. For example, to meet the requirement of a drawdown rate of 4.4 million barrels of oil per day we developed a one of a kind engineering drawdown simulator. To improve business performance, we adopted the Baldrige model in 1996. To provide a structure to facilitate Baldrige, we became ISO 9001 registered in 2001 and have continued to be recertified annually. After eight years of traditional performance improvement methodologies, we matured our system by implementing Six Sigma through formal training and certification by Loyola University, New Orleans.

Value has been created by using the Six Sigma tools in improving engineering and business processes. We use Performance Improvement Teams or Engineering Teams with Failure Mode and Effects Analysis (FMEA) to facilitate process and product/service design and improvement to meet all requirements. Developed in the 1960's by the military, FMEA is used to reduce variation in the design or performance of an existing process. FMEA is a dynamic tool that is linked to each step of a process. Occasionally we use Design-FMEA for process engineering input to ensure the process will meet the design specification for component subsystems and main systems applications. However, our operations and maintenance mission focus leads us to use Process-FMEA, which is used for assembly, machines, procurement, training, and general business process applications. Figure 6.1-2 shows our design process for all Value Creation and Support Processes. It is based on "Design for Six Sigma" methodology described by F.W. Breyfogle III using the Define, Measure, Analyze, Improve, Control (DMAIC) strategy and includes a feedback loop of Deming's Plan, Do, Study, Act to validate the design and improve the performance. Steps 1-4 identify requirements and define the process. Steps 5-6 employ the FMEA tool. Step 7 is the analysis that provides management with the facts to make a Step 8 is the implementation of management decision. decisions. Step 9 is the control that requires the management of performance and subsequent improvement of the process.

We incorporate new technology and organizational knowledge during Step 3 at the "Develop Conceptual Design" phase and further in Step 4 when we build the "House of Quality", and also, in Step 5 when we "Benchmark" with other DOE facilities and industry as described in 4.1a(2) Supporting Decision Making - Innovation. Our technical processes use the same three levels of criteria described in 6.1a(3) to ensure that our designs incorporate organizational knowledge. We employ many sources to identify and propose changes to our products and services as well as to our production/delivery Seminars, conferences, training systems and processes. classes, trade shows, industry publications, and interfacing with industry peers are all sources for new technology. We sometimes commission third-party consultants to study multiple alternatives and propose new solutions for problems.

Cycle time, productivity, cost control, and other efficiency and effectiveness factors are included in these process designs by our Level III Design Criteria, which establishes design quality requirements for processes, facilities, and equipment.

For engineering designs, the complexity of the design dictates the review process. Complex designs require a Conceptual Design Report (Step 3); while simple designs warrant only a scope of work (Step 2). We conduct reviews with end-users at 30%, 75%, and 100% design points. The design process is not complete until a Readiness Review Board (Step 7) has approved the design and turned it over to operating personnel. If something is not correct at any time along this path, the design goes back to the designers / team.

We ensure Value Creation and Support Processes are implemented by establishing in-process measures to manage and meet the design requirements. Deployment of process change is accomplished through our electronic review, approval, and tracking system that includes our stakeholders. Occasionally designs are expedited for time critical design reviews when necessary. We have 25 years of experience and a very experienced work force as a source for lessons learned, Step 9. We use an electronic cross-talk program to discuss and improve designs among the four storage sites. It enables personnel to share problems, suggest solutions, and learn from each other's experience. We update all criteria and processes periodically and incorporate lessons learned. We use project management philosophies to control costs and schedules. Standardization of operating processes helps reduce costs and parts requirements by steering designs toward common equipment across our four storage sites. We benchmark for solutions to process problems and incorporate lessons learned into our standards specifications (Step 1), thus completing the PDSA cycle.

In our Life Extension Program, we identified and specified several cutting edge technology features in the Conceptual Design Report that we knew would provide us the stability that we need for our mission and extend the life of our facilities for 25 years. For example, the Fisher-Rosemount Distributed Control System has a dual communication fiber optic network across our sites and smart protocol in most of the actuators that operate the valves in our system. This system allows sites to be operated entirely from the control room, using a field operator only for visual verification and operation of manual valves that need to be positioned only once for a given process.

Recent business support processes designed or improved as a result of our methodology include; reduction of the frequency of Project Reviews, a more efficient approach in the procurement of spare parts, more effective management of Protective Force overtime *Figure 7.5-14*, and streamlining the Engineering Change Proposal process (ECP). Some of the tools used are process maps, quality function deployment, cause and effect diagrams, control charts, process capability (C_{pk}) hypothesis testing, design of experiments, and Failure Mode and Effects Analysis (FMEA).

6.1a(4) & 6.2a(4) <u>Key Performance Measures and Indicators</u> for Value Creation and Support Processes Process performance requirements, measures, and control strategies used to manage and improve the value creation processes are listed in *Figure 6.1-1*. On a day-to-day operational level, operating offices including DOE, suppliers, and other interested parties provide their requirements at the beginning of the design process and at each design review point. Our design teams often include suppliers and customers who hold discussions with operating personnel at each of these points, if necessary, to resolve outstanding operating issues. If system designs affect sites, we hold a special design meeting at the site to make sure site personnel agree with the details of the design.

In-process measurement is managed through measurement and linkage to our Level III criteria, which integrates DOE and supplier input, and several business systems, such as the PMMS described in **4.1a**. All critical points for measurement, observation, and feedback are established, tracked, and managed in our project management milestone system described in **4.1b**. Design variation and waste is minimized through the customer-centered, collaborative approach that focuses on "Design for Six Sigma" methodology. One example of the breadth of this approach is the Control System Functional Specification. This document was developed early in the Life Extension Program to describe how the control system will function and was circulated throughout the project. Over 1,200 comments were received and resolved.

6.1a(5) & 6.2a(5) Cost of Process or Performance Audits for Value Creation and Support Processes We minimize overall costs associated with inspections, tests, and process or performance audits by maintaining a highly trained and professional pool of auditors / assessors from Operations and Maintenance; Environmental, Safety and Health; Finance; Fire Protection; Quality Assurance; Business Operations; Strategic Performance and Communications; and Emergency Preparedness / Security. All of these auditors / assessors are Certified Quality Auditors (CQA) and nationally certified in: ISO 9001 (30 Lead Auditors), ISO 14001 (5 Lead Auditors), and Non-Destructive Testing methods (5 Auditors) or by the National Association of Corrosion Engineers, and 5 Certified Welding Inspectors.

DM's pool of highly trained auditors provides more efficient cross-functional groups that saved thousands of dollars in travel expenses and reduces the impact on operations at our remote sites. This auditing approach resulted from benchmarking efforts with other DOE subcontractors. To parallel DM's Quality Management System, auditors are trained in accordance with ISO 19011 guidelines for quality and/or environmental management system auditing.

Our General Site Surveillance process managed by the Quality Assurance Department is our systematic approach to prevent defects, rework, and warranty costs. The process is based on our established Site Surveillance Plans, which consist of over 26 specific areas designed to focus on low-level process areas.

These findings are analyzed as described in 4.1b(1)<u>Performance Analysis.</u> The process owner takes appropriate action to correct the "lack of attention to detail" to prevent a major process or subsequent system failure. An example of how we prevent defects is our Predictive Maintenance program (using thermograph, vibration analysis, and lube oil analysis) which identifies potential problem areas before failures occur, thereby preventing repair or rework. Preventive Maintenance routines and Operational Readiness checks are also performed extending the normal life of the equipment.



6.1a(6) & 6.2a(6) <u>Improving Value Creation Processes &</u> <u>Support Processes</u> To reduce variability and to improve customer satisfaction throughout our entire organization we make extensive use of the Baldrige criteria as a model and the tools of Six Sigma to improve business processes and technical models to determine what operational and engineering process improvements to make. Since 1996, we have undergone several planned, systematic organizational evolutions with the partnership of suppliers such as SAP that have provided us with new enterprise technology and best in class business processes.

Technical modeling results led us, for example, to implement our Life Extension Program, which not only extended the life of our equipment and facilities to 2025, but also standardized operations, Step 1-9 in *Figure 6.1-2*, and reduced the number of pumps, valves, and motors at our sites.

Our Drawdown process illustrates how we evaluate process steps and make improvements. There are automatic review and evaluation steps during the process, even though it is normally performed under emergency conditions. In addition, we perform after-action evaluations of performance. We test the system extensively internally and with customers through drawdown exercises and test sales.

Improvements are shared throughout the organization through our open and honest communication system. To drive learning and innovation we share both our successful and unsuccessful process changes through several communication systems including our Crosstalk process, lessons learned process, best practices program, and management reviews (detailed in *Figure 4.1-4* "Key" Two-Way Communication Stakeholder Performance Reviews). The CEO has two entire functions, Quality Assurance and Strategic Performance and Communications, as direct reports. These organizations are resources for performance improvement. These functional groups guide the organization in the use of Six Sigma, technical and business research, and benchmarking new and alternative technologies.

We regularly share successful efforts and benchmark with the Louisiana, Mississippi, and Texas area government and private sector through a bi-annual Performance Excellence Expo held in New Orleans. In 2001, we completed a project-wide benchmarking study of industry maintenance practices aimed at further improving site maintenance and operations.

In 2001, working with DOE we provided the leadership in developing a benchmarking organization for approximately 60 federal government agencies know as The New Orleans Federal Performance Excellence Network (NOFPEN) which is an organization supported by the New Orleans Federal Executive Board and is composed of Federal employees from the Greater New Orleans and Mississippi Gulf Coast Regions. NOFPEN's purpose is to provide a forum to share benchmarking and performance improvement information. The creation of this organization provided DM a wealth of benchmarking opportunity and addressed our core value of "customer satisfaction" and success factor of "exceeding customer expectations".

6.2 Support Processes

6.2a(1) <u>Key Support Processes</u> Figure 6.2-1 summarizes our support processes. While all our support processes are important, the most important or "key" support processes are shown in *Figure 6.2-1*. Our key support processes are determined by their relationship to the Value Creation processes defined in *Figure 6.1-1*, customer requirements, and internal business requirements that address our values, success factors, and challenges. For example, the leadership development process is important because our leaders' role in setting and communicating values, direction, and performance expectations has an impact on all success factors and strategic challenges *Figure P.2-1*.

6.2a(2) <u>Key Support Requirements</u> We determine key requirements for each support process from needs assessments, customer input, DOE orders, and analysis of experience. We incorporate input from internal and external customers and suppliers through daily communications, the use of performance improvement and/or project management teams, and our Performance Review methodologies, as defined in *Figure 4.1-4*, which provides multiple venues for open and honest communications. The key requirements are listed in *Figure 6.2-1*.

6.2a(3) Design of Support Processes Is Addressed in 6.1a(3) The following example illustrates the relationship of Support Processes to Value Creation Processes. In 1999, we detected unacceptable gas levels in the oil in our caverns. We initiated the design of a program to remove the gas from the oil so we could safely draw down oil to achieve our mission. The initial budget for this vapor recovery program was estimated at \$66,000,000 for two degas plants. Although the Value Creation Process design met all requirements, our Performance Improvement, Engineering Design, Budget Reduction, and Training support processes re-engineered the initial concept of two fixed degas plants operated by subcontractors to one mobile degas plant operated by DM personnel that will be transported between sites based on need. The resulting efficiency created by the support processes is estimated to be \$36,000,000 cost savings.

6.2a(4) <u>Key Performance Measure and Indicators</u> Process performance requirements, measures, and control strategies used to manage and improve the support processes are listed in *Figure 6.2-1*. On a day-to-day operational level, operating sites, including DOE and other interested parties, provide their requirements. In-process measurement use and customer supplier and partner input, used in managed processes, is described in *6.1a(4)*.

6.2a(5) <u>Costs of Process or Performance Audits</u> We use the same process as described in 6.1a(5).

6.2a(6) <u>Improving Value Support Processes</u> To reduce variability and to improve customer satisfaction and keep all

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support current with business needs and directions we use the same methodology described in **6.1a(6)**.

6.2.b Operational Planning

6.2.b(1) Our Strategic Planning System Figure 2.1-1 ensures adequate financial resources are available to meet financial



obligations, to support new business, and assess all risk 1.2a(1), 1.2b(1), 4.1b(2) associated with business operations, new investments, and organizational challenges P.2.

6.2.b(1) <u>Continuity of Operations</u> is ensured by the Emergency Management Plan and Implementing Procedures *P.1a(4)* and *4.2a(3)*. All systems at each site have been designed to function independently to minimize the risk of not fulfilling our Mission Figure *P.1-2*.

Figure 6.2-1	2-1 DynMcDermott Key Support Processes					
<u>Success</u> <u>Factor</u>	DM Key Support Process	<u>Requirement</u>	<u>Process</u> <u>Measure /</u> <u>Indicator</u>	<u>Standard</u>	<u>Control Strategy</u>	
O, E, A, R, C, S, H	Leadership Development	CEO Expectations	Figures 1.1-2 2.1-3	Baldrige ModelISO 9001 and 14001	Performance Reviews	
O, E, A, R, C, S, H	Strategic & Action Planning	Customer Specifications	Figure 2.1-3	Strategic PlanImplementation Plan	Balanced Scorecard Milestone Tracking	
O, E, A, R, C, S, H	Performance Improvement Includes: Six Sigma, Organization Assessments, Improvement Teams, Safety & Environment	Organizational Assessments Customer Specifications ISO 9001/14001	Figures 7.5 - 14, 15, 16, 17, 18, 19 7.6-3 & 9	 Quality Management Systems - ISO 9001 Six Sigma Methodology OSHA and EPA 	 Performance Improvement Teams Six Sigma Tools Lean Enterprise Tools 	
O, E, A, R, C, S, H	Contracts Procurement Project Control	FARDEARDOE O 210.1	Figures 7.5 – 13, 22	Work Authorization Directives (WADs) Milestone Control	Monthly Customer Reviews and InputSelf-Assessments	
O, E, A, C, S, H	Quality Assurance Site Surveillances Source Inspections	• DOE O 414.1 • SPRPMO 414.1B	Figures 7.5 – 23	Site Surveillance Plan Technical / contractual Requirements	Monthly Trend Analysis Source Deficiency Analysis	
O, E, A, C, S, H	 Crude Oil Accountability DOE Organizational Performance Assessment 	• DE-AC96- 03PO92207 • PEMP	Figures 7.5 - 24 7.1 – 1 7.2 - 1,2,3,4,5	 Critical Performance Measure #1 SPRPMO O 413.1A 	Monthly Customer Reviews and Input Quarterly /Annual Self- Assessments	
O, E, A, C, S, H	Inventory Management	• DE-AC96- 03PO92207 • PEMP	Figure 7.5 – 25	CFR 41 Customer Approved Property System	Real Property Physical Inventories Real Property Annual Surveys	
O, E, A, R, C, S, H	Human Resources Training	Readiness Training and Development	Figures 7.4- 5,6,7	American Society for Training and Development Benchmark	Course and Simulation Exercise Evaluations	
O, E, A, R, C, S, H	Budget Management	• DOE Budget Order 130.1	Figures 7.5 – 16, 17, 22, 26, 29, 31	 DOE 2100.8A, Cost Accounting DOE M 135.1-1 	Milestone Control System to Satisfy Applicable WADs	
O, E, A, C, S, H	• EDM, Software Engineering, Configuration Management	• SPRPMO 410.1 • DOE N 203.1	Figures 7.5 – 27, 28	SPR Design Criteria Technical Standards Program Guide	 Software Quality Assurance Surveillances/Audits/ Assessments 	
O, E, A, C, S, H	Engineering DesignProcess EngineeringProject Management	• SPRPMO 6430.1A, General Design Criteria	Figures 7.5 – 23	 SPR Design Criteria Technical Standards Program Guide 	Software Quality Assurance Surveillances/Audits/ Assessments	

*O = Operational Readiness; E = Performance Excellence; A = Asset Management; R = Beneficial Relationships; C = Exceed Customer Expectations; S = Operate in a Responsible Socially Beneficial Manner; H = Human Capital Optimization

7.1 PRODUCT AND SERVICE OUTCOMES

The following figures depict key results with previous year's comparatives. The performance evaluation system, the PEMP, is unique to our contract with DOE. There are no external comparisons or benchmarks even within the DOE complex. Competitors comparatives are limited. The DM PMMS has over 1,000 performance measures. In Category 7, because of space limitations, our key organization overall measures (which is the total company roll up of our site performance) is included in this application. As per DOE's contract, many of our performance measures are "control measures" in which staying in a range of constant high performance is good and cost effective. Exceeding these controls creates no value to the customer and increase cost. The majority of Category 7 measures are updated through the end of Fiscal Year 2005, September 30, 2005 Data to update Customer Focused Measure Results will not be available from DOE until 70 days following fiscal year end 9/30/05.

7.1a Product and Service Results

Our product is a "service," which is the Management and Operations of the DOE Strategic Petroleum Reserve defined in *Figure P.1-1.* Based on our contract with DOE, we are required to maintain a "satisfactory" level of performance, which equates to 75% to 84% range as defined in *Figure 7.2-8* "DOE Adjective Score Definitions." Although we have no current competitors in the contract cycle, we recognize performing beyond the capabilities of any potential competitor is the best strategy for long-term success.

DM is a management company with <u>no</u> assets, liabilities, or debt. We generate profit based on our "service" performance results. Our award fee is reflected by our performance levels and trends.

Figure 7.1-1 Performance Award Fee



Figure 7.1-1 indicates a consistently high level of Service Performance. Customer satisfaction is DM's primary goal as depicted by outstanding award fee scores. DM senior management excels at increasing customer satisfaction through two-way communication *Figure 4.1-4*.

To provide a comparison to potential competitors, *Figure* 7.1-1 compares the five-year period of the previous contractor (Boeing Petroleum Services (BPS) (1989–1993)) to the last five years of DM (1999-2003). The figure details that DM outperformed BPS over the five years. Although DM's emphasis is to maximize the award fee score / dollar value, we recognize a perfect score is not realistic. This recognition is based on almost 30-years SPR experience and knowledge of the SPR award fee process.



Figure 7.1-2 Drawdown Readiness is our customer's most important operational performance measure. Drawdown readiness is measured quarterly and takes into account all aspects of the resources needed to achieve the <u>Mission</u> - to Drawdown as required by DOE Level I criteria. Since 2001, our performance has been at least 99%.

Figure 7.1-3 Global Benchmark in Storage Efficiency



Figure 7.1-3 Global Benchmark in Storage Efficiency is a key financial measure for comparison. Our storage approach won engineering awards for being much less expensive and safer than other large-scale storage methods. The SPR <u>has</u> <u>proven to be the global benchmark</u> studied by other countries such as Japan, Germany, China, Russia, India, South Korea, Philippines, and Thailand.



7.2 CUSTOMER-FOCUSED RESULTS

7.2a. Customer-Focused Results

7.2a(1) <u>Customer Satisfaction and Dissatisfaction</u> The following figures depict <u>key</u> customer-focused results, including customer satisfaction and customer-perceived value with previous year's comparatives. <u>Data to update</u> <u>Customer Focused Measure Results will not be available</u> <u>from DOE until 70 days following fiscal year end</u> <u>9/30/05.The performance evaluation system (PEMP) is</u> <u>unique to our contract with DOE. There are no external</u> <u>comparisons or benchmarks available within the DOE</u> <u>complex</u>. Validation of loyalty is based on continuation of past contract extensions and current contract options.

The DM PMMS has over 1,000 performance measures. In Category 7, because of space limitations, only our key organization overall measures (which is the total company roll up of our performance) is included in this application.

DM's key measures and indicators (Performance Fee Score) is the most important customer focused result because it determines our profit. The Customer Satisfaction Index is an essential indicator of DM's innovative methodology and an indicator of our consistency over the long-term in exceeding customer expectations. All indicators show steady improvement.

Figure 7.2-1 is the Overall Satisfaction Index, which exceeds the DM goal and has ranged between 80% to 85% since 2001. **Customer Groups:** *Figure 7.2-2, 3, 4, 5, refer to the four DOE customer groups as defined in Figure 3.1-1.* All four groups show: (1) an increase in satisfaction trend, (2) exceeding DOE targets, and (3) exceeding DM targets. DM increased the company targets in 2001 from 4 to 4.5 to improve performance. *Figure 7.2-8* defines the 1 through 6 subjective scale used by DOE.



Figure 7.2-1 illustrates the overall customer satisfaction in the major performance areas. DM's Customer Satisfaction Index considers all strengths and weaknesses as identified by our customer groups. The individual requirements are specific performance outcomes that are critical to the accomplishment of the Strategic Petroleum Reserve's Mission.

Figure 7.2-2 Customer Group: <u>DOE Operations</u> <u>and Maintenance</u> Performance Area consists of the following DM departments: Operations, Maintenance, and Cavern Integrity.



Figure 7.2-3 Customer Group: <u>DOE Systems &</u> <u>Projects</u> Performance area consists of the following DM departments: Engineering, Construction, and Data Systems.







Figure 7.2-5 Customer Group: <u>DOE Management and</u> <u>Administration</u> Performance area consists of the following DM departments: Integrated Management and Control, Internal Audit, Business Operations, Property Management, Human Resources, and Project Management.



Figure 7.2 -6 Dissatisfaction Index



October

Figure 7.2-6 Dissatisfaction Index: To enhance our customer relationship in October of 2003 (FY 04). We introduced an annual survey of each of DOE's 4 groups given on an alternating quarterly basis. Dissatisfaction (as measured as the sum of "Dissatisfied and Very Dissatisfied" average) decreased from 4% in 2004 to 3% in 2005.

7.2a(2) <u>Customer Perceived Value</u> DM receives a *subjective* adjective score from its customer groups for each major performance area as described in *Figure 7.2-8*. These scores are translated into numerical score parameters. These measures indicate how DM is satisfying DOE and provides the feedback (complaint) necessary to implement improvement actions. Perceived value is a function of the Award Fee we receive from DOE

Figure 7.2-7 Customer Perceived Value is determined by the Total Award Fee we receive.

Data to update Customer Focused Measure Results will not be available from DOE until 70 days following fiscal year end 9/30/05



Figure 7.2-8 DOE Adjective Score Definitions					
ADJECTIVE	#	DEFINITION	POINTS		
Excellent	6	Performance is of exceptional merit; represents exemplary performance.	95 - 100		
Very Good	5	Very effective performance, fully responsive to contract requirements.	90 - 94		
Good	4	Effective performance; fully responsive to contract requirements; some reportable deficiencies, but with little identifiable effect on overall performance.	85 - 89		
Satisfactory	3	Meets or slightly exceeds minimum acceptable standards; adequate results.	75 - 84		
Marginal	2	Performance is below minimum acceptable standards.60 - 74			
Unsatisfactory	1	Performance does not meet minimum acceptable standards.	Below 60		

Figure 7.2-9 DM Awards and Certificates provide independ DM is the only company to win the Louisiana Baldrige base	dent validation of our performance and perceived value. A Quality Award three times. (1996, 2001, and 2003).
1994 Recognized by Secretary of Energy for Best Practice: Quality Expo	2000 Texas General Land Office "Oil Spill Preparedness, Prevention and Response Award" (OSPRA) Big Hill Site
1995 DOE Quality Commendation Award	2000 West Hackberry OSHA VPP STAR Certification
1995 DOE Small Business Special Performance Award	2000 ISO-14001 Certification
1996 The President's Hammer Award For The Contractors Purchasing Council	2001 EPA National Environmental Achievement Track Award (NEAT)
1996 DOE Quality Champion Award	2001 ISO-9001 Certification
1996 Louisiana Quality Award	2001 Louisiana Quality Award
1996 DOE Fossil Energy ES&H Achievement Award for Behavioral Safety	2001 Big Hill OSHA VPP STAR Certification
1996 Southwest Louisiana Quality Award	2001 Bayou Choctaw OSHA VPP STAR Certification
1996 APEX Award for "SPRO ZONE" (Video)	2001 Bryan Mound OSHA VPP STAR Certification
1997 Semi-Finalist USA Today Quality Cup Competition	2001 DOE Pollution Prevention through SPR Vehicle
1997 Department of Energy Quality Champion Award	Replacement Pilot Program
1997 DOE Pollution Prevention award for Tank Sludge Re- Use	2001 Bryan Mound National Safety Council's "Perfect Record" Award
1997 Louisiana Governor's Award for Emission Reductions	2001 Texas General Land Office "Environmental Excellence in Spill Preparedness, Prevention and Response" (OSPRA) Bryan Mound Site
1997 Honorable Mention, International CINDY Completion (Video)	2001 Big Hill National Safety Council's "Perfect Record" Award for no lost time accidents
1998 DOE Quality Champion Award	2002 DOE Pollution Prevention Award for Waste/P2
1998 Louisiana Governor's Award for Mentoring Small Business	2002 New Orleans Site National Safety Council Industry Leader Award
1998 DOE Fossil Energy ES&H Award for Tank Cleaning Innovation	2002 Louisiana Quality Award for Environmental Management Systems – BC, WH and New Orleans
1998 American Building Council National Excellence in Construction Award	2002 Certificate of Achievement for the White House "Closing the Circle Award" for Pollution Prevention
1998 Louisiana Governor's Environmental Achievement Awar Mentoring Contractors on Waste Minimization & Recycling	2002 First place winner of DOE Executive Safety Summit "Executives' Choice Award," Poster Presentation
1998 APEX Award for Communications Concepts Excellence (Video)	2002 OSHA Region VI Star of Excellence (Big Hill) & Super Star (Bryan Mound & West Hackberry)
1998 Texas General Land Office "Oil Spill Preparedness, Prevention and Response Award" (OSPRA) Big Hill Site	2003 Louisiana Quality Award for Environmental Management Systems – BC, WH and New Orleans
1999 DOE Secretarial Small Business Award	2003 Louisiana Quality Award
1999 DOE Fossil Energy ES&H Award for Brine Pond	2004 White House Closing the Circle Award Honorable
Replacements	Mention for Achieving a Positive EMS Return on Investment
1999 APEX Awards for Publication Excellence (Poster)	2005 Louisiana Environmental Management System Awards
1999 Texas General Land Office "Oil Spill Preparedness,	2005 National Environmental Excellence Award for Best
Prevention and Response Award" (OSPRA) Big Hill Site	Available Environmental Technology from the National
2000 Big Hill OSHA VPP MEDIT Certification	2005 Clean Texas - Clean World National Award
2000 White House Closing the Circle Certificate of	2005 Louisiana Department of Economic Development
Achievement for Model Facility Integrated Pollution	Lantern Award
Prevention	2005 Big Hill Texas Quality Award

7.3 FINANCIAL AND MARKET RESULTS

7.3a Financial and Market Results

7.3a(1) *Financial and* **7.3a(2)** *Marketplace Performance* DM has established its marketplace as internal to the SPR. Because of the nature of DM's contract, DOE is the only customer. Therefore, the marketplace performance results are those results that will provide the Company with better market share and competitive position. Our contract covers a five-year period from 2003 through 2008, with five additional one-year options through 2013.

Figure 7.3-1 Percentage of Allowable Cost



Figure 7.3-1 Percentage of Allowable Cost is a direct reduction to DM's profit and is a measure of cost management efficiency (*Figure P.2-1, C-3*) in identifying cost and effectiveness in managing expenditures (*C-2*). DOE evaluates all expenditures to determine if DOE will reimburse them. Costs DOE deems allowable, DOE covers while DM pays all other costs thereby reducing the company profit. Since 1999, DM has averaged 98.9% allowable cost with an annual allowable cost ranging from 98.74% in 2000 to 100% in 2003. Compared to our parent company's average for other contractors, such as Johnson Space Center's allowable cost of 96.6%, DM's average allowable cost of 98.9% is outstanding. Senior leadership (*C-8*) attains this accomplishment by understanding cost and resource allocation.

Figure 7.3-2 Performance Award Fee Allocation

Measure Redacted for General Distribution

Figure 7.3-2 Performance Award Fee provides DM profit from operations, a critical success factor for the corporation. Outstanding performance and customer satisfaction allowed DM to exceed our targets and earn significantly higher award fees. Comparing DM to BPS for a five-year period (1999– 2004) indicates we scored significantly higher award fees or approximately 70% more over the five comparable years. This is the only comparison because the BPS contract ended in 1993. Higher fees are related to high performance and are attributed to our ability to accomplish all assigned tasks, satisfy our customer, and communicate our accomplishments to the customer. Figure 7.3-3 Earnings per Share

Measure Redacted for General Distribution

Figure 7.3-3 Earnings per Share The earnings per share of DM stock owned by the four parent companies continue to increase based upon the net income from the SPR contract. The reduction in FY 2002 is attributed to expensing the Bid and Proposal cost to re-bid the SPR contract.

DM does not establish a "target" annual earning for our parent companies because of a lack of control over the events affecting the earnings, namely; 1) DOE has final budget approval; 2) DOE establishes the fee base associated with the annual budget based on associated scope of work; and 3) once the base fee is established by DOE, there is a negotiation for the exact fee available for award. The only event that is semi-controlled by DM is the completion of the DOE approved scope of work - even after the scope of work is approved and assigned to DM.





Figure 7.3-4 depicts our economic value compared to other DOE facilities. DM received the highest percentage of the award fee, which is based on performance. For example; based on a \$1,000,000 contract, DM received \$63,000 in 2004 compared to other DOE contractors receiving from \$20,000 to \$50,000 in award fee.

7.4 HUMAN RESOURCE RESULTS

7.4a Human Resource Results

Flexibility, innovation, knowledge and skill sharing, alignment with organizational objectives, customer focus, and rapid response to changing business needs and requirements characterize our high-performance work.

<u>Note:</u> DM contracts with the *Business Research Lab* (**BRL**) in New York to conduct and analyze the annual employee survey. The "BRL Benchmark" referenced in the Figures in 7.4 are based on the *Business Research Lab* surveys of top performing organizations. These norms are the result of employee satisfaction surveys conducted for approximately 300 organizations, ranging in size from 100 to 5,000 employees. The norms include both private sector and public sector organizations in manufacturing, high-tech, financial services, healthcare, and education. DM also uses the Society of Human Resources Management (SHRM) to compare to a "National Norm". <u>Note:</u> The most recent survey was in January 2005. There were no employee surveys in 2001 or 2003.

7.4a(1) <u>Work System Performance and Effectiveness</u> Our "work systems" refers to how our employees are organized to accomplish our mission, strategic objectives and action plans in *Figure 2.1-3*. DM work systems are formally aligned with DOE functional groups as defined in *Figure 3.1-1*. As detailed in 1.2b (1), 2.1a (1), 5.1a (1) and 6.1a (2), the WADs are DOE's measure of our work system performance. As a federal government prime contractor, our work systems are more Mission driven, which fosters a culture of cooperation, empowerment, and innovation. *Figures 7.4-1 and 7.4-2* exemplifies the Mission and Values focus of DM employees.





Measure: Employee Decision Making DM Goal = 80%<u>Result</u>: Survey results indicate 81% of employees acknowledge they have the sufficient authority to do their job, which exceeds the BRL Benchmark of 69% in 2005.

Figure 7.4-4 Manager to Worker Ratio



<u>Measure</u>: Manager to Worker Ratio DM Goal < or = 22%<u>Result</u>: Improvements in communications and skill sharing have enabled DM to reduce the number of managers. DM has maintained its ratio at 21%, exceeding its 2000–2002 goals of 25% and current goal of 22%. Although there are both functional and process managers/supervisors, the relatively flat organizational structure facilitates communications and goal achievement. There are no BRL Benchmarks or SHRM norms for this measure.





<u>Measure</u>: Ensure all personnel are sufficiently trained.-. Regulatory/compliance training completed for all employees DOE Goal = 98%

Process = Training, Workshops, Seminars ABM = 100021 <u>Results</u>: Performance averaged over 99% since 2000, which exceeds the norm of 80%. Employees completing the required training numbered 4,820 out of 4,858. These numbers were repeated from the previous month due to Hurricane Katrina. Additionally, training was suspended during drawdown. completion rate for the six months. There are no BRL Benchmarks or SHRM norms for this measure



<u>Measure</u>: On-Line Mandatory Training for all employees scheduled to complete on-line training for all personnel including Ethics Training Target =98%

Process = Training, Workshops, Seminars ABM = 100021

<u>Results</u>: Performance averaged over 99% since 2001. For the month ending August, 2005, performance was 99.4%, which exceeds the monthly target rate of 98%. Employees completing the required training numbered 9,247 out of 9,305. The number represents a rolling number of required online training. These numbers were repeated from the previous month due to Hurricane Katrina. Additionally, training was suspended during drawdown.. There are no BRL Benchmarks or SHRM norms for this measure.



<u>Measure</u>: Value of Training -Workplace Assessment Survey <u>Results</u>: Overall employees feel training is of value to their jobs and the *Achievement of Action Plans* **5**.2*a* (1.). There are no BRL Benchmarks or 2005 SHRM norms for this measure.

7.4a(3) <u>Employee Well-being</u>, <u>Satisfaction</u>, <u>and</u> <u>Dissatisfaction</u> Figures 7.4-8 through 7.4-9 are examples of a number of measures that are tracked and used by leadership to improve well-being and satisfaction.



Measure: Employee Workplace Assessment Satisfaction

<u>Results</u>: Overall satisfaction is a key measure of morale and this is a very positive measure. Since 2002, there has been little change in Overall Satisfaction other than a slight decrease in 2004, which was directly attributable to budget reductions and reduction in workforce (RIF). Although satisfaction is significantly higher than the BRL Benchmark of 43%, senior leaders have intensified organization strategies to improve morale, improve satisfaction and communication. as a result of the 2004 Strategic Planning off-site meeting.

Figure 7.4-9 Employee Pride



<u>Measure</u>: Employee Pride DM Goal = 80%

<u>Results</u>: More than four out of five employees are proud to be associated with DM and are satisfied with their work life and environment. Employees also felt a sense of personal accomplishment in the work they perform. The decrease in January 2004 was the effect of the RIF.

7.4-10 Employee Retention



<u>Measure</u>: Employee Retention DM Goal = 90%<u>Results</u>: Employee retention has at a high level of 97%, even through 2002 and 2003 when there were several reductions in workforce.



<u>Measure</u>: Ethics Expectation DM Goal = 95%<u>Results</u>: Employees have a clear understanding of DM's ethical expectations and they recognize the support of

2005 Malcolm Baldrige National Quality Award Program

leadership and DOE. There are no BRL Benchmarks or SHRM norms for this measure.



<u>Measure</u>: Safe Work Environment DM Goal = 95%<u>Results</u>: Employees have a clear understanding of the DM value of a safe work environment and they recognize the support of leadership and DOE. *Figures 7.5-18 and 7.6-8* are performace measures relating to safety. There are no BRL Benchmarks or SHRM norms for this measure.

7.4-13 Employee Quest for Improvement



Measure: Performance Improvement DM Goal = 95%

<u>Results:</u> Employees have a clear understanding of the DM value of performance improvement and they recognize they are empowered to improve performance with the support of leadership and DOE. There are no BRL Benchmarks or SHRM norms for this measure.



<u>Measure</u>: Attendance Rate DM Goal = 95%

<u>Results:</u> Employees's attendance rate is a function of the usage of sick time. Given the average employee age of 49-50 years and length of service of 16 years, the consistently high attendance rate of at least 97% across the company is an indication there are few absenteeism problems in the workforce.



<u>Measure</u>: Participation in 401K DM Goal = 80%<u>Results</u>: Employees participation in the 401k program has maintained in the 83% - 86% range since 2000, while the comparative has decreased over time. Likewise, the percentages that contribute over 8% of their income and take full advantage of the company matching contribution has maintained at the 70% level.

7.4-16 Affirmative Action Program



<u>Measure</u>: Affirmative Action DM Goal = 90% <u>Results</u>: DM has exceeded its 90% goal since 2000 of its Affirmative Action Plan (AAP) objectives achieved, until May of 2005 when the basis of the AAP measure changed from the 1990 to 2000 Federal Census data for workforce availability. The goal of Affirmative Action is to ensure that our workforce reflects the community we serve through assimilation and to raise the consciousness of employees about the contributions of groups historically excluded from recognition.



7.5 Organizational Effectiveness Results

7.5a Organizational Effectiveness Results

DM's key operational performance results that contribute to the achievement of our effectiveness are listed below with associated comparative data from previous years. Operational external comparisons are not available because foreign countries do not disclose operational information relative to their strategic oil reserves. The only data available is some business processes *Figure 7.5-15 & 22*, regulatory *Figures 7.5-19, 20,and 21* and storage cost which has been identified in *Figure 7.1-3*. We have limited capability in comparing to industry because our systems are unique in design and purpose. Many of the following figures indicate overall organizational performance efficiencies developed since 1993 have resulted in a mature organization that has undergone numerous cycles of improvement resulting in exceeding DOE expectations. Some figures include site comparisons.

The following are our current levels and trends in key measures and indicators of the operational performance for our key value creation process effectiveness (see *Figure 6.1-1*). Most of the measures are copied from pbViews.

Each measure has DM Actual performance over time, comparison if it exist, the process name, and activity based management (ABM) code associated with the process we use to measure efficiency. The performance results are based on fiscal years ending on September 30th, unless otherwise specified. Most measures are available to anyone at anytime with access to the intranet including DOE, suppliers and partners. Most of our measures are "control measures" in which staying in a range of constant high performance is good and cost effective. Exceeding these controls creates no value to the customer and increase cost. Some 2005 data for the operational measures exclude data for the month of September 2005, because of the precedent of two hurricanes during the period.

7.5a(1) Key Value Creation Processes



<u>Measure</u>: DOE Critical Performance Measure Total amount of SPR crude oil barrels in storage. Process: Crude Oil Fill Process ABM: 100005

<u>Results</u>: DOE approved filling the SPR to 700 MMB, which requires DM to receive oil at approximately 100,000 barrels of oil per day through August 2005 to complete filling the SPR to DOE's authorized capacity. In response to Hurricanes Katrina and Rita damage to domestic offshore production President Bush directed the SPR to provide needed oil to refineries.



<u>Measure</u>: DOE Critical Performance Measure - A computerbased availability model calculates the availability of SPR drawdown systems and equipment. Performance: Target = 95% or greater. Process: Drawdown ABM: 100005

<u>Results</u>: The overall SPR average of current site equipment availability predicted is 97.8%. Individual site availabilities are: Bayou Choctaw 98%; Big Hill 98%; Bryan Mound 98%; West Hackberry 98%.



<u>Measure</u>: DOE Critical Performance Measure

Total Maximum drawdown rate for initial 90-day period for four SPR sites. Target: 4.4 MMB per Day (MMBD)

Process: Drawdown ABM: 100005

<u>Results</u>: The actual Rate since 2003 was 4.4 MMBD. The Drawdown rate is critical to the DM Value of "Mission Readiness" and the "Operational Readiness" Success Factor. Strategic Objective 1 "Maximum Drawdown Rate" in *Figure 2.1-3* list the operational plans such as: Fill Plan, Drawdown Plan, Vapor Pressure (degas) Plan, and Cavern Integrity Plan that must be achieved to accomplish Drawndown.





<u>Measure</u>: DOE Critical Performance Measure – this Is a ratio of the distribution capacity of SPR oil into the marketplace as a % of the drawdown rate. Performance Target > or = 120%. <u>Results</u>: Since 1999 capability has exceeded 150%.





Measure: DOE Critical Performance Measure

This is the number of days for the SPR to be ready to distribute crude oil after notification of Alert Level III (Presidential Directive). Target Performance to commence Crude Oil Drawdown was reduced in 2003 from a historic 15 days to 13. Process: Drawdown ABM: 100005

<u>Results</u>: Target Performance of 13 days was successfully maintained.







The MPAR rating is the weighted average of several maintenance performance elements and is calculated on a monthly basis. Target: 95 % or greater

<u>Results:</u> MPAR average for FY'05 was 98.1% indicating an effective SPR maintenance program. Individual site

availabilities are Bayou Choctaw 98.5%; Big Hill 98.2%; Bryan Mound 97.3%; West Hackberry 98%.



<u>Measure</u>: Ensure Emergency Preparedness and Response capabilities at all sites. Percentage of trained Emergency Response Team (ERT) members at each site.

Target: 95% of ERT members trained at each site.

<u>Results</u>: All sites maintain numbers of ERT above the 95% target levels. In 2003 and 2004, more than the required number of field personnel was trained, accounting for exceeding the 100% level.



Percentage of key spill response equipment Measure: categories listed and available at each site. Target: 100% Results: Equipment availability was 100% each year. Equipment can be immediately utilized for emergency, without violating any safe practices, manufacture maintenance recommendations, company policy or procedures, regulations or laws.

Figure 7.5-9 Security Systems



<u>Measure</u>: Physical Protection System (PPS). Availability of PPS Process: Physical Security.

<u>Results</u>: The SPR Security Systems availability has exceeded target. Since September 11, 2001, an increase in security

funding and focus has resulted in security systems performance exceeding the 95% target.



Measure: Budget Development / Formulation Process - Budget Development ABM 100155

<u>Results</u>: DOE has approved 99.4% of the last six Budget Requests. DM did not meet the DOE target or minimum in FY 2002 because of communications problems with the customer. To avert this problem in the future, DM and DOE Finance established a process of meeting weekly to discuss the DOE scope and guidance (*Figure 4.1-4*). DM Senior Management performs several detailed reviews (task by task) of the DM scope of work, defined by DOE in their budget guidance. Finally, DM Directors and DOE APMs meet to ensure the Budget Request meets their priorities and can be accomplished during the budget years.

Additionally, the Chief Financial Officer has a performance goal to annually validate 20% of the budget request for the DOE's major operating contractors. The DOE validation, published in February 2003, stated that "enormous improvements continue to be made in defining and understanding the requirements of maintenance activities at DM. The continuing improvement of SAP, the advent of pbViews, and business management practices reflect a corporate commitment to the kinds of management improvements necessary to continue our successful growth."





Figure 7.5-11 depicts DM's performance in managing a little over 100 million dollar annual budget according to the Operating Cost Management Plan identified in *Figure 2.1-3*. DM accepts the privilege and responsibility of being

custodians of public funds and works to minimize the cost of providing an outstanding service. Budget control is accomplished through Senior Staff's proactive budget management, monthly Latest Revised Estimates (LREs) to identify and resolve issues, and a management reserve to fund problems. These concepts and emphasis on cost reductions allow DM to consistently underrun the budget while completing the assigned work and obtaining outstanding award fee scores. Comparing the five years from 1989-1993 of BPS, the preceding contractor, to our most recent five years, we saved slightly over \$21 million dollars than BPS over a similar period.



<u>Measure</u>: DOE Critical Performance Measure DM FY'04 and 05 Target = 0.1664/BBL Total SPR Operating Cost Per Barrel Storage Capacity (700 MMB). Not shown is the SPR Total Target for FY'03 0.2184/BBL.

<u>Results</u>: For 2004 and 2005, DM's actual cost per barrel was \$0.1509 and \$0.1509 respectively which is below the target of \$0.1664. In 2005, DOE deleted this measure as a requirement. The major contributor to success is actual cost underrunning the period's budgeted cost. The 2002 \$0.1624 exceeded the target because of a large increase in security expenditures following September 11, 2001.

7.5a(2) <u>Key Support Processes</u>

The following are our current levels and trends in key measures and indicators of the operational performance for our key support process effectiveness (*Figure 6.2-1*).



<u>Measure:</u> Milestone Completion is the planning and completion percentage of Level I, II, III, and IV milestones. Level I & II milestones are events of major program significance and are defined by the Deputy Assistant Secretary for the Petroleum Reserves, which are

part of DM's contract performance. The milestone system is described in 4.1b(1).



<u>Measure</u>: Performance Improvement Teams Objectives successfully addressed at team closeout. The figure depicts two examples of Six Sigma projects.

Process = Performance Improvement ABM = 100139

<u>Results</u>: The Security Overtime Team's result is outlined in *1.1b(2) <u>Focus on Actions, Improve Organizational</u> <u>Performance, Creating and Balancing Value.</u> The Project Review team provided leadership with increased efficiencies and effectiveness by changing from a monthly historical report to a quarterly future focused communication and planning meeting.*



Measure: Days to pay Invoices

Process = Accounts Payable ABM = 100156

<u>Results</u>: American Productivity & Quality Center (APQC) Accounts Payable (AP) survey with such companies as AT&T, Chase, Cisco, Compaq, Conoco, Dow, ExxonMobil, Halliburton, IBM, Occidental, Shell, etc. This important category shows DM paying 99.3% while other top category companies paid their invoices in 93% of the time within 30 days. This accomplishment is attributed to a state of the art computer system, well-trained employees, detailed procedures, and recognition of the value of prompt payment for our supplier/partners.



Measure: Overtime Management

<u>Results</u>: A significant reduction in overtime hours while concurrently reducing human resources, was achieved by using Lean tools and reducing waste (redundancy), improvement of process standardization and functional reorganization.







<u>Results</u>: In 2003 an Process Improvement team improved the effectiveness of the purchase order and invoicing process to reduce rework and improving supplier/partner relationships. The team addressed the reasons that invoices were paid late which was 1) early billing by the vendor and 2) late service verification by DM's Subject Matter Technical Representative. The issues were resoled resulting in an

Representative. The issues were resoled resulting in an average above 98% of invoices paid on time and in accordance with the purchase order specifications.



<u>Measure</u>: Accident Cost - Target: Minimize by reducing the frequency and severity of accidents.

<u>Results</u>: DM cost performance is a reflection of leadership focus on safety and the Behavioral Safety Program effectiveness. FY 05 accidents segmented by site are New Orleans, 3 = \$38,821, Big Hill 1 = \$1,500 and Bryan Mound 1 = \$13,500 for a total of 5 accidents costing \$53,821.

Figure 7.5-19 Safety and Health Program



<u>Measure</u>: Develop and implement a safety and health program that controls workplace hazards. Lost Workday case rate for DM. Target - 2.00, Minimum - 4 cases per 200,000 worker hours. Bureau of Labor Statistics (BLS) North America Industry Classification System (NAICS) Process: Industrial Safety Services ABM #100067 <u>Results</u>: The 2005 DM Lost Workday Case Rate was 0.83, slightly below 2004's 1.06 performance, and below the 2.00 target and is an industry benchmark. The slight increase was a result of an increase in accidents by the security subcontractor.



<u>Measure</u>: Total amount of hazardous waste generated annually. The 2005 target is 539 pounds compared to the DOE complex average of 408,000 pounds as of 2004. Actual performance was 515 pounds, which was below target because of a SPR-wide program to change out our office lighting systems to improve our power efficiency.



Measure: Fire Protection Program Summary

<u>Result</u>: The cost of fire protection by 36 of 59 DOE reporting groups during 2004 and is representative of the calendar year 2002 through 2003. These 36 groups represent 79% of DOE's assets. This data is compiled by the Computerized Accident Incident Reporting System (CAIRS) that statistically reports DOE loss topics, such as; fatalities, injuries, illnesses, fire, and non-fire losses. The SPR, where DM is the predominant source of statistical data, was ranked the lowest for the cost rate of operation for the respondents to the DOE survey.



<u>Measure</u>: Process Purchase Requisitions to support the Procurement Balanced Score Card.

<u>Results</u>: DM is under DOE's target each year and exceeded all other DOE contractors' average Balanced Score Card for

all years except FY 1999. DM's Project Manager implemented monthly reviews with Procurement to ensure that Purchase Requisitions were being processed in an acceptable time frame. This process allowed significant improvements in procurement processing of Purchase Requisitions. Two books have featured DOE's procurement process: *Balanced Scorecard In The Federal Government* (James B Whittaker, 2000) and *The Strategy Focused Organization* (Robert Kaplan and David P. Norton, 2000).



<u>Measure</u>: Site Quality Assurance Effectiveness DM Goals: 75% of findings corrected same day.

<u>Result:</u> The responsiveness of addressing quality assurance minor findings is one leading indicator for overall quality management system effectiveness. Closing 75% of minor findings in the same day is considered a validation of the system. Since the inception of the ISO 9001 system in 2001, DM has NEVER had a major audit finding.

Figure 7.5-24 Crude Oil Accountability



<u>Measure</u>: Ensure that operational variances on all transfers of SPR-owned crude oil in excess of plus or minus (+/-) 0.40 percent are investigated timely.

Process: Crude Oil Operations/Inventory ABM: 100095 <u>Results</u>: Since 2001, DM has resolved all variances received within the allotted process time.



<u>Measure</u>: The weighted average of the performance elements of Material Performance Appraisal Compilation (MPAC) identified in the monthly Material and Integrated Logistics Status Report. Target - 98% MPAC ABM #100107, 100108, 100109, 100110.

<u>Results</u>: DM has exceeded the DOE targets since 2000. This Material Management Program ensures SPR support readiness in a cost-effective manner.



<u>Measure</u>: Budget Reduction based on Headcount Reduction <u>Result</u>: DM's CEO compares each Director's budget and actual headcount to ensure the assigned work can be accomplished. Once the Director and CEO agree to the appropriate headcount and the assigned scope of work, appropriate action is taken to align the staff with the scope. The CEO reviews the budgeted and actual headcount monthly to ensure they are aligned with the planned work.

Figure 7.5-27 Network Availability



<u>Measure</u>: Successfully maintain the availability of serverbased business applications exclusive of network availability during the production shift 6:30 AM to 6:00 PM Monday through Friday. DOE Goal = 99.5%

<u>Results</u>: Since 2000, availability has been above 99% of the production hours identified in the WAD measure.



<u>Measure</u>: Configuration Management: Manage Technical Data Center (TDC) and Maintain SPR Technical Baseline original documents (red-lines, as-built, vendor data, etc.) to include electronic media. Percentage of Engineering Change Proposals (ECPs) closed within a 90-day (calendar) period from Final Readiness Review Board Acceptance date. DOE Goal = 65%

<u>Result:</u> Performance through 2002 was 100%. In 2003, because of resource reallocation, leadership reprioritized the value of several support process performance goals. This is an example of leadership managing a process to exceed customer expectations while achieving DM goals.





Measure: Operational Cost vs. Support Cost

<u>Result:</u> DM places a significant emphasis on Operational capability. Expenditure per employee on operational cost ranges from \$169,000 to \$245,000, while the expenditure per support employee only ranges from \$106,000 to \$166,000 over the six years. Additionally, the chart shows DM spending between 76% and 80% annually on operational

activities, which is approximately four times as much as expended on support activities.

Figure 7.5-30 Selected Key Success Factors

Federal Government Prime contractor with unique contract

(1) Service- Most important processes Drawdown and Fill

(2) Organizational Culture - "Values-based" strategic plan defines culture (core values & success factors)

(5) **Regulatory Environment** 1) Procurement governed by DEAR and FAR, 2) Process regulation: DOE directives, orders, guidelines, WADs,

P.1b(2) Key Customer/Partner - By contract, single contract customer, Department of Energy

Customer & Market Key Requirements - Results linked to performance DOE PEMP and WADs

Suppliers and supply Chain Requirements - DM Core Value "Partnership' and related Success Factor "Beneficial Relationships" approach to supplier relationship

P.2a(1) Competitive Position

1) DM exists only for the SPR 2) Prohibited by contract from obtaining other work/business 3) Competitive Advantage: high award fee scores

P.2a(2) Success Determination Factors/Key Changes

Competitive Success Determination Factors: commercial best practices, cost reduction initiatives, high performance levels

P.2a(3) Key Comparative/Competitive Data Sources

Oil industry companies, parent companies, Benchmarking Exchange (top 10 from 2003-2005), DOE Complex (limited), **P.2b** Strategic Challenges - *Figure P.2-1*

P.2c Performance Improvement System – performance improvement teams/six sigma, ISO 9001 registration, internal communications, management assessments, 58 employees (11% of workforce) trained as TX or LA Baldrige examiners

Figure 7.5-31 Budget History and Reduction Plan through 2008 Approved by DOE



<u>Results</u>: DM has proven past performance and leadership commitment to improvement of overall organizational effectiveness and capabilities. Through organizational and personal learning, we have developed a detailed plan to achieve this efficiency while delivering ever-improving value to DOE. DM is unique among government contractors, and we plan to maintain our position as a leading benchmark.

7.6 Leadership & Social Responsibility Results

Our "Organizational Capital Readiness System," **1.1a(1** and **P.1a(2)**, is a system that measures our "intangible capital" which consists of the following five attributes; 1) Culture, 2) Leader Development, 3) Governance, 4) Ethical Behavior and 5) Continuous Improvement

Key leadership and social responsibility results, including fiscal accountability, ethical behavior, legal compliance, and organizational citizenship are integrated into our organizational value system and the DOE culture of security and oversight that far exceeds industry and many other governmental agencies. Figure 1.1-3 lists our Governance System processes. Business results of internal and external audits (including certified public accounting firm and third party ISO audits), organizational assessments, customer appraisals, quality assurance surveillances and other activities identified in 1.1b that demonstrate the value placed on stakeholder trust and desire to give back to the communities in which DM employees work are addressed in the following comments and charts. In addition to local oversight, DM reviews selected DOE Office of Inspector General (OIG) and General Accounting Office (GAO) reports published on their respective web sites each month to determine whether reported findings have any potential local implications. The DOE OIG conducts annual audits of selected SPR Financial Statements accounts, i.e., oil inventory, and performs reviews of DM's costs incurred and claimed on a 4-year cyclical basis. The results of all these reviews are reported to Departmental, Program, and Project Management officials and are tracked to closure in both the Department's Audit Resolution and Tracking System, as required, and in the SPRPMO audit report tracking system

This has been a valuable lessons learned tool. These reviews have identified some items that had local implications and required corrective action, as well as provided evidence that the attention DM places on controls and procedures have prevented reported issues from occurring locally. The DM Chief Audit Executive and Chief Financial Officer report results of internal and external audits to the Board of Directors on a semi-annual basis.

7.6a Leadership and Social Responsibility

7.6a(2) Organizational Strategy & Action Plans



Figure 7.6-1 is the measurement of the DM Organizational Strategy which is a measurement of our Critical Performance Measures (CPMs). The CPMs are the highest level WADs as defined by DOE and require Action Plans managed by our Performance Improvement System *P.2c* to ensure successful realization of the DOE WAD targets and DM goals identified in *Figure 2.1-3*.

Measure: Organizational Strategy

<u>Results</u>: The number of CPMs varies each year. For example, in 2003 there were 169 CPMs, of which 166 met or exceeded the target, whereas in 2004 and 2005, there were 17 CPMs, and 16 met or exceeded target.

7.6a(2) Ethical Behavior and Stakeholder Trust

Stakeholder trust in governance and ethical behavior *P.1b* begins with each individual and is evidenced in our processes listed in *Figure 1.2-1 Governance System* such as audits/assessments, inspector general reviews, and third party audits, such as ISO 9001 and ISO 14001. *Figure 1.2-2 Ethical Behavior*



DOE requires a background check on all employees prior to employment. DM applicants must pass a pre-employment investigation covering such items as: a seven- year credit check, personnel & employment contacts, local law enforcement check, social security search, etc. Additionally, each Senior Manager must submit and pass a secret or higher clearance investigation by the FBI. Our current staff of 14 has 12 secret and 2 "Q" security clearances.

Figure 7.6-3 Number of ISO 9001 Findings U ISO 9001 Internal Audits All Minor Findings 54 150 100 Number 100 50 20 20 25 50 28 17 8 .7 n 2001 2002 2003 2004 2005 Years Auditr Findings DM Goal < 20

<u>Measure</u>: Total ISO 9001 findings from 2001 - 2004. <u>Results</u>: ISO Registration is based on third party reviews. Since our first year in 2001, there has been a steady decrease in internal audit findings with 80% of findings being minor and in the Document Control area. A major improvement is currently underway to restructure and

improve DM's management of the document control process.



<u>Measure</u>: The "ethics process" is included in the DM Organizational Assessment. Processes / activities at each SPR location are reviewed to ensure DM's compliance to the requirements of the contract and subsequent documented procedures.

<u>Results</u>: The graph indicates the gross findings of all sites and the New Orleans office. There have been no findings <u>specific to ethics</u>. As a leading measure, the DM goal is to encourage employees to find as many findings as possible to ensure processes and systems are stable and capable (Six Sigma). Each year we analyze the trends and form diverse teams to address areas of leadership concern. This process is part of our organizational improvement system described in *1.1c(3) Organizational Performance* and *4.1b(1)*.

7.6a(3) Fiscal Responsibility

Our key current findings and trends in key measures and indicators of fiscal accountability.

Figure 7.6-5 Significant Financial Audit Findings

DM has <u>never</u> been cited or received any significant audit finding from internal audit department, DOE or any external audit or assessments. This includes independent accounting firms since the inception of the company in 1993.



Figure 7.6-6 Financial Audit Deficiencies



Measure: Unallowable Cost

DOE Goal = 0 Process = Audits ABM = 100035

<u>Results</u>: Unallowable cost is a significant measure and is determined by a complete DOE audit of DM disbursements. For 2001, 2002, 2003 and 2004 there was unallowable cost of eleven tenths of one percent (0.11%) in 2002, which equals \$1,100 of an annual 100 million dollar budget or 300 million averaged over three years. This unallowable cost is the dollar amount disallowed by DOE, which results in a reduction to DM's profit. DM is the DOE benchmark as indicated in the comparison to 10 other DOE contractors.

This achievement is attributed to senior management's process/system of scrutinizing all questionable cost and requiring a senior manager's approval to ensure the cost will be allowable before expenditure.

In 2003, the Office of Management and Budget (OMB) ranked 482 government agencies. The SPR placed 9th on the list of Best Managed Programs according to the Program Assessment Rating tool (PART) score. DM is a major contributor to the success of the SPR and this recognition.



<u>Measure</u>: DOE Findings of On-Site appraisals. Four-day audits are conducted with a team of 12 to 15 DOE auditors at each SPR location to ensure DM's compliance to the contract requirements and subsequent documented procedures.

<u>Results</u>: The graph indicates the gross findings for each year. All findings were minor in nature. Annually, DOE conducts 5 On-Site Appraisals involving approximately 82 employees and expended approximately 3,680 hours auditing all DM systems and processes. In 2005, DOE conducted 3 of their 5 audits reflecting in a reduction in the number of findings. DOE considers this audit process one of their most important responsibilities in the contractor oversight process.

7.6a(4) <u>Regulatory and Legal Compliance</u>

Our environmental, safety, and health programs comply with or exceed regulatory requirements P.1b(5). The results for our key measures and indicators of regulatory and legal compliance are as follows:



CRITERION 7.0 - BUSINESS RESULTS Figure 7.6-8 DOE and OSHA VPP Certification **DOE & OSHA VPP** New Process Good 100% 100% 100% 100% 100% 100% 50% Four Sites 50% 2 of 4 Sites 0% 2000 2001 2002 2003 2004 2005 ę Years 8 DM Actual

Measure: DOE Critical Performance Measure - Maintain both DOE and OSHA Voluntary Protection Program (VPP) Certification at all SPR Operating Sites.

Process = ES&H Management ABM: 100126

Results: Bayou Choctaw, Big Hill, Bryan Mound, and West Hackberry have maintained Star status in the DOE and **OSHA** Voluntary Protection Program.

New Process: This is an example of a new DM process initiated by leadership to improve health and safety of our workforce. In 2002, the 4 DM sites were part of 600 work sites in the entire U.S. to achieve this status. As of May 2004, the 4 DM sites are among only 1,079 work sites certified in the U.S. The total work sites in the U.S. are estimated to be in excess of 7 million according to the **OSHA.**



Measure: Number of Environmental Violations

Result: DM is the benchmark. DM has not had a Notice of Violation since 1996. We monitor four labs for comparison. They are INEEL, Los Alamos Nat'l Lab, Naval Petro Reserve, and Brookhaven Nat'l Lab. Although these labs do not manage and operate at the activity levels as does the SPR, they have the best environmental comparisons.



Measure: Ethics Query DM Goal = 5 per year Results: Since 2000, there have been only 4 ethics queries, one of which required action. One of the ways leadership promotes an environment that fosters legal and ethical behavior (1.1a(2)) is by placing greater emphasis on communicating the value of legal and ethical behavior and encouraged employees to be proactive and pose ethical concerns. The DM 2005 Goal was determined as 1% of the workforce or about 5.

7.6a(5) Supporting Key Communities

The results for our key measures and indicators of our organizational citizenship and support of key communities are defined in our Community Outreach Plan identified in Item 1.2b.



Measure: Socioeconomic Goals DM Goal = 100%

Result: DM exceeds its Small Business Procurement Plan goals. The 2003 DM Goal was not met because DOE reduced the number of DM contracts. In general, DOE does not change initial plan targets, which resulted in DM not achieving the goal set prior to the beginning of the year. In 2004, the goal was exceeded by 92% and in 2005 almost met goal even considering business interruption from the hurricanes.



Measure: Public Outreach Plan - Community Outreach Activities. Percent of completed community outreach activities, using the annual plan as the baseline.

<u>Results</u>: In addition to major programs described in 1.2c, Support of Key Communities, an additional 44 non-profit organizations benefited from our commitment to the communities. The Plan is a cooperative endeavor with DOE and Deltha-Critique, which is a support services contractor for DOE. The Plan addresses four areas: Community Outreach, Primary Customer Outreach, Environmental Safety and Health Outreach, and New Initiatives. Each area of focus is sub-divided into specific areas including educational, civic, professional, and cultural leadership.