CONDUCTING A VALUES AUDIT TO DEVELOP A MISSION STATEMENT IN A DEPARTMENT OF ENERGY FIRE DEPARTMENT

EXECUTIVE LEADERSHIP

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ABSTRACT

This study researched the impact of rapidly occurring change within a Department of Energy (DOE) contractor fire service. The purpose of this study was to determine what a new mission statement for Fire Department Operations should be. The research method used in the study was the descriptive method using a survey to gather data regarding department values in order to address the following research questions:

1. What were the personal values of the members of the department?
2. What fire department duties did the members value the most?
3. What were the positive reflections of ETTP FDO members?
4. What were the needed changes in the department?

A survey instrument was presented to 19 fire service members in order to collect the needed data. Results rated a standardized list of personal values, rated a list of fire department duty values, categorized positive reflections, and compiled a list of recommended changes. The data was sorted and analyzed for incorporation into the Strategic Planning for ETTP FDO by helping align the organization values with member's personal values. Recommendations included incorporation of the values audit into the mission statement development, continuation of the strategic planning process and improving communications to keep workers apprised of mission statement development.

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INTRODUCTION

The fire service management of the East Tennessee Technology Park (ETTP), formerly the Oak Ridge Gaseous Diffusion Plant (ORGDP), also known as the World War II Manhattan Project K-25 Site, attempted to provide a vision to Fire Department personnel several years ago during a consolidation effort. Three historically distinct industrial fire departments on the Oak Ridge Reservation were administratively consolidated in an attempt to provide better service at a lower cost. Soon after consolidation the new Fire Department management team developed a mission statement in attempt to provide vision for the organization. Rapid changes over the ensuing four years caused resources to fund the ETTP to be significantly reduced. The United States Department of Energy's (DOE) leadership in furthering President Clinton's initiative to "Reinvent Government," caused funding at the ETTP to be significantly reduced by approximately 25 % in fiscal year (FY) 1997. Also, reorganization of the prime Management & Operating (M&O) Contractor, Lockheed Martin Energy Systems (LMES), into a Management & Integrating (M&I) Contractor led to numerous changes in fire protection. Other DOE initiatives at the ETTP to lease federal buildings to interested industrial occupants has led to questions regarding who is the Authority Having Jurisdiction (AHJ), how will fire protection be funded by leased properties and what levels of service are required or expected from lessees.

In 1996 and 1997 vast numbers of senior bargaining unit members and middle and senior managers sought secure positions at sister plants through the use of inter-plant transfers in order to avoid layoffs. The exodus appeared to cause a disruption in the continuity of mission accomplishment at the ETTP site. In order to determine whether or not mission focus was a problem within the ETTP Fire Department Operations (FDO), it was necessary to analyze whether the fire department workers were on track with the FDO mission. The problem researched in this paper was to determine what a new

mission statement for Fire Department Operations should be. The research method used in the study was the descriptive method using a survey to gather data regarding a suspected problem. The survey instrument was devised as a values audit and collected data on: personal values; fire protection duty values; any positive reflections about ETTP FDO; and opportunity for improvements in ETTP Fire Department.

Several research questions were developed to help determine the scope and purpose of the research. The questions asked were:

1. What were the personal values of the members of the department?
2. What fire department duties did the members value the most?
3. What were the positive reflections of ETTP FDO members?
4. What are the needed changes in the department?

BACKGROUND AND SIGNIFICANCE

Bechtel Jacobs Company, LLC, is a Management & Integrating (M & I) contractor founded by Bechtel Engineering and Jacobs Engineering for the purpose of competing for award of the M & I contract at the ETTP in 1997. Bechtel Jacobs succeeded Lockheed Martin Energy Systems (LMES) the former Management and Operating (M&O) contractor who provided contract services to the DOE. Currently, Bechtel Jacobs is directly managing fire protection issues at the site. However, during the two year transition allowed by the DOE, Bechtel Jacobs is required to sub-contract ninety-two percent of the work and transition the work force to the new sub-contractor. ETTP Fire Department Operations (FDO) will be sub-contracted during the transition. As an M&O contractor LMES directly performed most all levels of operation and management, including fire protection, at two energy related

facilities on the Oak Ridge Reservation in Oak Ridge, Tennessee. A sister company, Lockheed Martin Energy Research provides management and operation of the Oak Ridge National Laboratory, also on the Oak Ridge Reservation.

In 1998, the contract for ETTP was re-bid as a method of reducing costs and increasing the productivity of environmental clean-up activities. Bechtel Jacobs manages all operations as a construction project, using the project management system to track all activities. Fire protection is supported functionally through the Health & Safety organization. However, the ETTP Site Infrastructure Project uses and directs daily operations of the Fire Protection Program. FDO, is a career, industrial fire department that provides fire suppression; Emergency Medical Services (EMS); rescue services; Haz/Mat response; and fixed fire protection test, maintenance and inspection. Twenty-one uniformed personnel, five management & support personnel and two fire protection engineers provide the service at ETTP. Similar departments exist at the sister sites on the reservation. Several attempts were made by LMES senior management to re-engineer and consolidate fire protection services across two other DOE sites in the adjacent areas with that of the ETTP prior to Bechtel Jacobs. A re-engineering effort was conducted in LMES Protective Services, the parent division of the consolidated Fire Protection Operations (FPO), in 1993 to consolidate all uniformed security and fire protection at the three Oak Ridge installations. There was at least one major re-engineering of Protective Services since 1993 and several lesser adjustments resulting in more responsibility being assumed for fire protection. In 1996, the ETTP site management turned over to LMES PSO all responsibility for the fire water distribution system, configuration management of fire protection systems, and ETTP site authority having jurisdiction (AHJ) duties. Previous to 1996 there were three separate ETTP organizations managing fire protection issues at the ETTP site.

In 1994, the fire protection managers from the three sister sites collaborated under the consolidation effort to develop a vision for FPO. Three main points were established in the vision. First, FPO would provide a full service fire department including the test and inspection of fixed fire protection systems. Second, FPO would develop a unified department with a single command structure that was customer focused and centered on service. Third, FDO would be viewed within the national DOE complex and the East Tennessee fire protection community as the premier fire service organization. Most of the objectives derived from the first point regarding a full service fire department were met. However, the second and third points of the vision statement never evolved. Instead of unifying under a consolidated command structure, FPO has now reverted back into the original three fire departments. Because FPO was never able to develop the synergy of a truly unified fire department the opportunity to build the premier fire department was never attained.

Changes in the DOE philosophy regarding prime contractors were significant barriers to evolution of the FPO vision. Several initiatives implemented by the DOE and handed to their various Program Offices converged simultaneously at several DOE sites including the ETTP. One over-riding goal was the Clinton Administration's effort to reinvent government by reducing dependence on government spending, concurrently reducing the federal deficit, and the deficit burden on future generations. In order to implement the goal, several objectives were initiated to reduce DOE presence at the ETTP. One objective was to reduce the FY-97 budget by 25% resulting in right sizing of LMES personnel. The professional fire fighting force was reduced from thirty-three down to twenty-three, while the total LMES population was reduced from 3,000 to approximately 2,400. The reduction caused the fire department to increase overtime demands of workers in order to maintain shift coverage and to keep fire protection system tests and inspection duties on schedule. The overtime burden

increased in 1997 by 92 percent. In 1998 a DOE Headquarters study showed that ETTP FDO had the highest average overtime rate of all fire departments in the DOE complex (Kubiki, 1998, May). Also, in order to adapt to the reduced resources several exemptions were requested of DOE in order to be released from National Fire Protection Association (NFPA) inspection and test frequencies.

Another objective implemented by DOE was to reindustrialize certain buildings and equipment away from the designed uranium enrichment process and toward reuse by general industry. Approximately 50% of the buildings at the ETTP have been targeted for lease to private industry, with several already occupied by non-DOE related tenants. Leasing government buildings to private industry has been a difficult transition for the ETTP FDO work force. Prior to the leases FDO Fire Protection Specialists were able to enter any buildings or facilities at will in order to accomplish test and inspection duties or to conduct fire prevention or pre-fire planing walk-downs. With the occupation by private industry the facility owners/managers justifiably want to ensure their investments are properly secured. Where specialists were once able to enter a facility at will, 24 hours per day, they must now coordinate their duties with private industry facility managers. Another related issue has been access to facilities during emergency response. Unlike most industrial parks serviced by a municipal fire department the tenants at ETTP are not required to post emergency notification labels on doors, or to provide access keys in a secured, exterior lock box. Currently, ETTP FDO must make a judgment regarding the significance of the emergency and assume responsibility for forcing their way into a tenant's facility. The fire department must weigh the risk of damage caused by forcing entry to a lessee's facility against the threat of fire related damage to the lessee's operation and DOE's property.

In late 1996 an LMES objective in support of the DOE goal was to re-engineer the remaining ETTP work force as an M & I Contractor. It was hoped by LMES senior management that an M & I

configuration would demonstrate to the DOE that LMES was a competitive bidder for the pending Environmental Management contract. M&I work scope uses a single prime contractor team to integrate the wok scope of multiple sub-contractors so that all the expectations of DOE are met without dropping any performance requirements. The M&O contractor was able to perform all the integration tasks because the same company performed all the work. Past performance of M&O contractors has demonstrated work integration at a very expensive cost. Theoretically, M&I operations save money by placing work in specific projects with limited scope and with specific contract beginning and end. The result of LMES re-engineering caused much confusion regarding what role the fire service would play in support of fire protection specific objectives.

As a result of the dramatic and rapid changes faced by the ETTP Fire Department much of the vision changed without accompanying change in the mission. Edgar Schein writes that a key to managing change is to involve people in creating a vision for the future they can personally own (Schein, 1985). Nelton believes everything grows out of a company's mission statement. The company's behavior, structure, strategic planing, and decisions are guided by the mission statement (Nelton, 1990). Peter Drucker stated that "A business is not defined by its name, statutes or articles of incorporation. It is defined by the business mission" (Drucker, 1973, p. 125).

By understanding the history experienced by DOE contractor fire service personnel, it was easier to see how the study results would apply to the development of a mission statement specific to the fire department. Many of the concepts and techniques used in this study were those learned in the National Fire Academy’s Executive Fire Officer Program. The curriculum in the Executive Leadership course included study of transitions and managing change. Techniques learned through the course were

used to assess the development of a mission statement and its potential effectiveness for fire department personnel.

LITERATURE REVIEW

The literature review for this study revealed a wealth of journal articles and research papers on related studies of mission statements within the fire service. Most of the research for the literature review was conducted in the Learning Resource Center (LRC) on the campus of the National Fire Academy (NFA) in Emmittsburg, Maryland. In the Executive Planning text the relationship between a vision for the organization and the mission statement was discussed. By envisioning the future, the organization has an opportunity to step outside the limitations of the existing organizational culture and break paradigms that are, many times, self-defeating (1995). Research by Kouzes and Posner discovered having long-term vision was the second most important criterion, after honesty and integrity (1987). Elliot Jacques, an English management scholar, found that some executives are capable of planning in 20-year time spans (June, 1985). Robert Hayes, of the Harvard Business School, relates a story of William Bricker, CEO of Diamond Shamrock. Bricker uses the analogy of a road map or a compass when lost in the swamp. As long as you are lost on a paved highway the road map is sufficient for determining the way. However, when lost in a swamp, the road map is useless; but a compass is invaluable allowing the traveler to locate a general direction and use his ingenuity to overcome difficulties (1985). Miller, in his study of Central Jackson County, Missouri, Fire Protection District, discovered that one of the items necessary for cultural change to occur is for the leader to clearly communicate the vision for the organization (1993). James Champy notes that recently consolidated organizations need "a new vision of their future, hope for the future" (1995, p. 53).

Champy goes on to say "…'without a vision the people perish.' And this is especially true in periods of wrenchingly painful change" (1995, p. 54).

Robert Wright, in his study of Cincinnati Fire Department's use of the change management model, determined

> Most fire service leaders are reluctant to adopt the visionary management style because there are too few rewards, a tremendous amount of risk, and little support that accompanies leading change. Conversely, there are few penalties for their peers who sleepwalk through their careers (1997, p. 24).

Wright very succinctly points out that there is a risk to leaders who step out with a new vision for the organization.

> Changes also have consequences (costs) which can influence the selection of the final change solution. Leaders must also consider what the future costs to the firefighters and the community may be if the issues are not resolved in an inclusive and resolute manner. They must find a viable match between the opportunities and risks (1997, p. 24).

Once the leader(s) has determined the vision for the organization it becomes time to put feet to the vision. The Executive Planning text at the National Fire Academy emphasizes that the vision feeds into the mission statement and that the mission statement is the cornerstone for the strategic plan (1995). Russell Sanders states "The key to accomplishing the department's goals and objectives is creating a feeling of ownership among the members" (1994, p. 15). James Willits is quoted as saying "The mission statement gives purpose to the organization and serves to motivate organization members to achieve that purpose" (1996, p. 10). But in some cases, it is not enough to motivate members. Stephen Covey advises that "An empowering mission statement is written to inspire you, not to impress anyone else. It communicates to you and inspires you on the most essential level" (1994, p. 113). Covey's writing implies a more intense reason for mission statements. It is not enough to be motivated by the mission

statement, but we must also feel personally inspired by the statement (1994). By attaining the level of personal commitment to the mission statement Covey alludes to we attain buy-in to everything encompassed by the mission.

Developing inspirational mission statements that motivate organization members to perform better is not the only reason for analyzing the department's mission. The mission statement can also be used to develop a niche market place for the organization. Peter and Donnelly use the mission statement as "a long-run vision of what the organization is trying to become: the unique aim that differentiates the organization from similar ones" (1992, p. 9)

Although mission statements have recently become popular with fire department organizations wishing to provide more accurate, responsive and effective service, use of the mission statement has been adopted by fire departments for several years. Way back in 1988, Paula McMann recognized the benefits of a fire department mission statement. McMann writes:

> Fire service mission statements being developed now have been broadened to include such things as fire prevention programs and emergency medical services. We can expect that definition to continue to be broadened to include a modified menu of services. The question is not, "What businesses have we mastered?" The question is "What other businesses must we master in order to succeed in our field?" (1988, p. 15).

McMann may have been a better visionary than anyone might have suspected in 1988. Not only do many fire departments now provide such things as fire prevention programs and emergency medical services of one sort or another, increasing numbers of departments are also providing emergency response to hazardous materials, urban search and rescue, codes inspections and a host of other services probably not even thought of in 1988. Many departments, having gone through the mission statement evolution, have succeeded because of their focus on, and recognition of, their mission.

Edward Richards, in his study of Enfield Fire District Number One's need for a formal strategic plan determined that "A mission statement may exist without a strategic plan but a strategic plan cannot and should not exist without a mission statement" (1996, p. 16). Richards discovered that 90% of the respondents to his survey indicated mission statements were in use at their respective departments. Richards believes :

> everything that a fire department is and does flows from 'The Force' of the mission statement. The mission serves as the test for everything that is done by the fire department or that might be done by the fire department. Before any endeavor is undertaken by the fire department it should be determined if it will support the department's mission. If an endeavor does not support the fire department's mission then it should not be undertaken or the mission should be revised (1996, p. 25).

Richards brings home the point that an organization without a clearly defined mission statement cannot proceed to develop strategic plans. As we learned in the Executive Planning course, the goals and objectives of the organization flow from the organization's mission. Therefore, Richards' assertion that all endeavors considered by the organization should be weighed against the mission statement only makes sense for logical, planned growth of the organization. Trainor, in his study of the City of Waterbury, Connecticut, advised that each fire department "should examine their mission statement and determine if this document may be the stumbling block to keeping their department from venturing outside it's paradigm" (1994, p. 12). The first recommendation in Trainor's study was to examine the mission statement. "If your department is defined by a mission statement that is rigid and specific in terms of the services that your organization delivers this is the opportunity to modify and expand your mission statement to include additional services" (1994, p. 15). In light of the recent trend of lessening fire loss in most communities across the United States, it has become ever more important to look for new opportunities to logically expand services into related fields. Trainor's advice to provide a flexible,

yet specific, mission statement will allow the organization to respond to changes in the environment and to be prepared for potential opportunities to capitalize on unexpected developments. Applying the adage "Luck is being prepared when the opportunity presents itself" (Mason, Team Meeting, October 13, 1972) to Trainor's observation regarding mission statements implies the organization must have a mission statement that is specific enough to give direction for goals and objectives and yet be flexible enough to allow new opportunities to be implemented.

In summary, the literature review provided research with evidence of numerous examples of successful development and application of mission statements. Although the business community has long been proponents of the mission statement there were also many examples of fire department application of mission statements. Richards discovered that 90% of fire departments surveyed had published mission statements (1996). The literature research demonstrates the need to develop a mission statement specific to the ETTP FDO in order to maintain focus on the work expected by the new M&I contractor organization. The importance of a mission statement to the successful operation of today's fire department is difficult to argue.

PROCEDURES

The first step in the research procedure was to recognize the significant change occurring within the U. S. Government. In September of 1993, Vice President Al Gore, in his role of change agent for the Clinton Administration’s effort to reinvent government, released the report of the National Performance Review (NPR) to create a government that works better and costs less (1995). Over the subsequent three plus years, the DOE has implemented many of the initiatives the Vice President outlined in his report. As the changes were delivered to the DOE contractor companies, there were

many opportunities to observe the effect on the work force. In response to the observations, a survey questionnaire was developed that built on a previous study which researched the need to develop a new mission statement.

Valuable guidance was taken from Chief Mark Wallace in his book, Fire Department Strategic Planning. Chief Wallace refines the steps for development of a mission statement for fire departments (1998, p. 10). The survey used in this research was adapted from Chief Wallace's values audit and it was designed with both open and close-ended questions. The questionnaire was divided into a personal values section, a fire protection duty values section, a positive reflection section and a change analysis section. A copy of the questionnaire is located at Appendix A. The surveys were distributed to ETTP FDO workers: both front line supervisors and Fire Protection Specialists, during a series of shift meetings. Nineteen of twenty-one surveys were returned. Due to the small population (21) of ETTP FDO members the entire population was considered for the survey.

Personal Values Activity Summary Score Sheet												
	Values											
Questions	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**TOTAL**	**Average**
1. Being a team member		4		8	10	36	7	32	18		115	6.05
2. Contributing to the organization				4	5	6	14	24	54	50	157	8.26
3. Pay and benefits	1	22	3	8				8	18	10	70	3.68
4. Excitement/risk			9	4	15	1		32		70	131	6.89
5. Professional pride		2	12	8		24	21	8	18	20	113	5.95
6. Family and friends	16				10		7				33	1.74
7. Accomplishment			9	8	25	12	7	16	27	10	114	6.00
8. Recreation			15	16	10		14	16	18	20	109	5.74
9. Goals	1		3	12	15	18	28	24		10	111	5.84
10.Responsibility		10	6	8	5	6	35		18	10	98	5.16

Table 1

The personal values section is represented in Table 1 and was calculated using Chief Wallace's formula (1998, p. 33). The group average rating was determined by using a spreadsheet to tally each response. The spreadsheet has the value statement listed down the left side of the page and boxes for

one through ten across the top of the page. Tally marks are made in the corresponding box each time a response is rated. For instance, if the first survey rates being a team member as six then a tally is made in box six on row one. If the survey rates contributing to the organization as a nine then a tally is made in box nine on row two. This continues for each value statement response from each survey until all the data has been categorized. The next step is to convert the tally marks into numerical values by multiplying the number of tally marks in each box by the box number. In table 1 below there were two tally marks in box two for being a team member. When the tally marks were converted to numerical values the two tally marks were multiplied by the box number (2), resulting in the numerical value of four. Only two participants rated being a team member as a two. When each box has been converted from tally marks into a numerical value then the boxes are added across the row and totaled. Then dividing by the number of participants (19) will average the total for each row.

Fire Protection Duty Values														
Duties														
Question	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**TOT**	**Avg.**
Emergency medical treatment and transport	5	24					7						36	1.89
Fire suppression (fire fighting)	12	4	3	4				8					31	1.63
Hazardous materials emergency response			12	16	10		14	16	9	20		12	109	5.74
Rescue techniques			12	20	15	6	14	8	18				93	4.89
Life safety and building code inspections		6	3		20	12	35		9	10		12	107	5.63
Suppression system testing & inspections	1		3	4	10	24	7	40	18	10			117	6.16
Stand-by for emergency conditions		2	9	4	5	24		24	9	10	11	24	122	6.42
Fire protection system outages, restorations & verifications				8		12	14	24	54		44		156	8.21
Hazardous materials storage & handling inspections					5		14		18	30	22	96	185	9.74
Emergency response preparations & training			9	12	15	24	7	16	9	10			102	5.37
Self-contained breathing apparatus shop				4	5	6	14			40	77	24	170	8.95
Portable extinguisher shop						6		8	18	50	44	60	186	9.79

Table 2

Similar to the Personal Values Activity Summary Score Sheet above, the Fire Protection Duty Values in Table 2 are calculated by adapting Chief Wallace's formula to a different value rating. As

mentioned earlier Bechtel Jacobs Company was able to win the M & I contract for Environmental Management of the DOE's Oak Ridge Operations based in great part on the company's commitment to integrate sub-contracting. ETTP FDO is a very small portion of ETTP operations and the bargaining unit members of FDO are a very small group represented by OCAW. The labor environment has become very fluid as various departments and projects vie for a larger business market and the associated work force and budget. Because of pending sub-contracting activity and competition for bargaining unit jurisdictions it was desirable to determine which of the listed duties were the most valuable to the organization. By adapting the Wallace formula to current or potential fire department duties a rating was developed that will allow the ETTP FDO to focus on specific missions. Similar to the Personal Values rating, the rating scale for Fire Protection Duty is from 1-12 with one being the most important and twelve being the least important.

The Positive Reflections section of the survey was an open-ended question that simply asked the participant "What do you like about being a member of our fire department?" In order to accurately assess the values of the organization Chief Wallace advises that gaining input for both the favorable issues and the needed changes should be analyzed simultaneously (1998, p. 34). The results of the Positive Reflections survey were posted on a spreadsheet listing each comment. Repeating themes of comments were tallied on the spreadsheet in order to group like issues.

Change Model Scoresheet								
Change	Importance							
	Me	Dept	DOE/BJC	Control	Time	Energy	Involvement	Total
1. Adequate/increased staffing	4.9	3.1	3.3	1.2	1.6	3.1	3.6	20.8
2. Pride	5	2	3	2	3	1	5	21.0
3. Morale	5	3	3	2	2	1	5	21.0
4. Discipline	5	1	3	1	2	1	5	18.0
5. Worker recognition	4	1	2	2	3	3	5	20.0
6. Professionalism	5	4	4	3	3	3	5	27.0
7. Increased training, including NFA courses	5	1	1	1	2	4	3	17.0
8. House the Firebird at Station 2	4	1	1	1	5	5	2	19.0
9. Better coordination with tenants	5	2	2	1	4	4	5	23.0
10. No one on vacation during holidays	5	5	5	1.7	3.7	5	3.3	28.7
11. Consistent treatment regarding time off	5	1	4	4	5	1	5	25.0
12. Reduce paperwork burden	5	2	1	4	4	3	1	20.0
13. Provide modern equipment	5	3	1	3	3	4	1	20.0
14. Increase funding levels	4	4	2	1	1	4	4	20.0
15. Retain existing duties within ETTP FDO	5	5	5	1	1	1	5	23.0

Table 3

The final section of the survey asked the participant to list change needed in ETTP FDO. Participants were asked to list as many as ten changes down the left column of the spreadsheet. For each change the participant was asked to rate on a scale of 1-5 the importance to self, the department and to the company/DOE, with one being the most important and five being the least important. Next, the participant was asked to rate the amount of control the participant had over the change on a scale of 1-5 with one a little control and five as much control. The participant was asked to rate the amount of time needed to implement the change using the 1-5 scale with one as much time and five as little time needed. The participant was also asked to rate the amount of energy needed to implement the change on the 1-5 scale with one as maximum energy and five as minimum energy. Finally, the participant was asked to rate the amount of involvement needed to make the change using the 1-5 scale with one as a minimum and five as a maximum amount of time. Once all the scores were recorded they were simply added across the page to give a composite score for each change. The higher the score the more likely

the change can occur. The Change Model Scoresheet is shown in Table 3. Due to the repetition of several changes the scores were averaged, resulting in decimal places rounded to the nearest tenth.

Several limitations were noted in the study. First, the population surveyed was rather small due to the limited number of personnel remaining in the fire department (22). However, based on Krejcie and Morgan's guidelines there is a 95% confidence level in a survey of a population of twenty and a random sample of 19 (1970). Second, some workers were omitted due to illness and vacations. Third, survey participants did not complete all sections of the questionnaire, allowing for potential discrepancies of data. This study did not look at qualifications or training of fire service, ETTP, or Bechtel Jacobs management in mission statement development. It would be appropriate to investigate what, if any, expertise is available to management as the move through the mission statement development occurs.

Several terms were used in the study that may be confusing to the reader, therefore they are defined here:

Authority Having Jurisdiction - the senior fire service official within the jurisdiction given the authority to determine application of fire protection standards.

Contractor - the private company/corporation providing fire services to the DOE at a particular site.

Management & Integrating Contractor - a prime contractor or contractor team that integrates the work of various subcontractors. Usually the M&I Contractor ensures all goods and services are provided for operation of the site, without overlap of resources or responsibilities.

Management & Operating Contractor - a prime contractor that provides for all the goods and services of the site within it's own organization. Construction contractors are usually not included as M&O contractors.

Niche contractor - a subcontractor providing a limited scope service to either the DOE or the DOE prime contractor. Examples include security patrols, grounds keeping, cafeteria operations, custodial services, and in at least one case, fire services.

Prime Contractor - the contractor managing the site for the DOE. Usually the contracts are for broad scope administrative, production, and research activities conducted on the site. Subcontracts may be let for limited scope operations within the management of the prime contractor.

Program Office - an office within the DOE responsible for a major component of services. Examples include: Defense Programs which is responsible for management of nuclear weapons systems, and Environmental Restoration which is responsible for preparation of DOE sites for return to their previous conditions and uses.

Subcontractor - under contract to the prime contractor for a limited scope and duration project. Subcontractors are used frequently for construction projects, consulting services and clerical support. Subcontractors differ from niche contractors in the duration of the contract. Usually subcontractors have a very limited duration from a few weeks to several months. Niche contractors usually provide services over a longer period of time and may coincide with the prime contractor's duration of service.

DOE complex - the system of Department of Energy sites and facilities that produce, research, store, reclaim or handle nuclear material for energy and/or weapons production. The complex includes all the original Manhattan Project sites, as well as new sites added for energy management such as

strategic petroleum reserves, nuclear enrichment for commercial power plants, and experimental research facilities established to develop new sources of energy.

RESULTS

Personal Values Activity Summary Score Sheet	
Value Statement	Group Average Rating
Being a team member	8
Contributing to the organization	10
Pay and benefits	2
Excitement/risk	9
Professional pride	6
Family and friends	1
Accomplishment	7
Recreation	4
Goals	5
Responsibility	3

Table 4

The results of the survey tabulation can be found in tables 4-7. The first section of the survey asked the participants to rate their personal values by completing the sentence "_____ is/are important to me." Ten standard responses were offered and each participant was to rate from one to ten their personal beliefs regarding which response was most important with one being the most important and ten the least important. The following table shows the standard responses and how the participants rated each response. Not surprisingly, the participants consistently rated family and friends and the most important, followed closely by pay and benefits. The results of the survey are represented in Table 4.

Rapid changes in work scope, competition for sub-contracts, non-DOE tenants, reduction in force layoffs and reengineering has all contributed to a great deal of uncertainty at ETTP and especially

within the FDO. Although pay and benefits are fairly secure for workers transitioning to sub-contractors there are many other sources of potential conflict. ETTP FDO has already seen encroachment on work duties from the new utility system sub-contractor where the

Fire Protection Duty Values	
Values	
Question #	**Rating**
1. Emergency medical treatment and transport	2
2. Fire suppression (fire fighting)	1
3. Hazardous materials emergency response	6
4. Rescue techniques	3
5. Life safety and building code inspections	5
6. Suppression system testing & inspections	7
7. Stand-by for emergency conditions	8
8. Fire protection system outages, restorations & verifications	9
9. Hazardous materials storage & handling inspections	11
10. Emergency response preparations & training	4
11. Self-contained breathing apparatus shop	10
12. Portable extinguisher shop	12

Table 5

traditional job of performing fire hydrant inspections and tests was written into the utility company's performance contract. Loss of other inspection work in buildings leased to non-DOE tenants has also negatively impacted the workers. Therefore the Fire Protection Duty Value survey was important to adapt into the mission statement development. The results of the survey are listed in Table 5. As expected, emergency response duties all rated in the top half of the survey. However, life safety and building code inspections also rated in the top half, even ahead of hazardous materials response.

Positive Reflections of ETTP FDO	
Grouped by Category	**Times Mentioned**
1. Excellent pay and benefits	9
2. Good people to work with; feeling comfortable with peers; teamwork	4
3. Excellent equipment	2
4. Positive belief in the department's ability to succeed	2
5. Ability to honestly express opinions regarding department issues	1
6. Good shift hours	2
7. Ability to help others when in crisis	2
8. Educational opportunities	1
9. Prestige of belonging to ETTP FDO	1

Table 6

Positive reflections were asked from the participants and the results are categorized in Table. Not surprisingly the pay and benefits were rated most frequently as a positive aspect of ETTP FDO. Due to the nuclear industry nature of the work at ETTP the pay scale is generally well above most fire departments in the region. Although Fire Protection Specialists are not the highest paid craft in the bargaining unit the fact that OCAW represents FDO members collectively with the other crafts at the site has been very beneficial for fire fighters.

Change Model Scoresheet	
Recommended Change	Composite Score
1. Adequate/increased staffing	21
2. Pride	21
3. Morale	21
4. Discipline	18
5. Worker recognition	20
6. Professionalism	27
7. Increased training, including NFA courses	17
8. House the Firebird at K-1021	19
9. Better coordination with tenants	23
10. Do not allow anyone on vacation during holiday weeks	29
11. Treat all workers consistently regarding time off	25
12. Reduce paperwork burden, especially repetitive paperwork	20
13. Provide modern equipment	20
14. Increase funding levels	20
15. Retain existing work duties within ETTP FDO	23

Table 7

The final section of the survey dealt with changes recommended by the workers. As mentioned in the Procedures section the changes have been listed according to several categories that represent recurring themes. The scores were compiled and are listed in Table 7 below. According to Wallace the higher the score the more likely it is that the change can take place (1998, p. 37).

DISCUSSION

The changes directed to DTTP FDO were paradigm-breaking events that resulted in decreased resources, re-engineering of work practices, and realigning federal property for private industrial development. To say the work environment was chaotic was a gross understatement of fact. Because all the budget cuts were shared "across the board" every organization shared equally in the loss of workers, confusion, and fragmented work assignments. Every work group was forced to make adjustments in their priorities: forcing many lower priority duties to less frequency, and completely stopping other duties. Gaps in service areas began to show fostering a frequently hostile work environment between union "brothers" within the same bargaining unit. The gaps in service also contributed to a significant safety related incident where an employee died of burns suffered from a welding related protective clothing fire (U. S. DOE, February, 1997). The research showed that management failed to develop the mission focus in order to establish the organizational goals and objectives possibly fostering conditions that would allow a welder fatality.

Several items of interest were discovered from conducting the survey. First, regarding the Personal Values section of the survey the number three rated value was responsibility. Upon first consideration it was curious as to why responsibility was rated so high. After some thought the realization was made that the work force is very independent and self-motivated. Work crews regularly

determine their own inspection tours and work without direct supervision resulting in a culture where personal responsibility for the quality and quantity of work placed directly on the workers. It seems from the survey that the workers generally accept the responsibility.

An area of concern discovered during the Personal Values survey is the low rating given to the values of being a team member and contributing to the organization. As demonstrated in Table 6 teamwork was mentioned four times as one of the positive aspects of ETTP FDO. Given the nature of fire service work and the dependence on the team approach to emergency response the consistent low ratings are difficult to explain and will be an opportunity for further study and research.

The Fire Protection Duty Value section revealed that workers placed a high value on conducting Life Safety and building code inspections. The inspection duty rated even higher than Haz/Mat emergency response. Speculation is that the emphasis the DOE places on fire prevention has developed into a sub-culture recognized by the survey participants as vital to their role as emergency responders. By ensuring the building codes are followed and that adequate access/egress routes are maintained the emergency responder, as well as the building occupant, has a better chance of survival during emergency conditions.

The recommended change section of the survey revealed on of the most interesting observations. Previous discussions with a worker group representing each shift resulted in a hotly contested debate about the privilege of being on vacation during holiday weeks. One representative strongly supported the policy of not allowing vacations during holiday weeks, while his peers representing the other shifts strongly supported the capability of being on vacation during holidays. On the surface it seems the shift in favor of not being off during holiday weeks has weighted the survey in their favor. Regardless of the conflict, the issue is an excellent example of Wallace's premise that the

higher the score the more likely the change is to implement. The vacation policy being debated is strictly within the scope of FDO management to easily address.

The overwhelming observation the research revealed for ETTP Fire Department Operations is that much work is needed regarding the mission statement. Given the importance the mission statement is to the future of the organization, as evidenced by the literature review, it was vital that Fire Department Operations management provides their workers with the opportunity to revise and refine the mission. By personally assisting in the mission statement revision the workers become a part of the mission and attain ownership in the organization's future.

RECOMMENDATIONS

During the course of this study several recommendations became apparent. First, additional research into mission statement development techniques for ETTP fire service managers should be considered to assist the work force in transition to the new work environment. Several sources are available to the managers including the National fire Academy's Executive Planning course and LMES staff consultants trained in strategic planning.

This study did not look at qualifications or training of fire service, ETTP or LMES management in mission statement development. It would be appropriate to investigate what, if any, expertise is available to management as the move through the changes occur.

Second, Fire Department Operations management at the East Tennessee Technology Park should begin the development process for a new mission statement. Due to the confusion and chaos a new FDO Mission statement is necessary for the fire protection priorities of the East Tennessee Technology Park to remain stable and supportive of the site reindustrialization efforts of the DOE. If the

site is to become attractive for new, private industrial growth it must be able to offer "improved risk" fire protection for new occupants, as has been provided to the DOE through direction from DOE Orders. "Improved risk" status would give private industry at ETTP the best possible insurance premiums for whatever occupancy was introduced onto the site. The development process should include as many representatives from the work force as is manageable for meeting purposes. However, at least one worker from officer and fire fighter ranks representing each rotating shift should be included on the team. The team should research current FDO activities for validity in the rapidly changing work environment especially with the reindustrialization underway at the ETTP.

Completion of the values audit was the next logical step in developing the mission for ETTP FDO. The next steps in developing the ETTP FDO Strategic Plan must be continued on a consistent basis in order to ensure the future of the workers and the work. Although having a strategic plan does not guarantee success the action of going through the planning process will provide the vision and unity the department needs for success. Therefore, it is highly recommended the ETTP FDO management pursue the planning process to its culmination.

Finally, it has been demonstrated repeatedly throughout the research conducted in this study that sincere, effective communication is a key ingredient to mission statement development. A lesson learned for all managers of mission statement development is the need for regular communication sessions. Every avenue to communicate changes should be brought to bear on the process. Consider using employee developed and managed newsletters to disseminate information to the work force. Regularly scheduled meetings with workers face to face is very effective method of reinforcing the mission statement and it also gives a very strong indication of the importance the manager places on the workers situation. Other methods of communication including electronic messages distributed throughout the

organization can help reinforce the mission statement. Using a question/answer bulletin board on the service's Internet Homepage will allow workers to have access to the latest information at times when it is convenient for them to visit the Homepage.

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APPENDIX A

FIRE SERVICE VALUES AUDIT SURVEY
BECHTEL JACOBS COMPANY, LLC
FIRE DEPARTMENT OPERATIONS

Instructions:

A. Rate each phrase with a number from 1-10, 1 being the most important and 10 being the least important, depending on your personal beliefs regarding our fire department. Use each number only once.

Complete the following sentence for each of the possible answers in 1-10 below:

_____ is/are important to me.

1. Being a team member. _____
2. Contributing to the organization. _____
3. Pay and benefits. _____
4. Excitement/risk. _____
5. Professional pride. _____
6. Family and friends. _____
7. Accomplishment. _____
8. Recreation. _____
9. Goals. _____
10. Responsibility _____

B. In relation to your job rate the following from 1-12, one being the most important and 12 being the least important, based on your personal beliefs regarding our department. Use each number only once.

Complete the following sentence:

_____ is/are duties that the fire department is uniquely situated to perform.

1. Emergency Medical treatment and transport. _____
2. Fire Suppression (fire fighting). _____
3. Hazardous materials emergency response. _____
4. Rescue techniques _____
5. Life Safety and building code inspections _____
6. Suppression system testing & inspections _____
7. Stand-by for emergency conditions _____
8. Fire protection system outages, restorations & verifications _____
9. Hazardous materials storage & handling inspections _____
10. Emergency response preparations & training _____
11. Self-contained breathing apparatus shop _____
12. Portable extinguisher shop _____

C. In the space provided below, briefly answer these two questions:

1. What do you like about being a member of our fire department?

_____

_____

D. If you could change anything about our fire department, what would it be? Take a few minutes to think of things that you would like to change, write them in the column on the left.

a. Then rate from 1-5 how important each change is to you, the department & to DOE/Bechtel Jacobs. 1 is low and 5 is high.
b. Then estimate how much control you have over the change with 1 as low and 5 as high.
c. Rate how much time you estimate it would take to make the change with 1 as much time and 5 as little time.
d. Rate how much departmental effort would be required to make the change with 1 as a maximum amount and 5 as a minimum amount
e. Finally, rate how much involvement is required of the organization to make the change with 1 as a minimum and 5 as a maximum.

CHANGE	IMPORTANCE							
	Me	Dept	DOE/BJC	Control	Time	Energy	Involvement	Total
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								