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Fat, dumb, and happy. The future of DOE/NV?

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ABSTRACT

This paper, prepared for the Department of Public Administration, will identify and analyze some problems with succession planning at the Department of Energy Nevada Operations Office. My main concern is the fact that retirements, a hiring freeze, insufficient training funds, and rampant promotions are combining to make the existing workforce at DOE/NV fatter, dumber, and happier. The section on the DOE/NV organization reveals that as a result of Strategic Alignment Initiatives, the organization has downsized, but has not right-sized. The section on the subcritical mission focuses on only one of DOE/NV's important missions and shows why it is critical to DOE/NV to maintain a highly technical workforce to support that mission. The section on training and development discusses which programs are working and which are not working to maintain DOE/NV's technical skill mix. Finally, the conclusion reiterates the main problems that DOE/NV has in its succession planning and suggests some solutions to the problems.

INTRODUCTION

The Department of Energy Nevada Operations Office[1] (DOE/NV) has a rich and important history. Following the Manhattan Project the Nevada Test Site (NTS) was used as a proving ground for the testing of nuclear weapons. DOE/NV (then a part of the Atomic Energy Commission) provided the workforce to oversee the thousands of contractors who were responsible for nuclear tests. In the late 1980s, at the end of the nuclear testing days, the DOE/NV annual budget was approximately $1 Billion. There were over 10,000 contractors being managed by close to 400 federal personnel to perform approximately 40 nuclear tests per year.

In 1992 President Bush signed the Hatfield-Exon amendment containing test moratorium legislation, ending decades of nuclear testing (Kimball, 1999). The number of contractors at the NTS was cut 75% and still stands at around 2,500 today. The federal workforce, in contrast, did not cut any of its workers.

In 1993 the Clinton administration, by executive order, called on federal agencies to reduce their workforce (Goldenkoff, 1997). Vice-President Gore's 1993 National Performance Review called on agencies to specifically cut 252,000 positions over 5 years. The reductions were to be aimed at "management control" positions at the GS-14 level and above (Goldenkoff, 1997). A strategic alignment initiative (SAI) set annual reduction goals for each agency. The agencies, in turn, imposed SAI target goals on their field offices. DOE/NV has not involuntarily cut any personnel to reach its SAI targets. Instead DOE/NV relies on natural attrition combined with a hiring freeze imposed in 1995 in order to meet its mandatory reduction goals.

[1] General information about DOE/NV was acquired by the author over the past 5 1/2 years of employment in the organization.

There is a big problem with this kind of reduction, though. At DOE/NV over 49% of the workforce will be eligible for retirement in the next 3 years.[2] At the same time there are no new hires coming in to replace the ones retiring. It is true that there are too many bodies at DOE/NV and a reduction of 49% in the next 3 years is not necessarily a bad thing. The problem is replacing the technical knowledge necessary to sustain the new subcritical mission requirements. The number one mission at DOE/NV today is to conduct subcritical experiments on Special Nuclear Materials from the aging nuclear stockpile of weapons in order to ensure the reliability of those weapons for the future. The annual budget for conducting these tests (and related missions) is around $200 Million.

Training budgets have been reduced significantly over the past few years. For example, when I first joined DOE/NV they paid for all of my college courses. Later they only paid for courses that were directly related to my job, and for the past few semesters, I have been turned down for reimbursement altogether. In addition, I was hired into a new position as a Project Manager for Los Alamos National Laboratory subcritical experiments in the fall of 1999. When I requested to go to Nuclear Weapons School for training, I was turned down—my director informed me that the cost of the school was the amount of training dollars he had in his entire budget for the whole division for the entire fiscal year!

So the workforce is retiring, but no new hires are coming in to fill the void. When people are internally promoted into positions requiring technical knowledge, they are being refused necessary training to gain a solid technical base due to budget constraints.

[2] Based on Workforce Profile Information prepared by DOE/NV Human Resources Division and posted on the DOE/NV intranet.

As the average age has increased at DOE/NV over the past 5 years, so has the average grade level, and with that, the average salary level (those within the same grade level continue to get step increases, thus higher pay). So without necessary succession planning efforts, the federal workforce at DOE/NV will be caught in a dilemma. They will have more retirees allowing for more employees to be promoted into vacant positions (making the organization FAT) where the employees can not get decent training due to budget restrictions (making the organization DUMB), but they will enjoy the benefits of the big paychecks (making the organization HAPPY).

I predict that the DOE/NV organization will die a slow death without the implementation of a comprehensive, bottoms-up succession planning effort. This paper explores the problem of succession planning at DOE/NV, focusing on the DOE/NV organization and the subcritical experiment program. I will also look at the DOE/NV Training and Development Program and how it addresses the problem of succession planning.

LITERATURE REVIEW

There is not a great deal written about succession planning in government organizations. What is written generally refers to the succession of executives as they move into and out of an organization's top position. Most articles refer to the private sector.

What I was hoping to find in my literature search on succession planning was information about how public agencies (preferably Federal government agencies) promote and implement succession planning in their organizations. Furthermore, I was looking for articles that discussed succession planning throughout the entire organization, at every level, not just at the chief or senior executive level. I wanted to find an example of an organization that had a strong plan for internally promoting employees throughout the entire chain of command, from the entry-level engineer, to the project manager, to the program manager, to the supervisor, and through the executive ranks. Although my specific quest was unsuccessful, I did find a few articles that were relevant.

The first article discusses the Senior Civil Service (SCS) in the United Kingdom. The SCS is made up of the top 3,000 civil servants in the United Kingdom (Mountfield, 1997, p. 2). Mountfield focuses on using the SCS as a corporate resource. In succession planning, she believes that these 3,000 SCS employees should be mobile between departments to "ensure cross-fertilization of ideas while fostering a common understanding" (Mountfield, 1997, p. 3) of the civil service as a whole. This is not the tradition in the United Kingdom. Traditionally SCS employees stayed in their "home departments" (Mountfield, 1997, p. 4) throughout their careers. Traditionally in the U.S.

DOE it is common for executives to move every few years.[3] The article focused on the top executives, as do most articles I have seen on succession planning. Mountfield did not get specific about succession planning at the lower levels of the organization thus her article was of limited value to me.

The second article was more valuable to me. Ellen Schall (1997) asks the question, "Is it possible to think strategically about succession in the public sector?" (p. 1). She reviews some private sector articles on succession planning and concludes that most articles focus on succession planning only at the executive levels in an organization (Schall, 1997). I agree. Schall (1997), in fact, discusses four articles in her own literature review dealing with executive-level transitions (Rainey and Wechsler, 1988; Greenblatt, 1983; Gordon and Rosen, 1981; Austin and Gilmore, 1993). She discusses no articles dealing with succession at lower levels in the organization. In her 1997 article Schall does mention the fact that succession planning in the public sector "is rarely used" (p. 6) and gives a reason "because the executives' fortunes are generally tied to a particular administration" (p. 6). This is relevant for me (but only at a very high level) because in the Department of Energy the "fortune" of the Secretary of Energy is tied to a particular administration—the President's administration. When a new President is elected, new cabinet members are generally appointed, including the Secretary of Energy. Thus begins the trickle down effect—the new Secretary appoints new Under Secretaries and, occasionally, new field office managers. It does not take a presidential election to change a Secretarial officer or a field office manager, though. The DOE has had three Secretaries (Hazel O'Leary, Fedrico Pena, and currently Bill Richardson) in the past six

[3] Based on a conversation with the Manager, DOE/NV, on March 1, 2000.

years. Similarly DOE/NV has had three Managers in the same time period. Although executive-level succession is dictated somewhat by a change in administration, that is not always the case. My point is that turnover occurs fairly often at the executive level in the Federal government, and especially at DOE/NV, so a succession plan should be in place to prepare the organization for the inevitability of searching for a new leader.

The third article (Austin & Gilmore, 1993) discusses one problem with succession planning, again focusing on the executive level. "It is striking how many executives have known that they will be leaving within a year or two and have not found a way either to focus on leadership succession or to expand the talent to help the organization cope with change" (Austin & Gilmore, 1993, p. 52). This problem is relevant to me and to my concerns at DOE/NV. In the past six months DOE/NV has hired three new executive level managers recruited from outside of the DOE/NV organization. The Manager and two Assistant Managers have all been recruited into their Senior Executive Service positions. If DOE/NV had a working succession plan, then they would have been able to select people from within the organization who had been training for, and were competent enough, to step into the positions. That was not the case. Furthermore, since DOE/NV is under a hiring freeze, these new managers had to receive special permission to come into the organization. Hiring from the outside has caused some discontent among employees at DOE/NV. There is a skepticism among the middle managers that their supervisors (the senior executives) do not have the skills to progress in the organization.[4] Rumors at the drinking fountain have focused on the fact that these "outsiders" have been brought in to "clean house" or more aggressively reduce the

[4] Based on conversation with several employees in Team Leader positions at DOE/NV on February 15, 2000.

employee payrolls. Has the lack of succession planning at DOE/NV indirectly resulted in an employee morale problem? I think so.

The fourth article is a report conducted by the U.S. Merit Systems Protection Board (the Board) in the spring of 1996. It was the fifth in a series of surveys conducted by the Board since 1983 to obtain the views of Federal employees on many workplace issues including working conditions, job satisfaction, and the quality of coworkers and supervisors. The report discusses a couple of relevant points relating to the National Performance Review goals. "Governmentwide, only 37% of our respondents said their organization had made NPR goals an important priority" (p. vii). DOE/NV, for example, seems to have taken the goals seriously. In 1995, DOE/NV reorganized to eliminate Branch Chiefs (a first line supervisory position) thus increasing their supervisor to employee ratios as required by NPR. The problem with this is that the Branch Chiefs retained their GS-14 grades, changed their titles to Team Leader, and they no longer had to perform personnel related tasks such as signing off on annual performance reviews. More money and less work equate to fatter, happier Team Leaders. A second relevant point that the report discusses (and I agree with) is that the Government should maintain its "ability to find and recruit high-quality applicants" (p. x). DOE/NV can not do this since it is under a hiring freeze.

The fifth article that I found was about a survey, the Boston University Workplace Survey, conducted in 1999 by Boston University's School of Public Health. The survey studied the impact of downsizing and other organizational change on the health of remaining DOE employees and on workplace productivity and safety, and it included 699 employee responses from the Nevada Test Site. The only problem with the survey is that

they did not have the complete report ready for the public. Only a two-page summary describing how many people responded to the survey and what jobs and demographic categories they represented was available. I spoke with Miriam Messinger who was identified in the summary as the contact for the survey, and asked her for a draft copy of the final report, but she denied my request. I think that the survey will be of interest, but it will not be available until after this paper is completed.

In general, the five articles I found had only peripheral relevance to my specific focus. Perhaps as the baby boomers retire and companies are forced to deal with rising percentages of retirees, more will be written about how to deal effectively with succession.

THE DOE/NV ORGANIZATION

The DOE/NV organization leader is called the Manager. She adopted the organizational structure that was in place when her predecessor retired (with very slight modification). In 1994 there were 405 federal employees at DOE/NV. There are currently 293 employees divided up into five Assistant Manager's organizations and further divided into 18 divisions. The Manager and her Assistant Managers occupy Senior Executive Service (SES) positions, while the Division Directors occupy GS-15 positions. Team Leaders are GS-14s. The grade with the most employees is the GS-13 grade, which is considered the full-performance working grade at DOE/NV. The organizational structure is depicted in the chart below:

		Manager		Direct Report Division
Assistant Manager National Security	Assistant Manager Environmental Management	Assistant Manager Technical Services	Assistant Manager Business/Financial	Assistant Manager Public Information
Division 1	Division 1	Division 1	Division 1	Division 1
Division 2	Division 2	Division 2	Division 2	Division 2
Division 3	Division 3	Division 3	Division 3	Division 3
			Division 4	
			Division 5	

Chart 1: DOE/NV Organization

The DOE/NV organization is getting fatter. By fatter, I mean that the average grade has increased over the past several years. In the late 1980s, at the end of nuclear testing, there were more than 400 federal employees at DOE/NV overseeing more than 10,000 contractors and Laboratory personnel. When nuclear testing ended, the contractor

workforce was reduced by 75% to its present level of around 2,500. The DOE/NV workforce, however, was not reduced at all.

In 1993 the Clinton administration, by executive order, called on Federal agencies to reduce their workforce (Goldenkoff, 1997). Vice-President Gore's National Performance Review called on agencies to specifically cut 252,000 positions over 5 years. The reductions were to be aimed at "management control" positions at the GS-14 level and above (Goldenkoff, 1997). A strategic alignment initiative (SAI) set annual reduction goals for each agency. The agencies, in turn, imposed SAI target goals on their field offices. DOE/NV has not involuntarily cut any personnel to reach its SAI targets. Instead DOE/NV relies on natural attrition combined with a hiring freeze imposed in 1995 in order to meet its mandatory reduction goals. Natural attrition has resulted in a net decrease in the number of employees at DOE/NV. The hiring freeze has resulted in a net increase in grade level. The following chart looks at the grade levels of the DOE/NV organization over the past 6 years, beginning in 1994, one year before the hiring freeze was instituted.

	1994		1998		2000	
Total # Employees	405		318		293	
SES	7	1.7%	6	1.9%	7	2.4%
GS-15	32	7.9%	24	7.5%	22	7.5%
GS-14	48	11.9%	50	15.7%	56	19.1%
GS-13	124	30.6%	119	37.5%	119	40.6%
GS-12	57	14.1%	54	17.0%	38	13%
GS-11	15	3.7%	10	3.1%	12	4.1%
GS-10	1	0.2%	0	0.0%	1	0.3%
GS-9	16	4.0%	11	3.5%	7	2.4%
GS-8	1	0.2%	2	0.6%	3	1.0%
GS-7	28	6.9%	19	6.0%	11	3.8%
GS-6	28	6.9%	17	5.3%	12	4.1%
GS-5	25	6.2%	4	1.3%	3	1.0%
GS-4	17	4.2%	1	0.3%	0	0.0%
GS-3,2,1	6	1.5%	1	0.3%	2	0.7%

Chart 2: Grade Levels from 1994 to Present[5]

It is clear from these numbers that the organization is getting fatter. From 1994 to 2000, the percentage of employees in GS-14 positions and above has increased from 21.5% to 29.0%. This is the category of employees that the National Performance Review specifically targeted for reductions. While DOE/NV has met its reduction goals and SAI target levels, it has not met the intent of the reductions described in the National Performance Review. Al Gore asked federal employees to reduce their supervisor to

employee ratios. DOE/NV did so by eliminating the title of Branch Chief (a GS-14 supervisory position) and replacing it with the title of Team Leader (a GS-14 non-supervisory position). The employee's grade and pay remained the same but the title changed from Branch Chief to Team Leader. I do not believe that DOE/NV met the intent of the National Performance Review's challenge to reduce the supervisor to employee ratios.

The organization's waistline expands even further when the GS-13 pool is added to the equation. From 1994 to 2000 the percentage of employees in GS-13 positions and above has increased from 52.1% to a whopping 69.6%! The pool of individuals available to move up into vacant positions as senior employees retire and mid-level employees fill the void is shrinking as well. From 1994 to 2000 the percentage of employees in GS-9 positions and below has shrunk from 29.9% to only 13%. In addition, DOE/NV is under a hiring freeze so the only people available for promotion are the existing workforce members. Clearly DOE/NV must hire more entry-level employees so that the organization will have a promotional chain, or a group of trained individuals who can replace those in higher grades as they are promoted into positions left by retirees.

The executives at DOE/NV recognize that their structure is outdated so they are starting an effort to reorganize. Part of the reason for the reorganization is to strengthen the workforce capabilities. DOE/NV management hopes to develop meaningful career paths, develop mentors, provide training opportunities, identify growth opportunities, and

[5] Raw data were obtained from the Human Resources Division's historical personnel listings. The author performed all calculations using the raw data.

consistently apply these processes in a fair and equitable manner for all of its employees.[6] All of the Assistant Managers will reorganize their divisions in turn.

The first Assistant Manager to reorganize is the Assistant Manager for National Security (AMNS). Last month the AMNS announced her reorganization that will become effective in April 2000. Below is her organization as it stands today, before the reorganization.

Intelligence Center	Assistant Manager for National Security	Support Group

Stockpile Stewardship Division	Emergency Management Division	Site Operations Division
No formal teams	No formal teams	Team #1
		Team #2
		Team #3

Chart 3: AMNS Before Reorganization

It is interesting to compare this organization chart to the proposed new organization, keeping in mind Al Gore's challenge to reduce the management positions at grades of GS-14 and higher. The reorganized AMNS looks like this:

[6] As explained in an "All Hands" meeting on February 21, 2000.

Intelligence Center	Assistant Manager for National Security

Stockpile Stewardship Division	Emergency Management Division	Site Management Division	National Security Support Division
Team #1	Team #1	Team #1	Team #1
Team #2	Team #2	Team #2	Team #2
Team #3	Team #3		

Chart #4: AMNS After Reorganization

The total number of employees in the AMNS organization increased by only one after the reorganization. Clearly, the AMNS is getting fatter. The addition of a GS-15 Division Director position as well as the addition of seven GS-14 Team Leader positions means that the average grade is increasing. There is a pool of eleven existing GS-14 scientists and engineers in AMNS who will be likely candidates to fill the newly created Team Leader positions, but there is a chance that some GS-13s from AMNS or other AMs will be promoted as well. There are several qualified candidates outside of AMNS who may compete for these Team Leader positions. It remains to be seen exactly how the grade distribution will fall out, but it is likely that someone from outside of AMNS will successfully compete into one of these positions, thus resulting in a net increase in grade level for the AMNS.

In the near future the other four Assistant Managers will reorganize. I predict a similar scheme of creating more senior level positions in each of the remaining

organizations. DOE/NV will continue to get fatter and fatter, thus happier and happier, with each successive Assistant Manager's reorganization.

The DOE/NV organization can not possibly continue promoting itself at the current rate. Surely the General Accounting Office will become wise to the fact that Nevada has built itself a kingdom of civil servants that enjoy grade levels far above their Federal peers and even above their DOE peers (see Chart #5 Workforce Profile Information, June, 1999). DOE/NV would benefit from a self-assessment of position descriptions versus pay grades as compared to other Federal agencies. NASA, for example, employs a highly technical workforce. It would be interesting to compare the grade levels of NASA employees with similar job descriptions to DOE/NV employees.

THE SUBCRITICAL MISSION

DOE/NV performs a wide variety of missions and tasks.[7] One mission in particular, the subcritical experiment mission, is a major part of the AMNS Stockpile Stewardship mission. It is only a typical example of many missions that requires a highly technical workforce. It is highly specialized and requires highly specialized scientists and engineers who are trained in mining engineering, construction, laser operations and safety, optics, holography, shadowgraphy, radiography, and nuclear weapons. Technically capable Federal employees at DOE/NV are required to perform oversight on National Laboratories and contractors who field these subcritical experiments.

Subcritical experiments are experiments using high explosives and Special Nuclear Materials (SNM) but they do not reach a state of criticality and produce no nuclear yield. An article by James A. Kitfield (February, 2000, p. 56) described the Stockpile Stewardship mission in the following manner: "Many experts maintain that, for sheer scope, magnitude, scientific complexity, and challenge, the science-based program is rivaled by just two other 20th century endeavors—the World War II Manhattan Project to rapidly develop the atomic bomb and the 1960s-era Apollo program to land a man on the moon." The NTS is the only place in the United States that performs subcritical experiments and the pool of technically qualified Federal oversight personnel is unique. The education level of employees at DOE/NV is correspondingly higher than that of the DOE as a whole and of all Federal employees. The following chart compares DOE/NV organizational statistics to the entire DOE and also to the entire Federal population.

[7] The 1999 DOE/NV Strategic Plan is enclosed as an enclosure to this paper. It outlines the missions that are important to Nevada.

	DOE/NV	DOE	All Fed
Age	46.3 years	46.8	45.3
Length of Service	18 years	18.2	16.4
Retirement Eligibility	10.4%	9.2	12.4
Education (BS or higher)	68%	53	39.9
Average Annual Salary	$60,217	62,159	44,547
Average Grade	GS-12.2	12.0	9.3
Supervisory Ratio	8.5%	10.5	11.0

Chart 5: Workforce Profile Information, June, 1999[8]

Compared to DOE and to all Federal employees, DOE/NV is the most distinguished in its education level. The highly technical workforce required to sustain the mission is evident by the 68% of the workforce being at the Bachelors level or higher. Compared to the Federal workforce as a whole, DOE/NV is definitely a highly educated organization. Correspondingly the grade level (and salary level) at DOE/NV is higher than the overall Federal workforce. With an eighteen-year average length of service, the DOE/NV workforce is aging and needs new talent. The problem is where to get the talent.

There is another pool of specialized technical experts in the field of subcritical testing, however the pool of individuals is not available for hire at DOE/NV. The Soviet Union has a program for subcritical experimentation outside of the United States (Nilsen, February 8, 2000). According to Nilsen (February 8, 2000), the Soviet Union has conducted seven subcritical nuclear tests since January at their Novaya Zemlya test field in the Russian arctic. The Comprehensive Test Ban Treaty does not prohibit subcritical

[8] Based on Workforce Profile Information prepared by DOE/NV Human Resources Division and posted on the DOE/NV intranet.

tests so it follows that other nuclear powers are not far behind in planning their own subcritical programs. Even with other nuclear powers involved in subcritical testing, it is clear that the field is a narrow one requiring uniquely talented people. DOE/NV will have to hire and train their own technically capable workforce for their subcritical program, since there are virtually no hirable experts available in the world.

There is also an element of urgency in the subcritical program relating to the aging of the existing stockpile of nuclear weapons. "Nuclear weapons contain plastic high explosives, metal components, and materials that constantly emit high levels of radiation. In fact, to describe what happens to an aging nuclear weapon, experts draw an analogy between the bomb and a car that sits in the sun for years. Over time, the glue on the windshield will pull away, the upholstery will become more brittle, and the dashboard will crack" (Kitfield, February, 2000, p. 57). Subcritical experiments test sub-components of nuclear weapons to determine how they age with time. "That's why we're in a race against time to get the data we need from our experiments before any major problem arises in the stockpile or the most experienced designers retire or die" (Kitfield, February, 2000, p. 57). DOE/NV recognizes the importance of the experience of the entire workforce responsible for the subcritical mission. They need to remember that succession planning at the lowest levels relies on the hiring and training of technically competent employees to ensure the future of the subcritical program.

Today there is a declining pool of Federal employees that were active members of the nuclear testing program. They are trained and skilled in the unique capabilities necessary to oversee laboratory and contractor personnel who conducted nuclear tests and who now conduct subcritical experiments. These senior people are nearing retirement,

and only a few employees have been or are being trained as project managers for the subcritical experiment program. In fact, there are only two project managers for the entire subcritical program at DOE/NV, one for the Lawrence Livermore National Laboratory's program and one for Los Alamos National Laboratory's program. The two project managers serve as backups for each other. The workload is manageable between the two project managers today, however if one of them were to leave, the remaining person would be overwhelmed. Ideally, there should be a junior-level employee shadowing these project managers so that when one of them moves up in the organization, the junior-level employee could easily assume the role of project manager. No plan is in place to train anyone to assume these roles. This is not a good example of succession planning.

Another critical position with a shortage in capability exists in the subcritical experiment program. There is currently only one Test Controller for all of DOE/NV. The Test Controller is ultimately responsible for the entire subcritical program's operations from the Federal perspective. A Test Controller training program is currently in place and three additional Test Controllers will be certified in the near future. This is a good example of a forward-thinking element of succession planning in the DOE/NV organization.

The following chart singles out the technical employees from the non-technical employees at DOE/NV for 1994 and 2000. Technical employees include primarily engineers, physical scientists, computer specialists, and health physicists. Only GS-14 positions and below are included in the count since higher grades are considered as managerial positions, even though some may have technical backgrounds.

	1994		2000	
Total # Technical	136 (33.5%)		109 (37.2%)	
GS-14	13	9.6%	24	22.0%
GS-13	86	63.2%	71	65.1%
GS-12	11	8.1%	8	7.3%
GS-11	5	3.7%	1	0.9%
GS-10	0	0.0%	1	0.9%
GS-9	3	2.2%	3	2.8%
GS-8	0	0.0%	0	0.0%
GS-7	3	2.2%	0	0.0%
GS-6	0	0.0%	0	0.0%
GS-5	6	4.4%	1	0.9%
GS-4	7	5.1%	0	0.0%
GS-3,2,1	2	1.5%	0	0.0%

Chart 6: Technical Employee Ratios in 1994 and 2000[9]

It is primarily this technical workforce that is responsible for day-to-day mission activities. In 1994 27.2% of the technical workforce was at a grade level of GS-12 or below. Today that percentage has shrunk considerably to only 12.9%, less than half of the previous level. In 1994 DOE/NV was able to hire employees from outside of the organization. The available pool of technical employees was very large. Since 1995's hiring freeze, hiring from the outside has not been possible without special permission and special circumstances. The available pool of technical employees is getting smaller

and smaller. Without a hiring program, the Nevada Operations Office will run out of qualified personnel to fill the void left by retiring senior level technical people, and left by those GS-13s who will move up into senior management positions.

[9] Raw data were obtained from the Human Resources Division's historical personnel listings. The author performed all calculations using the raw data.

TRAINING AND DEVELOPMENT

A good succession program should ensure that DOE/NV continues to function at the highest level of competence as the number of staff continues to decline. DOE/NV has a succession planning manual, but it focuses on the executive level only. My definition of succession planning begins with "success". A "success"-ion plan should include all of the programs necessary to train, develop, and sustain the workforce appropriately for missions in the present and in the future.

The Training and Development Program at DOE/NV has many programs to do this. Some programs exist on paper only, though. For example, the Technical Leadership Development Program has its own manual written, but due to budget restrictions, it has no participants. Several programs exist under an umbrella described as "workforce development" programs.[10] I will discuss four of these programs including the Career Development Program (CDP), the Educational Tuition Assistance Program (ETAP), the Technical Capability Development (TCD) Program, and the Succession Planning Program. All of these programs focus on successfully making the existing pool of employees capable of meeting the managerial, leadership, and technical needs of DOE/NV for the present and for the future. The first two programs allow all employees to participate (non-technical and technical). The latter two programs focus on the technical workforce and are essential to the future success of DOE/NV.

The CDP[11] started in 1995 for DOE/NV employees in grades GS-4 through GS-13. It encourages participants to examine their career goals and work towards achieving

[10] As presented in a series of training courses on Management Systems throughout the month of February 2000.
[11] Information and statistics on CDP is taken from December 1999 Workforce Analysis and Staffing Study by the Human Resources Division.

them in a structured environment. Participants attend career development workshops and take a variety of training courses both at DOE/NV and at local colleges (UNLV and CCSN) in order to become certified in some way (by certificate or degree) in a field of their choice. They are allowed to attend courses during normal work hours. The CDP has been very successful in developing DOE/NV's professional and technical capabilities over the past six years. At the end of fiscal year 2000, eighty-four employees will have participated in the program. Each participant has profited in some way. Twelve have received academic degrees, five of which were Masters Degrees. Over one-third of the participants have received promotions either during or after completing the program. The CDP is a good example of an element of succession planning that works for the entire DOE/NV organization.

The ETAP was developed to help employees pay for college courses that have a direct work related benefit. Any employee is eligible to receive tuition assistance or reimbursement using this program. Prioritized funding for this program has been cut in recent years.[12] When I first joined DOE/NV all of my college courses were reimbursed. All were considered applicable to my job since they were a part of the engineering program at UNLV. Later, only courses that were directly applicable to my position were paid for using the ETAP. For the past couple of years I have not been reimbursed for any of my requests, even though some were directly related to my position at DOE/NV. The ETAP is an example of an element of succession planning that suffers from lack of funding. This is a weakness for DOE/NV.

[12] Exact figures were unavailable upon request by the author to the Training and Development department for this particular program.

The TCD Program[13] consists of three separate programs, the Senior Technical Safety Manager (STSM) Program, the Technical Qualification Program (TQP), and the Key Nuclear Weapons Testing Qualification (KNWTQ) Program.

1) I had not heard of the STSM Program before researching for this paper. It was developed in 1996 as a result of shortcomings identified in the training of twelve senior level positions. The positions were considered part of the unbroken chain of safety responsibility relating to missions associated with defense nuclear facilities. The twelve participants acquired the necessary competency needs through various training and development activities and all were qualified as Senior Technical Safety Managers. On an annual basis, the STSM Program is reviewed to determine the need to qualify new managers. Newly identified safety managers have eighteen months to complete the certification requirements. This program uses appropriate succession planning. Two additional senior managers have recently been added to the program to replace two retirees.

2) The TQP is a DOE complex-wide program. It was developed in 1993 as a result of a recommendation by the Defense Nuclear Facility Safety Board (DNFSB), an independent body with oversight responsibilities for all nuclear facilities in the United States. Although DOE/NV has only one defense nuclear facility, a Category 3 non-reactor nuclear facility, there are two additional facilities, the Device Assembly Facility and the U1a Complex, whose operations are of interest to the DNFSB. The TQP originally

[13] Information on the TCDP was taken from the December 1999 Workforce Analysis and Staffing Study by the Human Resources Division.

designated twenty-one positions as candidates. All twenty-one employees in those positions became certified by May 1998. Ten additional positions were subsequently added to the TQP as mission requirements evolved. Today the program has been expanded to include critical positions working outside of the operation of oversight of defense nuclear facilities. There are currently eighty-six participants. The qualification period is eighteen months with a thirty-six month re-certification cycle. When an employee is hired into a position identified by the TQP, the employee has eighteen months to become certified. The TQP is a good succession planning tool, keeping a cadre of subject matter experts certified in their areas of expertise.

3) The KNWTQ Program is described separately in the DOE/NV Training and Development Program, however, it looks, smells, and acts like the TQP. It was developed as a result of the moratorium on nuclear testing. The difference between the TQP and the KNWTQ Program virtually disappeared when the TQP was expanded to include critical positions outside of the nuclear facility operations arena. The nuclear weapons testing positions focus on duties, tasks, subtasks, skills, knowledge, and safety measures associated with nuclear weapons testing. Instead of having a TQP notebook, the participants use a Generic Development Plan for each position identified. I think that this program could be incorporated into the TQP.

The last workforce development program I will discuss is called succession planning. The succession planning manual is applicable only to employees who currently hold or have held a permanent GS-14 or non-supervisory GS-15 position within

DOE/NV. The purpose of the program is develop internal leadership and managerial talent to ensure a ready pool of qualified personnel for Division Director, Deputy Assistant Manager, and GS-15 Assistant Manager positions. The manual outlines both a Team Leader Generic Development Plan and a First Line Supervisor Development Plan. The succession planning program obviously needs work. In the past couple of years DOE/NV has hired a new Manager, a new Deputy Manager, and two Assistant Managers—all from outside of the organization—all required special permission to be hired into the organization. If the succession planning program was effective, DOE/NV would have had existing talent available to fill the positions internally.

At the national level DOE is fighting an uphill battle to increase their share of training dollars. At the same time that Bill Richardson emphasizes the need for a highly trained technical workforce, he is cutting the training budgets. In May, 1999, Bill Richardson sent a memorandum to all of his departments that said "Building a talented, diverse, and versatile workforce that is prepared to meet the challenges of the 21st Century will require the Department of Energy to more effectively utilize its scarce training and development resources. Proper use of these resources will result in Federal and contractor employees who are highly skilled and capable of carrying out our critical missions in a safe and reliable manner consistent with recognized standards of excellence."[14] The memo goes on to explain that "scarce training and development resources" means a reduction of nearly one-third of the budget. Those reduced spending levels are reflected in the current budget set by Congress. So on one hand the Secretary

[14] As included in the DOE Training and Development Management Council's Corporate Education, Training, and Development Business Plan for 1999.

wants us to have a great training and development plan, and on the other hand the funding necessary to make it happen is taken away by Congress.

DOE/NV spent roughly $290,000 in fiscal year 1999 for direct training costs.[15] This was less than $930 per employee. In fiscal year 2000 the training budget was reduced to $210,000, which equates to about $700 per employee.

Bill Richardson directed his departmental elements to eliminate funding of unnecessary training that is not required by law or DOE directives, does not address a mission-related objective, or does not contribute to maintaining a highly skilled, versatile and diverse workforce. DOE/NV has complied with this direction by prioritizing training requirements in the following order.

1. Compliance related or mandated-by-law training (varies)
2. Qualification or certification related training (TCD)
3. Job-related technical training (TCD, CDP, ETAP)
4. Job-related professional training (CDP, ETAP)
5. Developmental training (CDP, ETAP, Succession Planning)

In fiscal year 2000, DOE/NV has focused most of its training dollars on the first two prioritized items. In order for the workforce to develop completely (to become well-rounded) all five items must be funded. Without job-related technical and professional training, DOE/NV will become dumber and dumber over time. Without developmental training the workforce will stagnate and become less and less creative. All of the programs I discussed have proven to be worthwhile in the positive development of the DOE/NV organization.

[15] Fiscal budget information supplied by Human Resources Division.

CONCLUSION AND RECOMMENDATIONS

The moratorium on nuclear testing combined with the National Performance Review to change the DOE/NV organization. The end of nuclear testing changed DOE/NV's primary mission to one of stockpile stewardship including the subcritical experiment program. The National Performance Review imposed Strategic Alignment Initiatives on government agencies in order to reduce the number of Federal personnel on the payroll.

In 1994 DOE/NV employed 405 people; today there are 293. The reduction of 112 employees over six years was accomplished using natural attrition combined with a hiring freeze. As a result of the downsizing DOE/NV has become fatter, dumber, and happier. DOE/NV is fatter due to the remaining employees' promotions, dumber due to the training budget reductions, and happier due to the higher salaries.

DOE/NV is excellent when it comes to promoting their employees. They need to be smarter about improving the quality of the existing workforce, especially the technical workforce. I suggest that the following succession planning recommendations be implemented:

1. DOE/NV needs to do a better job of hiring new entry-level scientists and engineers so they can be trained to replace those moving up in the organization. There is a serious need for young, talented technical people to enter into the succession planning chain.
2. In order to have an effective succession plan, the hiring freeze imposed in 1995 should be revoked, and new interns or cooperative student engineers and scientists should be recruited.

3. In reorganization efforts, DOE/NV should not create new high level positions and increase the average grade any further. The average grade should not exceed the present level of GS-12.2.
4. A self-assessment should be performed by the Human Resources Division of position descriptions versus pay grades as compared to other Federal agencies. I suggest that NASA would employ a comparable technical workforce and should be used for the assessment.
5. A mentoring program should be instituted to match junior level employees with employees in critical positions so that when employees in critical positions are promoted or leave, the position can be filled with someone who has been shadowing and learning it.
6. Finally, DOE/NV needs to aggressively lobby Congress to restore the training budgets to levels that can support all five prioritized training requirements described on page 31.

Instituting all of these suggestions will not make DOE/NV a perfect organization. Strong succession planning efforts will ensure the health, and more importantly, the vitality of DOE/NV for the future.

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