Appendix E: Labor and the Mission Change Within DOE

This appendix presents comments by labor leaders on worker experiences with health and safety priorities at selected Department of Energy (DOE) weapons facilities.[1] Facilities included those that have recently been affected by a shift in mission from weapons production to weapons dismantlement and the storage and disposition of bomb parts. The comments are from telephone and personal interviews by an anthropologist with organized labor leaders at the Oak Ridge Y-12 Plant, the Pantex Plant, and the Savannah River Site. Comments are also included from the Oak Ridge K-25 Plant, a facility whose mission has been formally changed from weapons production to environmental restoration. Although the interview pool was small and uneven in terms of craft representation, the individuals surveyed are key figures in the work force. Interviewees included those holding leadership positions, as well as workers with responsibility for health and safety issues.

Questions were asked about workers' perceptions of DOE's efforts to change its culture from a strict production orientation to one that emphasizes the protection of health, safety, and the environment. Topics addressed included DOE oversight; policies and procedures for protecting the environment, safety, and health; training; resolution of complaints; health surveillance; and relationships among labor, contractors, and DOE. This appendix, however, departs from a cataloging of interview comments and, instead, describes labor issues that may impinge on the success of further transformations within DOE.

HEALTH AND SAFETY IN THE CONTEXT OF LABOR-MANAGEMENT RELATIONS

Changing Concepts of Work

Under the direction of former Secretary, James D. Watkins, DOE instituted an environmental, safety, and health agenda that has begun to translate into a different experience of work for the labor force (7). Worker comments on the revised regulations, procedures, and standards accompanying DOE's new agenda are suggestive of a growing disjuncture between old rhythms of work and new ones. Although the following worker comments indicate that change has begun, it remains to be seen whether DOE's commitment of social and economic resources to this agenda is adequate.

"REAL WORK" VERSUS HEALTH AND SAFETY

Remarks made by some contractor employees on the change in "culture" at DOE are reminders of the notion of work developed under an environment of production at all costs. Production schedules determined what was valued and experienced as real work and what essentially kept people in a job.

Production was "born and bred" into the work force over the years, as one worker describes it, and recent changes go against this production "mindset" that

[1] The interviews were conducted, and summaries of comments prepared, by Monica Schoh-Spana, a contractor to the Office of Technology Assessment. The interviews were conducted during the winter of 1992-93.

developed over time. The new focus on adherence to standards in production, increased attention to waste streams, an upgraded security system, and scrutiny of operations by oversight groups are at odds with production employees' prior work histories. How extraordinary these changes appear varies among different generations of workers, according to workers from this facility. The average age of the work force at one facility is more than 40 years. Younger workers are learning more from the start about the environment and the appropriate way of disposing of things. In contrast, older workers recall a past when they had permission to "throw things outside" with little regard for the environment.

The new culture that emphasizes adherence to standards clashes with the routines and knowledge of technicians cultivated and valued under the old culture of production. In the past, explains a worker, the message was "get the product out, regardless of standards. Supervisors and managers condoned going against standards if it meant that the product was moving. This is no longer the case, proposes another contact. DOE, managers, and workers are clear on the importance of adherence to standards on the line. If a technician has a problem with a standard, he will not circumvent or ignore it. He will shut down the job and confer with an engineer or other appropriate personnel about the problem. The transition on the line, however, has been a difficult one for some workers. In following standards strictly, workers cannot use the skills and shortcuts they developed to get a job done when supervisors and managers pushed production at all costs. Explains one worker, people have been working here for more than 20 years, and now they are asked to change the way they do their jobs overnight.

The drastic change inexperience, however, has been difficult not only for floor-level employees but also for line managers. At one facility, notes one interviewee, line supervisors have retired because they were not able to cope with the significant transformations in operations. Older workers and supervisors at this facility have often questioned the recent modifications with statements such as "I've been doing this job for 40 years, why do I need to change?"

Workers' remarks on the personal experience of this culture change bring into relief DOE's historical emphasis on production. How work was defined, valued, and experienced before DOE's reorganization still, in large part, sets the terms for work today. One contact explains that a shift away from production has given people an opportunity "to catch up" with environmental, safety, and health concerns. He jokes that with less work to do, everyone at the facility can put more of an emphasis on such matters. Work, his remark suggests, is really about production, and safety, health, or environmental concerns are in effect an overlay to work. These matters are considered a sort of luxury activity-something standing outside of real work. When the orientation toward the environment, safety, and health was first initiated, new regulations and standards came pouring in. The newness, inconsistency, and frequent changes in standards and procedures have made work difficult, explain two contacts at a facility. Rules and regulations "slow down the work process, ' according to one contact, and therefore workers think it is a waste of time to try to meet standards. Another contact also recounts that some new procedures tend 'to slow down the work," which makes some people feel "less productive. " This individual has conveyed to his coworkers the importance of doing the job correctly, according to standards. If the procedures lengthen the timeframe of a job, then they just need to accept it, he suggests. Once a job has been "proceduralized," he says, it isn't the same job any more.

Experiences with new procedures related to radiation control and security convey more concretely the clash of the two different work processes. A worker from one facility relates that it is taking longer to get in and out of a work area because of the new requirements in personal monitoring for contamination. The monitoring turns into a hassle if someone goes in and out of an area several times a day. Workers become frustrated, he proposes, because they feel that they are "spending more time exiting an area than being on the job." A worker at another facility recounts the aggravation that has accompanied the installation of a more rigorous security system. He argues that the new equipment is poor, and it may take some people up to five tries before they are cleared to enter a work area. This can be extremely irritating, and people may lose their tempers. As one contact proposes, 'All in all, people want to get their work done.'

The physical layout of work space at some facilities and the newly mandated radiation control practices may translate into a real inconvenience and source of

stress for workers, as may a new security system. That aspect of some of the recent changes cannot be ignored. It is helpful, nonetheless, to listen to the way in which workers talk about their experiences with the new procedures. They provide a commentary about the new rhythm of work demanded by these procedures. Furthermore, they reflect a frustration about how such procedures can get in the way of getting a job done, a job that was previously measured strictly in terms of productivity. If the procedures and the standards are indeed a means to acquire a safer workplace and a healthier environment overall, then hopefully the work force will in time develop new routines and habits. A work culture impelled by considerations of the environment, safety, and health will become second nature, much in the same way that a production-driven one did.

WORKER SAFETY VERSUS WORKER HEALTH

As scrutiny of the Nuclear Weapons Complex has increased and evidence of earlier disregard for the environment, safety, and health has come to light, definitions of how safe is safe and who gets to decide are still evolving. Historically, DOE and its contractors operated outside the realm of regulatory agencies such as the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA), which set limitations on private industry. Workers have, however, begun to feel the effects of new health and safety standards. One of former Secretary Watkins's 1989 initiatives, for instance, was to redirect DOE from adoption of OSHA standards (a stated policy) to compliance with OSHA standards (an implemented policy)(7). This new emphasis has had an unsettling effect on the work force. Individuals from ''outside' the facility, persons without firsthand knowledge of facility practices, are questioning the plant's safety. Having their work and safety records investigated by new agents is an uncomfortable experience for the workers. At the same time, workers are asking themselves what the new push is about. If DOE and its contractors are concerned now, why weren't they concerned before?

In addressing the new focus on safety,' workers at two facilities cite their facility's safety record, both figurative and literal, as defense of a long-standing commitment to safety, not just a recent one. The point here is not to dispute what may be admirable safety records, but to note that the records are used to gauge whether or not a priority on safety exists. In fact, a review of the Nuclear Weapons Complex by the National Research Council characterized its occupational safety record as "excellent" relative to the private sector's track record in lost workday incidence (2). On the other hand, OSHA, in its review of DOE's occupational safety and health program, identified instances in which contractors kept injury and illness rates artificially low (5). Some workers interviewed also propose that written accounts are not true representations of the incidence of injury and illness at DOE facilities.

Whether or not incident records are valid appraisals of health and safety at DOE facilities, the 'good safety record" is invoked by the agency and even by some workers as the sign that safety has been a priority. The accident or catastrophe-the "life or limb" problem, as an interviewee describes it—may be the primary measure of disregard for the health and safety of workers, but perhaps at the price of obscuring more long-term threats to their health. Workers draw upon safety records in defense of their accomplishments and long-term concern for such matters, because this information is definitive and available. With regard to environmental, safety, and health protection within the Weapons Complex, one means of judging safety and health-with a short-term orientation-has been fostered at the expense of another, which reflects a long-term view. Review of DOE-sponsored or contracted epidemiological research concluded that the agency's pronouncement that the health of workers has been fully protected and that "there are no excess risks of disease and death in the nuclear weapons work force" could not be substantiated (3).

The ideal new culture will hopefully develop among workers an awareness of and precautions against both immediate and distant health threats. An important caveat here is that workers have not been unconscious of the threat that their work poses to their overall health. They have pushed for adequate health monitoring and appropriate analysis of worker epidemiological data. Their efforts have, however, been impeded by the stance of DOE.

FROM SECRECY TO OVERSIGHT

The workplace at one dismantlement facility has been transformed through the culture change from an

insulated environment to one now subject to the intense scrutiny of oversight groups. This aspect of operations since the Watkins mandate has been one of the most burdensome for some workers. One production technician describes the waves of oversight in terms of an affront to the competence, dedication, and safety consciousness of the work force, which has a lengthy history at the facility. He underscores that members of the work force know how to do their jobs. They established this unique plant, and they consider themselves "the best of the best." Since the Watkins mandate, "outsiders" have come in and told the work force to do what it has always done at the facility—work safely. Another worker shares this concern with the increasing oversight of groups such as State agencies, and the implication that the work force has somehow disregarded environmental concerns.

Workers' experience with oversight goes beyond the feeling that outsiders are judging their work and questioning workers' abilities to achieve safe operations. Their frustration also includes the disruptive influence that oversight activities have on actual line operations. Work has been transformed from a relatively isolated experience with technicians working in the bay area on the buddy system into a spectacle with a total of 10 to 15 people in the bay at one time. This crowding, plus the distractions that the oversight people create, can affect their work, proposes a line technician. He worries about the potentially hazardous consequences of oversight, a process implemented to protect environmental, safety, and health concerns. Oversight is becoming a permanent feature of operations at many DOE facilities, and many different parties have a stake in defining what is meant by safe. While workers adjust to a different work environment—one open to scrutiny-they must also have confidence that this observation of their activities is indeed a measure that promotes safety.

The Environment, Safety, and Health–A New Culture?

The frustration that has accompanied the new requirements of the workplace within the Nuclear Weapons Complex is not, however, simply a matter of adjusting from one set of work expectations and habits to another. The consternation of the work force goes beyond adjustment to the different pace of work that radiation controls create or to the presence of other people who have a stake in defining "safe' operations. One should not explain away the skepticism or misgivings toward particular aspects of the culture change by relying on a psychological frame of reference (i.e., pointing out the discomfort that naturally attends a change in routine). Nor can one simply hope that time is the only ingredient missing for the culture change to take root.

WHEN AND FOR WHOM?

Some workers, for instance, question the sincerity of the recent emphasis on environmental, safety, and health matters because the push for production still exists, particularly at lower levels of authority. While top managers are committed to the new culture, lower-level managers (from mid-management down to line management) have production schedules that they must meet, explains a line technician. They have to answer to top managers about production, and some of the production schedules make it almost impossible to protect worker health and safety. While the culture change has made some headway, workers still receive mixed messages from management: health and safety, yes, but don't forget production. These messages also vary across departments, the line technician notes. Some foremen shut down if there is a problem, whereas others push people to produce regardless. There has been a shift, however, from past emphases, In the past, every level of the organization was oriented to production—from top management to mid-management to the worker. Now, some tradeoffs are being made between production and worker health and safety.

The continued push for production at the expense of health and safety in some quarters may invalidate the environmental, safety, and health agenda recently put forth by DOE and undermine the new sense of work developing on the floor. If workers feel that management is still emphasizing production, and if they understand this as the bottom line in keeping a job, new regulations and procedures that inhibit getting a job done may be experienced as an undue burden. This situation will continue in the face of irreconcilable DOE orders—some that stress production and others that stress health and safety matters. If workers are inclined to want to get on with their work it may not be out of a fondness for or familiarity with some notion of past work. The Advisory Committee on Nuclear

Facility Safety has suggested that "production" is the default practice when workers are presented with conflicting and unclear directions (l).

WHOSE CULTURE CHANGE IS THIS?

While the perpetuation of production priorities at some managerial levels may inhibit assimilation of the new focus by the work force, a further hindrance to worker engagement in the new culture is the manner of its implementation. The punitive aspects of recent changes, as well as the limited inclusion of labor in discussions and decisions regarding this new focus, demonstrate the same hierarchical relations as in the Nuclear Weapons Complex that disregarded concerns for the environment, safety, and health. As one contact describes it, there are two ways you can make health and safety a priority. You can come in and dictate a new program or you can include input from the field. Employees, he argues, have valuable insight into making health and safety happen. People in the field possess skills and knowledge that can make health and safety into a policy that works on the ground.

The experience of environmental, *safety,* and health concerns as another managerial edict derives in part from the penalties that have accompanied recent changes in the workplace. A worker proposes that the "scare tactics" accompanying the new principle of strict adherence to standards have made the transition difficult. He recounts the following incident as an example. Members of an oversight group asked questions and created disturbances while technicians were working on a unit. During this high-pressure scrutiny, the workers missed some minor steps and were out of compliance with standards. In reaction to this violation, the plant manager threatened to fire all four workers, contrary to existing contract language.

A contact at another facility also relates how DOE "has beaten people over the head' with safety, which may affect the success of the new culture. In November 1992, a fatality occurred at a Weapons Complex site. In response, DOE implemented a blanket policy increasing the suspension period normally following an incident, from 1 to 2 days without pay. This measure was inappropriate, argues this worker, because of the current reprimand policy under which the contractor was already working as indicated by the safety record. From February to November of that same year, the rate of incidents had steadily decreased. Whereas no one disputes the value of appropriate penalties and rewards for inculcating the new value placed on the environment, safety, and health, the punitive nature of work reorganization may undermine workers' investment in the agency's new priorities.

The issue of penalty also raises questions of culpability and workers' concerns that liability for these matters rests squarely on their shoulders. A worker evaluating the recent imposition of rules and standards notes that technicians are taken aback by their sheer volume. People have to sign off on a procedure stating that they understand it, he explains. He worries if the fact that he signed off on procedures will come back to haunt him, that is, whether that documentation will serve as proof for his need of a reprimand should an incident occur. The assimilation of new practices and priorities should entail a sense of accountability. However, if the process for developing accountability entails pushing liability to the lowest levels of the work force, there is a problem: not only in labor's hesitancy to accept new environmental, safety, and health priorities for fear that it will become the "fall guy" for problems whose source it cannot control, but also in the possibility that contractors will use a system of individualized worker accountability (through documentation, for instance) as indemnity against their own accountability in an incident.

Workers constitute one of the purported beneficiaries of the new emphasis on safety and health; yet they have been given a relatively small role in implementing and evaluating the changes under way. DOE, which historically has had virtually no presence on-site, has begun to exert a strong influence on day-to-day operations of the Weapons Complex facilities with its new agenda. Although the work force has been told to change the pace and content of jobs, there is no formal process by which workers can respond to the changes asked of them. The top-down fashion in which DOE has instituted these new priorities raises a question in the mind of some workers of whether the agency is more interested in demonstrating to its critics and detractors that it is doing *something* (i.e., "covering their tails" to quote one worker) than in fostering true protections for the environment, safety, and health. If it is committed to a real culture change, then DOE should develop a system for conferring directly with labor to learn through its experience. The Advisory Committee on Nuclear Facility Safety has

already pointed out the importance of developing channels for effective communication from the floor level up, in order to strengthen a "safety culture" (l).

Frustrating labor's incorporation of the new work practices that comprise the culture change has been a lack of dialogue with DOE and management regarding the reconfiguration of work, in particular, and the redirection of the facilities and the Weapons Complex, in general. To resolve the tension between the new emphasis on adherence to standards and the skills of the work force, one worker suggests a process for evaluation of standards that involves the technician. Although some standards are appropriate, he proposes, others may not be. The process for evaluating new standards should include technicians, and not involve merely supervisors and engineers who hand technicians the final word on a standard. Another worker notes that the union will be participating in a future procedure validation teaman improvement in incorporating the work force into the culture change. A contact at a different facility also relates that the struggle for worker input is constant and cites the exclusion of labor in the development of DOE's hoisting and rigging manual as a recent example.

Although some facilities are still moving in the direction of improving floor-level contributions to work reorganization, workers at another facility have had the opportunity to participate in procedure development, but with limited success. Per a DOE order, hourly workers were included on development committees for the lock-out/tag-out procedure and the radiation control procedure. In both cases, hourly workers made suggestions drawing on their field experience to improve the success of procedures once put into place. Their suggestions, however, were ignored. Explaining the order's lack of success on the ground, the worker argues that management basically has a military orientation and that "a private does not talk to a general. " The worker argues that this type of DOE order is new at the facility, and it will take time for management to shift from a mode of independent decisionmaking to one that includes the contributions of hourly workers.

In appraising the culture change at the site level, worker contacts identify the new forums for collaboration among labor, contractors, and DOE on issues of the environment, safety, and health as commendable developments. The success of these new structures for incorporating the floor-level perspective suggests the importance of expanded efforts to engage labor in the redirection of the Nuclear Weapons Complex. The tripartite councils, composed of representatives from management, the union, and DOE, have been an effective process for fostering communication among all parties, as well as a mechanism for acting on safety and health suggestions and concerns. Contacts at one facility describe the tripartite council as a format for approaching large-scale problems, rather than minor, day-to-day worker concerns that can be addressed through other avenues. That council is particularly effective because of the high levels of management and DOE staff that participate. The tripartite council also provides an opportunity for labor to move beyond discussions with the contractor and speak directly with DOE in order to address large-scale problems.

The experience of union-appointed health and safety representatives in addressing worker concerns is also suggestive of the benefits of incorporating labor into authority structures. Atone facility, for instance, union representatives differ from the professional safety staff in terms of their commitment to investigating worker concerns. These representatives tend to have a better rapport with their coworkers and to be more accessible in the field. Because of their own craft history, union representatives have a personal interest in correcting problems encountered by workers. In addition, workers are more likely to raise concerns with union health and safety representatives than with professional safety staff, because they do not identify with the latter and are aware of both historical and current instances of retribution. This affinity between union-appointed representatives and the work force also exists at another facility.

Through their contributions to standards and procedures development committees, as well as health and safety complaint resolution, workers are beginning to have some authority in how the culture change occurs at the floor level. Lacking in the current environment of change, however, is effective communication between labor and DOE. At one facility, for instance, some improvements in terms of floor-level contributions to the development of procedures are beginning to take place. Nonetheless, labor would like to be included in higher-level decisionmaking processes in order to deal with some of the frustrating aspects of recent changes: continuous oversight by many groups,

constant changes in regulations, and rules that make no sense to people on the ground. There are conflicting DOE orders and a variety of new regulations emanating from different oversight groups. Without a uniform way of doing business, explains a labor leader, it is hard to communicate to workers what is expected of them. Workers do not have the opportunity to discuss their experiences with recent DOE orders and to contribute suggestions that can improve the transition. The tripartite councils are a good beginning to partnership between labor and DOE, but the collaboration should not stop there. Labor leaders at all facilities included in this investigation argue for more joint meetings between DOE and worker representatives.

TOO LATE IN COMING FOR SOME

Asking labor leaders to comment on the course of the "culture change" initiated by former Secretary Watkins in 1989 is a request for them to tease out only one aspect of the dramatic changes currently taking place at DOE facilities. Their experience of that culture change is in the context of a very uncertain future for the Nuclear Weapons Complex as a whole. Impending layoffs are likely to affect 20 percent of the work force (4). Dramatic reductions in production requirements are currently taking place, and the landscape of cleanup work is not yet clear. If discussions with labor regarding protections for health and safety shift easily into conversations regarding job security, it is the reflection of a common concern—the exclusion of workers from decisionmaking processes that affect their well-being, both on the shop floor and in general.

To remark on the health and safety aspects of jobs that may disappear is an ill-timed effort, in the eyes of some. In the view of others, however, to understand the contemporary gains or losses in the areas of health and safety, one must recognize what the specter of downsizing can do to a work force. The threat of lost jobs can create an environment antagonistic to a redress of environmental, safety, and health problems. As a worker at one facility explains, during hard economic times such as these when jobs are difficult to find, workers are less likely to raise any complaints about the job. A person fearful of losing his job is not apt to cause trouble-whether in management-labor relations or health and safety issues. This posture is not limited to those with the least power at DOE facilities. A worker at another facility relates that when the plant stopped production in 1985 and there were significant layoffs, everyone-both managers and employees-went into a "survival mode." No one questioned anything.

The engagement of labor in DOE's new culture is particularly important in light of the fear of job loss. Workers must have a sense of investment in the overall changes that are taking place-the necessary reduction of some types of jobs and the overall improvement in the safety and health aspects of those that remain. Labor has already made clear the shared destinies of the workers who held positions under the production-driven regime and those who will hold positions in the new regime. The environment, safety, and health should be a priority within the Weapons Complex, but DOE must also address the adversity that displaced workers will face. Different legislative proposals have been aimed at issues of concern for displaced weapons workers, such as health insurance, medical assistance, and retraining for cleanup work (6).

Empowering the Work Force

Some of the experiences of weapons workers with DOE's new orientation point out lessons for further attempts at creating a truly collaborative culture change. Existing cases of collaboration between management and labor at DOE facilities include the tripartite council, standards and procedures development committees that incorporate administrative and field perspectives, and union-appointed health and safety representatives. These trends should be fostered. The incorporation of labor, however, should not be limited to microcollaboration-a focus simply on the workplace and under the limited care of the contractor. DOE must meet directly, formally, and regularly with workers and their representatives. Furthermore, communication with labor should not be delegated to the lowest levels of authority within the agency.

Other employee empowerment schemes are making their way into various DOE site operations through the efforts of different contractors. One cannot, however, implement an employee involvement program without first conferring with existing worker representatives. The imposition, rather than negotiation, of "employee involvement schemes' will only perpetuate the disempowered position of labor. Management at one facility, for instance, implemented worker involvement schemes to facilitate and address problems associated

with mission change. Two of these attempts, "work teams" (performance management teams) and "skills enhancement' (e.g., literacy training), have been unsuccessful, however, in part because management neglected to involve existing worker representatives in the program's development and implementation.

Another facility with a history of good rapport between management and the union has developed a creative solution to the problem of maintenance backlog. Management approached the union and asked if it would be interested in putting together a "SWAT team"—a group of maintenance workers dedicated solely to addressing safety problems normally held up in an overburdened system. The union agreed to the SWAT team, which was, in some respects, a compromise by the union with a long-held tenet of labor—that one does not cross craft lines.

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