

## Chapter 13

### Summary, Observations, and Conclusions

*De l'audace, encore de l'audace, et toujours de l'audace*

("Audacity, again audacity, and always audacity" -- from a 1792 speech by French moderate revolutionary Danton, exhorting his fellow Parisians to stand and fight an enemy army )

I have taken the above as my personal motto because it expresses my belief that it is better to resist than to roll over. In this concluding chapter, I would like to provide a few further observations and conclusions with regard to the main points that I have made in the previous chapters, especially as to why safety people should be fighting to change DOE's "he who controls the money calls the safety shots" approach.

#### Actual Violations and Retaliation Occurred

As I hope the reader can see from my narrative of the previous chapters, the events and violations that I described actually happened, with all their implications for safety. Whether procedure violations occurred was not "a professional difference of opinion"; whether usual and customary rad practices were ignored was not "in the eye of the beholder". A project really did put out a spec for a shielding cask and fail to include a concrete density figure. A facility really did measure dose rates in the multi-R per hour range and did not do any dose calculations for the tasks that followed. A facility really did manage to stymie any examination of its doses by the professional dose-evaluation organization even though it had the highest individual and facility doses at the site. A medical department really was years behind in its radiological emergency response procedures and training. Operations people and safety management really did mislead or even out-and-out lie to DOE, to DNFSB, and to other safety people. I do not think that "lying" is too strong a word in light of, e.g., an operational and research (O&R) division's telling regulators and oversight people that a requirement was "overlooked" or "misunderstood" when it was in fact ignored. Mlekodaj said at my whistleblower hearing that I was like "a little bulldog", but I would not have had to have been if this stuff had not been going on: people have to stand their ground only if there is actually someone or something pushing at them.

As I quoted a fellow ORNL radiological protection division member as saying, you can't make an omelet without breaking eggs; you can't work with radioactivity without an occasional contamination. I think that all regulators and oversight people need to keep this in mind and not make a fuss over small incidents and failings. But there is a big difference between reasonable tolerance of minor incidents and looking the other way when there is a repeated pattern of ignoring procedures. This is especially true when those procedures are supposed to be a reflection of the regulatory requirements, both explicit and implicit.

Consider that at ORNL, rad review requirements came to be set deliberately low and loose. We in AEG knew from talking with our peers at other sites that ORNL's triggers for the RPP-310 (operational) reviews were much less conservative than the norm. Yet even with these low hurdles that the O&R divisions had to clear, they avoided required reviews, obviously with the complicity of the rad tech organization. Sims and Hunt had certainly been apprised of this on multiple occasions by Mei and/or Mlekodaj and/or me, but they simply ignored these violations. In addition, there were many technical decisions that were being made by rad techs or their supervisors and many serious rad protection decisions that were being made by line management without professional health physics review, much less approval. Again, we AEG peons brought these to the attention of Mei and Mlekodaj, and they to the attention of Sims, without any apparent resulting systematic consideration of what qualifications and formal process should be required to make these decisions. Over time, more and more decisions seemed

to be made on ad hoc or informal bases, often by people who at other sites would not be given sole responsibility for them.

Although the avoidance of required reviews and other procedure violations had started under Lockheed Martin, UT-Battelle did not take steps to correct the situation even when it was pointed out to them in detail. In fact, they put someone in charge of safety (Scott) who was significantly underqualified compared to the various experienced safety managers they could have chosen and also compared to her peers at other sites. They not only allowed line management's dominance and control of the safety organizations to continue, they furthered it. Since for about six months before UT-B came, statements were made by Sims and others as to UT-B's preferences and intent and it was made clear that these were line with the recent ORNL changes, it seems likely that some of the gains made by line management were in anticipation of the free hand that UT-B had signaled it would give them. Thus the drain of authority from the safety organizations appears to have been UT-B's intention and not a situation that they would seek to rectify.

My reports to my supervisor, section head, etc., repeatedly elicited the observation that they agreed with me but they were powerless to do what we all thought was the right thing. They were clearly aware of all that was going on. My approach to the Employee Concerns people showed this group to be disorganized and ineffective -- unless they were taking orders from others who directed them to drag out the process. Either way, they too were aware of what was going on. The approach by Buttram to the new UT-B P-AAA oversight head, Preston, was apparently rebuffed by Preston even in the face of my having stressed to Buttram my belief that there were P-AAA concerns and my pointing out to her that other sites had been penalized for just such lapses as we were seeing at ORNL. My approach to Beierschmitt and Scott drew an initial expression of concern and interest, but I got a reply only after waiting for two months and nudging Scott. My approach to the DNFSB produced a substantive inquiry memo by DNFSB, but only after the DNFSB person persisted (and only after I had nudged him); the mostly "to be determined" response by Chem Tech appeared to be a way of trying to put him off until he had directed his attention elsewhere. I approached the DOE reps, but they did not sit down and talk with me; after talking to my upper management, they chose to turn a blind eye (or were told to do so by their higher management). All of the people mentioned above clearly have zero deniability as to any ignorance they might profess about what was going on. Hence my final approach to the local DOE concerns office, after trying every other avenue in good faith, was a last-ditch attempt to get ORNL back on the right safety track.

A summary of the violations I related would include not just the rad protection deficiencies evidenced by the examples above, but also retaliation against ESH&Q people whose job it was to enforce or carry out the procedures, such as the rad tech, the criticality specialist, and the rad engineer (me) on the MSRE project. I hope that the reader will keep in mind that actual retaliation did occur and that my professional life was permanently altered. By the time I had been laid off, I had been branded as "picky" and "difficult". I had been kicked off the Health Division audit and removed as the MSRE and REDC AEG rep. My concerns had been ignored in the Bulk Shielding Reactor monitor and the MSRE cask shielding flaps, which involved strictly technical issues that I notably had expertise in. I had been used and then cast away in the HFIR resin incident and in the REDC hopcalite filter job. Eventually, I was even replaced as the HFIR rep. The objections to my performance were non-specific. I was not said to be making wild accusations with nothing to back them up; I was not having running fights or noisy arguments with people (Dr. Phillips' allegation notwithstanding); I wasn't being accused of bad behavior, such as sending insulting E-mail messages. I was never accused of failing to document my concerns in writing for all to see and judge for themselves. Despite the accusation of "inflexibility", I was never actually accused of not being willing to sit down and discuss any issues, at length if necessary.

But of course nobody was asking to sit down with me or my supervisor or both and discuss problems they had with me or my work style -- rather, they all went over my head and even over Mei's and Mlekodaj's,

straight to Sims in most cases. In many cases, too, the accusations were leveled at AEG as much as at me personally, so that I was being tarred with the failings of my group and they with mine. My management - Mei and Mlekodaj -- expressed sympathy and concern about all this, but said they were powerless to do anything because the orders came from higher up. At first, I had trouble believing them when they said this, but as after several incidents in which O&R management inexplicably got their way despite their violations of procedures, I realized that it was all too true that my immediate management was helpless.

I also eventually realized from all this that the problem was not with me personally, but with what I said and what I represented. That is, if those who had persuaded Sims to remove me had really had difficulties dealing with me, they would have gone up one level, to my supervisor Mei, and if they got no satisfaction there, to my section head Mlekodaj. So the fact that they most often went straight to the top demonstrated that the real problem was political: by going to Sims, whom they obviously had pegged as one to roll over under pressure, they ensured an immediately favorable outcome for themselves.

Where there are indeed true differing professional opinions, somebody has to act as arbiter. However, as I have related about the handling of my case, the ORNL employee concerns people tried to stack the deck in setting up such a panel by proposing that the panel include only persons from a list prepared by Sims for Milan -- when Sims was the principal rad protection manager involved in my statement of my concern -- and not anybody whom I had nominated or who was from outside the Oak Ridge area. UT-B, under Scott and Beierschmitt, did not try to remedy this situation either: Scott reportedly had Sims prepare her response to my concern as expressed to her even though he was a principal subject of my concerns. Thus there was never any independent and careful evaluation of the merits of both sides, but simply an acceptance by management of Sims' position in all respects. Of course, his position was essentially that of upper management, which had condoned all the violations and his tolerance of them. One can see that Buttram and Scott were not up to evaluating these issues, so somebody who could "talk the talk" had to be enlisted to come up with the actual words for the response. But still, if ORNL management had been acting in good faith they could have consulted someone outside the Oak Ridge area for a reality check regarding Sims' and my ideas about safety management. (Ah, but why spend the money when you know what you want the answer to be?)

In the first five or six years I was at ORNL, the attitude of the old school O&R people toward safety specialists was not always favorable, but we safety specialists had enough authority and upper management support that we had some entrée into design and operational matters despite any opposition. The safety managers acted as if they did have some authority over how work was done regarding safety matters and even the old school O&R people seemed to have respect for there being a rad protection area of expertise. But later on, the rad protection managers seemed to feel that one had to look at the big picture, which was that the survival of the safety organization in the face of a hostile and increasingly dominant O&R structure was the paramount consideration, not worker protection. I believe that Sims did in fact believe that rad protection functions would be outsourced by upper ORNL and O&R management; I believe that he thought that he was doing the right thing in saving jobs by backing the idea that O&R people were "the customer", by overlooking and thus condoning repeated O&R violations, by sacrificing AEG involvement and, in the end, by throwing Geber and me to the wolves. But I also believe that he -- an intelligent and thoughtful man -- was fully aware of the implications of allowing O&R managers to call the rad protection shots to the point of, e.g., allowing an O&R manager to decide on his own whether to do a flashing operation. It is true that when UT-B took over, Sims took orders from Scott. I think that she was not really ready for the position she took as the safety division manager and I believe that it was because of her background in an O&R division that she accepted that rad protection people were mere handmaidens to the O&R managers. So that it was to be expected that she would be a tool of the O&R interests. But as we observed and as she testified at my hearing, she deferred in many or even most rad protection decisions to Sims, her deputy, so that even after she became division director he was responsible for providing the rationale for what went on and even the direction in which the division went

on rad protection issues. It pains me to say this, but I think that Sims was principally responsible for the "rad protection rollover".

In the division he had been in before taking over ORP, Sims had been at least in part a PhD researcher -- e.g., he had been involved in dosimetry intercomparison tests with a small reactor and had participated in writing papers based on the findings. One would thus think that in ORP, he would tend to favor the application of the more educated point of view. But this was not so. From the start, he allowed the rad tech organization to make decisions that, as I have pointed out, at other DOE sites would be made by professional health physicists and rad engineers. For example, he allowed the rad tech organization to dictate the terms of formal work review, when that had nominally been the province of ALARA/rad engineering for years and when the changes were in the direction of significant nonconservatism; he allowed them to take control of technical issues related to work, although this meant that technical decisions were being made and technical bases being written by people who at other sites would not be considered qualified to do so. He allowed this even for legal minefields like free release of material and radwaste characterization. The prevailing ethos thus remained that of the rad tech organization, and tech concerns and tech preferences dominated ORP's daily life. The rad tech organization increasingly strove to emphasize the centrality of their own participation in rad work, to denigrate the participation of the rad engineers, and to keep technical basis work within their organization, both to help control the conditions under which they worked and to ensure that they were regarded as the authoritative voice of rad protection. (I emphasize again that although I use the term "rad tech organization", many of the rad techs were not in agreement with the approach favored by most of their leaders and were in fact team players who wanted to present a united rad protection front with AEG and with the bioassay and records people.)

Sims' partiality to the rad tech organization and his marked deference to powerful O&R groups also resulted in his tolerating harassment of me and of AEG. He allowed members of the rad tech organization to post intemperate and unprofessional comments and suggestions explicitly critical of AEG on the Web and even on our doors. He allowed me and other individuals to be removed from projects or tasks if the "customer" objected to an emphasis on compliance, even if the "customer" was an auditee like the Health Division and even if he himself acknowledged the deficiencies. I believe that he was the author of the retaliatory statement that appeared in one of my performance reviews and that he ordered its inclusion there. In the end, of course, Sims was instrumental in having 2 out of the 3.5 rad engineering people involuntarily laid off, versus no rad tech people. Thus UT-B sacrificed a wealth of unique or relatively rare skills possessed by a few people performing relatively specialized functions, in order to keep all or virtually all of a large group of people performing less specialized functions with lower required qualifications.

#### The Layoff Was Fishy

I would like to reiterate why I won my appeal. The head of the Office of Hearings and Appeals recognized what the lower hearing officer had not: that UT-B had merely asserted -- rather than demonstrated -- a financial need not only to lay off staff but to lay off the particular staff members that they did, including me. Meanwhile, there was ample evidence that I was personally targeted to be laid off, most particularly in the matter of the altered performance rating, which had the effect of making me look less desirable for retention in the layoff evaluation. There was also Scott's selection of me and Geber by name, when on the other hand she testified that she did not know the particulars of what we and the AEG did. I am not sure whether she herself actually picked me, or whether this was a decision reached by Beierschmitt -- whose sole personal knowledge of me, the reader will recall, was our telephone conversations in which I expressed safety concerns -- or by someone else who had identified me as a "problem" with regard to UT-B's achieving its apparent goal of tightly controlling the expression of opinions and judgments among its staff and presenting a smiley safety face to the world. I think that it was probably not Scott's own decision, but in any case it was Scott who gave the order for me to be put on the ORP layoff list. If she made the decision, then it was she who committed the illegal and unethical act

of retaliation, and if she merely acted as the mouthpiece for the decision, then she was shown to be the catspaw she generally was regarded as.

As the head of DOE's Office of Hearings and Appeals pointed out, my last performance rating was altered significantly by someone well above the level at which the ratings were supposed to be assigned, someone who professed under oath not to be familiar with my work -- i.e., Scott -- and there was no logical explanation for this action except that it was desired to get rid of me. Despite the allegations about my being "difficult" and "unable to adapt to a new business model" (whatever that means), the fact remains that UT-B was not able to justify laying me off on the basis of an objective process. Since those involved could not get rid of me on the basis of layoff criteria points, it seemed that they had to cheat in order to justify my being laid off. The way that Kurt Geber also was chosen from on high to be laid off lends support to this conclusion: I was supposed to be the first in line to be laid off and Geber second, but when Scott's ear was bent by the complaint by her former division director and mentor about Geber's attempts to participate in the planning of an operation that was arguably in AEG's scope (as even the rad tech complex leader believed), she moved Geber to the head of the layoff line. No doubt upper ORNL management regarded her as being "responsive to her customers" for doing so.

The reader should also consider why it was necessary to get rid of us at all. The head of DOE's Office of Hearings and Appeals did not come to any firm conclusion as to this in my case, but said that UT-B had not refuted my claim that it was because of my speaking out about safety problems. If the claim of financial necessity was bogus, then the layoff looks more like a weeding out of undesirables, of people who didn't fit the UT-B mold. In my case and in the case of some others, I believe, it was because of our unwillingness to follow the party line on turning a blind eye to O&R transgressions of rules and good practices. I would not like the reader to infer that all O&R managers were like this all the time and of course the reader should remember that reasonable and knowledgeable people can have differences of opinion. But it should be clear that these differences of opinion at ORNL were, in the many instances I described and in some I did not, resolved by the use of brute financial power.

Regarding the financial "necessity" of laying off ("voluntarily" or involuntarily) so many people, I remind the reader that UT-B claimed -- and DOE implicitly agreed -- that this was necessary in order to apply the money saved to lowering the overhead and making ORNL more competitive. However, in the end UT-B did not apply it to lowering the overhead, but -- again apparently with DOE concurrence -- used it to fund part of the ORNL building program. Thus salaries and wages were converted, in effect, to capital funds without having to have this approved in any way by Congress -- or even as an explicit, publicly announced conversion -- by DOE.

I must reiterate also that in the ORNL 2000 layoff, ESH&Q people were laid off to a higher degree than other types of workers. I think that this must have been clear to DOE at the time DOE blessed the layoff, because the list of people laid off included their divisional affiliations. DOE thus agreed with UT-B that fewer safety people were needed and beyond that, that fewer professional safety people were needed. As my supervisor told me, "they" (Sims, Scott, and managers above them) thought that the work of us rad engineers could be done by "other people". In the case of radiation analyses and shielding calculations, the "other people" would be those who did research and studies in shielding computations or those who did such calculations as part of their operations-related work, such as Gilpin and possibly other criticality people. But this meant that only the calculations would be farmed out to those people (usually by the O&R entities themselves), not the rad protection decisions that we had made (or were supposed to have been making) related to this type of work; these decisions were then given mostly to the rad tech organization and the O&R managers to make. Similarly, in the case of the rad reviews we rad engineers had been doing, these had largely been taken away from us prior to the layoff and given to the rad tech supervisors and, e.g., B. Slaten to do. As I noted, I had been informed that after the layoff, a rad tech had done an operational review (by delegation) that procedurally was supposed to be done by no less than a

supervisory-level person. Thus UT-B's financial savings was based, in the case of rad protection at least, on parceling out the rad engineering work to support other, apparently more favored people, while giving the O&R entities even more control of the safety organization. Note that this also had the effect of shifting the functions of the more overhead-supported people (the rad engineers) to the more chargeout-supported people (e.g., the rad tech organization), allowing the latter to charge out for work that the former had not been told to charge out for until late in the game.

So the layoff of two out of the three non-supervisory rad engineers, in the face of our heavy workload, must be seen also in the context of rad protection management's need to support those "more desirable" others on the overhead money that was available. They were regarded as more desirable, I believe, because they were more malleable and customer-appealing than Geber and I, who, although we tried to keep our heads low in our last year, still displayed too much independence to be trusted to support rad protection management's campaign to keep line management from outsourcing the rad protection work. In my case, my going to higher and higher authority was clearly a threat to the cozy "See no evil, hear no evil, speak no evil" arrangement that safety management now had going with line management.

#### Customer Service: Going Along To Get Along -- And Where That Gets You

About the customer service model of safety practice, I ask my perennial "Emperor has no clothes on" question: why is this better? In earlier chapters, I described at some length the incursion of the "customer service" mentality into safety and how this corrodes the safety management process. I do not think that the operations-safety interface is necessarily an adversarial one; in fact, I think that generally it should not be. However, we should consider how the relationship gets to be adversarial. As Miss Manners points out, one reason that there are "rules of etiquette" is so people aren't always agonizing over what to do or how not to offend. Or as Robert Frost put it, "good fences make good neighbors". If there are rules to follow, including rules about who is in charge of making what decisions and how, then there should not be constant fights or uncertainty. As I noted earlier, some people at other sites have made statements to me to the effect that there were such fights and confusion at their sites until management came down on the side of safety or until "who's on first" was clearly defined by procedure. Of course, if the O&R people are in charge of everything, you don't have an adversarial relationship. But, I submit, neither do you have responsible and independent coverage on the part of the safety people.

This is particularly true when safety people are explicitly told that they must "please the customer" and ingratiate themselves and they consequently have to take on a lackey mentality in order to keep their jobs. They must take the hint conveyed by euphemistic "suggestions" that they should be "flexible" or by "a nod and a wink" on the part of O&R management as to what their conclusions should be. This is important because of course managers don't like to have to say explicitly, much less put in writing, that they are dictating to people whose expertise they are supposed to be paying attention to. A manager would rather ask, "We don't need a review for this, do we?" and, having thus conveyed that he doesn't want to bother with a review, receive the answer that he doesn't need a review. (I think that this may have been one reason why I was said to be "inflexible": I would take such questions as actual inquiries and not as implicit directives.)

Emphasis on the "customer service" model skews the balance of power and decision making heavily toward the O&R people, thus subverting the independence of the safety people. This is facilitated when funding is done on a charge(out)-by-the-requested-service basis, rather than on an overhead or required-service payment basis. This effect is not necessarily found at all sites with chargeout schemes, of course, but I conjecture that it will always be found at sites such as ORNL where O&R managers have almost complete control of the disposition of DOE funds. Safety people who are more concerned with getting along (with being liked or with advancing their careers) than with safety per se are likely to be vulnerable to the pressure to keep that chargeout money coming by being accommodating.

I have explained in previous chapters how ORNL line managers strove to control the safety people by flexing their financial muscles. I will comment further here as to their motivations and methods of accomplishing this. Of course it is understandable that managers seek to control anything and anybody that may slow down their projects -- everybody wants to be the driver, not the driven, and to go via his preferred route and at his preferred speed. Also, it is a necessary skill of a successful manager to be able to get other people to do what he wants, whether he manages to do so by motivating and persuading them or by intimidating and shaming them. But the impulse to control has to be kept in check because as the saying goes, "Power corrupts and absolute power corrupts absolutely". If the O&R managers at a site undermine the established system of checks and balances between safety and operations/research by tilting the scale completely in their favor, then there are going to be serious abuses of power. The same goes when the regulators allow the scale to be tilted that way but do nothing. As the comments of several DOE people I quoted previously showed, allowing this to happen appears to have been a decision by higher DOE-ORO management or even by DOE-Washington.

Besides the control issue, there is an impulse to protect oneself and one's division or site from embarrassment or censure and to preserve one's personal or divisional or site financial position. In giving in to such an impulse, it is important not to have any errors in planning or execution come to light that may show the manager or his division or his site in a bad light. Mistakes are then not to be considered "lessons learned", to be studied and shared; instead, they are to be covered up and the detritus swept under the rug. Every "story" of a project must be presented as a success story, every change to Plan B must be presented as simply an enhanced Plan A. It is important to preserve the manager's bonus and the site's award fee for meeting milestones and keeping within budgets. Even underlings who don't share in the bonuses nevertheless feel this impulse, because keeping the manager happy can save one's own job and ensure promotions and raises.

Some readers may say that what I described above is what a team does: they look out for each other, they make the group look good by presenting a confident and capable face, and so forth. But there are two flaws in that approach when it comes to safety. First, when the O&R people are the team -- the "ins" -- and everybody else is an outsider, then an "Us versus Them" attitude comes into play and the O&R people identify operational needs and desires as the optimal aims of the project. The safety person is often not made privy to the complete set of information and even when he is, he lacks any kind of leverage to enforce minimum good practices, much less the "above and beyond" practices that may be necessary for an operation with uncertain conditions. He is often reduced to the position of hanger-on. This is not a comfortable position for any person, so many safety people evolve into wielders of the rubber stamp in order to be accepted in the project. They may tell themselves that they are making a difference because they get to look at all the documents, but the reality is that their presence is tolerated only so long as they don't make waves. Various safety people around the country have told me that they had the experience at a past job or on a past project of needing to act that way or else be excluded; usually they tried to find a middle ground in which they raised questions only about the really significant stuff, but they often weren't satisfied with the results and it was hard to maintain their self-respect.

Second, if the team's approach is to hide particular difficulties from and present an ever-positive face to people outside the project, then over time this attitude can come to characterize the entire project. The task leader and his people may hide things from the project manager and the craft foreman may hide things from the task leader. Everything anybody says has to be examined for political correctness: does it embarrass the project, is it consistent with the current project "story" as spun by the project manager? Some projects are so saturated with this attitude that managers and supervisors seem to spend more time checking how things are flying politically than how they are going technically.

At ORNL, the customer service model seemed to have been bound up with ISMS, the Integrated Safety Management System that DOE forced all the sites to adopt, even though this model is not explicit in

ISMS as far as I can tell. ISMS by itself appears to be acceptable as a philosophy of formal and defined involvement of all disciplines in work planning and control selection, although it is often difficult to see how to translate the generic DOE statements into actual procedures and practices. However, ISMS falls short as a safety management philosophy where it fails to define (or DOE fails to require a site to specify) the controlling authority in cases of difference of opinion. In particular, it falls short if ISMS can be construed to allow a site to claim (or to allow to DOE to permit a site to claim) that final safety authority rests with operational and research managers rather than with safety professionals and managers. I think that in fact DOE initially was largely ignorant of the implications of the ORNL safety philosophy that was introduced under color of ISMS. But later, those DOE people who realized or were told the implications appear to have been stifled or to have turned a blind eye. This was likely for two reasons. First, it would have been embarrassing for DOE to have approved ORNL's ISMS plan and then to have had to declare it invalid. Second, DOE likely was persuaded that things would work out all right and that working this way would speed up the work and save money. Well, so it would to some extent, but at the cost of potentially more risk due to allowing people with a clear financial motive to keep things zipping along -- the O&R managers -- to make the safety decisions. ORNL and DOE management professed to find everything copacetic, but many safety professionals at ORNL and in DOE were seriously concerned about the state of affairs.

#### It's All About the Money

The single most difficult decision that I made in writing this book was to discuss money as the compelling driver that it is. It would have been so much easier to have ascribed the many safety deficiencies to ignorance or laziness or even to managers' being in denial about the real risks. But when one hears over and over from one's managers and others that the reason for this or that otherwise inexplicable decision is that "they" will take away the funding if the decision goes against "them", then one has to conclude that the money is the only important consideration for these types of decisions. Money is of course a factor to be considered in safety -- as in every other area of life, what you buy has to be commensurate with what you can afford. But the basic level of safety coverage provided is supposed to be driven by the hazards associated with the work, not by the amount of money available for safety after other things are taken care of. As I considered ORNL management's and DOE's actions from 1995 to the present, especially after UT-B took over, it seemed to me that the only explanation for why some things changed and why other things were done as they were was money. That is, although claims were made that "Safety is Job 1", etc., in reality safety considerations could not be allowed to interfere with the completion of operations and research on the predetermined schedule unless there was imminent danger or at least clearly significant risk. Corners were being cut, requirements were being ignored, all in the name of meeting the schedule. Meeting the schedule, even though it might be unrealistic or the project might suddenly present unexpected technical difficulties, was done to accommodate DOE. The club that DOE held over ORNL's head was money -- not just direct funding, but contract renewals and the like. Thus the inference can logically be made that safety was being sacrificed to production for financial reasons. Actually one does not need to infer this, since it was stated explicitly on many occasions by various people. It just took me a long time to believe it.

In the previous chapter, I could also have discussed money only in the context of ORNL, but it seems to me that it is crucial to examine the big picture in terms of how the contractors and DOE get the support of community and business organizations for their operations and their business practices in far-reaching ways. These operations and business practices affect not only worker safety but also the protection of the public and the environment. The leakage of liquid onto a public road, as I related in an earlier chapter, is an example of what can happen when proper and customary precautions are not taken. In some communities, an incident like this would have provoked numerous indignant letters to the editor, complaining, at a minimum, of the inconvenience of having the road shut down to be cleaned and resurfaced. But not in this community, where cleanup funding is so important that a newspaper columnist can claim, in effect, that safety at the plants is the responsibility of "all of us".

DOE has signally failed to consider the financial motive explicitly in safety management at its sites. If you allow someone to be in control of funds with only limited checks and balances on how he uses the funds, he will tend to use the funds in a way that benefits him and his cronies. This is just human nature. DOE would never think of giving out funds and not auditing whether they are spent according to DOE rules (or at least I hope that they wouldn't), but DOE's bean counters do not pay attention to how the funds can be used as a club in various ways. For example, DOE has all kinds of rules about financial conflicts of interest in terms of the contractor's doing business with DOE and with other contractors and subcontractors, but they don't seem to have any regarding internal financial conflicts of interest. They have guidelines regarding supervisees' not peer-reviewing their supervisor-authored safety documents, but they don't seem to have any regarding the control of the funding of the safety reviewers by the safety-reviewed. This would seem to be an appropriate area for DOE to take an interest in, but they do not. It is not sufficient to talk to the guy who is, say, the rad protection organization manager in order to verify that the operational people are not exerting undue financial pressure on his people. What is he going to say, after all, with his top manager's salary and his bonus and his pension on the line? If DOE does not dig in, it will never uncover these conflicts. And when I say "dig", I mean in the same ways that the forensics shows on television have taught us to expect: by looking for clues and following where they lead. There is always evidence of what has happened, if you know where to look, and somebody will talk, eventually.

As I trust I have explained in sufficient detail, at ORNL the operational entities gained control of the safety organization bit by bit by progressively gaining control of its funding. The safety organization used to have a significant part of its funding, especially of the peons, provided via overhead funding. But even the part that came as direct charges to the operational entities was not really controllable by these entities in the sense that they could threaten to withhold funding unless the safety people rolled over. Then the approach changed: funding was supposed to come more and more directly from the operational entities because it was fairer to allocate charges according to use. Fair enough, but included in the new thinking was the concept of a customer-service provider relationship in which the provider had to seek to please the customer or the customer could threaten to take his business elsewhere, by outsourcing or by hiring his own people. Anxiety was thus created among the safety people with regard to keeping their jobs. The safety organization was like a guy being encircled and squeezed by a python: at first he is able to call for help and flail at the snake, but eventually he is immobilized and silenced.

Battelle has been notably successful in persuading DOE that they "have the answer", financially speaking. They can magically conjure up building funds from the private sector, reduce the costs of doing business by coming up with plausible (to DOE) reasons for laying off rafts of people, and donate chunks of money to "the community" and thereby earn favorable regard from community leaders for themselves and DOE. In return, all they ask is that DOE be...well, accommodating in terms of Battelle's business practices. Consider UT-B's various dealings with respect to technology transfer for ideas conceived of and developed at ORNL. Scientists, engineers, and other taxpayers (including me) certainly want the information and technologies developed at ORNL to be transferred speedily to those who want to develop them further and make marketable products from them; this is in the public interest. But I think we all want to be sure that this is done fairly and that the federal government -- the representative of those taxpayers -- holds a reasonable interest in what is transferred and receives a reasonable return if the further development is successful. Does DOE really think it does not need to look into how two researchers can leave ORNL for less than a year and then come back with "\$5 million in their pockets"? Does DOE really think it does not need to look into the activities of a contractor who trumpets that acquiring ORNL (and I use that word "acquiring" deliberately) means that they can use it as a place to which deserving PNNL people can be sent as a promotion, without regard to whether they are the best qualified people for the positions? Does DOE not worry about whose interests will be served when someone in charge of tech transfer at a national laboratory also holds an equivalent position at the central corporate entity? Do not events and utterances like these suggest to DOE that a contractor is not treating

the publicly owned national laboratories that it runs like the national treasures they are, but instead is "leveraging" their control of them to its corporate advantage?

This includes Battelle's handling of whistleblowers. In my settlement, I made sure that DOE and UT-B explicitly agreed that I had won the case. There were two reasons for this. One was that I did not want UT-B to be able to claim that I "dropped the case" or any such thing. But the other was that back in 1995 at PNNL, following a settlement in which Battelle paid their fired former employee J. C. Laul a sizeable amount for a whistleblower case that Laul was very likely to win if it had played out to the last act (legally speaking), PNNL head and later ORNL head Madia characterized the payout as "a straightforward business decision with the best interest of the US taxpayer in mind". But as a Government Accountability Project lawyer pointed out, Battelle spent over \$400,000 of taxpayer money defending against Laul's whistleblower action, plus the \$330,000 it had to return to the government for the fraudulent action that Laul (accurately) reported. Madia stated that the message of the settlement was "Don't sue us [Battelle]", but of course the true message was "We will get away with whatever we can".

Beyond the intra-site and inter-site activities, DOE should also consider how a savvy contractor can use its financial power to gain influence over local officialdom, state officialdom, and the press -- so that the contractor has a lot to say about what happens in the community, even to the point of calling some of the civic shots. UT-B has been assiduous in courting public opinion. But they haven't attempted to persuade merely with reasoned arguments and they haven't really courted "the public" per se. Rather, they have used the power of the money that they control to persuade elected public officials and other area leaders that supporting UT-B is advantageous to the bottom line of Oak Ridge and the surrounding area. These officials in turn have asserted this to their constituents. Again, I believe that UT-B has done this in part to help DOE gain favor in the public eye and thus for UT-B to gain DOE's favor -- with consequent leniency and blind-eye-turning on DOE's part -- and in part to help itself out -- e.g., by getting the citizens to fund a lavish school system that will help UT-B attract the young scientists it desires to get.

Let me digress for a moment to talk about the high school project. I think it is very appropriate for local businesses to support the schools and to encourage students; it is a sign of a healthy community, in fact. But as an Oak Ridge resident, I am troubled to see UT-B so embedded in the school project -- to contemplate the degree of control that UT-B may gain not only over the school facilities but potentially over the curriculum and the setting of standards by its control of the foundation that receives and controls the corporate and individual donations. It might be advantageous to UT-B to create a sort of "lab school", as it were, but that might not be the best type of school for all Oak Ridge kids in the view of the majority of Oak Ridgers, who will still be paying for most of it. But beyond this, it does not seem likely that UT-B would commit this degree of money and people resources to this effort out of the goodness of their hearts and possibly not even for the attraction it would provide for new researchers -- it seems most likely that they would be doing it most of all to fulfill some commitment to DOE. I believe that subsequent events have amply demonstrated that that is exactly what they were doing.

Also, although various contractors have made donations, the great bulk of the money will have to come from the taxpayers. I believe that the mayor or some other member of the Oak Ridge City Council has stated that property taxes would not have to be raised to pay for the high school project, but that seems unrealistic. The citizens of Oak Ridge already pay sales taxes at the highest level allowed by law and their funding of the high school in past years already provides for the highest or next-to-highest level of teacher salaries and of per-student expenditures in the state. I think that recent (2005) postings on the public computer bulletin board of The Oak Ridger about the high school attests to the cynicism of many citizens with regard to the cost. So what will the extra money (beyond simple replacement or upgrading of the high school) go for? I expect that it will go for facilities that support the work done at ORNL, Y-12, etc., and not for general areas of high school education. I expect that we will see that the very top science and math students are given a truly world-class education, while the middle-achieving and low-achieving

students and the top English and art majors will get an education that is no better than such students would receive in, say, Knoxville or Chattanooga. These top students will put in low-paid time on ORNL projects, which will help them win science fairs and look good on their college applications, while the other students get essentially no extra help. (My husband and I joke that if the city has that amount of money to spend on a high school, they should devote some of it instead to improving the stability of the local power supply. In one week alone, 30 October - 5 November 2005, there was a 35-minute power outage midmorning on Tuesday and an hourlong outage during the dinner hour on Thursday -- with no rain or wind storms.)

Returning to the money-influence nexus, I included some information about non-ORNL entities and deals for two reasons. First, all roads seem to lead back to Battelle in some form or another, which means that ORNL is involved in some way most of the time. Second, such deals as Y-12's privately funded building program, with its worrisome implications for control, were inspired by the UT-B model. Third, the more that the go-go business models favored by Battelle are put into effect in the region, the more acceptable they will seem (on the principle that "everybody's doing it"). As your mother said, "If everybody else jumped off the bridge, would you do it too?" But me, I like to look before I leap. I hope that various civic and state authorities will also.

The reader may have noticed that the information I gave in the previous chapter was essentially all from the newspapers (including Metropulse). This was because my ability, as a private citizen, to find out about where the money goes and why is limited. Although I think that many of the things I described are questionable on the face of them, it may be that things that look fishy are actually on the up-and-up, and vice versa. Still, I believe that all of the deals and issues I discussed should be examined closely by independent and neutral parties. The DOE Inspector General could look into it, if he chose to. Some enterprising graduate student might also examine in the subject; it would likely make for an unusual but interesting and highly relevant thesis. Another set of obvious candidates for this sort of inquiry are the newspapers -- it might even be considered their duty. Of course, what a newspaper is able to find out directly may be limited and if they have to resort to the Freedom of Information Act, it may take quite a while to get the information, as Mr. Munger once noted. Nevertheless, I think it is incumbent on them to keep asking DOE, the various contractors and subcontractors, and the city not just the amounts of money involved in all the various transactions but also the reasons for and results of the various fundings and transfers and licensings and deals. I think that they will find in detail (I'm sure they already know it in general) how much the DOE money "talks" in and around Oak Ridge, possibly in improper ways that are clearly counter to the public interest, however much they may benefit individuals or companies who will then invest in the East Tennessee area. Even more than the DOE money itself, the fate of the technologies and ideas developed at ORNL are of concern. So I hope that the newspapers and the Inspector General will watch the technology transfer arena like hawks.

As a former Battelle employee pointed out to me in 2004, when Battelle controlled four DOE national laboratories and was reportedly preparing to bid on a fifth (Los Alamos), one had to consider a future world in which Battelle ran all the national labs -- and what that might entail in terms of the national interest.

#### The Balkanization of Work and DOE's Social Engineering Mandates

I would like to state unequivocally that I do not per se favor big companies over small companies. In fact, I think that the ease with which people in the United States can start their own businesses is one of the great strengths of our economic system. Starting one's own business is a creative act, an act of self-expression, which an individualist like me is all for. Similarly, I am not against minority, woman-owned, veteran-owned, etc. companies; as I noted earlier, I myself could qualify on two counts (with the Hispanic grandmother, etc.). I am just against DOE's being used as a social engineering agency to the extent that it skews the execution of its missions, including its achieving the goal of safe and orderly work. Other

federal agencies that specialize in, e.g., fostering small businesses can do a much better job with their specially trained personnel, their focussed efforts, and their dedicated budgets. DOE has a lot of financial clout, so its forcing larger companies to team with or subcontract to small business does ensure that small businesses share in the wealth. But DOE's hamhanded efforts mean that companies with no special expertise or with a short or nonexistent track record may be doing relatively high-risk work. This is just irresponsible, even if done with well-intended motives.

I think that for large sites or extended large projects, it is better to have a central safety organization -- the institutional safety organization -- than to have safety functions performed by persons within the operational groups themselves, by external (contracted) organizations, or by multiple safety groups working for multiple subcontractors. Splitting up all the work into many parts and contracting or subcontracting them out is not a good idea for a project or site on the overall management basis, but it is especially pernicious to good safety management because it obscures the lines of authority and disperses responsibility too broadly for adequate control and oversight. It is certainly appropriate to have some safety-type work done by operational people, e.g., some walkdowns, or to hire an external organization to do some safety work, e.g., specialty analyses, audits, and reviews. But the normal, continuing safety coverage should be provided by the institutional safety organization, including involvement in incident investigations and design. Ensuring consistency and continuity of coverage is necessary for effective safety coverage. Not only that, when an incident does happen, it is easier to figure out which person or group dropped the ball and to make appropriate corrections. The example of the Coster Shop cleanup in Knoxville that I discussed previously shows what happens when safety authority is split up nebulously among multiple groups and there is fingerpointing in all directions afterward. Nobody can truly be held accountable in such cases: although some people may be fined, they may never be made to come clean as to what did or didn't happen and thus truly effective corrective actions may never be taken.

#### DOE Justice is to Justice as.....

There is an interesting story told about Lenin, the Russian communist leader. In the early days after the tsar was overthrown, various factions, including Lenin's, were vying for power. One day one of Lenin's henchmen came running to tell him that B, the leader of another faction, had outmaneuvered Lenin in some way. The henchman then began to tell Lenin how they ought to plan a counter-maneuver, a campaign of persuasion to get people to see things their way and join their faction. Lenin cut him short, saying, "All we need to do is to shoot B and a few others. Then everyone will know what to think".

"Then everyone will know what to think." I think that these words of Lenin's are emblematic of a standard approach to dealing with whistleblowers. That is, if you don't want any such in your organization, all you have to do is to get rid of the first few promptly when they begin to speak up. Then everyone else will know what to think: they will understand that they need to keep their mouths shut or risk losing their jobs.

I believe that whistleblower protection systems should reside outside of the entities governing or conducting the activities in the course of which the whistleblowing occurred. For example, I think there ought to be a separate and independent government agency, outside DOE, to handle whistleblower retaliation claims. I also believe that local DOE should not be investigating whistleblowers' technical and safety allegations and that any DOE investigation of this sort should be overseen by the independent government agency. I say this because an entity like DOE that has a role in fostering, approving, and overseeing activities is, as they say, invested in those activities. It is true that DOE's Office of Hearings and Appeals is separate from the rest of DOE, but they do not handle technical issues and clearly, if the final appeal is to the Secretary of DOE -- a political appointee -- then the eventual outcome of the process is likely to be based on political grounds. This was demonstrated by the messy and unfair retraction of DOE's supposed Secretarial appeal decision in my case, along with the secretive and obfuscating messages delivered about the projected delay in how my case would be further handled. And as I noted earlier, a local DOE official remarked to me that since local DOE ES&H had blessed ORNL's ISMS

program, they would be reluctant to find fault with ORNL's radiological protection program, which was part of that ISMS program. The approach of the first (2001) DOE team investigating my concerns and the report it produced demonstrates this also. Local DOE management, in the person of Rufus Smith, did make an effort to have my safety concerns investigated. However, because of what I presume was an adjustment of the scope and nature of the assessment, the first team did not actually look into any of the operational examples that I cited as failures of safety management (e.g., by deliberate violation of procedures). Further, the reader will recall, the team shifted its focus to only the program as it existed at the time of their investigation (i.e., after most of the violated provisions had been excised from the procedures or made mere "guidance") and even then they did not do a systematic assessment of compliance status as shown by work documents related to the instances I cited. They allowed UT-B to pick the people they interviewed and they did not really examine how employee concerns were handled. I do not think that this team's work can be called a safety investigation in any true sense. (In fact, they themselves called it an "assessment".)

Smith, realizing the shortcomings of the team's work, especially as it related to the handling of concerns by the ORNL ethics/concerns people, did hire an outside team (NIC) to look into my concerns. But this second team of two people had so little time and were spread so thin that they could not do an in-depth investigation of even a single area. Still, it is significant that they expressed concern about UT-B's having a company lawyer present for the interviews. It is not credible that interviewees would not feel that they would be suspected of divulging unpleasant truths if they chose not to have the lawyer present, as Smith and the NIC team both noted. The "chilling effect" observation made by the second team was undoubtedly valid. Folks who think that the UT-B regime encourages the reporting of safety concerns should take this observation very seriously.

As I noted earlier, in terms of distastefulness, the way DOE handled my case resembles the way sausages are made: all sorts of things go into it that you don't want to see or think about. DOE, as a result of UT-B's claims of lack of due process because of the delegation of the Secretarial review to the head of the Office of Hearings and Appeals, put my case on hold indefinitely -- even though the case had supposedly already been decided according to DOE rules, even though the delegation had been done formally in writing, and even though other cases had been handled similarly. DOE did not make UT-B appeal the Secretarial appeal decision to, e.g., the Sixth Circuit Court of Appeals but instead decided to handle the matter in-house. I believe that if the Secretarial appeal had gone against me and I had been the one to protest the lack of due process to DOE, DOE would have told me to take a hike. I believe that it was because of UT-B's influence on DOE that the matter was handled in the way it was. I therefore do not think that any plaintiff in the DOE system (whether the case deals with whistleblowing or with other issues) can assume that DOE will handle his case fairly, at least once it is taken up by DOE personnel outside the Office of Hearings and Appeals.

With regard to DOE's suspension of my case, some may ask whether UT-B was not a victim also, in that if there had been no settlement they too would have been subject to the long wait for DOE to make up its mind. But in fact the wait would benefit them, since it would mean that they didn't have to fork over any money right away and they would have plenty of opportunity to lobby for changes that would benefit them. DOE-knowledgeable readers who have not been surprised by most of what I have related in this book may nevertheless have been startled to hear that DOE paid half of my settlement, apparently just to get my case off the radar. I myself, despite what the lawyers said during the settlement meeting, was doubtful that it could be true until I saw it in writing in what I received under my Freedom of Information Request. Yoo-hoo, Mr. Inspector General! Is it legal for DOE to do this? If it is, why is that -- i.e., what is the rationale for this expenditure of public funds? If it is not legal, then how is it that DOE is getting away with it? Whether it is legal or not, stuff like this completely undercuts DOE's assertions that it is holding contractors accountable, that it is protecting whistleblowers by making it difficult for contractors to discriminate against whistleblowers, etc. Instead, DOE is just a big old enabler of such behavior.

Regarding the testimony of two DOE whistleblowers at a House Commerce Committee meeting, a DOE official was quoted in an Associated Press article in the Knoxville News-Sentinel (24 May 2000) as defending the practice of reimbursing the contractors for their legal costs in defending against whistleblower complaints, apparently even when the whistleblowers won. This official, Mary Anne Sullivan (whom the article said was DOE's "top lawyer"), said that the department's regulations called for paying the contractors' costs of defense against whistleblower claims only if the claim was settled or the contractor won and that the department might ("may") cut off funds or seek reimbursement in several then-pending cases. But she also said that "Zero tolerance does not mean that every whistleblower claim must be accepted as valid without an opportunity for response or appeal by the department's contractors" and that refusing to pay for the defense of all whistleblower claims would hurt contractors by encouraging unfounded complaints by disgruntled employees. I think that statements like this speak volumes in terms of DOE's commitment to safety: the whistleblower who is fired or denied promotion has to go to court and he and his lawyer have to front the money for the defense, while the contractor gets to be reimbursed from Day One and -- and as is apparently true in most cases -- doesn't have to pay the money back even if it loses. Furthermore, if the contractor settles -- which is to most people tantamount to an admission of at least some guilt -- DOE will still pay their costs. I.e., DOE will pay to make the embarrassment go away.

The reader should recall that at my hearing, my lawyer, Margaret Held, asked about the work that I had been doing before I was laid off: who would be doing it? Scott said to ask Sims, Sims said to ask Beierschmitt, Beierschmitt implied that Scott was handling that, etc. It should be recalled too that UT-B's representatives at the settlement meeting told me aggressively that my old job was gone, they would have to find some other work for me to do, I would be expected to conform to UT-B's "new business model", etc. -- right in front of a DOE headquarters lawyer, who uttered not a peep about the various implied threats in these statements even though UT-B was found by a hearing officer from her agency to be at fault. DOE can say that a winning plaintiff has to be given his job back, but it appears that it is entirely up to the contractor what that job is to be. Besides the non-protection afforded me to get back to doing the work that I had always done and that logically was still there to be done, the truth was that UT-B just didn't want me to be involved in it -- and DOE was countenancing this exclusion. As Homer Simpson would say, "Doh!" It is significant that after waiting a few years, UT-B quietly advertised for a new rad protection manager to handle this area of work and for at least one rad engineer. That is, they recognized the need for this work to be handled by experienced professional specialists. (By the position description for the manager, they may also have seen an opportunity for Work for Others, by renting out the manager and his people to other contractors and subcontractors to do this type of work. But they would still be saying that that type of work is best done by experienced professional health physicists.)

The conclusion logically drawn from all this is that DOE, despite all its alleged reviews and audits, doesn't ensure that the work is done by appropriate people. They (as DOE-ORO) bought UT-B's layoff arguments that they could drastically downsize the rad engineering group and still have the work covered adequately by less qualified people. If that was so successful a course of action, why did DOE allow UT-B to hire the new manager and rad engineer, in effect to waste money on these more expensive people? Obviously, the money is not being wasted -- rather, UT-B was earlier embarking on a risky course of action by farming out much of the AEG work to non-rad-protection entities (e.g., the shielding analyses), to the rad tech organization, and even to the O&R people to do themselves. While the contractor should have some latitude in organization and the allocation of functions it is charged with performing and DOE should not micro-dictate these arrangements, there are some basic organizational schemes and administrative practices that are followed in most DOE health physics organizations with regard to much of what my group did. So it seems to me that it is an unrecognized failure of DOE oversight that UT-B was allowed to float its various stories for parceling out this work to whoever needed the support or to whomever they favored to do the work. If DOE bought this safety mythology, what else has it bought?

For all these reasons, those who are thinking about pursuing a legal case regarding their treatment by a DOE contractor should consider carefully whether or not to pursue it in the DOE system or not. In view of DOE's proposal to put aside the results of the Secretarial review, rewrite their procedures, and then reconsider the case, I think anybody would be foolish to use this system instead of pursuing the matter in, say, a state or federal court if that is possible. This is not a criticism of the Office of Hearings and Appeals itself, but of the political nature of the other parts of DOE, notably DOE's Office of the General Counsel.

I remind the reader of the set of separate discrimination lawsuits brought in state court by a significant fraction of those laid off with me. The primary basis for these suits was age discrimination. I believe that there was merit to these suits, but in any case it is notable that such a large number of professional people did not believe the contention of their former employer that they were chosen to be laid off by an objective process and as a result of financial necessity. It was because of the callous way they were treated and especially the patently untrue reasons advanced for their being selected for layoff that they decided to take the extreme step of suing. As I write this, the largest group of lawsuits has been settled, after completion of the stage of depositions being taken by both sides. The plaintiffs settled in part because they felt that their group case was handicapped by the state judge's preliminary declaration that the suit could not consider the age distribution in the company as a whole, but could consider only each individual's peer work group (some of which were composed of as few as one to three people, as in my case) in evaluating the merit of each individual's case. In the settlement of this set of cases, the plaintiffs were each given some undisclosed sum of money by UT-B; the settlement terms were confidential so I was not able to find out what they were. But even if each person got some relatively token amount, with many plaintiffs and all of UT-B's legal fees, that must have come to hundreds of thousands of dollars. I believe that as in my case, much of this may have been paid by DOE. So how much money did UT-B really save DOE by laying all of us off in that manner?

Note that DOE stood by and let all these things happen despite reports from us and others about the suspicious nature of it all. One can allow that sometimes an authority has to stand back and let the private combatants duke out their differences. But in the case of a layoff -- which involves jobs provided in support of DOE's missions and funded by DOE money -- DOE has a substantial interest in ensuring (I would even say a responsibility to ensure) that the layoff is done in a fair and objective manner and, in particular, without the settling of scores by the contractor. I recommend to DOE that they use this particular layoff as a case study. They should reevaluate how they "bless" layoffs: how they approve the criteria to be applied (which they apparently do), how they evaluate the statistical analysis proffered by the contractor (which they say they do), and how they deal with the issues arising from the layoff (such as contentions by a significant number of layoffees of unfair treatment by the contractor).

It is not fair for DOE to tell layoffees that they have to go to the courts or the DOE hearings system in order for DOE to investigate their concerns. This is in effect what DOE has said to me and others and it implies that unfair treatment by the contractors is not DOE's concern until and unless the unfairly treated ones are willing to engage in a lengthy and expensive litigation process. But if that is truly DOE's attitude, then they are saying that they are in fact not responsible for assessing and controlling the contractor's performance in an active and real-time manner. If that is truly DOE's attitude, then they should cede responsibility for this function entirely; they should completely scrap any program or process they have that deals with discrimination and retaliation in any form and let the State or Federal court systems handle them completely.

#### Outcomes for Some Present and Former UT-B Employees and for Some Positions

As reported in the ORNL employee newsletter (December 2001), the Physics Division ES&H officer -- the person who spoke disparagingly to me of the "charge-by-the-minute people" and who was one of the "shadow" safety people that Madia was supposedly getting rid of -- won a major ORNL award for "promoting excellence in environment, safety, health, and quality" in her division and ORNL. She also

won an ORNL award for "Women of Courage and Vision at ORNL", as stated on one of the ORNL Web pages (2001). The Web page bio stated that she was a certified hazardous materials manager and a Registered Environmental Manager; it also stated that she had come to ORNL as an accelerator operator in 1984 and had earned a degree only in 1999 (magna cum laude -- in Sociology). The Spallation Neutron Source readiness review report (7 September 2004) for the Linac tubes showed her as the only identifiable ORNL signatory on the "independent review team".

The same Web page stated that Linda Gilpin -- who had testified for UT-B at my hearing in 2001 -- also won the Women of Courage & Vision award in 2001. The ORNL Reporter reported (October 2003) that she and two quality assurance people had won a Significant Event team award for "NNFD [Non-reactor Nuclear Facilities Division] implementation and assumption of responsibilities" (whatever that means).

The Oak Ridger reported (27 November 2003) that Paul Gubanc -- the Defense Facilities Safety Board employee with whom I had dealt regarding Building 3019 and who went to work for UT-B at ORNL some time in (I believe) 2002 -- had won a major ORNL award for "his tireless leadership, compelling presence, and commitment to operational excellence in the formation of the ORNL Nonreactor Nuclear Facilities Division in its inaugural year". He had already won, with others, a "Significant Event Award" for his efforts in creating this division (ORNL newsletter, May 2003). In December 2004, he was shown on an organization chart as the director of the ORNL Laboratory Protection Division, which included the security guards, the shift superintendents, the fire department, etc. The head of the Emergency Preparedness group also answered to Gubanc: this was David Milan, who in the Lockheed Martin days was in charge of all of ESH&Q above the division level and was Sims' boss.

As reported in the ORNL Reporter (employee newsletter) (January-February 2004), Jan Preston, who had been director of Independent Oversight at ORNL, left in late 2003 to take a position at Battelle corporate headquarters (The Oak Ridger, 6 January 2004, said that it was as "interim" director of Battelle ESH&Q). ORNL Independent Oversight was then combined into the Audit and Assessments directorate. There was a newly created position of "Employee Concerns Coordinator", "a role [that was a] response to an ORNL focus group's call for a more centralized approach to receiving and responding to employee concerns". Steve Stow -- the ORNL "ombudsman" during most of the Madia years -- became the director of the American Museum of Science and Energy, which, as I mentioned above, UT-B had been directed by DOE to fund and run. Dr. James Rushton -- who had been in charge of the MSRE for Chem Tech and later of the U-233 work at Building 3019 -- was acting division director of the Nuclear Science and Technology Division for a while; The Oak Ridger (1 February 2006) reported that he had been made the permanent director of that division. J. Ed Lee -- who had been in charge of HFIR -- seems to have been elbowed aside, along with other HFIR managers, by people brought in from outside by UT-B.

For years, Dr. Steve Sims, Carol Scott, Jerry Hunt, and the (fortunately) inimitable Dale Perkins were all still in their places. Then there appeared two rad protection job postings of interest on the UT-B Web site in August 2004. (These were the two new rad protection jobs I mentioned above.) One was for a rad engineer. Now, Gloria Mei and Rich Utrera -- all the rad engineers UT-B thought they would need, with fill-in help from other divisions -- were still at ORNL and in fact still are. So why would UT-B need to advertise for another rad engineer? By the terms of my settlement, I of course could not apply for a position with UT-B until about 1 December 2004. So if they had in mind that they would not want me to apply, they got this posting in just under the wire. Gloria Mei told me at the time the posting came out (at a Health Physics chapter meeting where we happened to see each other) that she did not know about it and had not been consulted about it; it seemed that the prospective rad engineer would not be working with her and Utrera, but rather for Hunt or one of his group leaders directly. Among the specific job duties were "providing technical expertise on the use of....technical work documents such as ALARA plans", reviewing radiological work plans and radiological work permits, assessing the performance of radiological operations and processes, and "establish[ing] relationships with line management and other

radiological support personnel [sic]" -- i.e., just what Geber and I had done. Certification by the American Board of Health Physics was desirable and the candidate had to be able to get a Q clearance, both of which qualifications Geber and I had had.

The other posting was for a group leader in Radiological Control Services. This person was to serve as "the radiological control manager for ORNL" -- but that was what Hunt was, or so I thought. Among other things, the prospective group leader was supposed to serve as the senior radiological lead at ORNL for determining the adequacy of radiological performance and to "develop and lead special assessments and evaluations of radiological processes and systems -- as though he were to be an auditor. He was to be "accountable to lead ORNL in the achievement of radiological excellence" and to obtain resources and participation on ORNL-wide initiatives -- as though he were to be a program manager. But he was also to "monitor and control all aspects of the projects/programs, including schedules, milestones, and costs" and to "establish relationships with ORNL customers and develop new business in related areas of interest" -- as though he were to be a project manager. For this position, certification in health physics "or an equivalent combination of professional experience and education" was required, although the posting didn't say what would be equivalent, and again, the candidate had to be able to get a Q clearance. The giveaway, of course, was that quintessential UT-B "business development" requirement. It would not be enough for the group leader (who according to the posting would answer to the head of the Occupational Safety Services Division, i.e., to Carol Scott, not to a section head) simply to manage a program, provide technical direction, etc.; he had to be able to bring in funding as well.

Then I heard in the summer of 2005 that Hunt had been shunted aside in favor of this newly hired group leader (a former Bechtel Jacobs manager) and that Hunt now reported to him. I also heard that Carol Scott was going to be moved laterally and not be a division director any more. This was confirmed by a note in the ORNL Reporter (October 2005) that the Operational Safety Services Division had been split into two divisions, one the Nuclear and Radiological Protection Division and the other the Safety Services Division. The former was to be headed by the group leader for Nuclear and Radiological Support Services (i.e., the new hire) and the latter by someone hired from Y-12. Scott was to become the "operations manager" for the ESH&Q Directorate.

Some of my favorite rad techs and other rad protection people seem to have done okay, thank goodness -- UT-B even gave one an award for community service, one a Women of Courage & Vision award, etc., which, knowing the people, I am sure were well deserved. I won't mention their names, but best wishes to you, guys!

The Knoxville News-Sentinel and The Oak Ridger reported (28 September 2005) that 250 new employees had been hired at ORNL in 2005 and that "that hiring pace should continue for the next five years", according to ORNL's Technology Transfer manager, Alex Fischer. Over the year 2005 and the next five years, that comes to an additional 1500 employees over what they started with at the beginning of 2005. It would be interesting to know what these people will be doing and who will be funding their work -- surely they can't all be working on the Spallation Neutron Source. Fischer also said that each year "250 families [would be] moving to Oak Ridge and finding opportunities at Oak Ridge National Laboratory" -- as if they were all married with children and as if every single one would live in Oak Ridge.

The ORNL Reporter (January-February 2006) reported that ORNL added 176 staff members in Fiscal Year 2005, for a total of 4038 people in January 2006 -- the highest since the 4115 employees of the year 2000, bouncing back from the low of 3745 employees in 2004. ORNL Director Jeff Wadsworth was quoted as saying that this represented an increase in research spending, with the research budget rising from \$563 million in 2000 to a projected \$962 million in 2006 and with the corresponding percentage of research staff rising from 50% to 53%. The 2005 budget included \$117 million for capital building projects such as the Spallation Neutron Source. Presumably the 2006 budget would include a like amount.

But still, hundreds of millions of dollars more for just a 3% increase in the proportion of research staff and for fewer people overall? The Oak Ridger (14 December 2005), reporting on DOE's recently announced five-year, \$6.3 billion contract to UT-B to run ORNL, quoted UT-B spokesman Billy Stair as saying that the contract was "an expression of confidence in UT-Battelle management" on the part of DOE.

#### Some Miscellaneous Observations

As should be clear from my story, my lawyer's treatment of me was uneven. Held is a crusader and an idealist. However, it seemed to me that whenever she thought things were going badly, she put the blame on me. At times, I had to try to get what I needed without her help and support, which I logically should have had. For example, it may be recalled that she did not plan for any rebuttal at my hearing and when I insisted on making a rebuttal statement, she made me ask the judge myself. It may seem as if I got my way, in that I did speak to the judge, but she should have been the one to ask him -- it would have looked better, even if she had had to say to him, "Sorry to bother you after I thought we were done, but my client insists", and she owed it to me to make every effort to get positive testimony on the record. Still, I don't feel angry at Held. Lawyering is obviously not a science, but more like a game that, while it has rules, has an uncertain outcome and can have the lead changing from moment to moment. So a certain amount of bobbing and weaving is to be expected, which is hard for a "just the facts" person like me to adjust to. Held was alert in the hearing and in her briefs and managed to elicit some surprising information from UT-B. I can say sincerely that she did provide encouragement from time to time, which meant a lot because it was persuasive that she believed there was a solid basis for my case. The very best thing she did for me, I believe, was to persuade me to appeal and thus she did get me the one thing I truly wanted, to win and thus be vindicated. Her best characteristic was one she shares with me, pure doggedness. I would recommend that to anybody who is considering a legal case involving DOE or one of its contractors that he find a lawyer with this characteristic.

#### Observations and Recommendations Regarding DOE and Safety Management

I will conclude by summing up briefly my thoughts on DOE and safety management, in particular how DOE needs to change its ways and its contractors' ways in order to provide effective protection of workers. I will speak below to the case of rad protection, but clearly the comments would apply as well to other safety areas.

The reader should recall that UT-B's announcement in the area of safety and health that the Lab Director (Madia) was going to hold managers and supervisors accountable for safety. This proposal was apparently the basis for leaving final safety decisions in the hands of line management, i.e., that managers and supervisors would theoretically take safety seriously because their jobs were on the line if anything happened. This proposal was apparently accepted by DOE as a valid approach to accountability in safety management. But consider the case of the Materials & Ceramics Division technician injured by a saw and subsequently fired that I related earlier. I do not know if this man had a history of safety violations or not, although one former M&C staffer told me that he recalled that the man had been injured previously. However, M&C was one of the most safety-conscious divisions, so it seems unlikely that they would have tolerated his actions all those years if he were constantly cutting safety corners. I do not know if any managerial or supervisory heads rolled as a result of this incident, or if any bonuses were forfeited; if so, this was not communicated to the press and presumably not to ORNL at large either. But the implication was clear: if some breaks a safety rule and is injured, it is his fault. His motivations and the rationale for his actions are not relevant. It was not sufficient punishment to be injured; he had to be cast out of the circle of the blessed into the outer darkness.

Anyway, that is how it strikes me. I certainly think that unregenerate or unduly dense people should be promptly and firmly separated from any involvement in hazardous work. But when somebody makes a dumb mistake and pays for it, he may end up being a much safer worker, having learned his lesson. The

rehabilitation of such a person (both in body and in attitude) and his subsequent presence in the workplace, scars and all, may serve as a salutary reminder to others of what can happen. On the other hand, getting rid of the injured worker while keeping the supervisors and managers might be a signal in reverse to everybody: (1) the worker will be blamed, so he should cover up, and (2) supervisors and managers are forever -- they shouldn't be penalized for those idiot workers' antics. Perhaps I should add a third point: DOE seems completely comfortable with all this.

DOE should remember that it is DOE's objectives and priorities that the contractor is supposing to be conducting operations for, it is DOE's money that provides the jobs, and it is DOE's ultimate responsibility to ensure safety. DOE assures workers, the public, and Congress (and any other group that asks) that DOE is emphatically on the side of working safely. But then DOE allows a great deal of formal and informal self-regulation, self-assessment, and self-reporting by the contractor, without adequate oversight structures and practices. As I have described, they even have contemplated making this self-regulation, self-assessment, and self-reporting official.

DOE segued from the Rad Con Manual to 10 CFR 835 to Work Smart Standards. Allowing contractors to propose their own sets of standards beyond the threadbare 10 CFR 835 gave these contractors the opportunity to persuade their local DOE regulators and subsequently the DOE reviewers in Washington that their choice of standards was based on their intimate knowledge of their operations and thus was "necessary and sufficient" for doing the work safely. But as was the case at ORNL, this approach opened the door wide for contractors who were trying to get out from under any commitments and to ensure maximum flexibility and a case-by-case approach to the work. In addition, the ability to cherry-pick standards -- even to the point of adopting only limited parts of standards -- allowed the contractors to present the illusion of being covered by a broad set of standards when in fact the actual requirements might be minimal. DOE's superficial inquiry into the adequacy of the ORNL standards sets and how they were arrived at (as in the case of HFIR's set) boded ill for such potential violations as avoided reviews: it seemed to suggest that DOE would be even less questioning regarding contractor assertions of compliance than it had been in the past. I believe that this proved to be the case.

The obsequiousness and the often craven deference to line management by ORNL safety managers was shocking because it clearly showed the lack of independence of the safety organization and the tolerance by DOE of the trend toward the "customer service" paradigm in safety management. DOE also tolerated the shift from the rad protection organization's being "the rad police" to being simply advisers, without requiring UT-B to show a clear oversight authority. UT-B managers' statements that "Madia would hold them division and project managers responsible" was a hollow claim if nobody was clearly tasked with reviewing safety decisions before work was done and with auditing and checking up on safety decisions after the work was done -- i.e., without both prospective and retrospective reviews by independent safety authority. Notably, the ability of the line managers to choose their own "independent" reviewer, which should have been a huge red flag to DOE, was apparently accepted without question, as was these managers' contention on various occasions that they were either unaware of procedural review requirements or made their own interpretations of the procedures. Why doesn't DOE care?

Consider again that ORNL saying, "The line manager chooses the level of risk that he wishes to assume and then selects the controls to correspond". Somebody must have thought that up -- was he an ORNL person, a DOE person, a consultant? Whoever it was, it seems likely that he knew exactly what the implications of that statement were; he must have know that he was providing theoretical cover for the O&R entities to gain ascendancy over the safety people. Similarly, the Battelle model of splitting the safety people into the advisory/recommending/prospective lookover group and the "oversight"/audit/retrospective lookover group clearly enables any true real-time oversight and correction to be avoided. Why isn't DOE concerned about this patent hole in safety planning?

DOE makes little pretense of looking at the qualifications and experience of the people hired by the contractors. The statements of qualifications and experience that were associated with the issuance of 10 CFR 835 were only in the guidance documents -- and thus were only recommendations, only optional. So again and again we see in job advertisements even for positions of safety analysis document evaluation that the employer would like a person with a professional degree and health physics certification, but still will accept "equivalent experience and training" -- meaning that they may not expect to get anybody competent who has a degree, much less certification, for what they are willing to pay. Often, this means that they are willing to pay experienced rad tech wages. Formerly, such a person would have had quite a lot of experience: often, he would have had a relatively rigorous training such as being a tech in the nuclear navy and would have had years of experience in a power plant or a DOE facility. Now it seems that the training can be relatively superficial and the experience less extensive. This is in agreement with the principle of plausible cover, i.e., you try to get someone who understands that he is to rubber-stamp the document or operational plan and not actually question the details, which the operational people mainly determine and which he may not completely understand anyway. Occasionally someone will be hired who does have a degree, even an advanced one, and lots of experience -- but not in the right area. That is, they may hire someone who had a lot of experience in dosimetry, but had little to do with field work directly, and who was laid off and is conveniently available to work for peanuts. Such a person might well be able to "convert" to operational work with the proper mentoring, but if he himself is expected to serve as the voice of HP authority, then he has no opportunity to learn the ropes as he should. DOE does not appear to be concerned that these sorts of things are happening -- they leave it up to the contractor to decide what he needs to do to satisfy safety requirements. DOE is deluding themselves if they think that under such circumstances, competent people are always making the safety decisions.

There is an old saying: "To know all is to forgive all". But in DOE's case, "knowing all", i.e., finding out all about a problem, seems unimportant -- DOE ignores its own rules and directives and "forgives" everything unless some public entity, such as a city council or state, makes a fuss. Even then, DOE often seems to provide cover for the contractor in its public statements. Obviously, DOE needs to be "invested" to some degree in its contractors once they are chosen, which would be true for any entity selecting any company to let a contract to. But DOE acts almost....motherly, as though their contractors were their children and DOE therefore could and should overlook any shortcomings, rather than this being a true business relationship in which deficient performance should result in a loss of or renegotiation of the contract. Furthermore, DOE seems to push away any evidence of malfunctions until it is too obvious to be ignored. DOE seems like the Wicked Witch in the musical "The Wiz": it orders its agents (the contractors), "Don't tell me no bad news".

What could DOE do instead? Well, I have read that safety regulators in the United Kingdom take a collegial approach. That is, while they are secure in their authority and don't hesitate to use it in serious cases, they prefer to use persuasion and education in minor or non-time-critical cases or in cases where the regulatee appears not to have understood the regulations. They are willing to work with a contractor or licensee in exchange for candor and openness regarding the true operating and working conditions. I think that this is a constructive approach in terms of optimizing worker safety. This is in fact the approach taken by many radiation safety officers (at hospitals, universities, etc.).

But to take this kind of approach, you need regulators who are experienced, informed, and most of all, energetic about looking into the details of procedures and operations. To take this kind of approach, DOE would have to have a knowledgeable set of experts evaluate all (and I mean all) of its field rad protection people on an individual basis and decide which ones were okay as is, which needed re-education, and which were pretty much hopeless in terms of aptitude for their jobs. The experts would come from the contractor world and from DOE itself, but would also be from non-DOE rad protection organizations, including rad safety offices, but not from the professorial ranks. They would take points off for excessive time spent sitting in the office, excessive paper-pushing, for excessively putting down "Contractor

verified this" or "Contractor said so" as a reason for blessing something, and for excessively stating, "I don't know -- Headquarters just told us to do that" when asked for the rationale for a particular directive. They would also take points off for inadequate investigation of incidents.

I believe that the result would be that many of the DOE field rad protection people would be found to be inadequate for the new regulator paradigm, i.e., they would be found to have spent little time (and that not very effectively) in digging out relevant information and observing operations in a knowledgeable way. DOE used to spend money and time in training reactor people, health physicists, etc., not just in "time-distance-shielding" but also in good practices and practical problems. They could do so again in a more effective way to prepare DOE people to assume positions in their safety ranks, or to re-educate them to continue in their positions. I think a lot of the DOE people would get into the high-involvement mode with gusto: they would be relieved to be empowered to make a difference in a positive way and their interest in their jobs would be heightened. The new DOE regulator/field person would normally be prodding and persuading the contractors to make reasonable and necessary changes, and normally the contractors would do so -- because they would know that if they did not, the DOE field person could and would lower the boom on them.

The DOE manager cadre would similarly have to be re-educated. No longer would their highest priority be not rocking the boat, not offending the political powers that be in Washington and the local area. Their priority would be worker safety and the demonstration of safety adequacy. That is what they would and should be judged on. Keeping on good terms with the local contractors would be important, but these managers should be backing up their field people with respect to the contractors, not pressuring the field people to make nice with the contractors because that is what DOE-Washington wants because that is what particular powerful representatives and senators want because that is what the contractors want (and because they are contributing to the campaigns of the representatives and senators and have influence in local politics). The pressure chain I traced above has got to stop if DOE is to provide responsible safety oversight.

Finally, the DOE-Washington people would have to change their ways as well. I don't think this is really a question of whether it is the Democrats or the Republicans who are in power; the reader should note that UT-B won the ORNL contract and took over ORNL under a Democratic administration and has continued to thrive under a Republican administration. There are, or used to be, some good people at Headquarters trying to come up with reasonable and scientifically based regulations and guidance. Why, I ask, would the federal government not want them to succeed in that endeavor? Consider the guy I knew years ago who had worked as an engineer for some years and then joined DOE's Oak Ridge office; he was assigned to produce a technical report and did so. When his boss praised it and asked which subcontractor he had hired to write it -- since that was the way this DOE office handled technical issues -- he indignantly pointed out that he had written it himself. With this "I can and should be on top of the technical issues in my scope" attitude, he obviously was not DOE material and he eventually left DOE. If DOE is not going to be on top of the technical issues, as a group, including its managers, then workers would be better off if DOE promulgated a comprehensive and entirely fixed set of rules. Then trained monkeys could check the items off on a list on their clipboards...in between bananas.

The ad hoc manner in which the "assessment" of my safety concerns was handled by local DOE is obviously unsatisfactory (although credit should be given to Smith for trying) because most of the central problems were not looked into at all and no firm and defensible conclusions were reached. Besides that, as a DOE person pointed out to me, DOE (including its safety people) was "invested" in ORNL's safety program by virtue of having blessed ORNL's ISMS program and by virtue of my having complained about the response of some of DOE's people to my expressing concerns. Such a significant conflict of interest should be avoided in future investigations. DOE should establish a general procedure that would be applicable nationwide to such cases; DOE should have a preliminary evaluation done at an early date

by DOE-Washington to determine the need for representation on the investigating team by DOE people other than those in the local DOE office and by people other than DOE people; and DOE should develop a process for evaluating, reporting, and, when appropriate, determining actions to be taken as a result of the findings. They may say that they do this now and they may have some vague statements on the books to this effect, but my case obviously shows up the flaws in their system, if there is one.

There are a number of conflicts of interest inherent in the way DOE handles things, or allows the contractor to handle things. First, DOE allows the contractor to run an employee concerns program that includes handling safety concerns, but DOE does not appear to audit or otherwise check periodically how these concerns are handled (or didn't when I was at ORNL). Again, DOE may say it does so, but it is clear that they did not do so at ORNL; if they had audited the employee concerns program even annually, the unaddressed concerns raised by me and others I know would have popped up right away. I think that some DOE person may sit down with the employee concerns people once in a great while and cordially discuss the program, but that is very different from pulling employee concerns files at random and checking into how the contractor actually resolved concerns, as opposed to how the contractor said it was resolving concerns. DOE should talk to some of the employees who reported concerns to see if they thought their concerns were being handled adequately, or even at all. Allowing the contractor to handle the concerns and then unilaterally report success is obviously a conflict of interest because there is the potential for suppressing concerns that the contractor does not want DOE to hear.

Second, DOE has, as I described in an earlier chapter, a "Let's you and him fight" approach to complaints of discrimination and retaliation. DOE presents itself as a neutral party in the litigation of such complaints when it in fact funds the contractor's litigation activities as a part of its contract, at least up to the point where the contractor loses. If DOE funds one side up front and not the other, then they are in effect taking sides. Also, it seems clear that DOE has conversations with the contractor about the litigation, conversations that the other side is not privy to; the Office of Hearings and Appeals no doubt maintains a strict policy against ex parte communications, but that does not keep the rest of DOE from providing help and information to the contractor. It seems too that the rules regarding the handling of the highest level of appeal (the Secretarial appeal) are made by the political part of DOE, not the Office of Hearings and Appeals, and thus there is an opportunity for decisions to be swayed by political considerations. This too represents a conflict of interest.

Finally, if the local DOE office or even DOE as a whole is "invested" in a particular contractor's approach -- its policies and methods -- it is hard to see how DOE can objectively investigate the safety aspects of concerns that are submitted to DOE, or how DOE can mediate agreements between the two sides. I believe that this was demonstrated by the presence of the DOE lawyer at my settlement meeting: ostensibly she was there to mediate a settlement, but this was belied by the instructions given to her by DOE headquarters to come back with a signed agreement that very day. If DOE were neutral, why would they care one way or the other? The answer would be that DOE was trying to get rid of a problem that was embarrassing either to DOE or to UT-B. This sort of thing completely belies DOE's claim of neutrality.

#### Final Observations and Conclusions

As Bette Midler once sang, you got to have friends. If it hadn't been for my all my friends -- in the band, in the cactus club, and especially in the layoff support group -- I am sure that I would have plunged into depression. It's certainly a comfort to have your self-respect, but you need the warm fires of human contact to keep your spirit intact. My best friend of all was my husband, who may qualify for sainthood to have stayed married to me for over 30 years. I am grateful to Mei and Mlekodaj, who I think were honest in their testimony at my hearing, which likely did not help their careers, and who don't treat me like a pariah but act glad to see me at local Health Physics Society meetings. I would also like to point out again to everybody the singular courage shown by Don Mueller, who as an ORNL employee could have been

retaliated against by UT-B for voluntarily testifying on my behalf at my hearing. I think they didn't dare do so because it would have been too obviously retaliation, but he could not have been sure of that when he came to speak for me at my request. I think he punched his ticket to Heaven that day. I hope he has a long and prosperous life, with lots of interesting work to do along the way.

As I have told people regarding my whistleblower activities, if I had it to do over again, I would. That is because I viewed my actions as my duty and so I had no choice -- it would have been dishonorable and immoral to do anything else. Having said that, I must qualify it by saying that had I seen what was down the road, I might have chosen not to have gotten to the point where it became my duty to speak out -- I might have chosen to change jobs long before the end, say in 1997 or 1998. Back then, my husband urged me periodically to do so, saying that I was bringing it home all the time and that it was too stressful for me. He is a non-confrontational sort of person who, while he supported me in my efforts, wondered why I kept going back to the fray. I explained that I liked the work itself and ORNL as an institution; it was just the circumstances and the attitudes of some managers and fellow division people that I had difficulty with. I viewed these attitudes as not necessarily fixed and permanent and thus I persevered, hoping to change things by persuasion and education. I kept hoping too that the regulatory pendulum would swing back. I felt that I was in for the long haul -- that I was dedicated to getting ORNL into an appropriate safety stance, even if that took years. As I said earlier, I didn't really think I would be laid off, so I hoped that if I just bided my time, things would change.

My advice to others who share my concerns about safety is to persevere as I did. But they should also set a limit on what they can tolerate and when they hit that limit, they should find another job. I don't advise anybody to become a whistleblower if he is not, in effect, willing to be burned at the stake for his beliefs. Yes, Joan of Arc became a saint, but she's dead, isn't she? She went out in a blaze of glory, but she went out in a blaze -- literally. Ouch. Certainly I did not suffer to Joan's extent, but I do feel as if I had been "kneecapped" (metaphorically speaking, of course).

The reader should realize that my professional career has been altered for the worse. True, I have a job now and I am grateful to have it. But as I noted earlier, it is not in operational health physics and I have had no involvement at all in real-time health physics for three years (since I left the Job from Hell). And the more time that passes and the further away I get from operational health physics, the easier it will be for a potential employer to reject me on the grounds that my experience is "not recent". I submit that despite DOE's vaunted support of whistleblowers, DOE has allowed me to "twist slowly, slowly in the wind" in a professional sense. This is particularly true since I did try to report to DOE-ORO the lack of interviews for positions I was qualified for -- which should have indicated to DOE that discrimination was occurring. I feel sure that if I had been complaining of racial or sexual discrimination, DOE would have looked into it. I think that the local and Washington DOE management should be ashamed that the sidelining of an experienced and by all accounts competent professional occurred on their watch and they did nothing to prevent it.

Regarding self-interest, I must remark that it is not wrong for a person to look out for his own interests to the extent that he can do so in a moral and ethical manner. But when he has accepted a duty to protect others and he compromises their safety because not doing so may affect his status or his promotional opportunities or his employability or, most of all, his financial position, then he has crossed the line. Fear of retribution by higher-ups arises, I think, from self-interest; again, this is not necessarily wrong, but can become so if a person reneges on his commitments in order to save his own hide. This is particularly true when the consequences to him are only financial while the potential consequences to the person he is supposed to be protecting include bodily injury and even death.

Many people seem to have a great capacity for self-delusion -- for not only not calling a spade a spade but for not even recognizing that it is, in fact, a spade. A lot of people involved in DOE work in and around

the Oak Ridge Reservation seem to suffer from this. They think it doesn't really matter what they do in the area of safety because nothing serious is going to happen -- because nothing serious ever does. They express this by saying things like "Nobody's ever going to get a serious dose with what we work with" and "Our doses are always low so there's no need for dose-reduction overkill". These things may be true in a superficial way, but they ignore the fact that the main reason that doses are low is because of rules and practices developed long ago as the result of experience, often as a result of incidents or near misses. To become complacent because of a lack of adverse occurrences in recent years and to relax practices and rules without careful consideration of the consequences is to ignore the experience of our esteemed predecessors.

It seems to me that the qualities of being agreeable and flexible have been elevated over the years to the point where they seem to be the principal qualification for getting some positions -- not just public relations and human resources and similar "people-related" jobs, but even jobs where one would think the first considerations would be training and experience, such as safety jobs. Once this has been going on for a couple of decades -- say ten years from now -- then we will have whole teams of yes-men who act like those dolls whose heads bob up and down when you push on them. The O&R manager will ask, "Do you like my latest idea?" and they will all nod and smile. There is a name for such people: sycophants. The emergence of the sycophant class will spell the end of truly professional health physics and the end of true prospective protection of the worker; it will mark the beginning of preoperational justification of what the O&R manager wants to do and postoperational justification of whatever adverse consequences arise.

It is hard to swim against the feel-good current. It is hard to tell people that there is a problem with their work plan or their procedure or their under-ventilated enclosure, but if it is your job to make such judgments, then you have to tell them in a straightforward way. It is hard, in front of several dozen strangers, to question whether a giant dust bag can be installed by a single guy without his losing control of the billowing thing, as an operational presenter is glibly asserting, but if it is your job to review that design, then you have got to raise your hand and open your mouth, even if you may embarrass that presenter and even if he is a nice guy. It is hard to do these things, but if you are a safety person, you have to keep your mind on the central idea: it's not about your job security, or about the presenter's self-esteem, or even about satisfying the "customer", whoever that is supposed to be; it is about protecting other people's health and safety. Safety people have got to keep their eyes on that ball.

Self-delusion is even more pronounced when such people are looking at a whistleblower like me. I have to infer what they are thinking because of course they do not say it to my face, but I believe it would go something like this. "She must be a difficult person, she must have ticked people off right and left, for them to get rid of her like that. Sure, DOE found in her favor in her legal case, but the way I heard it, it was all political -- maybe those lawyers in the Office of Hearings and Appeals were trying to make some kind of statement. What do lawyers know about safety anyway? Besides, we all know how things are around here in Oak Ridge and who really calls the safety shots. So if she wasn't smart enough to see which side of her bread had the butter, well, she can't really expect to work in this town, can she? Of course, we should all be polite to her, but we need to keep our distance -- mustn't risk being associated with her and getting tarred with the same brush." This is a bit hyperbolic, but only because most people feel stuff like this inchoately, on a gut level, rather than expressing it to themselves in words.

I could probably tell such people until I was blue in the face that my performance rating had been moved downward significantly by someone who wasn't supposed to have decided it, that three safety people had been taken off the MSRE project, that repeated rad protection procedure violations had occurred at HFIR, etc. -- and it would mean nothing to them. They would prefer to ignore all that I could say, all the things that demonstrably had happened, and instead believe the canards that they had been told by people with something to hide. They would prefer to believe those people because it would be too horrible for them to think that there could be anything seriously amiss in the conduct of the rad protection program by a major

DOE contractor and site, especially by a contractor that seems to be rising higher and higher in DOE's estimation. Mentally and emotionally, they would turn away from it, as not being part of the world they live in. They would fasten on anything they could find that was disparaging of me, because the more they could hear against me, the easier it would be to dismiss me as a troubled individual with self-interested motives and no capacity to appreciate reality. And the easier it would be to believe, as stated by Voltaire's character Dr. Pangloss, that despite its flaws, "this is the best of all possible worlds".

I can only say, with Duke Ellington, that "it don't mean a thing if it ain't got that swing". You either care about safety or you don't, and if you don't, then you shouldn't be working in any area that involves safety application and management. This applies to both operational managers and safety people themselves, and to both contractors and regulators. If you say you are going to follow a particular step in a procedure and clearly you have not done so when you could have and should have, then there is no question that you are in violation of that procedure. How could you in good conscience, objectively, claim that you are not? If you say that you support your safety people, but remove three of them from a single project at the behest of the project manager when all they were doing was trying to ensure that the agreed-upon rules were followed, then you are talking the talk but not walking the walk. If you say that you investigate and resolve safety concerns and then do nothing for nine months, then you have a sham concerns operation. Most of all, if you are a regulatory agency and say that you investigate and resolve safety concerns but you do not check into the events specifically cited in a concern, then you have perpetrated a fraud on workers, the public, and Congress. The fact that contractor managers and DOE do these things shows that they are either venal or -- let's be kind -- dumb as a box of rocks. I think they have told themselves so many times that it's okay, that good intentions are all you need to do good, etc., that they have come to believe it.

The worst part of it is that DOE thinks it is doing well because it keeps fine-tuning its regulations, keeps meeting with contractor managers and discussing the safety programs, and keeps giving progress reports at various professional venues. But is it really making progress in understanding operational safety problems and is it helping the contractors to do so? DOE used to give a lot of safety topic-specific courses and conferences, trying to provide information to and connections between safety people, but not any more; now these conferences seem to deal with managerial-administrative matters and business philosophy and seem to be attended more by managers than by the safety peons who actually have to execute the safety directives in the field. At Health Physics Society conferences, DOE people used to present the new initiatives or guidance on how to implement them, while contractors would discuss what the DOE people had said and what their individual sites' problems and progress were; now the DOE people recycle the same tired generic utterances in talk after talk, while the contractors mostly discuss the minutiae of rad protection work. I attended the main DOE talks (i.e., the four DOE talks in a row in the "Regulatory/Legal Issues" session) at the 2004 Health Physics Society Annual Meeting and I swear it was like being in a time warp.

DOE is not the inquiring bunch of technically engaged people it was in the Manhattan Engineer District and Atomic Energy Commission days (which one can see, as I have, from reading the old memoranda, letters, and reports from those days). DOE is even not the "Let's get this train back on the track" bunch of people that were briefly empowered (sort of) during the Admiral Watson days. DOE now pretty much epitomizes indifference and its actions are mostly reactive and shallow. Playing that game "If you were an animal, what would you be?", I think that DOE is most like a sloth. It can reproduce, in its fashion; it can find food for itself and its young, but only because food is easily found where it lives; it is not easy for predators to find, but only because of its position high in the trees and its relative immobility. It is remarkable for what it isn't, compared to other animals, not for what it is: it is not smart, fast, attractive, or enterprising.

I would like to reiterate that I have no quarrel with the idea of a national laboratory as a research and development area -- to me, it makes a lot of sense for the country as a whole to have the national laboratories. Similarly, the nation should have some federal entity handling the cleanup of areas contaminated with legacy waste. (And I am in favor of nuclear research, nuclear medicine, nuclear power plants, etc. -- those of you readers who are anti-nuclear activists, please do not invite me to your next rally.) The problem is that the national laboratories and the cleanup are handled by an over-politicized agency, many of whose people are not engaged technically or are simply not technical overseer material. I believe that it is evident to anyone who examines all the evidence that what happened at ORNL would not have happened if there had been a muscular regulatory authority protecting the safety people's independence. But there wasn't one -- DOE stood by and let this happen. I go back and forth between thinking that DOE must have known what was happening but cynically ignored it and thinking that poor old asleep-at-the-switch DOE got the wool pulled over its eyes by the sharpies yet again.

As somebody once said, when you have said all that you have to say, stop talking. I will do that now, but I hope that my words will resonate with all my readers and that steps will be taken to ensure that what has happened to me and others will not happen again, that the public interest will be protected, and most of all, that DOE's current approach to worker safety will be changed for the better.