

**Office of Occupational Medicine
and Medical Surveillance
U.S. Department of Energy**

**WORKPLACE VIOLENCE AT DOE
SITES
AN UPDATE THROUGH 1998**

Prepared for
U.S. Department of Energy
Office of Occupational Medicine and Medical Surveillance
Washington, DC

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March 2000

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WORKPLACE VIOLENCE AT DOE SITES

AN UPDATE THROUGH 1998

BACKGROUND

Violence in the workplace is an issue of concern for government agencies as well as private employers. In times of downsizing and budget constraints, additional workplace stress may lead to increases in both the number of workplace violence incidents and the level of violence expressed during these events. To continue monitoring this potential problem in the Department of Energy (DOE) workplace, the Center for Human Reliability Studies (CHRS) conducted for the Office of Occupational Medicine and Medical Surveillance a research study update to track incidents occurring between June 1996 and December 1998. The purpose of the updated study was to follow up the earlier research conducted by CHRS in 1995 and 1996 in which violence in the workplace was defined as threatening behavior, verbal abuse, self-harm, physical altercation, or damage to property.

The time period of the original study was approximately 15 years, ending in May 1996. Its objectives were to determine what specific types of incidents had been occurring, to investigate the number of these occurrences and level of violence over time, to profile participants in such incidents, and to gain insight into what means might be used to avert future occurrences. Thirty-five occupational medicine and related professionals from 27 locations returned questionnaires for the 1995 survey, reporting 74 events of workplace violence, with nearly 30% involving weapons, including 11 with guns. In the 1996 companion survey of human resource departments from 28 locations, there were 16 responders documenting 96 additional events. No duplicate reporting of the same event occurred between the two surveys. Of the 108 events for which time of occurrence was known, 32 were defined as “very serious,” including physical assaults, threats or assaults with a weapon, or stalkings. Verbal threats, verbal assaults, physical threats, and vandalism were defined as “serious” incidents. A trend test for an increasing proportion over time of “very serious” versus “serious” events had statistically significant results

with a p-value of 0.026. One question to be answered by the current research was whether or not this trend of increasingly more violent incidents had continued.

METHODS

During the spring of 1999 an update of the earlier CHRS study was begun to investigate continuing patterns of violence in the DOE contractor sites with approximately 120,000 contractor employees for the approximate two and one-half years from the end of the original study period, May 1996, through December 1998. There still did not exist a central collection point or standardized protocol for reporting workplace violence incidents within the DOE. However, information gained during the original study allowed us to modify our data collection procedure for obtaining data on recently occurring events. Twenty-four DOE contractor human resource departments were asked to contact all individuals from their locations, including occupational medicine and security personnel, who might have access to documented incidents of workplace violence and to return one completed questionnaire for each separate event. The questionnaire for this update was identical to the instrument used in the 1996 survey of human resource directors except for the addition of a question asking whether or not the perpetrator had a prior history of disciplinary action.

When a reported workplace violence event involved more than one type of violence, it contributed multiple counts to the total number of incidents. For statistical analyses each event was used only once, classified by the most serious type of violence occurring during the event.

For comparison with results from the original research, a Cochran-Armitage trend test was used to determine whether there was a statistically significant increase in the proportion over time of “very serious” versus “serious” events.

RESULTS

RESULTS USING UPDATE DATA ONLY

Twenty-three of the 24 (96%) human resource departments responded to the survey, although seven of these responses (30%) stated that no documented incidents had occurred during the 31 months of interest. The one department that did not respond had a recent change in management contractor, and the new contractor could not supply the requested information. The returned surveys contained varying amounts of information, with some responses supplying data on all fields requested while others providing only selected data.

Table I shows the number of incidents by type of violence. Verbal threats and verbal abuse included incidents where words, either spoken or e-mailed by the perpetrator, resulted in the victim being intimidated, berated, or insulted. Non-verbal gestures were obscene gestures made by perpetrators and insulting their victims. Stalking involved the perpetrator following and pursuing the victim, with whom he worked, even off the workplace site. Physical threats went beyond verbal threats by including the perpetrator's raised fist or other means of implying physical harm could result to the victim. Physical assault involved actual physical contact, including shoving, punching, scratching, and similar acts. Assault with a weapon occurred when the physical assault involved, for example, the perpetrator hitting the victim not with his hand but with a coffee cup or notebook.

Two types of bomb hoaxes occurred: phoning in bomb threats, which caused evacuation of facilities, and planting suspicious looking packages that appeared to contain a bombs. Vandalism included damaging property, such as slashing the tires of a manager's car. The reckless act was not described in detail, but it was noted that this act physically endangered several employees.

When an event involved more than one type of violence, it contributed multiple counts to values in the column labeled Number of Incidents. Only the most serious type of

violence occurring in each event was counted in the Number of Events column. A total of 98 workplace violence events were reported between June 1996 and December 1998. Because of multiple types of violence in 17 events, there were 118 incidents of violence in the workplace. Among the additional 20 incidents that were not classified as the major type there were 15 occurrences of verbal abuse or intimidation, one non-verbal gesture, two physical threats, and two physical assaults. Over half (57%) the incidents reported were verbal threats or abuses.

New categories of violence in the current study were non-verbal gestures, a reckless act that endangered others, and four separate bomb hoaxes, all of which happened at different sites. Two of these events were bomb threats, and the other two involved finding suspicious objects that appeared to be bombs.

Table 1. Number of Workplace Violence Incidents at DOE Sites Reported from June 1996 through December 1998 by Type of Violence

Type of Violence	Number of Events	Number of Incidents
Verbal threat or verbal abuse	52	67
Non-verbal gestures	4	5
Stalking	4	4
Physical threat	6	8
Physical assault	19	21
Assault with weapon	5	5
Bomb hoax	4	4
Reckless act	1	1
Vandalism	3	3
TOTAL NUMBER	98	118

* 17 of these events included multiple types of violence.

** When more than one type of violence occurred in an event, each type added a count to the number of incidents.

The data revealed the following general information:

- No incidents were reported in which guns were present; however seven current incidents involved weapons, which included sharp implements, a brick, and coffee cups.
- The only incidents occurring off-site were stalking of coworkers that took place at four different locations.
- For all reported incidents the perpetrator worked with or for the victim, with the exception of three perpetrators who were terminated employees, and seven perpetrators with unreported status with regard to their victims.

Table 2 presents the distributions of gender for the perpetrator and victim of each event. Overall, gender was known for 61 male and 18 female perpetrators, which was more than 80% of the perpetrators, and for 31 male and 25 female victims, which was nearly 60% of the victims. However, gender was not reported in 14 of the events (14%) for both perpetrator and victim.

The percent of events perpetrated by males (62%) was nearly three and one-half times the percent perpetrated by females. When a female was the perpetrator, 72% of the time the victim was also female.

Table 2. Reported Events by Gender of Perpetrator and Victim

Gender of Victim	Gender of Perpetrator			Total
	Male	Female	Unreported	
Male	27	2	2	31
Female	12	13	0	25
Unreported	21	3	14	38
N/A*	1	0	3	4
Total	61	18	19	98

* Includes bomb hoaxes.

As seen in Table 3, age was unreported for 51 (52%) of perpetrators and 61 (62%) of victims' ages, and 47, or nearly half of the events age, was not reported for both perpetrator and victim. The 34 victims whose ages were known were split almost evenly at age 40, as shown in Table 4. Among perpetrators whose ages were known, 30 (64%) were 40 or older, and 18 were age 50 or older, which was 38% of those perpetrators having a known age. In contrast, only 4 (8%) perpetrators of known age were under age 30.

Table 3. Age of Perpetrator and Victim
Age of Perpetrator

Age of Victim	Under 30	30-49	50+	Unreported	Total
Under 30	0	1	1	1	3
30-49	2	19	7	0	28
50+	0	1	0	0	1
Unreported	2	4	9	47	62
N/A*	0	0	1	3	4
Total	4	25	18	51	98

* Includes bomb hoaxes.

Table 4. Perpetrators and Victims with Known Age

	Number	Percent
PERPETRATOR		
Under 40	17	36
40+	30	64
Total	47	100
VICTIM		
Under 40	18	53
40+	16	47
Total	34	100

Marital status was unreported for 66 (67%) of the perpetrators and 67 (68%) of the victims. Among individuals with known marital status, approximately 60% of both perpetrators and victims were married at the time of the incident, as seen in Table 5.

Table 5. Perpetrators and Victims with Known Marital Status

	Number	Percent
PERPETRATOR		
Married	19	59
Not Married	13	41
Total	32	100
VICTIM		
Married	18	58
Not Married	13	42
Total	31	100

Table 6 shows the relationship of each victim to the perpetrator of the violent event. For the 60 events for which the relationship was known, 42 (70%) of the victims worked with the perpetrator (coworkers) while 18 (30%) were in a position of authority over the perpetrator (managers and supervisors). Ten of the 18 managers and supervisors were known to be male, and the perpetrators for their events were all male. Among the 10 events stalking and physical assaults each occurred twice. For the seven female managers and supervisors, four perpetrators were male and three were female. The most serious type of violence for these seven events was a physical threat. The gender of the remaining manager was unreported, but the perpetrator was female and the incident was verbal abuse.

Of the 42 coworkers, 17 (41%) were known to be female and 20 (59%) male. For the 17 female victims 9 (53%) of the perpetrators were female, while for the 20 male victims 17 (85%) of the perpetrators were male.

Table 6. Relationship of Victim to Perpetrator

	Number of Victims
Coworker	42
Manager	6
Supervisor	12
Unreported	34
N/A*	4
TOTAL	98

* Includes four bomb hoaxes.

Table 7 shows that information about substance abuse was not reported for 73 (74%) of the perpetrators but 16 (16%) of the perpetrators were known to be substance abusers. Known substance abusers included 14 (88%) for alcohol only, 1 for drugs, and 1 for both alcohol and drugs. Seven (44%) of the substance abusers were women; the remainder were men. None were known to have a prior history of disciplinary problems. Among the 20 perpetrators who were terminated, arrested, or resigned as a consequence of their violent events at work, 6 (30%) were known substance abusers. However, verbal intimidation or abuse was the only type of violence perpetrated among known substance abusers.

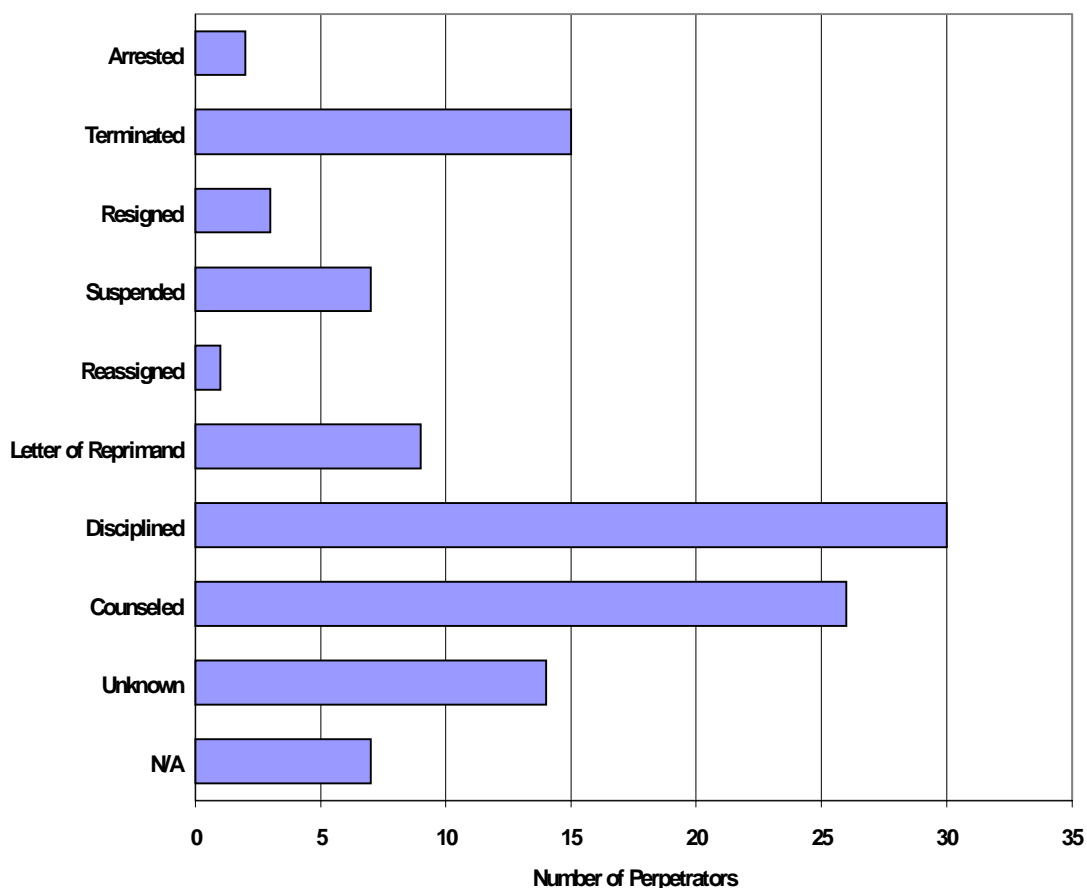
Data on health issues, military history, and prior history of disciplinary action were incomplete for more than 90% of the incidents and so were not analyzed.

Table 7. Additional Information on Perpetrators

	Yes	No	Unreported	Total
Health issues	5	4	89	98
Military history	7	2	89	98
Prior disciplinary problem	10	5	83	98
SUBSTANCE ABUSER	16	9	73	98

Figure 1 shows the consequences to perpetrators for their acts of workplace violence. There were 114 consequences from 84 of the 98 events, and consequences were unreported for the remaining 14 events. The 7 events for which consequences were classified as N/A resulted from two incidents perpetrated by terminated employees and vandalism and bomb hoaxes carried out by person or persons unreported. Of the 114 consequences 56 (49%) were either disciplined or counseled, and 50 perpetrators received one or both of these consequences. However, among all 98 perpetrators 25 (26%) resigned or were arrested, terminated, or suspended.

Figure 1. Consequence to Perpetrator of Workplace Violence Incident



RESULTS COMBINING ORIGINAL STUDY AND UPDATED DATA

Data from the original and updated study were combined to examine trends over time.

One result of the original study was a statistically significant increase over time in the proportion of “very serious” events, as defined in the Background section. A main objective of the current study was to determine whether or not the statistically significant increase found in the original study still held when data from later years were added.

Figure 2 gives the number of reported workplace violence events from the combined data from 1980 through 1998. The original surveys had documented 21 events from January to May 1996, and the annualized prediction for 1996 was 51 events. The current survey documented 24 additional events from June to December 1996, making the actual total 45. During the current decade the number of documented incidents was greater in every

year than the previous year except for 1997. The number of events reported in 1998 was nearly 10 times the number in 1990.

Figure 2 Number of Reported DOE Workplace Violence Events over Time

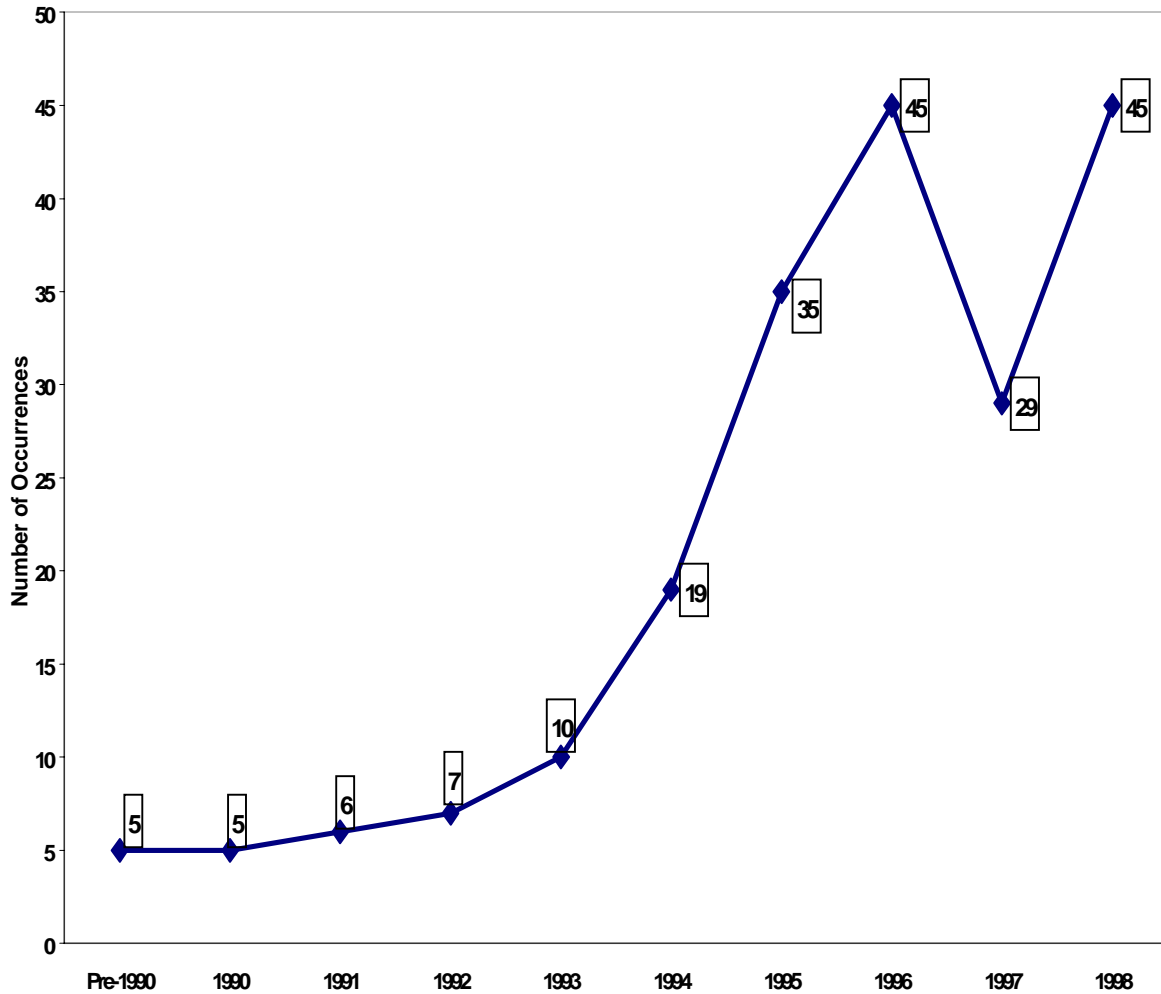


Table 8 also uses data from both the original and current research to present the number of violent events each year (and before 1990) that were classified as “serious” and “very serious”. There appears to be a trend of increasing severity, as seen in the column labeled “Percent of very serious to total”. The Cochran-Armitage trend test resulted in a one-sided p-value of 0.013. The null hypothesis of no trend was rejected in favor of the alternative hypothesis of an increasing proportion over time of “very serious” versus “serious” events.

Table 8. Serious* Versus Very Serious Incidents over Time**

	Serious	Very serious	Total	Percent of very serious to total
1998	28	17	45	38
1997	17	12	29	41
1996	24	21	45	45
1995	29	6	35	17
1994	10	9	19	47
1993	8	2	10	20
1992	5	2	7	29
1991	5	1	6	17
1990	4	1	5	20
BEFORE	5	0	5	0
1990				

* Serious incidents include verbal threats, verbal abuse, physical threats, vandalism, and non-verbal gestures.

** Very serious incidents include physical assaults, threats or assaults with weapons, stalking incidents, bomb threats or possibilities, and reckless acts that endanger others.

DISCUSSION

Although the current study covered a time period of only two and one-half years, 23 of 24 human resource departments surveyed reported 98 separate events, some including multiple types of violence, that resulted in 118 incidents of violence in the workplace. These numbers compare to 200 incidents from 170 separate events documented during the 15 year time period of original study; among the 170 events 108 of them had a known year of occurrence.

Several changes in patterns of violence were evident from the original to the current study. One striking difference was the absence of incidents in the current study in which guns were present and the decrease in incidents involving other weapons. The original study documented six cases of firearms on site and emphasized the importance of upgrading security to prevent firearms on site. There were no reported incidents of involving firearms in the current study. Categories of violence that appeared for the first time in the current study were non-verbal (obscene) gestures, a reckless act that endangered others, and four separate bomb hoaxes at four different sites.

Although nearly two-thirds of the perpetrators of known gender were male, this was a smaller proportion than found in the original study. Among female perpetrators, nearly three-fourths of the victims were also female. For approximately two-thirds of the occurrences, perpetrators and victims were coworkers and likely of the same gender. When the victim was a manager or supervisor, nearly 40% of the perpetrators were known to be female. However, the violence perpetrated against these women was verbal except for one incident of an obscene gesture and one physical threat. Male managers and supervisors experienced not only verbal but also more serious types of violence, including stalking and physical assault.

An unexpected finding was that more than two-thirds of the perpetrators with known age were 40 years old or older and nearly 40% were at least age 50. However, in the original study very few perpetrators were reported to be older than 50.

Sixteen percent of current study perpetrators of violence in the DOE workplace were known to abuse alcohol or drugs, which was a noticeable increase from the 6% from the original study. It is likely that 16% underestimates the true extent of substance abuse among perpetrators because information about substance abuse was missing for 74% of the events. Of the 14 current study perpetrators who were terminated as a consequence of their violent events at work, 6 (43%) were known substance abusers. However, verbal intimidation or abuse was the only type of violence perpetrated among known substance abusers

Seven of the event consequences were classified as N/A (not applicable) and included four bomb hoaxes and three instances of vandalism. Among the remaining 91 events, 26 (29%) of the perpetrators resigned or were arrested, terminated, or suspended. The high percentage of serious consequences is evidence that DOE is committed to a safe workplace environment.

Except for 1997 there was a pattern of continuously increasing numbers of reported violent events that sharply increased in 1994 and continued throughout the study period. The number of events reported in 1998 was nearly 10 times as large as the number documented in 1990. In addition, the statistically significant increasing trend in the proportion of very serious incidents of violence in the DOE workplace first reported in the original study still exists as evidenced by data through the end of 1998.

CONCLUSIONS AND RECOMMENDATIONS

The 1996-1998 data confirm many of the conclusions of the original 1980-1996 study. The DOE continues to experience various types of workplace violence incidents with frequency and level of violence increasing over time. Male employees are more likely than females to react in a violent manner while on the job to workplace or personal stress.

The current research data also revealed some changes in the ways that the increasing violence is being manifested. Physical altercations are becoming more common while assaults with weapons are not. In particular, no incidents were reported involving guns, possibly due to increasing security. Another change is that far more workers over the age of 40 and even 50 are among the reported perpetrators of violent incidents than were found in the original study, while workers under 30 years of age were not likely to be perpetrators.

Because of these findings the recommendations of the original study are still valid. There is a pressing need to establish the following:

- a central reporting system for incidents throughout the DOE
- a DOE-wide workplace violence policy and program with clear definition of what constitutes an incident of violence and
- a requirement that all such incidents be reported within a specific time period on a standardized form to the central reporting system

In addition, we recommend training for managers and supervisors to recognize individuals with changing behavior that may indicate potential for reacting violently to stress and to take appropriate action during and immediately following a violent incident.