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DOE Human Reliability Program Removals Report 2004 – 2006

ORISE

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DOE Human Reliability Program
Removals Report
2004 - 2006

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Executive Summary

This report presents results of the comprehensive data analysis and assessment of all U.S. Department of Energy (DOE) and National Nuclear Security Administration (NNSA) facilities that have positions requiring workers to be certified in the Human Reliability Program (HRP). Those facilities include: Albuquerque, Amarillo, DOE Headquarters, Hanford, Idaho, Nevada, Oak Ridge, Oakland, and Savannah River. The HRP was established to ensure, through continuous review and evaluation, the reliability of individuals who have access to the DOE's most sensitive facilities, materials, and information.

From 2004 to 2005, the total number of removals in the HRP for all causes at all sites increased by 7.8 percent, and from 2005 to 2006 that number decreased by 4 percent. At the beginning of 2004, 2005, and 2006, the HRP had populations of 8,565, 10,891, and 10,934 workers, respectively, an increase of 27 percent from 2004 to 2005 but only a 0.4 percent increase from 2005 to 2006. The number of reported safety-related removals between 2004 and 2005 rose by 48 percent but decreased by 7 percent in 2006. Removals attributed to reliability issues increased by 64 percent, while the worker population increased only 27 percent between 2004 and 2005. This rising trend in reliability removal cases leveled off in 2006 with an increase of only 1.7 percent. Nonreliability removals increased a relatively modest 3.8 percent in 2005 over 2004 and then decreased by 4.5 percent in 2006.

Further analysis concentrated on the corresponding HRP removals aggregated for all sites in 2004, 2005, and 2006 broken out by safety, reliability, and nonreliability causes. From 2004 to 2005, the removals for safety and reliability related causes increased slightly, from 1.2 to 1.6 percent, and from 5.9 to 8.9 percent, respectively. In that same period, the removals for all causes declined slightly from 29 to 24 percent. From 2005 to 2006, the removals for safety remained constant at 1.6 percent and removals for reliability-related causes increased slightly from 8.9 to 9.4 percent. The removals for all causes declined from 24 percent in 2005 to 23 percent in 2006.

Data for 2004, 2005, and 2006 on combined temporary and permanent removals for safety and reliability causes in the HRP for all sites show that removals for safety increased by 48 percent from 2004 to 2005, then decreased by 7 percent in 2006; alcohol abuse removals decreased 13 percent between 2004 and 2005 and decreased further by 38 percent in 2006; drug removals increased slightly by 6 percent from 2004 to 2005, then dropped by 32 percent in 2006; and removals for security issues increased by 80 percent between 2004 and 2005, followed by a 96 percent increase in 2006. The most prominent numbers of removals

resulted from nonreliability sources in the for-cause/administrative review category, which increased overall by 84 percent between 2004 and 2005 but then declined by 6 percent in 2006.

Individual categories of reliability removals along with safety (both temporary and permanent) were examined next for all sites. The analysis showed how they varied in frequency between 2004 and 2006. Temporary safety removals for all sites exhibited a 41 percent increase overall between 2004 and 2006 with concomitant permanent safety removals being much lower. Except for security, which showed a peak of 39 temporary removals in 2006, other reliability removals were at reduced levels. Although temporary removals, including the for-cause/administrative review category, were highest in number and increased by 151 percent from 2004 to 2005, the actual number of such cases adjudicated as permanent dropped by 13 percent. Between 2005 and 2006, the for-cause/administrative review removals continued to drop: a modest 6 percent in temporary and a corresponding 9 percent in permanent removals.

Analysis also focused on the eight different categories of aggregate temporary and permanent removals for nonreliability issues for all sites. Between 2004 and 2005, the total number of administrative cases decreased by 58 percent for all sites but increased by 28 percent in 2006. Also, from 2004 to 2006 the total number of medical/behavior cases increased steadily, by 36 percent in 2005 and by 47 percent in 2006. Variations in the other nonreliability categories were not particularly noteworthy between 2004 and 2006.

In the case of temporary removals for nonreliability causes at all sites, the numbers for most categories remained fairly consistent from 2004 to 2006, except those for administrative reasons, which showed a 56 percent decrease in 2005 followed by a 30 percent increase in 2006. Medical/behavior temporary removals showed a 37 percent increase between 2004 and 2005 and continued with a 49 percent increase in 2006. Compared to temporary removals data, permanent removals data exhibited less consistency between 2004 and 2005 and between 2005 and 2006. The numbers of permanent administrative removals and medical/behavior removals were not consistent with the much higher temporary incidences. Position reclassification, terminations, and transfers represented the prominent contributions to permanent nonreliability removals in 2004, 2005, and 2006, with terminations being the most pronounced. HRP worker termination removals were significant, with an increase of 51 percent from 2004 to 2005 followed by an 11 percent increase in 2006.

Upon evaluation of the results, it can be concluded that the major variation in the number of HRP employees removed from year to year can be attributed mainly to nonreliability issues

(e.g., medical restriction/behavior issues, transfers, retirement, reductions in force, position reclassifications, and administrative actions) and not reliability issues.

There is a general trend toward declining total removals as a percent of worker enrollment. From 2004, the percent removals for all causes, based on overall HRP population, declined steadily in 2005 and 2006. This result is encouraging in the sense that the HRP elements are working.

From the data presented, it is evident that continuous evaluation in the HRP has effectively identified individuals whose reliability was in question. It should also be noted that, overall, the vast majority of individuals serving in the HRP at the various facilities are reliable and trustworthy.

Introduction

This report presents results of the comprehensive data analysis and assessment of all U.S. Department of Energy (DOE) and National Nuclear Security Administration (NNSA) facilities involved in the Human Reliability Program (HRP). Individual offices and facilities involved in the program include: Albuquerque, Amarillo, DOE Headquarters, Hanford, Idaho, Nevada, Oak Ridge, Oakland, and Savannah River. Figures graphically depicting the data are found in Appendix A. Appendix B contains a description of the entities contributing data to this report.

The HRP was established to ensure, through continuous review and evaluation, the reliability of individuals who have access to the DOE's most sensitive facilities, materials, and information. The program began with the publication of 10 CFR Part 712 on January 23, 2004 and was implemented 90 days later, on April 22, 2004. The HRP replaced the DOE's Personnel Security Assurance Program (PSAP) and the Personnel Assurance Program (PAP) with a program that combined elements of the former programs into a more efficient and robust program. It is designed to identify in a timely manner individuals whose judgment and reliability may be impaired by physical or mental/personality disorders; use of illegal drugs; abuse of alcohol, legal drugs or other substances; or any other condition or circumstance that represents a safety or security concern.

HRP Overview

Figure 1 presents total removals for all causes and the enrollment of HRP participants for all reporting facilities on the first day of January in 2004, 2005, and 2006. HRP enrollment for all sites at the beginning of each calendar year was 8,565 participants in 2004; 10,891 in 2005; and 10,934 in 2006. These numbers represent an increase of 27 percent in 2005 over 2004, compared to an increase of less than one-half percent in 2006 relative to 2005. In the same period, the number of removals in the HRP for all causes increased by 8 percent from 2,458 in 2004 to 2,650 in 2005 but decreased by 4 percent to 2,545 from 2005 to 2006.

Removals for All Sites

Data in Figure 2 show total removals from the HRP for 2004, 2005, and 2006 broken down between *safety*, *reliability*, and *nonreliability* causes for all sites. HRP site administrators

Removal Categories Used in Reporting		
Reliability	Nonreliability/other	Safety
<ul style="list-style-type: none"> ▪ Alcohol/drugs ▪ Security ▪ For-cause/administrative review 	<ul style="list-style-type: none"> ▪ Qualifications ▪ Medical/behavior ▪ Position reclassification ▪ Termination/transfer ▪ Administrative delays ▪ Other (legal, military duty, personal, no-show, noncompliance, refusal to consent) 	<ul style="list-style-type: none"> ▪ All safety-related causes

classified removals as reliability issues if grounds for removal included alcohol, drugs, security, termination for-cause, and cases under administrative review. Causes for nonreliability removals included all other causes: job qualifications, medical/behavior, position reclassification, termination (retirement, reduction in force, voluntary reduction, and death), transfer, administrative (paperwork delays, requirements not met in time), other, and unknown actions. The other category includes legal issues, absence due to military duty, personal issues, no-show, noncompliance, and refusal to consent.

The number of reported safety-related removals rose from 29 in 2004 to 43 in 2005 (a 48 percent increase) but decreased by 7 percent to 40 between 2005 and 2006. From 2004 to 2005, removals attributed to reliability issues increased from 144 to 236, a 64 percent increase in volume, with respect to a 27 percent increase in worker population (Figure 1). Between 2005 and 2006, there was an increase of only 2 percent in reliability issues, from 236 to 240 cases, against a slight increase of less than one-half percent in HRP worker population (Figure 1). Overall, nonreliability removals increased by a relatively modest 4 percent, from 2,285 in 2004 to 2,371 in 2005, and decreased similarly by 4 percent to 2,265 instances in 2006.

Corresponding percents of HRP removals for safety, reliability, and nonreliability causes aggregated for all sites in 2004, 2005, and 2006 appear in Figure 3. From 2004 to 2005, the removals for safety increased slightly from 1.2 to 1.6 percent; for reliability-related causes, removals increased from 6 to 9 percent. From 2005 to 2006, removals for safety reasons remained constant at 1.6 percent and increased slightly from 8.9 to 9.4 percent for reliability. In the same timeframe, the removals for all causes declined from 29 percent to 24 percent

between 2004 and 2005 and from 24 to 23 percent between 2005 and 2006. Safety and reliability removal percentages were computed as a percent of total removals for all causes in each year, whereas the total removal percentages were calculated relative to worker enrollment/population at the beginning of each year.

Composite temporary and permanent removals for safety and reliability causes in the HRP including alcohol, drugs, security, and for-cause/administrative review in 2004, 2005, and 2006 are broken down in Figure 4 for all sites. Data on the frequency of occurrence of safety issues among workers at all sites in 2004, 2005, and 2006 are the same in Figure 4 as in Figure 2. Data for 2004 and 2005 in Figure 4 show that removals for alcohol abuse decreased 13 percent, for drugs increased by 6 percent, and for security issues increased by 80 percent for all sites. Likewise, as Figure 4 shows, removals in the for-cause/administrative review category increased overall by 84 percent in the same period, from 96 to 177. Figure 4 shows that, correspondingly, between 2005 and 2006, removals for all categories except security decreased: alcohol by 38 percent; drugs by 32 percent; and for cause/administrative review by 6 percent. Security issues, in contrast, represented a 93 percent increase in removals between 2005 and 2006.

Figure 5 breaks down the data and presents the relative frequencies of safety and individual reliability removal types as temporary and permanent components for all sites in 2004, 2005, and 2006. The low end of individual types of reliability removals including safety in those years was zero permanent removals for alcohol abuse in 2006. For the high end, temporary removals including for-cause/administrative review increased by 151 percent, from 57 to 143 from 2004 to 2005; in 2006 they decreased by 6 percent to 135. Between 2004 and 2005, the actual number of such cases adjudicated as permanent decreased steadily from 39 to 34, for a 13 percent drop, and to 31 in 2006, a 9 percent drop.

Figure 6 presents data covering eight different categories of aggregate temporary and permanent nonreliability removal causes for all sites. Between 2004 and 2005, the total number of administrative cases decreased from 722 to 304, a 58 percent drop for all sites, but increased in 2006 by 28 percent, to 388. Also, from 2004 to 2005 the number of removals for medical/behavioral issues at all sites increased by 36 percent, from 394 to 535, and continued escalating to 784 in 2006, a 47 percent increase over 2005. Variations in other nonreliability categories were less pronounced or steady from 2004 to 2006.

Figures 7 and 8 present results of continued analysis of nonreliability removal data for all sites. Figure 7 details the frequency of temporary nonreliability removal causes among workers at all facilities reporting data. Figure 8 does the same for permanent removals. In

the case of temporary removals for nonreliability causes shown in Figure 7, most remained fairly consistent from 2004 to 2006 except those for administrative reasons, which showed a 56 percent decrease, from 626 to 275 from 2004 to 2005, but increased by 30 percent in 2006 to 358. Notably, medical/behavior removals climbed steadily from 366 in 2004 to 500 in 2005 and then to 747 in 2006, representing a 37 percent increase in 2005 over 2004 and a further 49 percent increase in 2006.

Data on permanent administrative and medical/behavior removals in Figure 8 reveal trends similar to temporary removals: a 70 percent drop from 96 to 29 and a 25 percent increase from 28 to 35, respectively, compared to temporary removal numbers from 2004 to 2005 shown in Figure 7. Figure 8 illustrates that the high numbers of temporary removals for both administrative and medical/behavioral issues did not translate into high numbers of permanent actions. Between 2005 and 2006, both administrative and medical/behavior permanent removals increased slightly by 3 percent and 6 percent, respectively. In contrast, permanent nonreliability removals were greatest for position reclassification, terminations, and transfers. In the case of worker position reclassifications, terminations, and transfers for all sites, temporary removals for these causes, shown in Figure 7, were relatively negligible from 2004 to 2006. However, permanent position reclassification, termination, and transfer removals were significant in 2004, 2005, and 2006, as shown in Figure 8. Permanent removals because of position reclassification increased by 83 percent from 298 to 546 between 2004 and 2005 but decreased by 68 percent to 177 in 2006. Permanent terminations between 2004 and 2005 increased by 51 percent from 384 to 580 and continued to increase by 11 percent to 645 in 2006. In contrast, permanent HRP worker transfer numbers decreased monotonically between 2004 and 2005 by a factor of 12 percent from 338 to 299 and again by 48 percent from 299 to 156 in 2006.

HRP Removals by DOE Site

Figures 9 through 35 present analyses of reported data on HRP removals that occurred between 2004 and 2006 at nine facilities: Albuquerque, Amarillo, DOE Headquarters, Hanford, Idaho, Nevada, Oak Ridge, Oakland, and Savannah River. In each case, the data were stratified by temporary and permanent removals for safety and reliability and by temporary and permanent removals for nonreliability issues. Note that the ordinate scales vary from chart to chart; the numbers of removals appear in boxes to provide actual values for comparison.

Each of the nine facilities is represented in three charts. The first figure for each facility presents data on HRP aggregate temporary and permanent removals for safety and reliability

causes. Reliability issues include alcohol, drugs, security, and for-cause/administrative review. The second figure in the group presents data on HRP temporary removals for nonreliability causes, and the third figure presents data on the permanent removals for nonreliability. The nonreliability causes include administrative actions, job qualifications, medical/behavior, position reclassification, terminations, transfer, other issues, and unknown reasons.

No universal or consistent trends can be inferred from assessing results of the data analysis presented in Figures 9 through 35 for the nine individual facilities. Each locality reflects its own mission, implementing strategy, programmatic diversity, funding profile, employee population, worker skills and educational requirements, and the effects of its own set of operational variables and constraints. However, the more prominent and distinctive features revealed by analysis of the data from individual sites are discussed for informational purposes.

Albuquerque

Most prominent for reliability at the Albuquerque NNSA site (Figure 9) were temporary safety and for-cause/administrative review reliability removals (in 2004 and 2005) and cases of security infraction and for-cause/administrative review removals (in 2006). For-cause/administrative review and security reliability issues also dominated permanent reliability removals in 2004, 2005, and 2006. Removals for temporary and permanent safety issues both decreased markedly at Albuquerque from 2004 through 2006. In temporary removals for nonreliability causes (Figure 10), both administrative and medical/behavior removals increased markedly from 2004 through 2006; removals for the other category decreased. Permanent personnel transfers outpaced terminations at Albuquerque in 2004 (Figure 11), while the reverse was true in 2005 and 2006. Removals due to permanent position reclassification trailed these two primary causes.

Amarillo

Figure 12 shows the number of temporary safety and reliability removals in the for-cause/administrative review category was very significant in 2005 and 2006. Temporary nonreliability removal causes, shown in Figure 13, reveal that administrative and medical/behavior issues were dominant in 2004, with only medical/behavior evident in 2005 and 2006. Permanent removals for nonreliability at Amarillo showed terminations as the leading cause from 2004 through 2006 (Figure 14).

Headquarters

Data reported by DOE Headquarters presented in Figures 15, 16, and 17 were very sparse, with only a few permanent position reclassifications in 2004 and 2005.

Hanford

Hanford data in Figure 18 indicate that for-cause/administrative review was consistently the greatest temporary and permanent reliability cause for removal from 2004 to 2006. The only exception was safety, which led for-cause/administrative review permanent removals by one case in 2005. Temporary medical/behavior was the most prominent nonreliability cause for removal at Hanford from 2004 through 2006 (Figure 19). For permanent nonreliability removal causes at Hanford, position reclassification in 2005 was distinctly above other categories; transfers and terminations were second in all three years (Figure 20).

Idaho

In 2006 the greatest numbers of reliability actions at Idaho were in the temporary for-cause/administrative review category (Figure 21). Permanent for-cause/administrative review removal actions were most pronounced at Idaho in all three years as well. However, temporary removals at Idaho for nonreliability causes were greatest in the medical/behavior category in both 2004 and 2005 and for the other category in 2006 (Figure 22). Personnel transfers in both 2005 and 2006 accounted for the largest numbers of permanent nonreliability removals (Figure 23).

Nevada

In 2004, 2005, and 2006, the greatest numbers of removals for reliability causes for Nevada were temporary cases of for-cause/administrative review, with temporary security removals second in 2005 and 2006 (Figure 24). Temporary removals for medical/behavior were markedly the highest nonreliability category in 2005 and 2006, with administrative actions second in 2006 (Figure 25). Permanent terminations from the HRP, shown in Figure 26, were by far the most prominent nonreliability removal actions in 2004, 2005, and 2006.

Oak Ridge

Oak Ridge facilities exhibited considerable variation in both temporary and permanent safety and reliability removals, as shown in Figure 27, particularly in the temporary safety, for-cause/administrative review, and medical/behavior categories. Permanent for-cause/administrative review actions were evident during all three years. However, temporary removals for administrative nonreliability causes were prominent in 2004, 2005, and 2006, with the addition of medical/behavior actions in 2005 and 2006 (Figure 28). Permanent

HRP removals at Oak Ridge for nonreliability causes included increasing numbers of removals for termination and declining instances of administrative and medical/behavior removals (Figure 29).

Oakland

Mixed temporary and permanent removals at Oakland for safety and reliability causes in 2004 and 2005 (Figure 30) showed an increase in 2006 with respect to permanent terminations in the for-cause/administrative review category. The only temporary removals for nonreliability causes at Oakland were those for administrative review and medical/behavior, with removals rising significantly in 2006 (Figure 31). Permanent removals for nonreliability issues at Oakland were a mixture of causes as indicated in Figure 32, with terminations, position reclassifications, and transfers showing the highest values.

Savannah River

Data for the Savannah River site in Figure 33 show that the highest numbers of removals for safety and reliability were permanent removals in the for-cause/administrative review category in 2004, 2005, and 2006. Temporary removals for nonreliability at Savannah River were by far greatest for medical/behavior issues in 2006 (Figure 34). However, position reclassification was the most prominent cause for permanent removal in 2004 and 2005 with a marked decrease in 2006 (Figure 35).

Analysis

From 2004 to 2005, the total number of removals in the HRP for all causes at all sites increased by 7.8 percent, from 2,458 to 2,650 (Figure 1). From 2005 to 2006, that number decreased by 4 percent to 2,545. At the beginnings of 2004, 2005, and 2006, the HRP had populations of 8,565, 10,891, and 10,934 workers, respectively, an increase of 27 percent from 2004 to 2005, and only 0.4 percent from 2005 to 2006. The number of reported safety-related removals rose from 29 in 2004 to 43 in 2005, an increase of 48 percent; this number decreased 7 percent in 2006, to 40 (Figure 2). Removals attributed to reliability issues increased from 144 to 236, a 64 percent increase (Figure 2), compared to the lesser 27 percent increase in worker population between 2004 and 2005. This trend leveled off to 240 reliability removals in 2006 (Figure 2), an increase of only 1.7 percent. By contrast, nonreliability removals increased a relatively modest 3.8 percent from 2,285 in 2004 to 2,371 in 2005 and decreased by 4.5 percent to 2,265 in 2006.

Further analysis concentrated on the corresponding percentages of HRP removals aggregated for all sites in 2004, 2005, and 2006 and broken out by safety, reliability, and

nonreliability causes (Figure 3). From 2004 to 2005, the removals for safety- and reliability-related causes increased slightly, from 1.2 to 1.6 percent and from 5.9 to 8.9 percent, respectively. From 2005 to 2006, the removals for safety remained constant at 1.6 percent, and removals for reliability-related causes increased slightly, from 8.9 to 9.4 percent (Figure 3). Removals for all causes, as a percent of HRP enrollments on January first of a given year, declined steadily, from 29 percent in 2004 to 24 percent in 2005 and 23 percent in 2006.

Combined 2004, 2005, and 2006 data for all sites on temporary and permanent removals for safety and reliability causes (Figure 4) show that removals for safety increased by 48 percent, from 29 in 2004 to 43 in 2005, and decreased by 7 percent to 40 in 2006. Alcohol abuse cases decreased 13 percent, from 15 to 13, between 2004 and 2005 and decreased further to 8 in 2006 (38 percent). Drug removals increased slightly by 6 percent from 18 to 19 from 2004 to 2005, then dropped by 32 percent to 13 in 2006. Removals for security issues increased by 80 percent, from 15 to 27, between 2004 and 2005 and then increased by 96 percent to 53 in 2006 (Figure 4). The greatest number of removals was in the for-cause/administrative review category, which increased by 84 percent, from 96 to 177, between 2004 and 2005; there was a 6 percent decline, to 166, in 2006.

Figure 5 breaks out the individual types of reliability removals along with temporary and permanent safety removals and shows how they varied in frequency from 2004 to 2006. The temporary safety category exhibited 27 to 38 removals for all sites, for a 41 percent overall increase between 2004 and 2006; permanent safety removals were much lower. Other reliability removals were at reduced levels compared to these except for security, which showed a peak of 39 temporary removals in 2006. Although temporary removals including the for-cause/administrative review category were highest (at 57 and 143) and increased by 151 percent from 2004 to 2005, the actual number of such cases adjudicated as permanent decreased by 13 percent, from 39 to 34. Between 2005 and 2006, the trend in for-cause/administrative review cases continued, yielding 135 temporary removals and 31 permanent removals, for a modest 6 percent drop in temporary and a 9 percent decrease in permanent removals.

Analysis also focused on the eight categories of aggregate temporary and permanent removals for nonreliability issues for all sites (Figure 6). Between 2004 and 2005, the total number of administrative cases decreased from 722 to 304, a 58 percent drop for all sites, but increased by 28 percent in 2006 to 388. Also, from 2004 to 2006 the total number of medical/behavior cases increased steadily, from 394 in 2004 to 535 in 2005 (36 percent) and to 784 in 2006 (47 percent). Variations in other nonreliability categories were not as noteworthy between 2004 and 2006.

Detailed analysis of nonreliability removal data revealed the relative importance of temporary and permanent nonreliability removal causes among workers at all facilities (Figures 7 and 8). In the case of temporary removals for nonreliability causes, the numbers for most categories remained fairly consistent from 2004 to 2006, except those for administrative reasons, which showed a 56 percent decrease from 626 to 275 in 2005, followed by a 30 percent increase to 358 in 2006 (Figure 7). Medical/behavior removals showed a 37 percent increase, from 366 to 500 between 2004 and 2005 that continued to 747, a 49 percent increase, in 2006 (Figure 7). Compared to data on temporary removals, data on permanent removals in Figure 8 exhibited less consistency between 2004 and 2005 and between 2005 and 2006. The numbers of permanent administrative removals and medical/behavior removals in Figure 8 were not consistent with their much higher temporary incidences. Figure 8 shows that position reclassification, terminations, and transfers represented the prominent contributions to permanent nonreliability removals in 2004, 2005, and 2006, with terminations the most pronounced. Permanent termination removals were significant, with an increase of 51 percent, from 384 in 2004 to 580 in 2005, followed by an 11 percent increase to 645 cases in 2006.

Detailed analyses of data reported by each facility was also undertaken, and the results are discussed in the following section.

Findings

Table 1 summarizes the total number of removals at each site, the number of removals for safety and reliability causes combined, and the percent removals for safety and reliability causes for each facility in 2004, 2005, and 2006. The percent removals were calculated based on the total yearly removals.

Figure 36 uses the data contained in Table 1 to compare the percent variations in combined removals for safety and reliability causes for individual facilities in 2004, 2005, and 2006. The percents are based on the ratio of safety and reliability removals to total removals at each site. As shown, Amarillo in 2005 exhibited the greatest degree of variation in total removals (excluding nonreliability removals) over the three year time period followed by the Nevada site in 2004 and Amarillo, Idaho, and Oakland, in decreasing order, in 2006. Multiple sites experienced high levels of removals in recent years, which is the only identifiable trend in these data.

Table 1. HRP removals by facility for safety and reliability causes: 2004, 2005, and 2006*									
Facility	Total Removals			Removals for safety and reliability causes					
				Number			Percent		
	2004	2005	2006	2004	2005	2006	2004	2005	2006
Albuquerque	637	753	784	54	57	63	8.5	7.6	8.0
Amarillo	349	404	448	22	126	88	6.3	31.2	19.6
Headquarters	5	2	0	0	0	0	0	0	0
Hanford	311	346	184	20	20	10	6.4	5.8	5.4
Idaho	22	93	63	3	4	10	13.6	4.3	15.9
Nevada	45	62	119	10	4	12	22.2	6.5	10.1
Oak Ridge	715	439	600	45	46	68	6.3	10.5	11.3
Oakland	100	82	110	8	7	15	8.0	8.5	13.6
SRP	274	469	237	11	15	14	4.0	3.2	5.9
TOTAL	2,458	2,560	2,545	173	279	280	7.0	10.5	11.0
<i>*Removals for non-reliability causes are excluded from this table.</i>									

Conclusions

It can be concluded that the major variation in the number of HRP employees removed from 2004 to 2006 can be attributed mainly to nonreliability issues (e.g., medical restriction/behavior issues, transfers, retirement, reductions in force, position reclassifications, and administrative actions) and not to reliability and safety issues.

From 2004 the percent removals for all causes declined steadily in 2005 and 2006 while the percent removed for safety and reliability causes rose. Even though there was variation in the HRP population among these years, analysis indicates that the general trend is in the direction of declining total removals as a percent of total number of HRP-certified individuals. This result is encouraging in the sense that the HRP appears to be increasingly more effective in maintaining a safe and reliable workforce.

From the data presented, it is evident that continuous evaluation in the HRP has effectively identified individuals whose reliability was in question. It should also be noted that, overall, the vast majority of HRP-certified individuals at the various DOE/NNSA facilities are reliable and trustworthy.

Appendix A. Figures

Figure 1. HRP total removals for all causes and enrollment on 1/01 for all sites

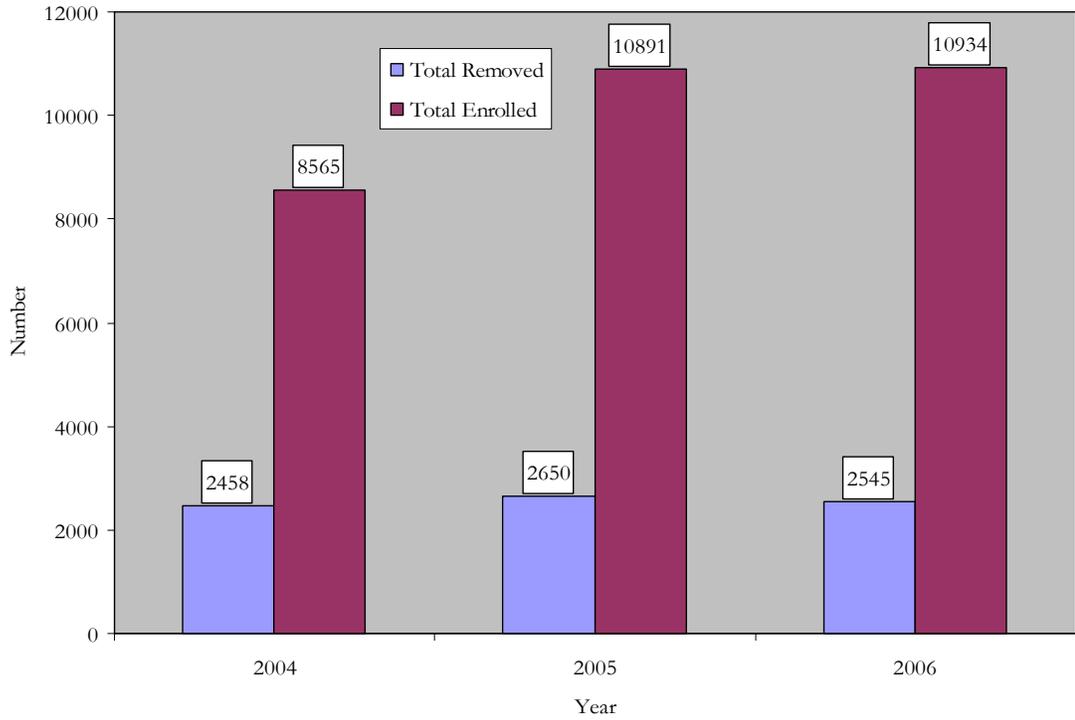


Figure 2. HRP removals for safety, reliability, and nonreliability causes for all sites

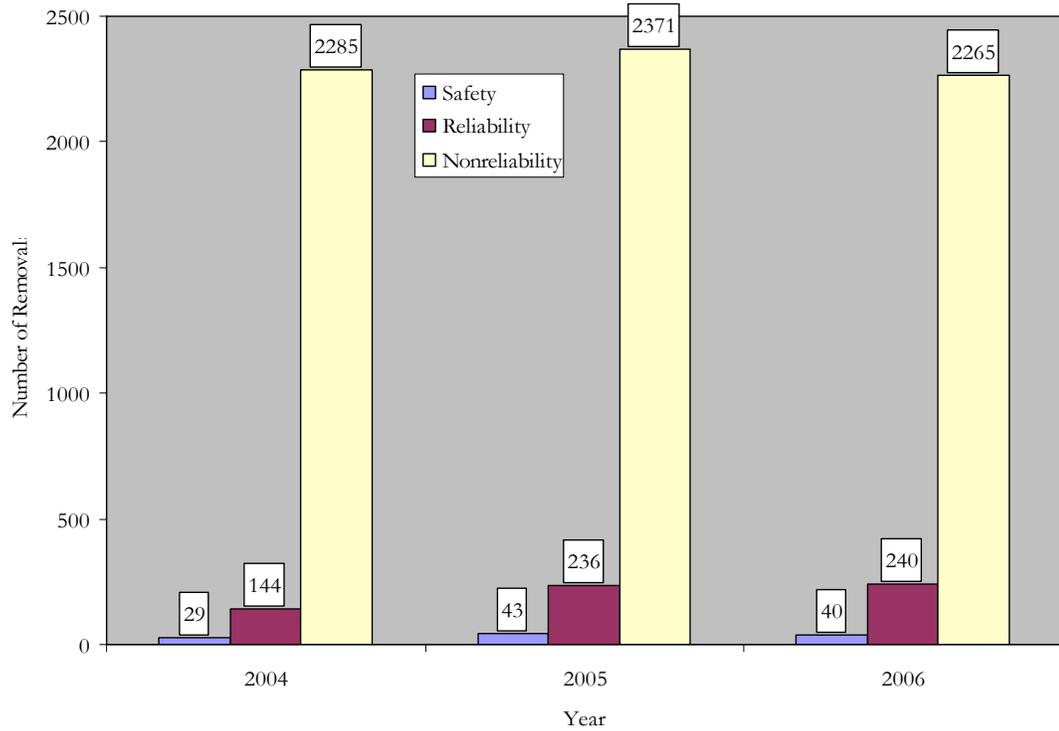


Figure 3. Percent of HRP removals for safety, reliability, and total causes for all sites

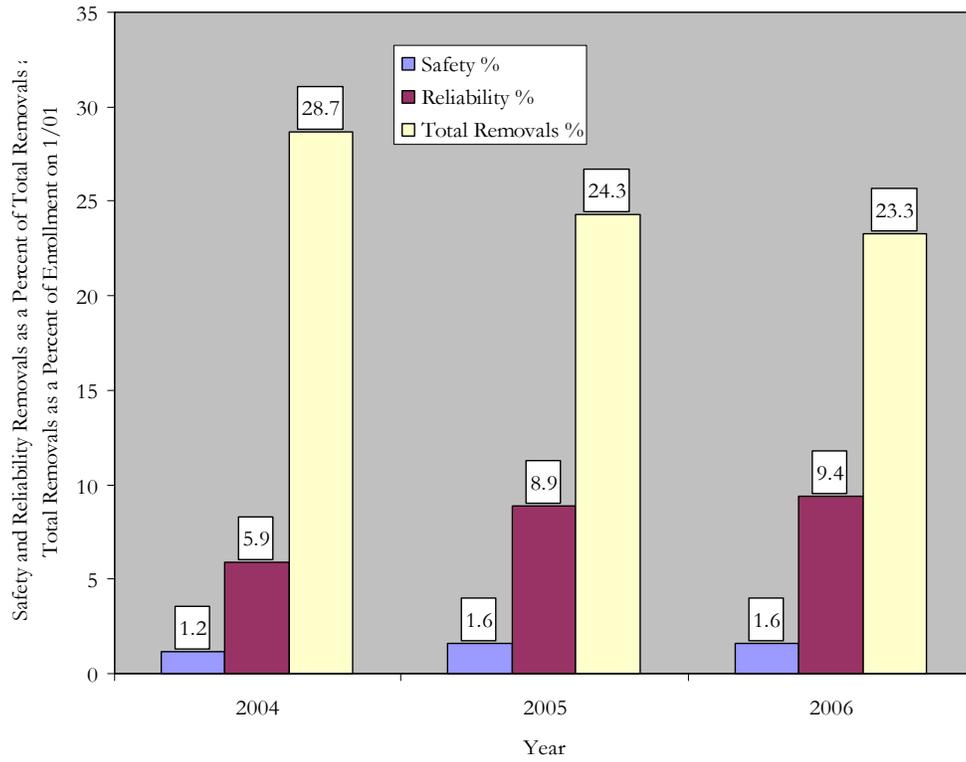


Figure 4. HRP removals for safety and reliability: alcohol, drugs, security, and for cause/administrative review for all sites

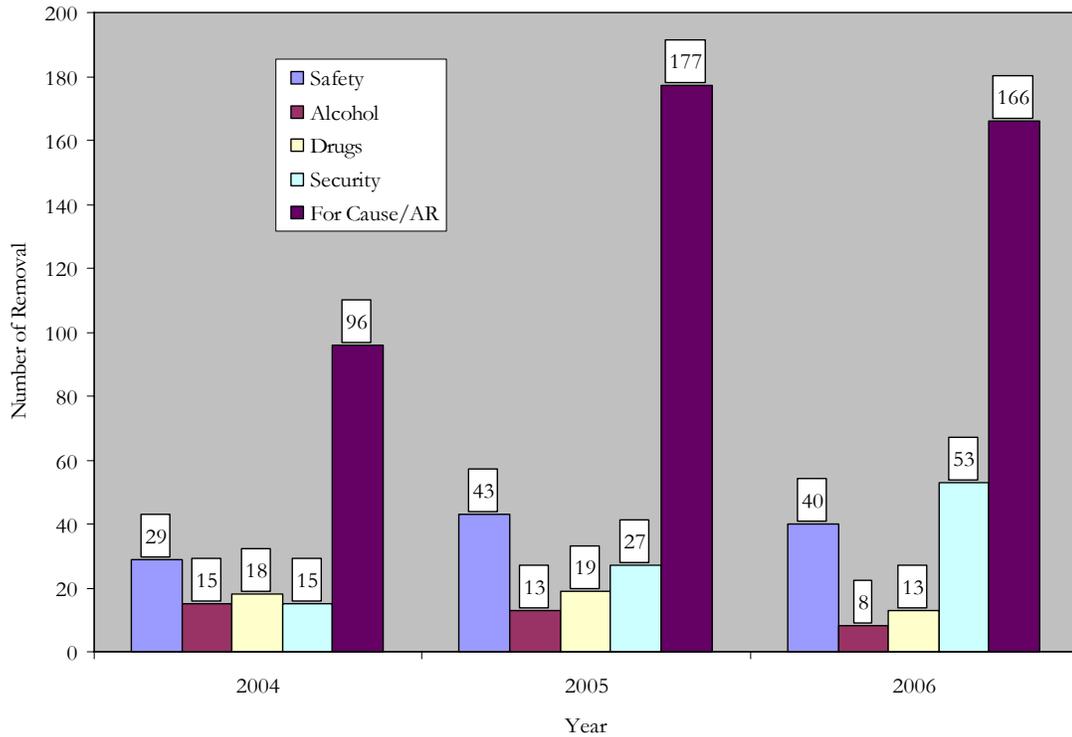


Figure 5. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for-cause/administrative review for all sites

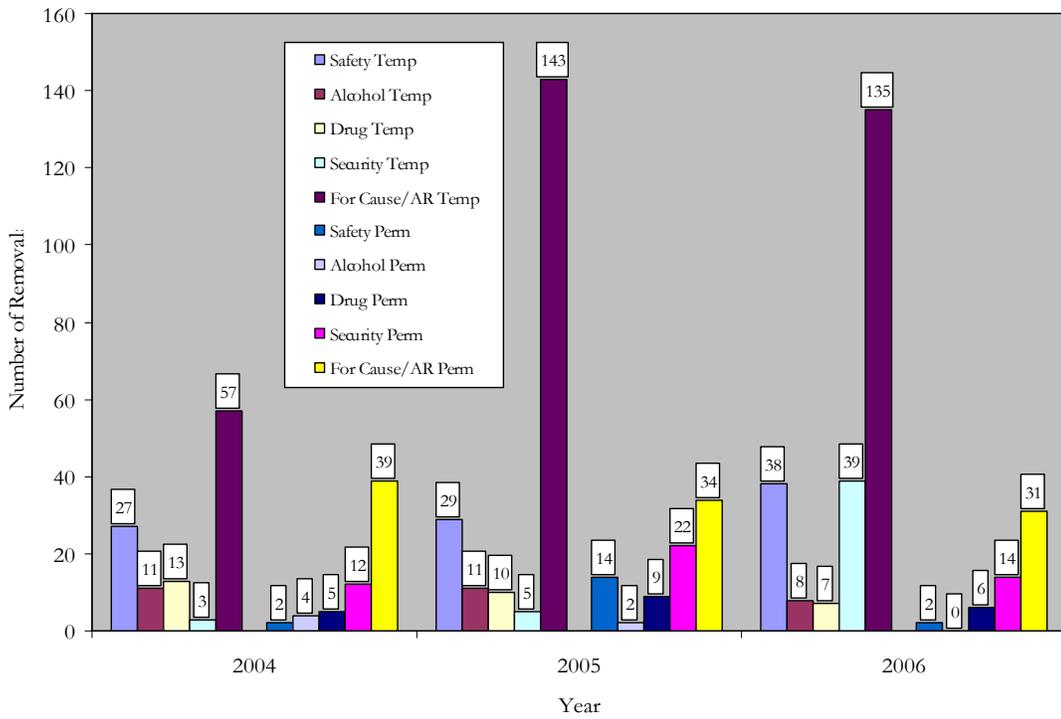


Figure 6. HRP removals for nonreliability causes for all sites

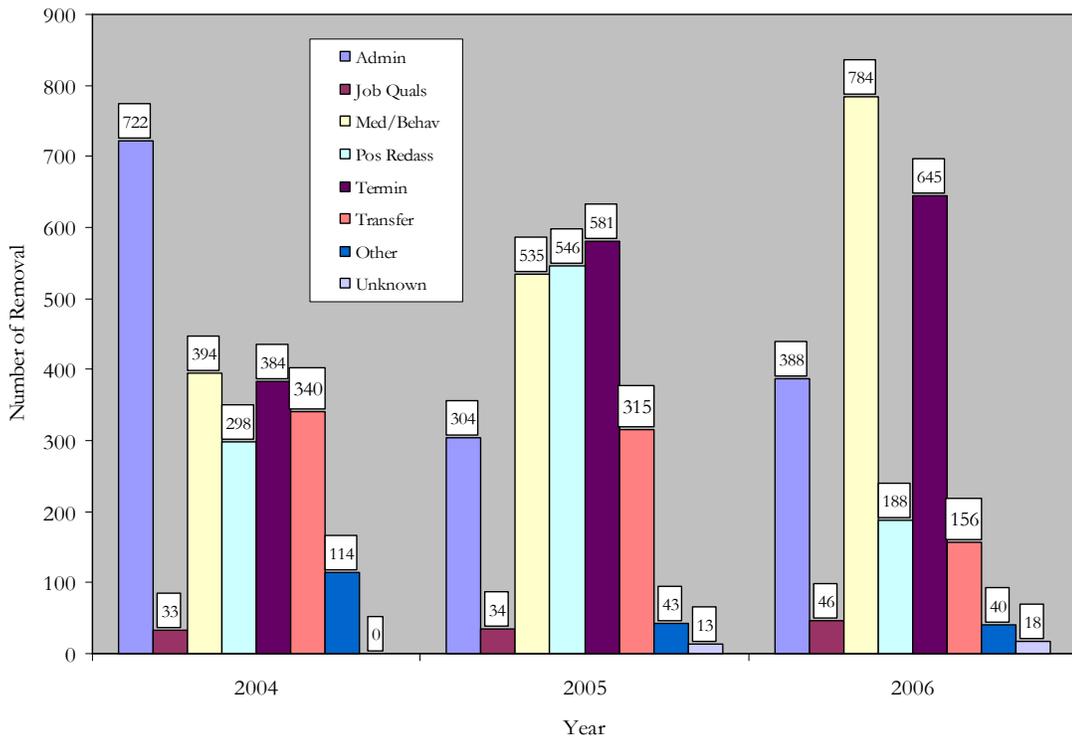


Figure 7. HRP temporary removals for nonreliability causes for all sites

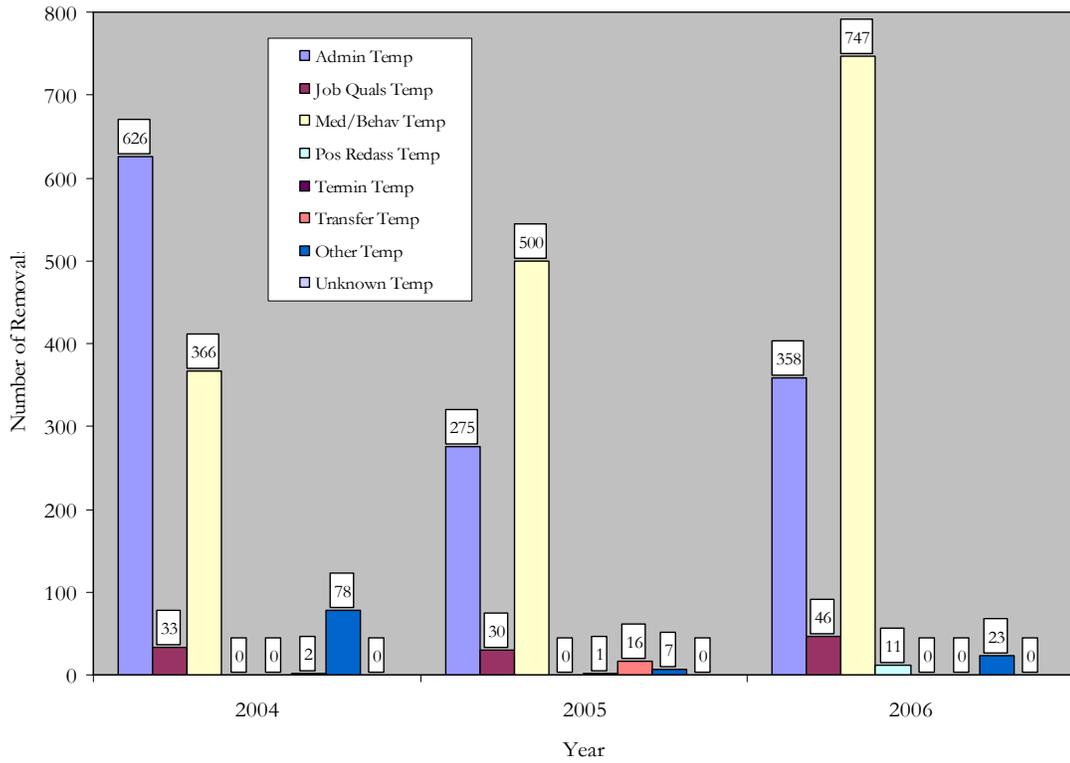


Figure 8. HRP permanent removals for nonreliability causes for all sites

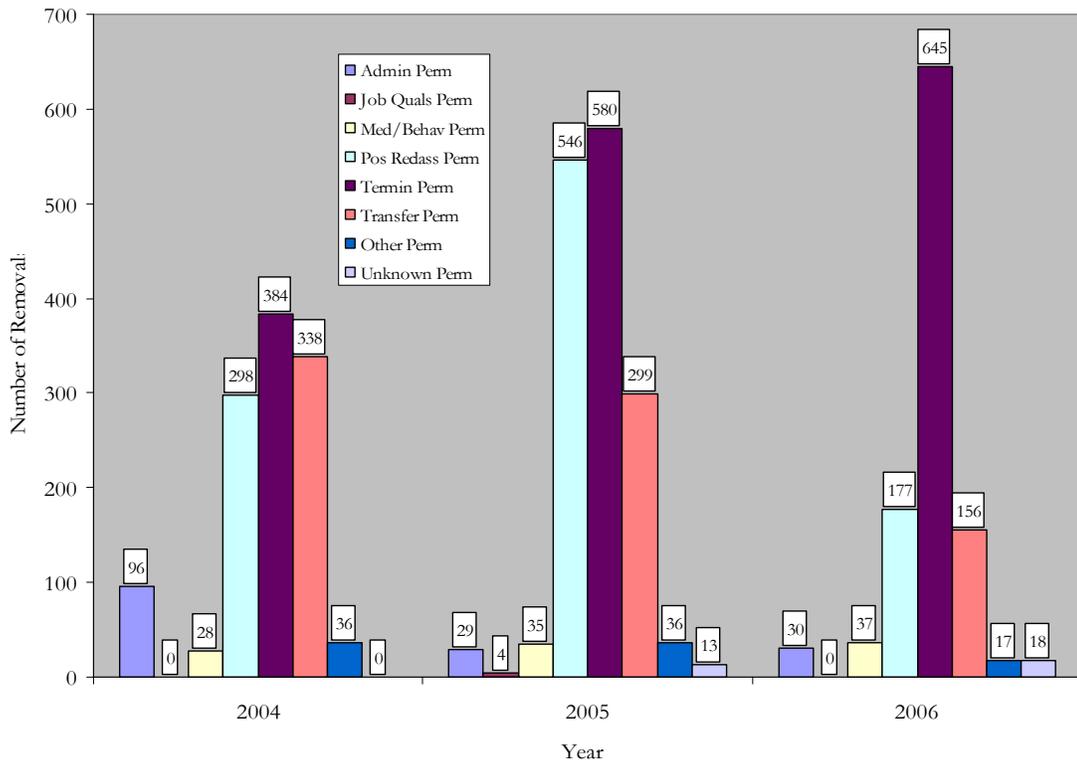


Figure 9. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for cause/administrative review for Albuquerque

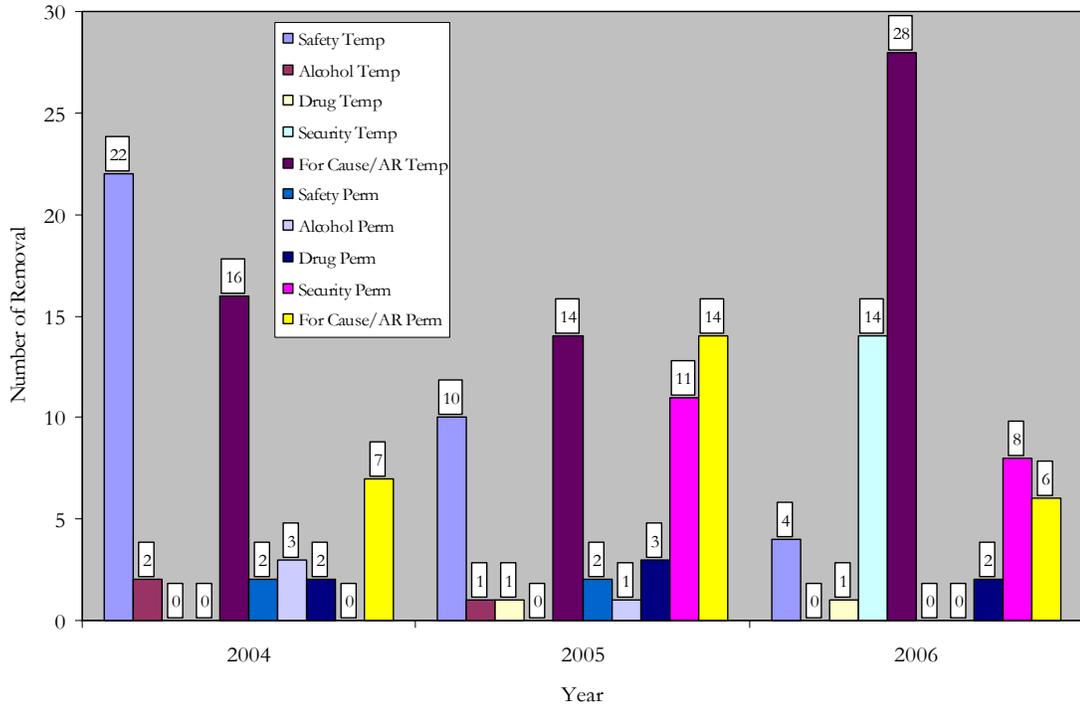


Figure 10. HRP temporary removals for nonreliability causes for Albuquerque

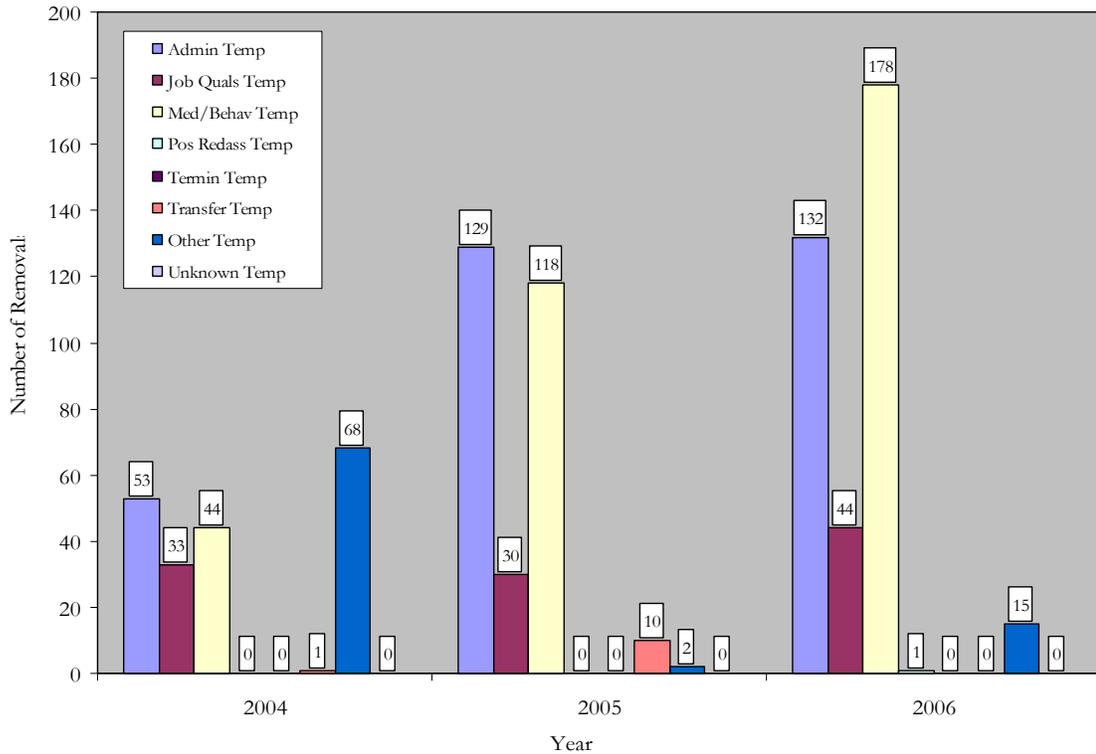


Figure 11. HRP permanent removals for nonreliability causes for Albuquerque

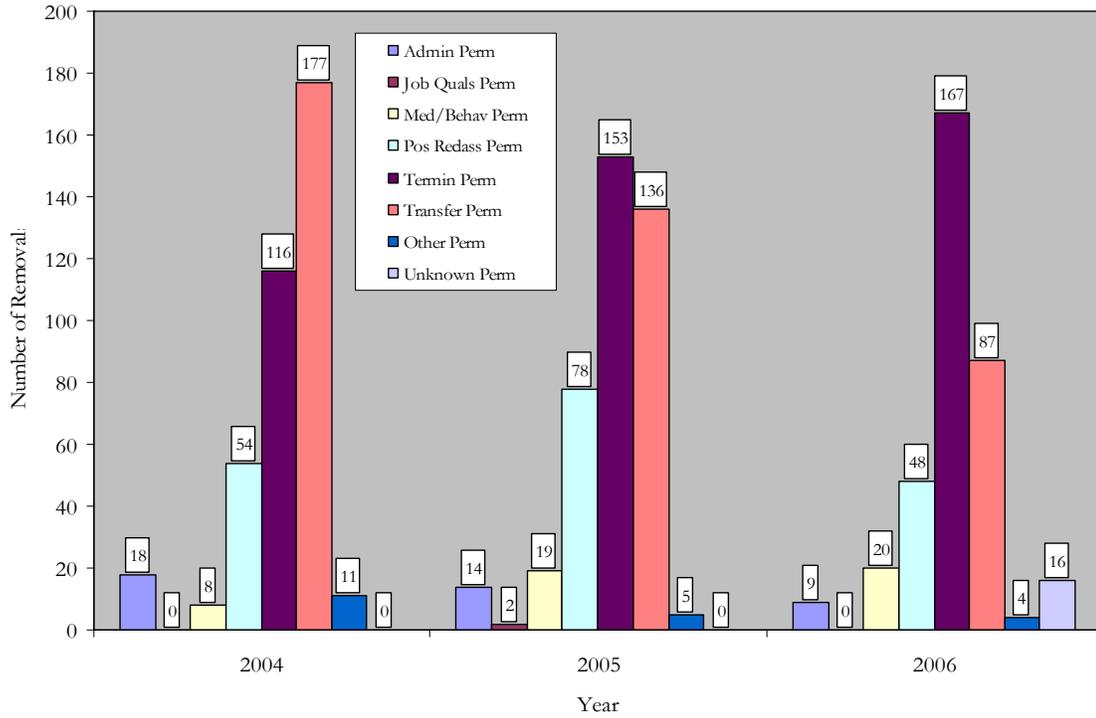


Figure 12. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for cause/administrative review for Amarillo

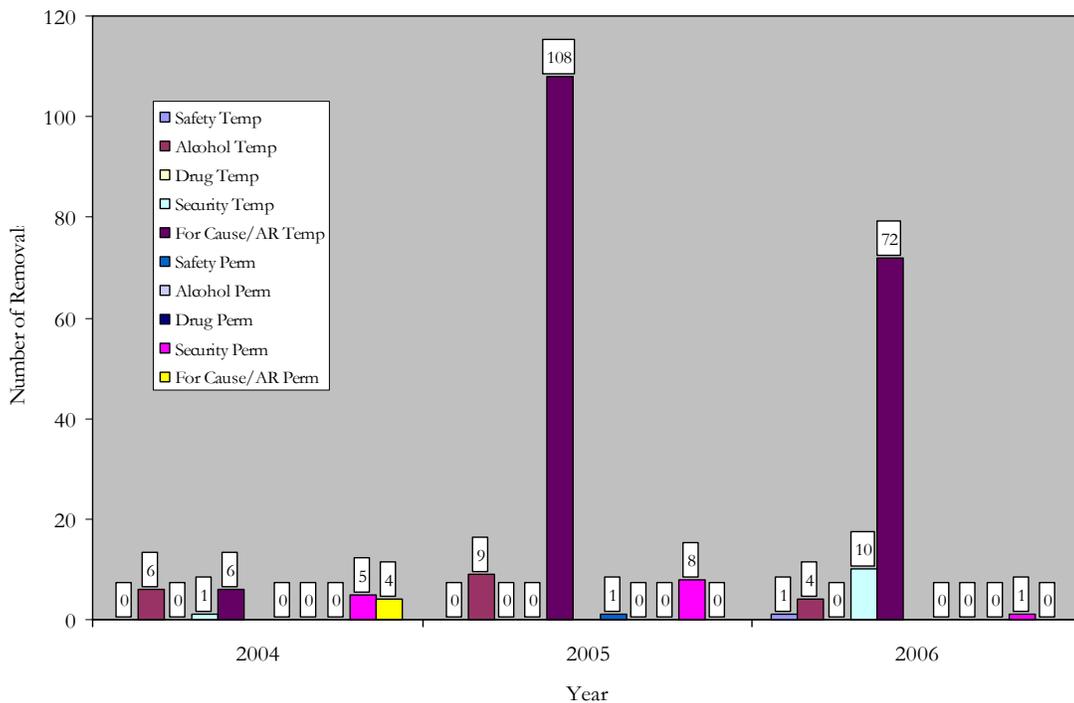


Figure 13. HRP temporary removals for nonreliability causes for Amarillo

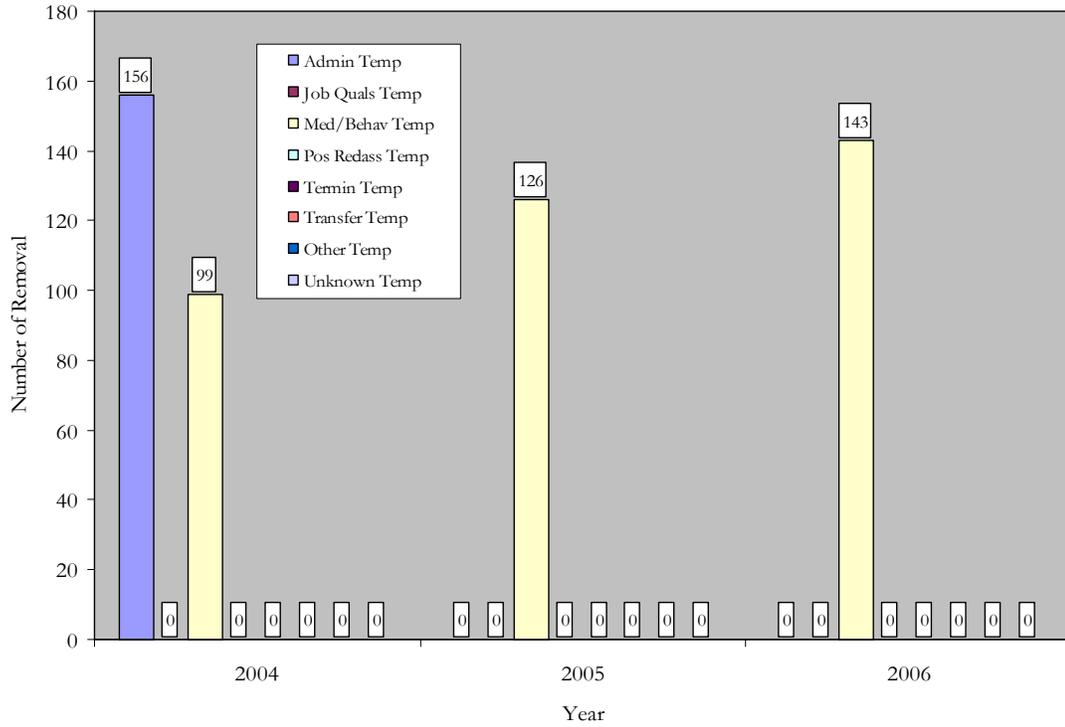


Figure 14. HRP permanent removals for nonreliability causes for Amarillo

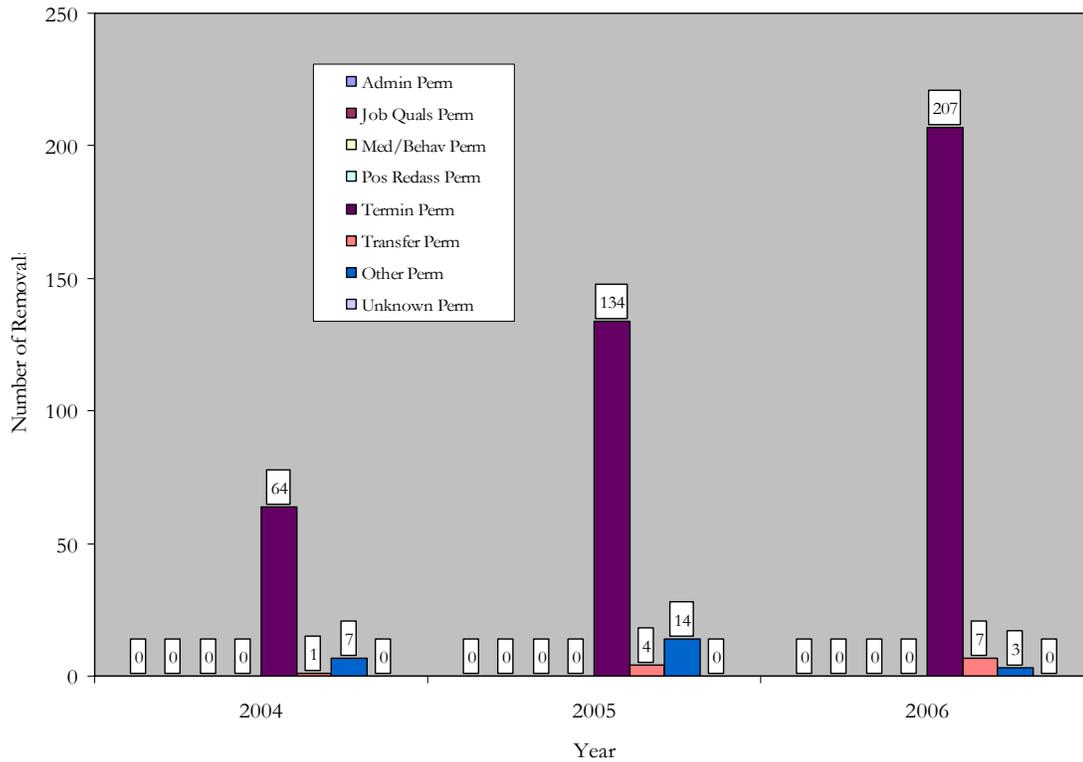


Figure 15. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for cause/administrative review for DOE Headquarters

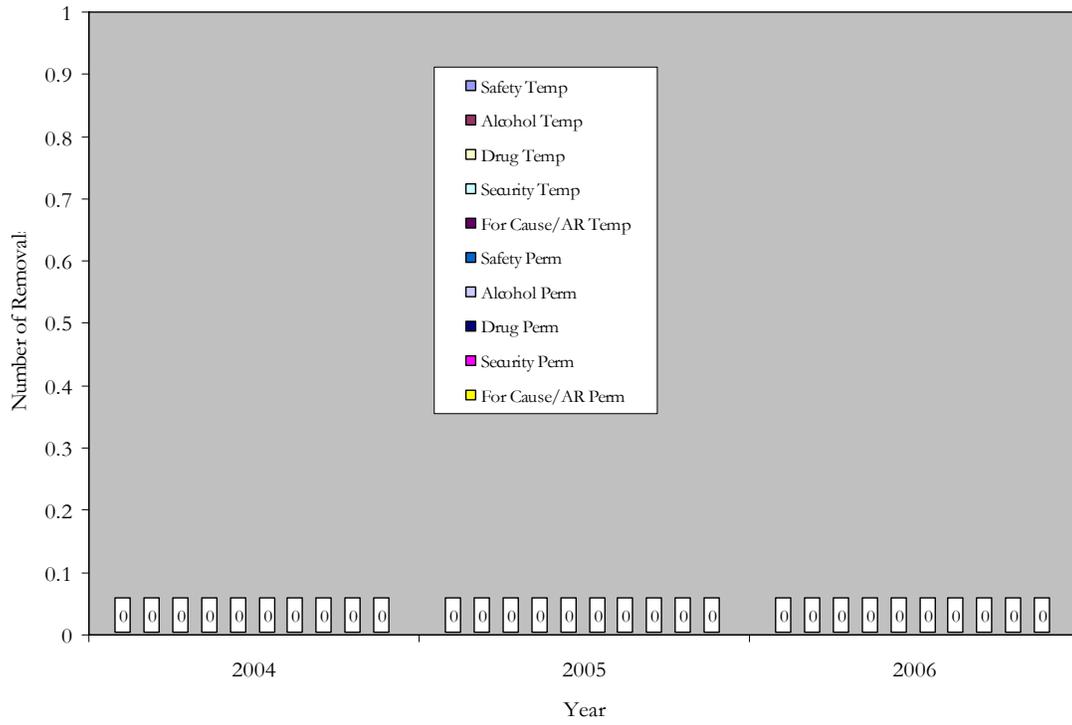


Figure 16. HRP temporary removals for nonreliability causes for DOE Headquarters

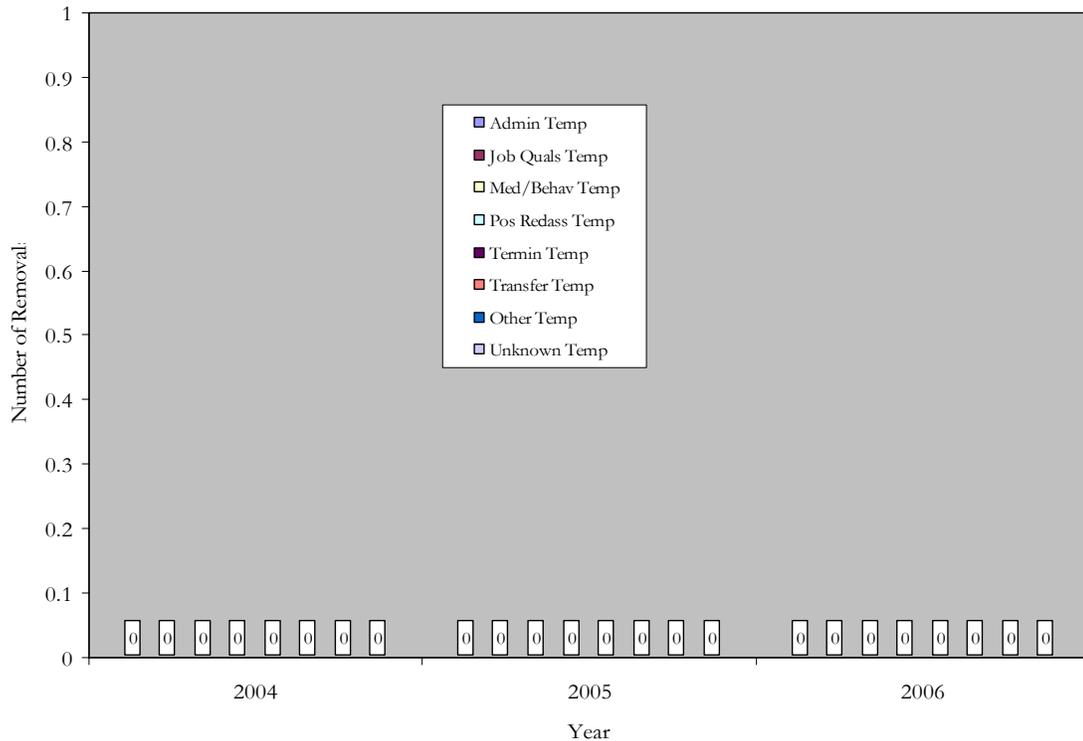


Figure 17. HRP permanent removals for nonreliability causes for DOE Headquarters

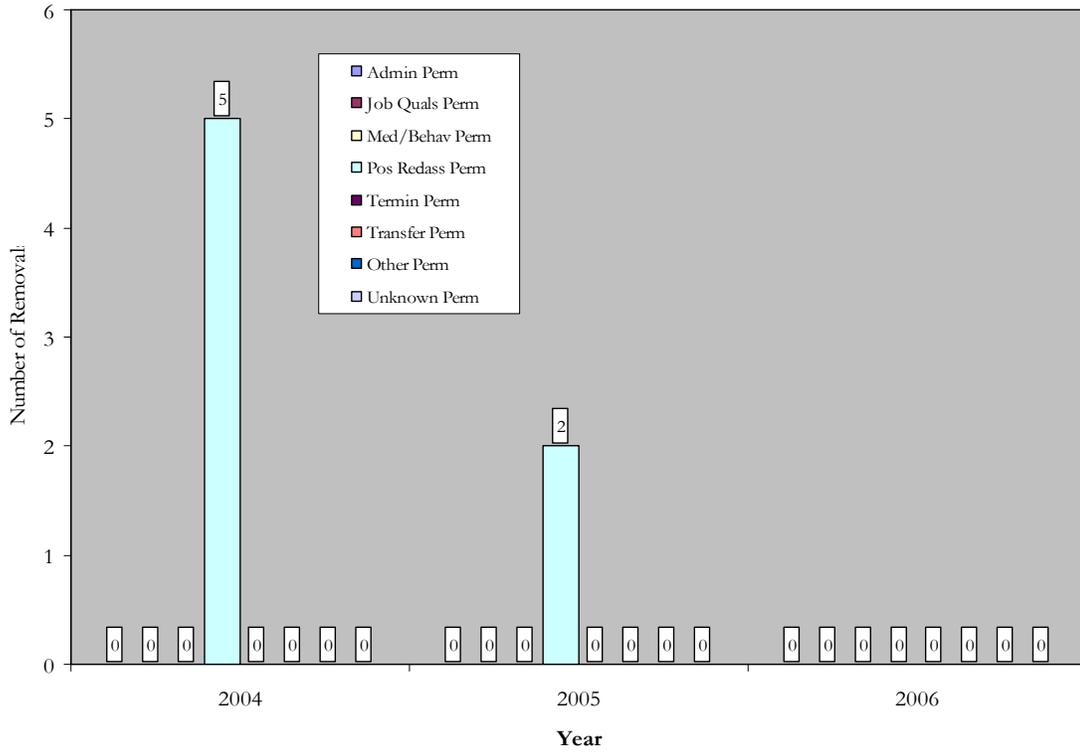


Figure 18. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for cause/administrative review for Hanford

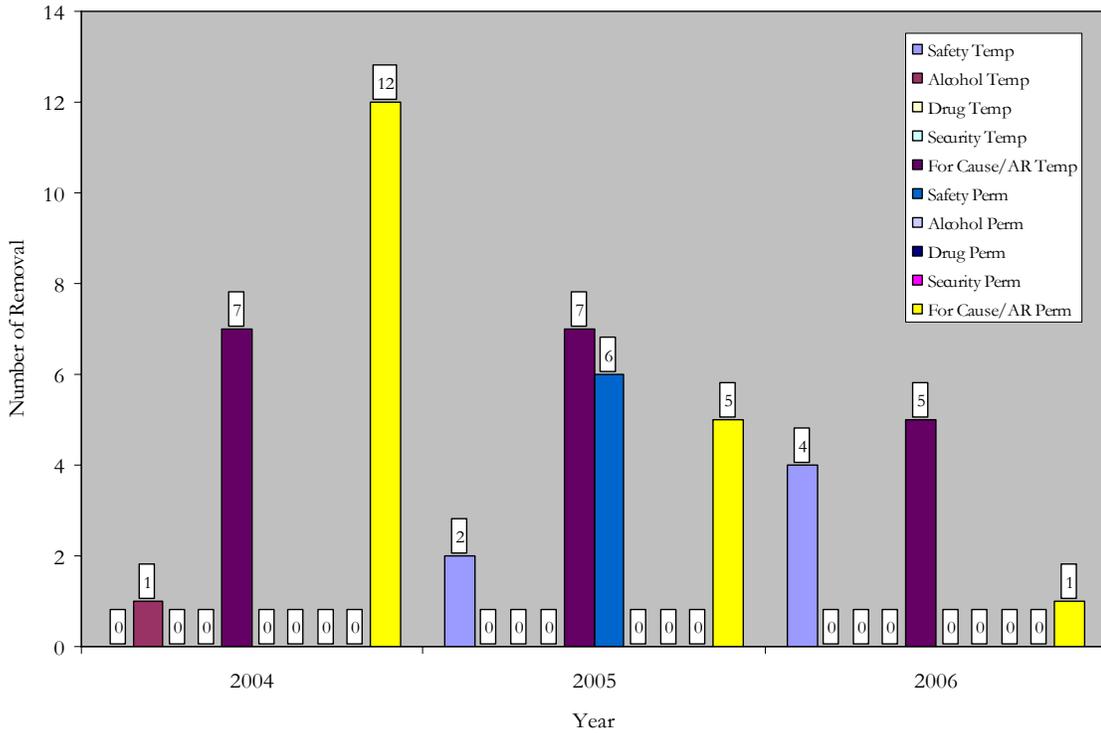


Figure 19. HRP temporary removals for nonreliability causes for Hanford

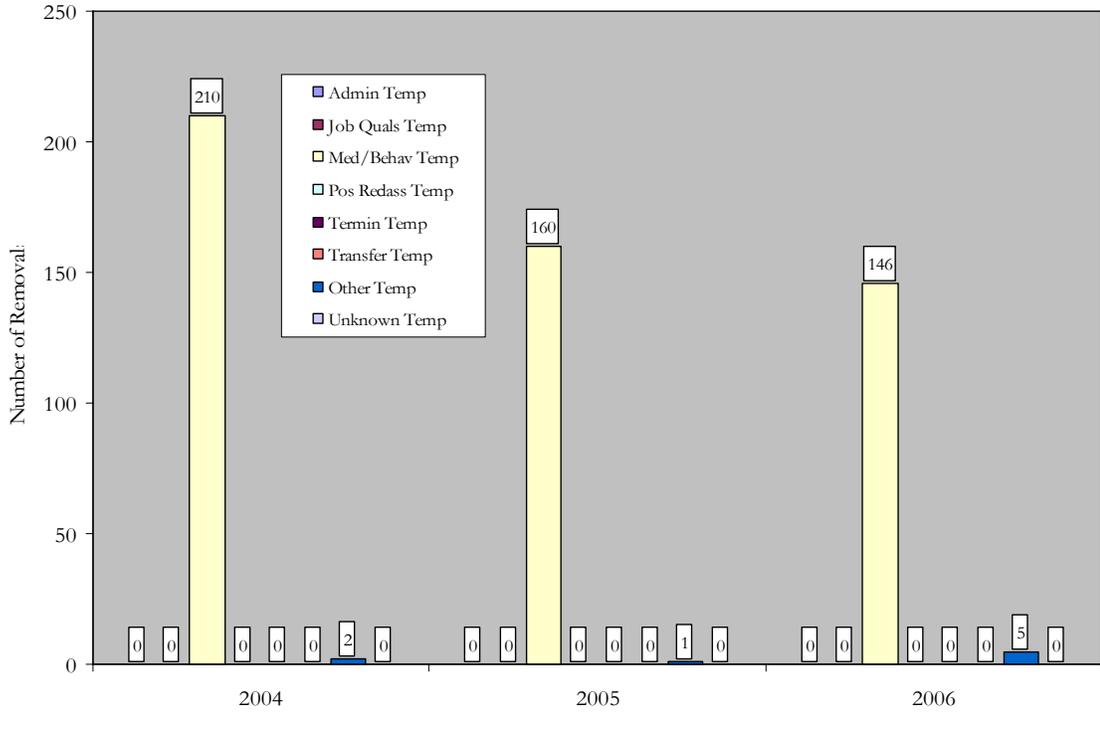


Figure 20. HRP permanent removals for nonreliability causes for Hanford

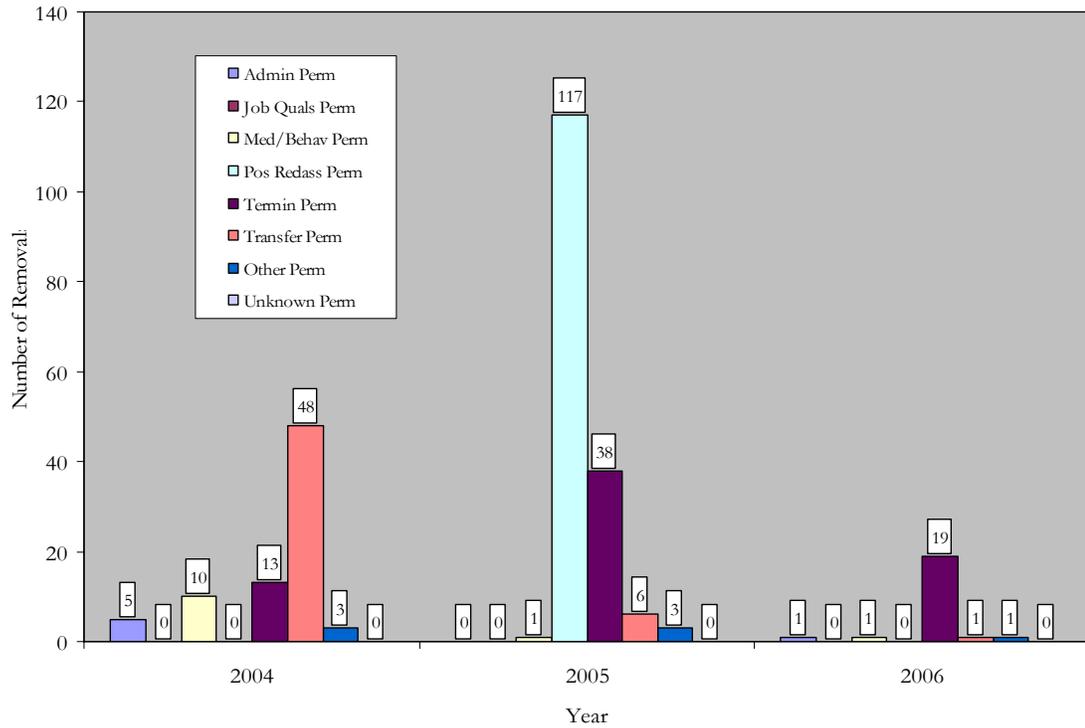


Figure 21. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for cause/administrative review for Idaho

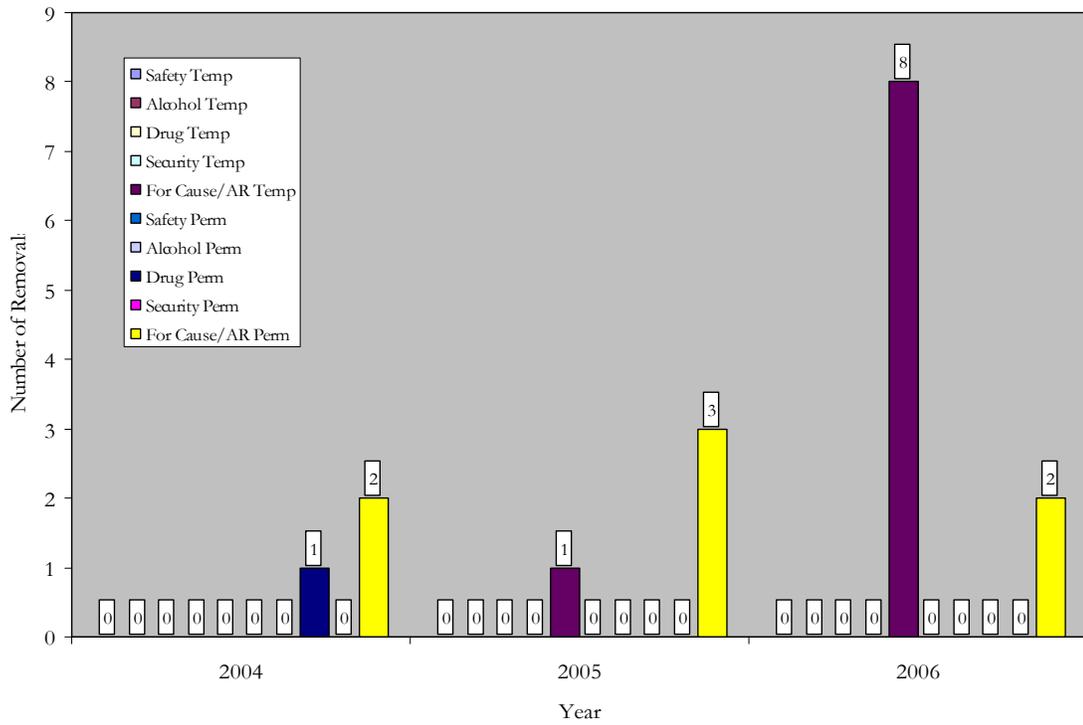


Figure 22. HRP temporary removals for nonreliability causes for Idaho

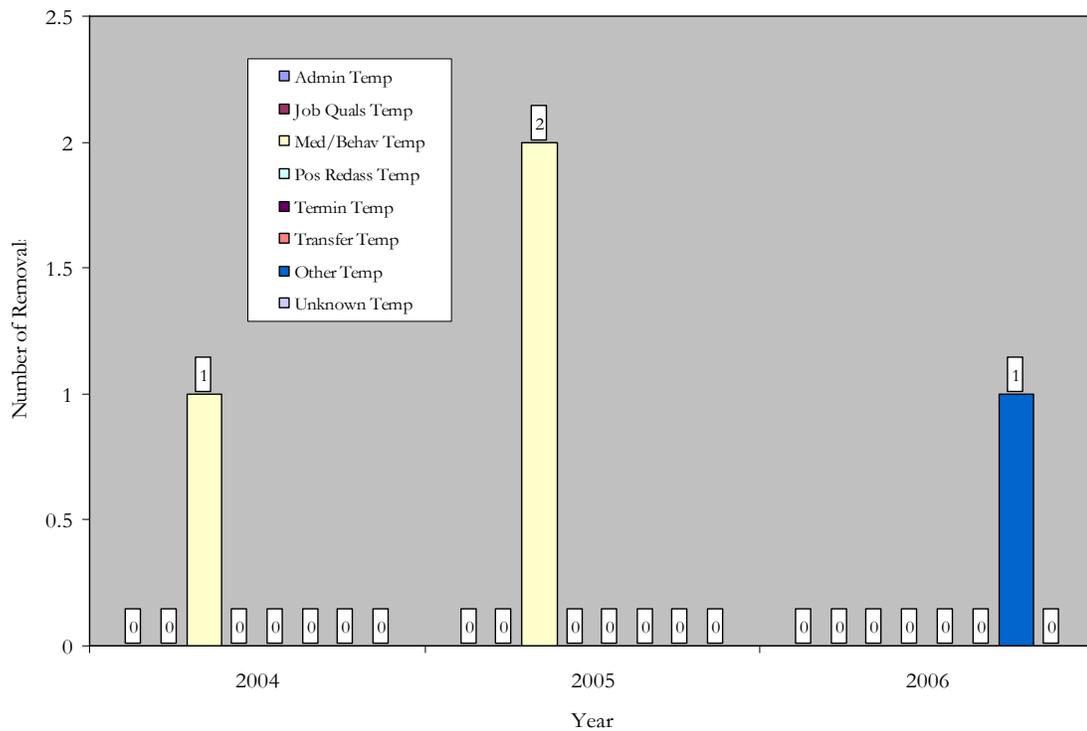


Figure 23. HRP permanent removals for nonreliability causes for Idaho

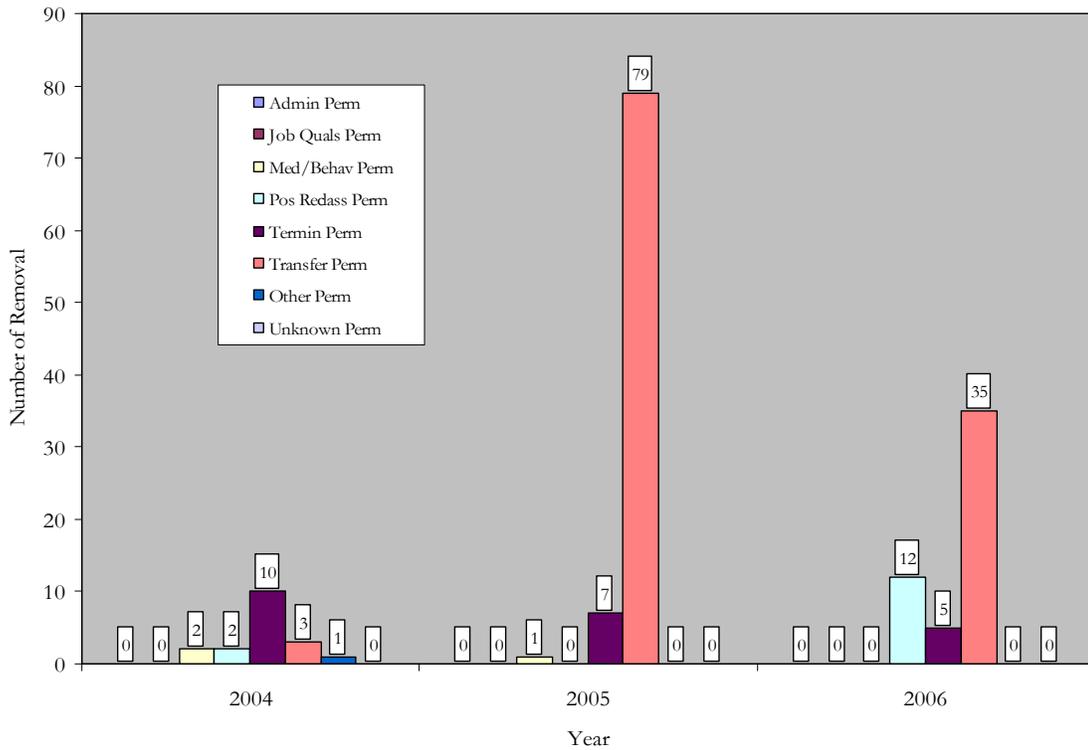


Figure 24. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for cause/administrative review for Nevada

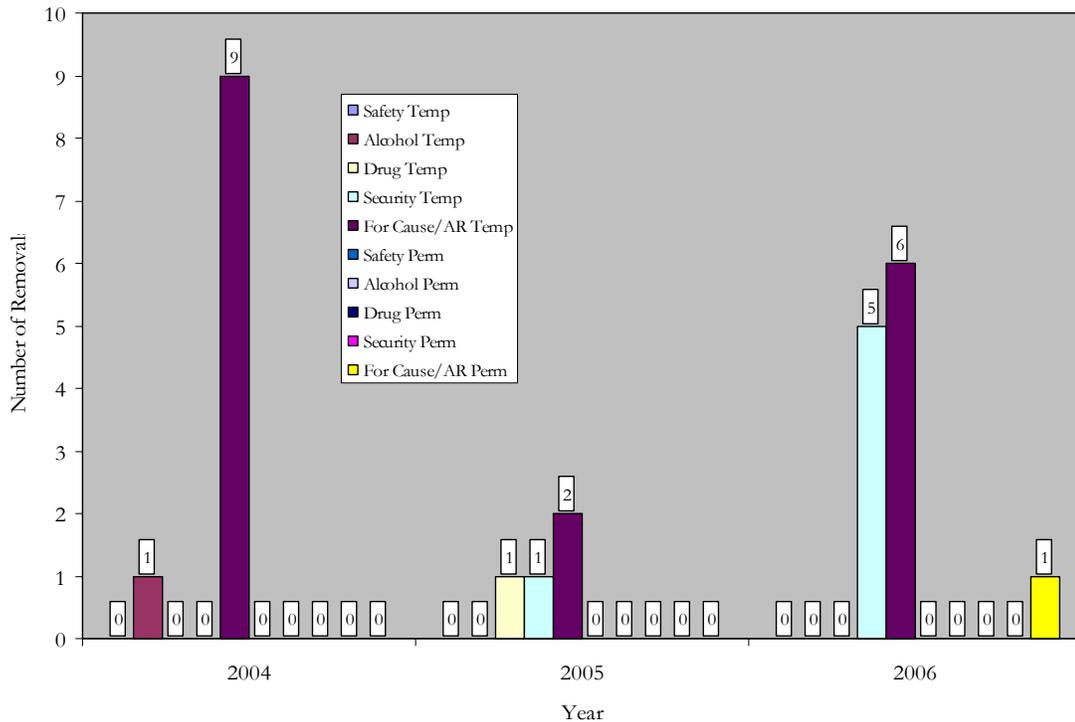


Figure 25. HRP temporary removals for nonreliability causes for Nevada

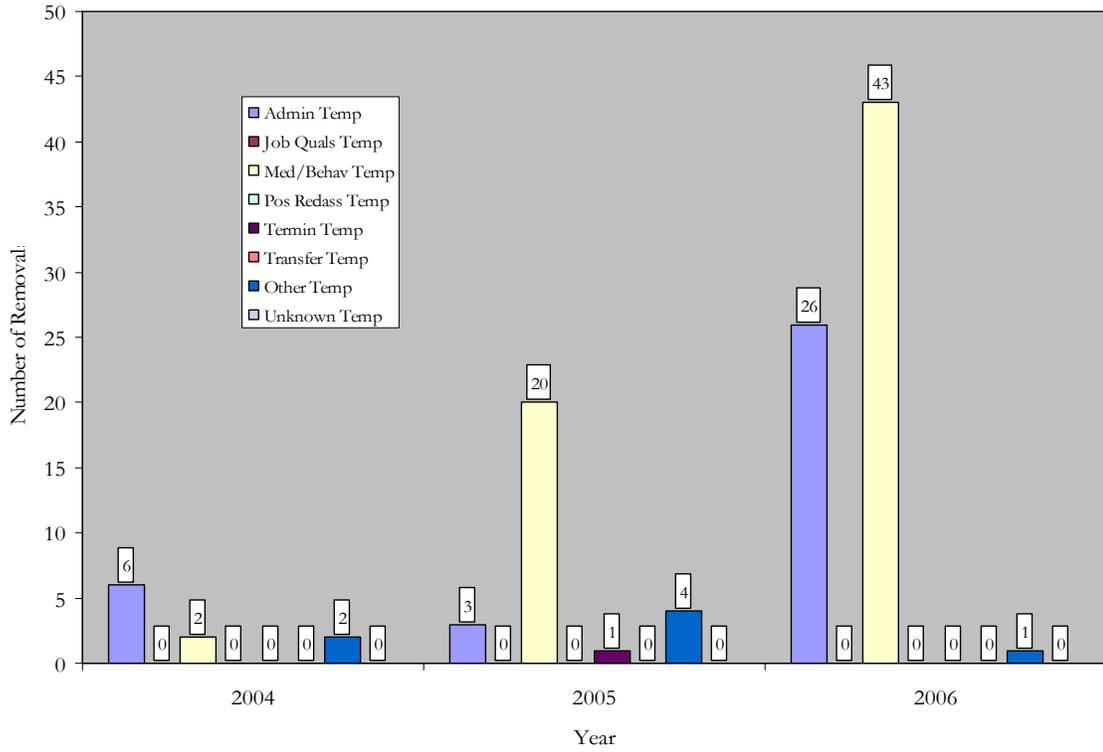


Figure 26. HRP permanent removals for nonreliability causes for Nevada

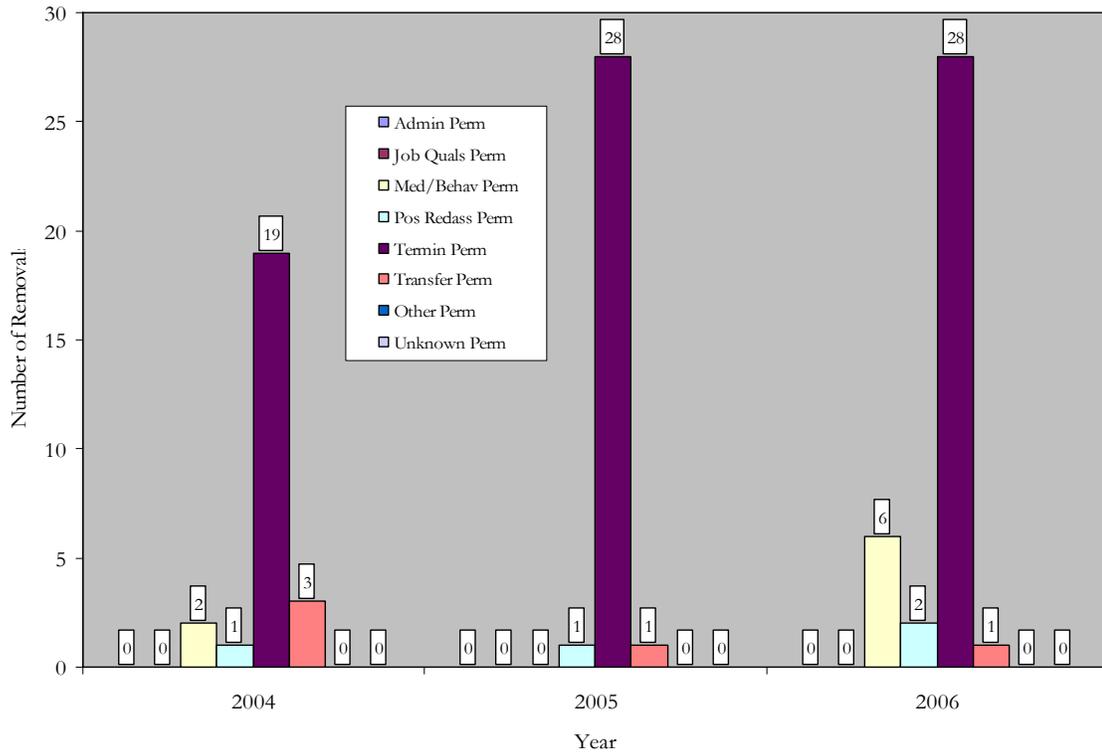


Figure 27. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for cause/administrative review for Oak Ridge

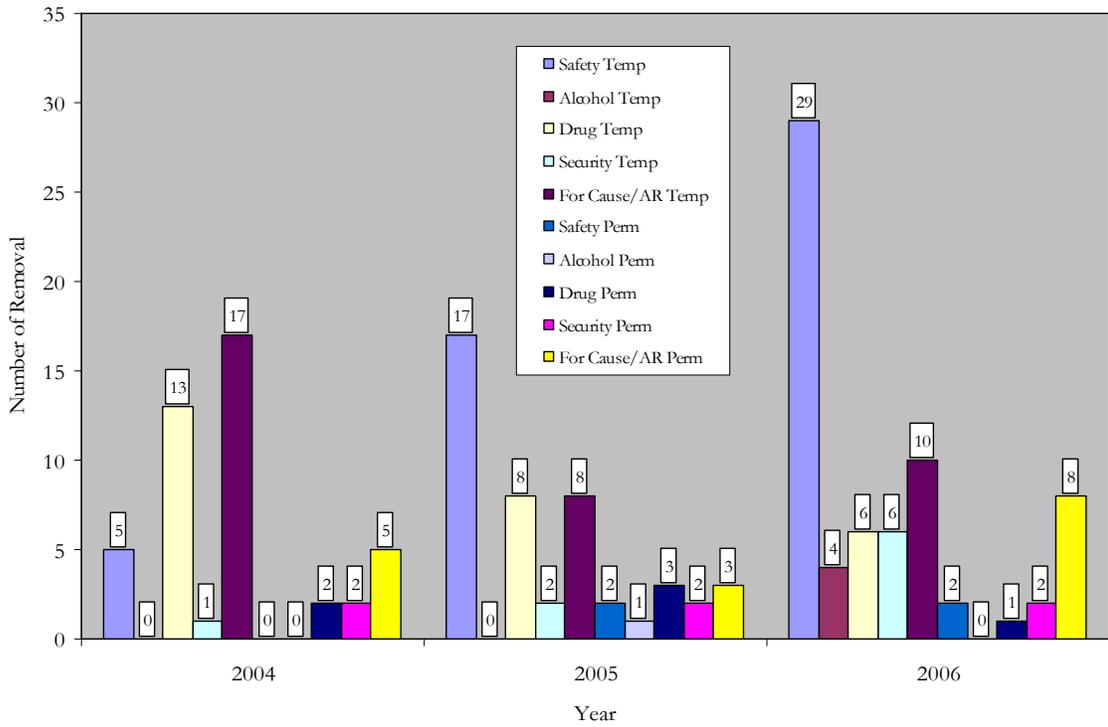


Figure 28. HRP temporary removals for nonreliability causes for Oak Ridge

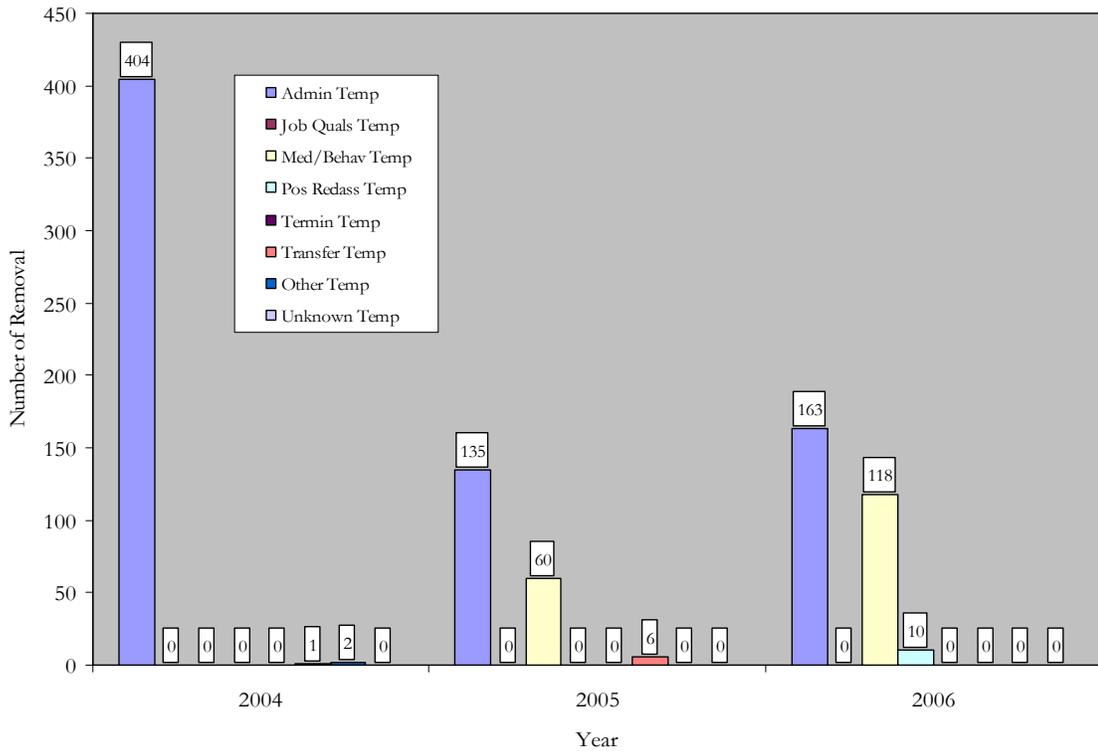


Figure 29. HRP permanent removals for nonreliability causes for Oak Ridge

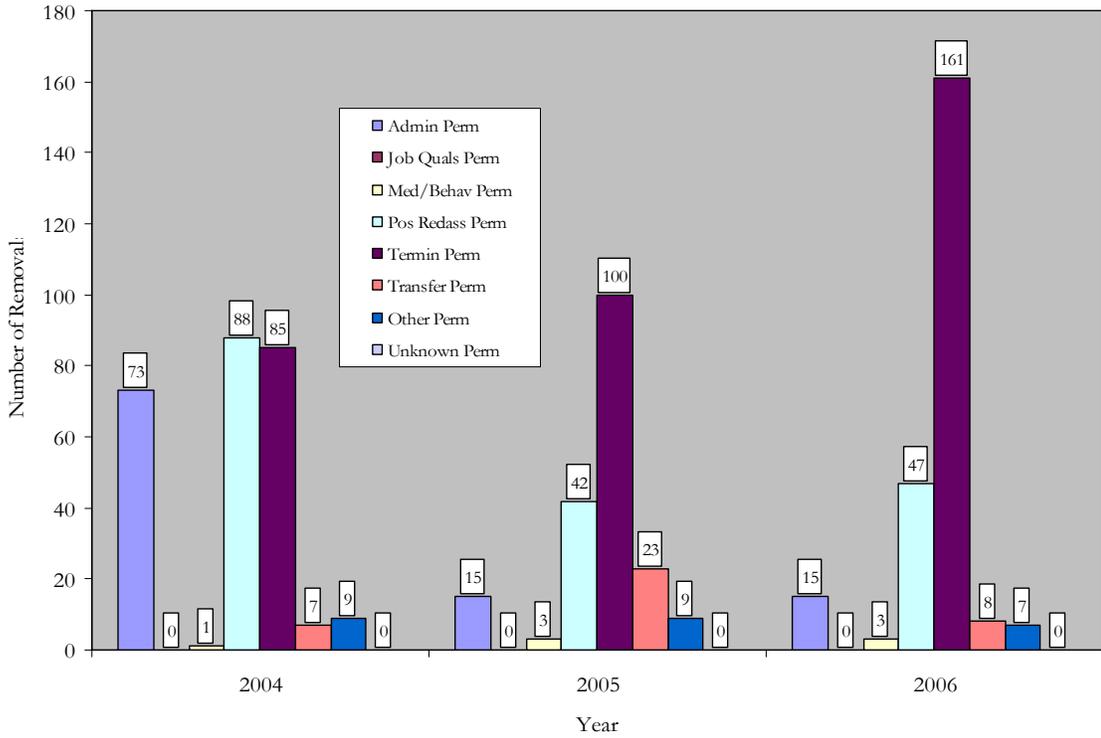


Figure 30. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for cause/administrative review for Oakland

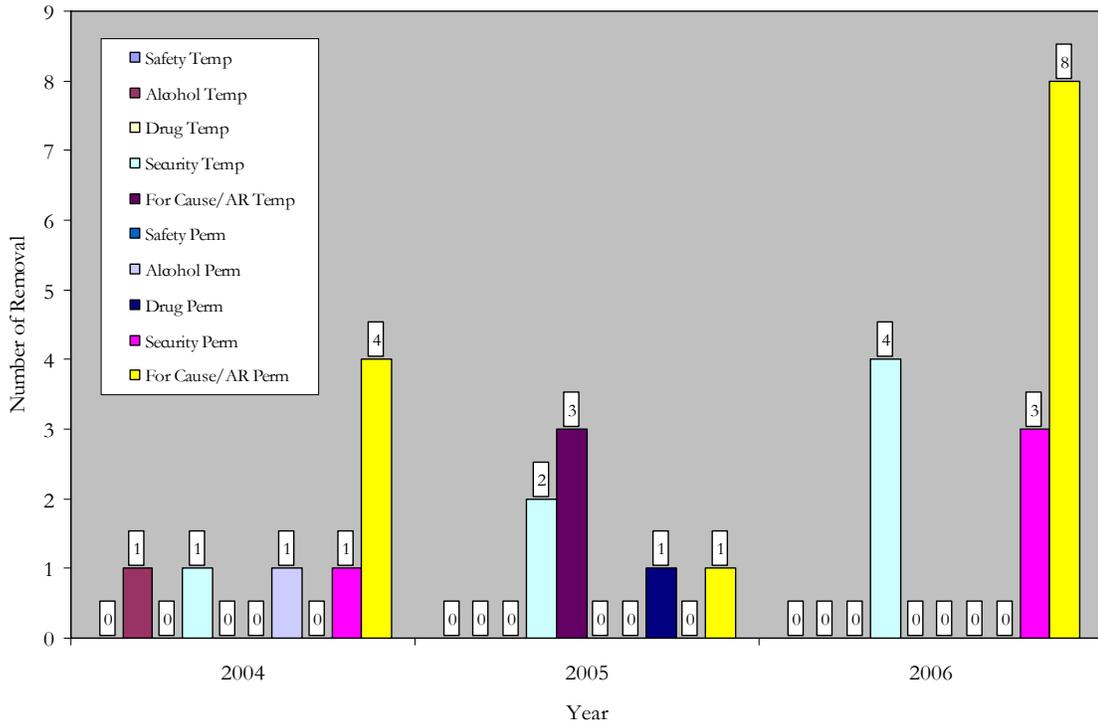


Figure 31. HRP temporary removals for nonreliability causes for Oakland

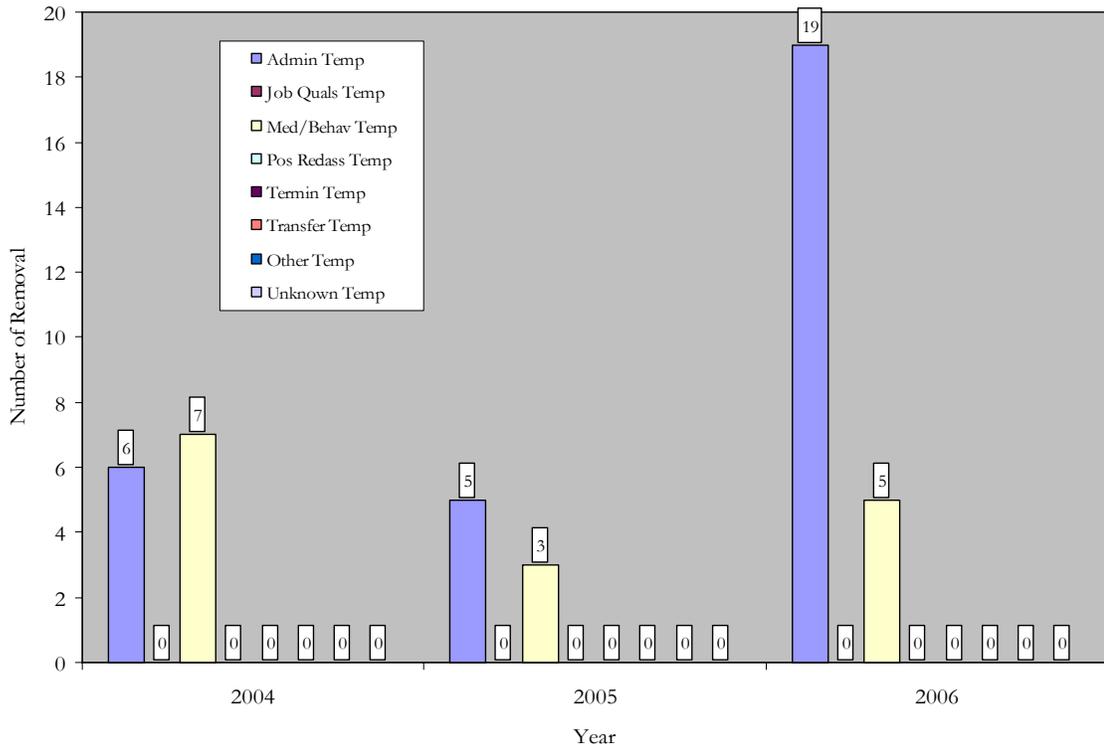


Figure 32. HRP permanent removals for nonreliability causes for Oakland

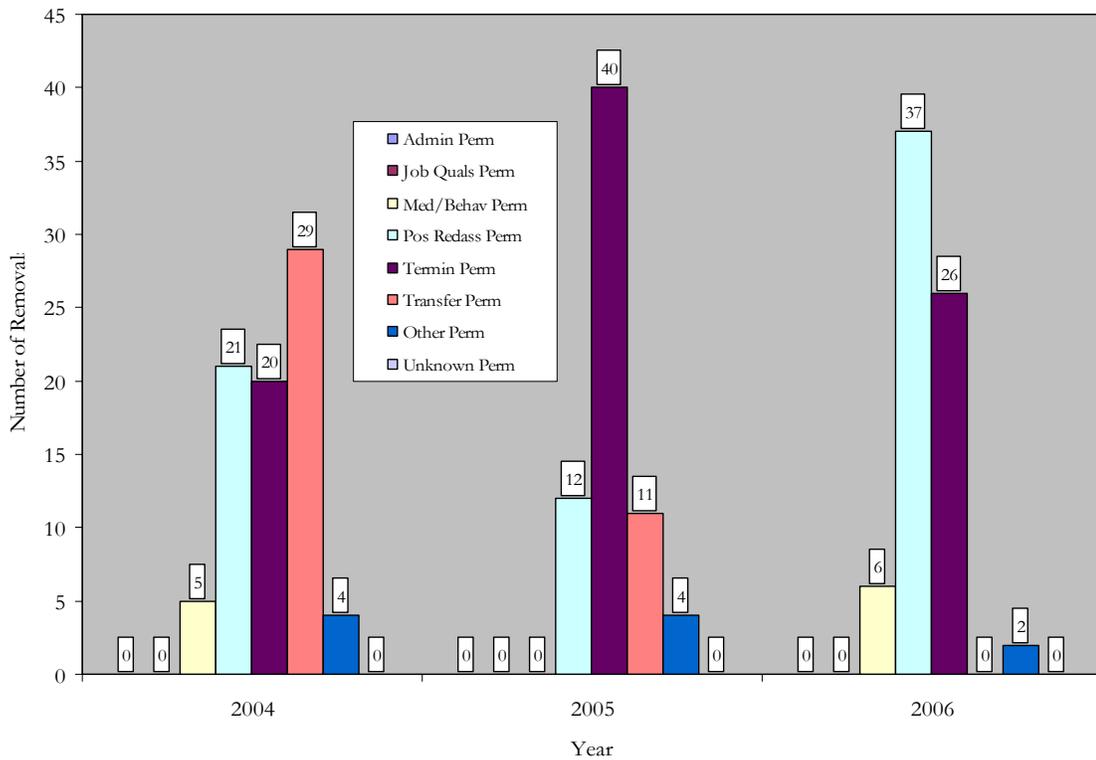


Figure 33. HRP temporary/permanent removals for safety and reliability: Alcohol, drugs, security, and for cause/administrative review for Savannah River

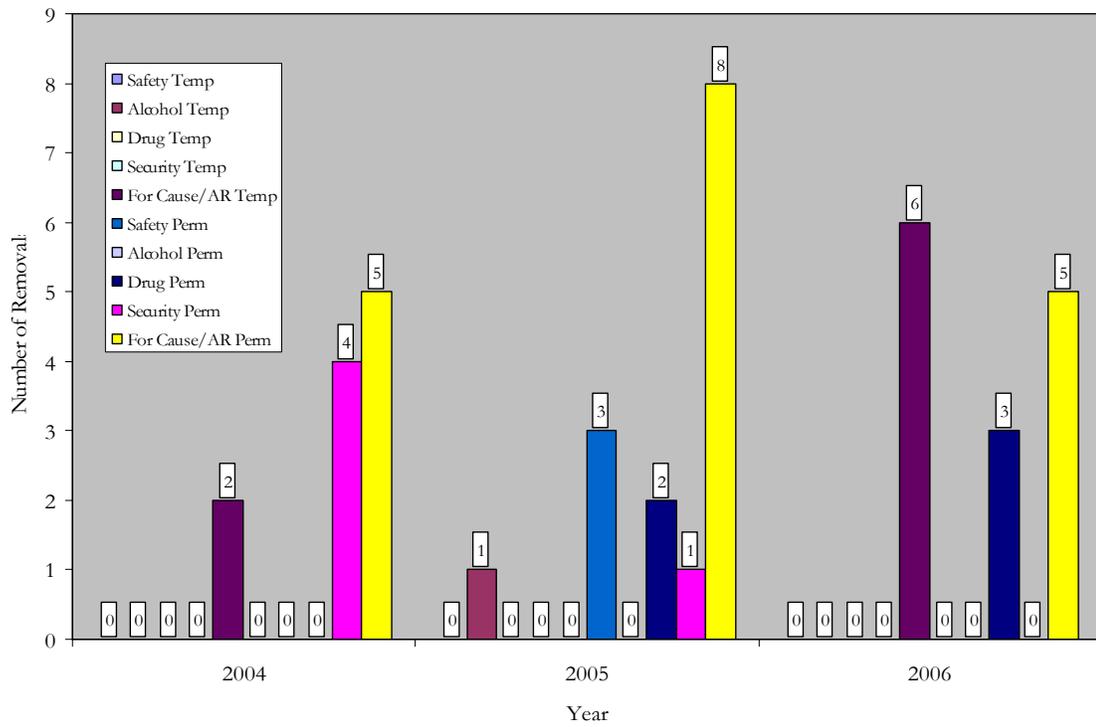


Figure 34. HRP temporary removals for nonreliability causes for Savannah River

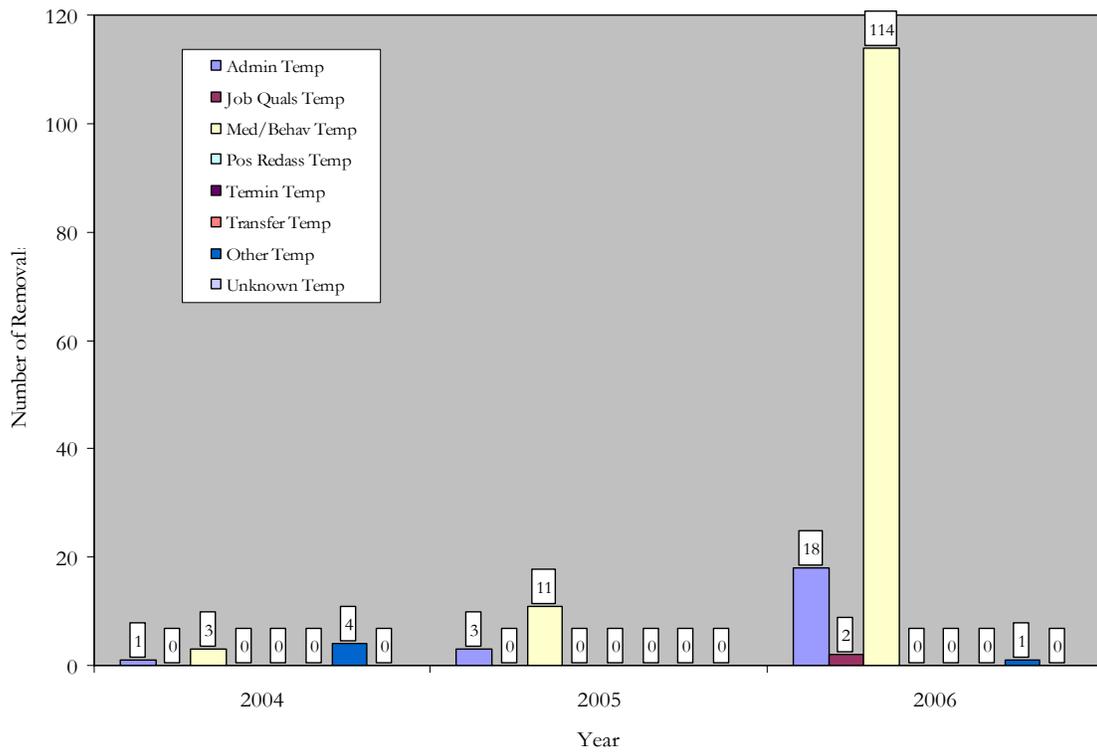


Figure 35. HRP permanent removals for nonreliability causes for Savannah River

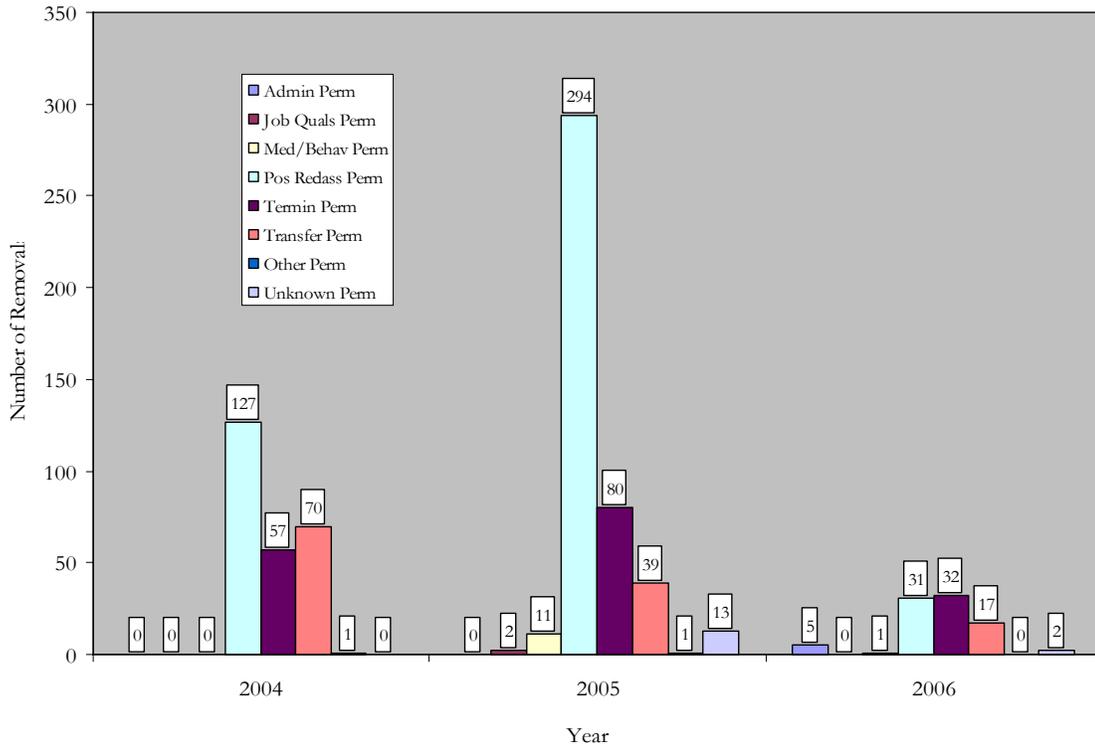
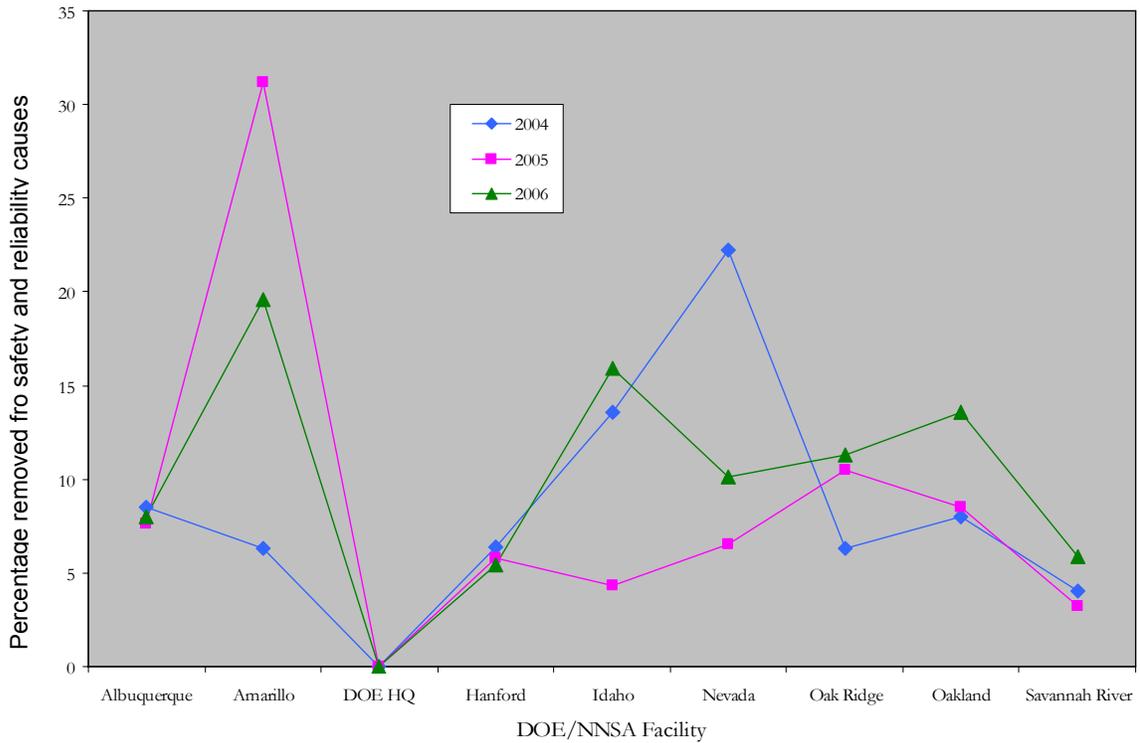


Figure 36. HRP worker total removals by DOE/NNSA facility and by year



Appendix B. Facility Data Contributors

Albuquerque

- DOE Albuquerque Office of Secure Transportation
- DOE Albuquerque Operations Office
- DOE Albuquerque Service Center
- DOE Albuquerque Site Office
- Los Alamos National Laboratory
- NNSA * Los Alamos Site Office
- NNSA Sandia Site Office
- Sandia National Laboratories

Amarillo **

- BWXT-Pantex
- DOE Pantex Site Office
- Honeywell FM & T (Kansas City)

DOE Headquarters

Hanford

- Protection Technologies Hanford

Idaho

- Idaho National Laboratory (INL)

Nevada

- Bechtel
- DOE Nevada Site Office
- Wackenhut

Oak Ridge

- BWXT Y-12
- Isotek
- NNSA Y-12 Site Office
- Oak Ridge National Laboratory
- Wackenhut

Oakland

- DOE Oakland Operations Office
- Lawrence Livermore National Laboratory
- NNSA Livermore Site Office

Savannah River

- DOE Savannah River Office
- Wackenhut
- Washington Savannah River Company

* U.S. National Nuclear Security Administration

** Pantex assisted Kansas City during HRP implementation. For this analysis only, Kansas City is combined with Pantex/Amarillo data.