

One University. One World. Yours.

Safety Culture Perception Survey

Initial Summary Results

F.A.K.E

Nuclear Power Facility

CONTENTS

OVERVIEW	3
Table 1: Department and workgroup percentages	3
Table 2: Type of work most frequently performed	3
Table 3: Percentage holding management or supervisory positions	
Table 4: Type of supervisory positions held	4
Figure 1: Average scores for the five IAEA safety culture dimensions	
Employees' perceptions of safety culture	6
Table 5A: Safety is a clearly recognized value	6
Table 5B: Leadership support of safety is clear	7
Table 5C: Accountability for safety is clear	8
Table 5D: Safety is intergrated into all activities	
Table 5E: Safety is learning driven	11
Comparsion between occupational groups	12
Table 6: Average scores by department/workgroup	
Figure 2: Comparsion between plant and adminstrative staff	13
Figure 3: Comparsion between management and non-management staff	14
Figure 4: Department nuclear safety average scores by department/workgroup	15
Figure 5: Plant nuclear safety average scores by department/workgroup	15
Figure 6: Nuclear safety average scores by type of work	16
Figure 7: Nuclear safety average scores by position	16

OVERVIEW

TABLE 1: DEPARTMENT AND WORKGROUP PERCENTAGES

Department/Workgroup	Reponses	Total in dept	Rate
Nuclear Engineering	130	230	57%
Engineering	20	67	30%
Maintenance	180	368	49%
Operations	63	130	48%
Services	24	84	29%
Administration	65	70	92%
Other and no response	10		
Total	482	950	51%

TABLE 2: TYPE OF WORK MOST FREQUENTLY PERFORMED

Type of Work Most Frequently Performed	Percent	Number
Hands-on plant related work	43.75%	211
Office/administrative jobs	48.73%	235

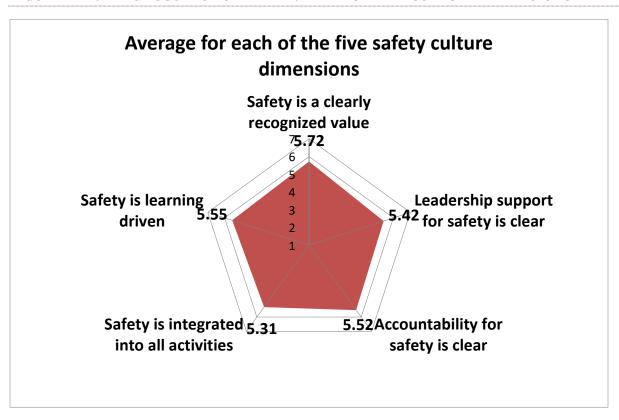
TABLE 3: PERCENTAGE HOLDING MANAGEMENT OR SUPERVISORY POSITIONS

Management or Supervisory Position	Percent
No	57.8%
Yes	34.5%

TABLE 4: TYPE OF SUPERVISORY POSITIONS HELD

Type of Supervisory Position	Percent
Supervision	25.9%
Department Management	6.0%
Senior Management	2.6%

FIGURE 1: AVERAGE SCORES FOR THE FIVE IAEA SAFETY CULTURE DIMENSIONS



In summary the following themes require further investigation:

- 1. Items regarding departmental mangers received relatively less positive ratings than other safety culture items.
- 2. Participants from engineering had the least positive perceptions of their department's over all safety than other occupational groups.
- 3. Participants from services provided the lowest ratings of overall safety for their plants. Participants from services also perceived safety less positively overall than participants from other departments.

TABLE 5A: SAFETY IS A CLEARLY RECOGNIZED VALUE

Safety is a clearly recognized value	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree	Don't know
I feel comfortable intervening to stop unsafe situations	0%	3%	0%	5%	14%	33%	46%	0%
I understand how my work contributes to nuclear safety	0%	0%	0%	0%	12%	38%	50%	0%
Important safety concerns are resolved in a timely manner	0%	3%	10%	15%	18%	41%	14%	0%
My peers encourage me to work safely	0%	0%	3%	5%	16%	44%	32%	0%
Our organization is proactive in addressing potential safety issues	0%	5%	3%	3%	35%	27%	26%	0%
Production never takes priority over safety in my team	3%	9%	5%	13%	10%	31%	29%	0%
Safety is a primary consideration in the allocation of resources	0%	11%	5%	11%	13%	40%	20%	0%
Senior management decisions demonstrate that safety is their number one priority	3%	0%	6%	6%	22%	38%	22%	3%
Senior management regularly communicate the importance of safety	0%	3%	0%	5%	10%	47%	35%	0%
The content of nuclear safety policy provides useful guidelines for my work	0%	3%	0%	18%	20%	34%	22%	3%
The organization's plans and strategies include safety goals	0%	0%	3%	3%	10%	60%	21%	3%

Overall participants reported positive perceptions of the value placed on safety, as the majority of respondents selected 'agree' or 'strongly agree' for each item. Participants were less positive about items referring to allocation of resources, resolving safety concerns in a timely manner and prioritizing safety over production. For example 30% of respondents did not positively agree the statement "*Production never takes priority over safety in my team*".

TABLE 5B: LEADERSHIP SUPPORT OF SAFETY IS CLEAR

Leadership support of safety is clear	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree	Don't know
My department manager corrects degraded safety conditions	3%	3%	3%	12%	20%	36%	24%	0%
My department manager encourages open and frank discussion	5%	0%	0%	5%	28%	40%	22%	0%
My department manager helps resolve difficult issues with other departments	3%	5%	0%	0%	15%	61%	14%	3%
My department manager holds open meetings to discuss issues relevant to our group	3%	6%	5%	5%	10%	46%	26%	0%
My department manager resolves conflict effectively	3%	5%	0%	9%	30%	33%	21%	0%
My department manager seeks different views when discussing safety	3%	5%	5%	6%	17%	46%	18%	0%
My department manager spends enough time at my worksite to know what's going on	5%	10%	8%	5%	26%	22%	23%	0%
My department manager urgently remedies safety problems	0%	5%	3%	11%	27%	41%	13%	0%
My direct supervisor helps our team adapt to change	3%	3%	9%	7%	23%	22%	30%	3%
Senior management establish clear expectations for safety performance	0%	3%	3%	7%	21%	42%	24%	0%
Senior management makes safety a top priority	3%	0%	9%	5%	14%	27%	43%	0%
Staffing levels are sufficient to meet the demands of the work	8%	7%	5%	12%	20%	35%	13%	0%

Participants were less positive about leadership support for safety than they were for other safety culture dimensions. Specifically, they were less satisfied with their department manager, for example nearly a quarter of respondents disagreed with 'My department manager spends enough time at my worksite to know what's going on'. They were also less satisfied with staffing level with 30% of respondents disagreeing with that statement.

TABLE 5C: ACCOUNTABILITY FOR SAFETY IS CLEAR

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree	Don't know
0%	0%	3%	3%	11%	46%	35%	3%
0%	0%	3%	0%	0%	41%	57%	0%
0%	8%	3%	9%	13%	50%	15%	3%
5%	14%	5%	9%	21%	32%	15%	0%
0%	6%	3%	3%	14%	53%	22%	0%
8%	10%	5%	7%	35%	30%	3%	3%
0%	9%	6%	13%	19%	41%	12%	0%
0%	0%	3%	10%	10%	50%	26%	0%
0%	1%	3%	8%	25%	46%	12%	4%
3%	3%	3%	5%	19%	57%	11%	0%
5%	3%	3%	3%	26%	39%	22%	0%
3%	3%	9%	12%	21%	33%	15%	5%
	0% 0% 0% 5% 0% 8% 0% 0% 0% 3% 5%	0% 0% 0% 0% 0% 8% 5% 14% 0% 6% 8% 10% 0% 9% 0% 0% 0% 1% 3% 3% 5% 3%	0% 0% 3% 0% 0% 3% 0% 8% 3% 5% 14% 5% 0% 6% 3% 8% 10% 5% 0% 9% 6% 0% 0% 3% 0% 1% 3% 3% 3% 3% 5% 3% 3%	0% 0% 3% 3% 0% 0% 3% 0% 0% 8% 3% 9% 5% 14% 5% 9% 0% 6% 3% 3% 8% 10% 5% 7% 0% 9% 6% 13% 0% 0% 3% 10% 0% 1% 3% 8% 3% 3% 5% 5% 3% 3% 3%	0% 0% 3% 3% 11% 0% 0% 3% 0% 0% 0% 8% 3% 9% 13% 5% 14% 5% 9% 21% 0% 6% 3% 3% 14% 8% 10% 5% 7% 35% 0% 9% 6% 13% 19% 0% 0% 3% 10% 10% 0% 1% 3% 8% 25% 3% 3% 5% 19% 5% 3% 3% 3% 26%	0% 0% 3% 3% 11% 46% 0% 0% 3% 0% 0% 41% 0% 8% 3% 9% 13% 50% 5% 14% 5% 9% 21% 32% 0% 6% 3% 3% 14% 53% 8% 10% 5% 7% 35% 30% 0% 9% 6% 13% 19% 41% 0% 0% 3% 10% 10% 50% 0% 1% 3% 8% 25% 46% 3% 3% 5% 19% 57% 5% 3% 3% 3% 26% 39%	0% 0% 3% 3% 11% 46% 35% 0% 0% 0% 0% 41% 57% 0% 8% 3% 9% 13% 50% 15% 5% 14% 5% 9% 21% 32% 15% 0% 6% 3% 3% 14% 53% 22% 8% 10% 5% 7% 35% 30% 3% 0% 9% 6% 13% 19% 41% 12% 0% 0% 3% 10% 10% 50% 26% 0% 1% 3% 8% 25% 46% 12% 3% 3% 5% 19% 57% 11% 5% 3% 3% 26% 39% 22%

Participants were broadly positive about accountability for safety, with the majority of participants agreeing with all the statements. Participants were less positive about their department manager, with 24% of participant disagreeing with "My department manager visits my worksite to confirm that safety expectations are understood". Participants were also less positive about mistakes being openly discussed.

TABLE 5D: SAFETY IS INTERGRATED INTO ALL ACTIVITIES

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree	Don't know
8%	3%	3%	14%	16%	41%	16%	0%
3%	0%	0%	3%	10%	48%	35%	0%
3%	6%	0%	12%	22%	35%	22%	0%
3%	3%	0%	8%	8%	54%	24%	0%
3%	3%	3%	5%	12%	40%	35%	0%
3%	8%	10%	11%	12%	35%	22%	0%
2%	7%	5%	13%	28%	33%	12%	0%
3%	3%	0%	7%	19%	49%	16%	3%
0%	10%	8%	0%	16%	52%	14%	0%
0%	3%	11%	10%	16%	41%	10%	9%
5%	3%	13%	12%	13%	39%	13%	0%
0%	3%	3%	19%	16%	46%	15%	0%
3%	0%	3%	0%	16%	41%	38%	0%
5%	5%	3%	12%	26%	36%	10%	3%
3%	5%	8%	5%	35%	28%	12%	3%
8%	14%	8%	12%	30%	25%	3%	0%
6%	11%	7%	14%	24%	28%	6%	3%
	8% 3% 3% 3% 3% 3% 3% 0% 0% 5% 0% 5% 3% 5% 3%	8% 3% 3% 0% 3% 6% 3% 3% 3% 8% 2% 7% 3% 3% 0% 10% 0% 3% 5% 3% 3% 0% 5% 5% 3% 5% 3% 5% 8% 14%	8% 3% 3% 3% 0% 0% 3% 6% 0% 3% 3% 0% 3% 3% 3% 3% 8% 10% 2% 7% 5% 3% 3% 0% 0% 10% 8% 0% 3% 11% 5% 3% 13% 0% 3% 3% 3% 0% 3% 5% 5% 3% 5% 5% 3% 3% 5% 8% 8% 14% 8%	8% 3% 3% 14% 3% 0% 0% 3% 3% 6% 0% 12% 3% 3% 0% 8% 3% 3% 3% 5% 3% 8% 10% 11% 2% 7% 5% 13% 3% 3% 0% 7% 0% 10% 8% 0% 0% 3% 11% 10% 5% 3% 13% 12% 0% 3% 3% 19% 3% 0% 3% 0% 5% 3% 12% 3% 5% 3% 12% 3% 5% 8% 5% 8% 14% 8% 12%	8% 3% 3% 14% 16% 3% 0% 0% 3% 10% 3% 6% 0% 12% 22% 3% 3% 0% 8% 8% 3% 3% 5% 12% 3% 8% 10% 11% 12% 2% 7% 5% 13% 28% 3% 3% 0% 7% 19% 0% 10% 8% 0% 16% 0% 3% 11% 10% 16% 5% 3% 13% 12% 13% 0% 3% 13% 12% 16% 3% 0% 3% 19% 16% 3% 0% 3% 0% 16% 5% 3% 12% 26% 3% 5% 35% 35% 8% 14% 8% 12% 30%	8% 3% 3% 14% 16% 41% 3% 0% 0% 3% 10% 48% 3% 6% 0% 12% 22% 35% 3% 3% 0% 8% 8% 54% 3% 3% 3% 5% 12% 40% 3% 8% 10% 11% 12% 35% 2% 7% 5% 13% 28% 33% 3% 3% 0% 7% 19% 49% 0% 10% 8% 0% 16% 52% 0% 3% 11% 10% 16% 41% 5% 3% 13% 12% 13% 39% 0% 3% 13% 12% 13% 39% 0% 3% 13% 12% 16% 46% 3% 0% 3% 0% 16% 41% 5% 3% 0% 16% 36% 3% 5% 35% 26% 36%	8% 3% 3% 14% 16% 41% 16% 3% 0% 0% 3% 10% 48% 35% 3% 6% 0% 12% 22% 35% 22% 3% 3% 0% 8% 8% 54% 24% 3% 3% 3% 5% 12% 40% 35% 3% 8% 10% 11% 12% 35% 22% 2% 7% 5% 13% 28% 33% 12% 3% 3% 0% 7% 19% 49% 16% 0% 10% 8% 0% 16% 52% 14% 0% 3% 11% 10% 16% 41% 10% 5% 3% 13% 12% 13% 39% 13% 0% 3% 13% 12% 13% 39% 13% 0% 3% 3% 10% 16% 41% 38% 5% 5% 3% 12% 26%

Participants were slightly less positive about the integration of safety than with the other domains. Participants were less positive about the level of trust between management and personnel, with nearly a third disagreeing with this statement. Planning received more negative responses with a third did not agree with the statement "Our organization has effective processes" and 24% of participants disagreeing with the statement that work is well planned.

TABLE 5E: SAFETY IS LEARNING DRIVEN

Safety is learning driven	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree	Don't know
I am comfortable asking questions in any forum	3%	5%	3%	8%	7%	47%	25%	3%
I am given opportunities to expand my expertise	10%	9%	3%	7%	18%	35%	20%	0%
I raise questions about unusual conditions	3%	3%	0%	6%	4%	60%	21%	3%
I try to understand unusual indications	0%	0%	0%	8%	18%	53%	22%	0%
It is common to share key knowledge	0%	6%	3%	5%	26%	46%	12%	3%
It is easy to report a safety incident	13%	0%	0%	8%	5%	45%	26%	3%
My department manager critically examines his or her own assumptions by seeking independent views	3%	6%	10%	19%	20%	27%	12%	3%
Our corrective actions are effective at preventing repeat events	0%	15%	5%	18%	21%	29%	12%	0%
Our organization openly communicates results of safety assessments	3%	0%	0%	6%	16%	53%	22%	0%
Our safety performance indicators give an accurate picture of current safety performance	0%	0%	3%	20%	19%	46%	13%	0%
Our team uses relevant safety performance indicators to improve safety	0%	3%	5%	6%	10%	53%	22%	0%
Personnel are not afraid to report mistakes	3%	10%	11%	15%	22%	35%	5%	0%
Self-assessment is seen as a tool to improve safety performance	0%	6%	3%	0%	19%	55%	17%	0%
We use lessons learned to improve our safety performance	0%	3%	0%	6%	11%	42%	35%	3%

Participants were broadly positive about learning, with the majority of participants agreeing with all the statements. Participants were less positive about fear of reporting mistakes. This supports previous conclusions that further investigation of department manager commitment to safety and reporting mistakes is required.

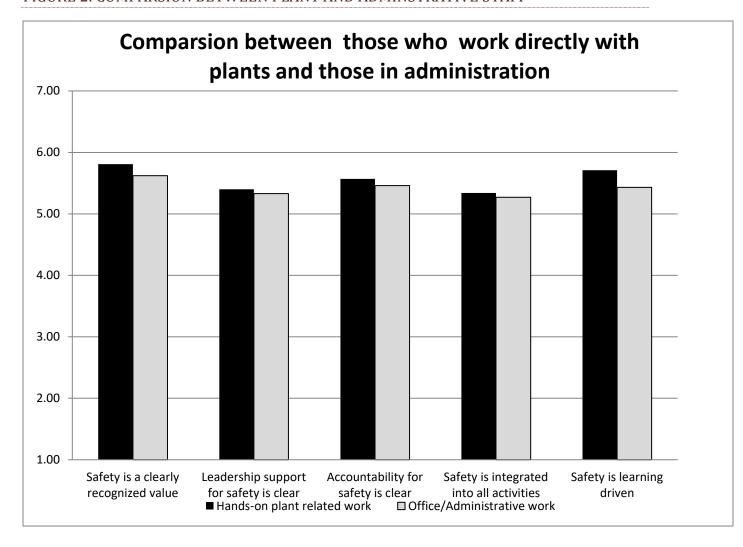
COMPARSION BETWEEN OCCUPATIONAL GROUPS

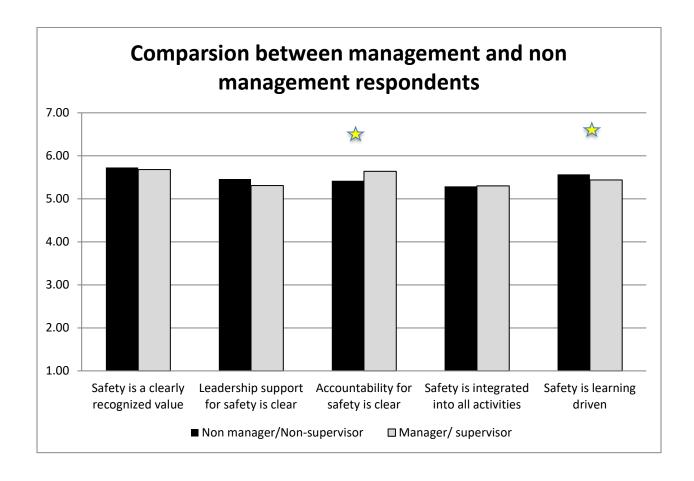
Overall participants gave generally positive responses on the questionnaire, indicating they have positive perceptions of safety at F.A.K.E. All of the **total** average scores were above a 5, indicating they 'somewhat agree' with the safety culture statements. Table 8 provides the average scores on each of the five IAEA safety culture domains by department or workgroup. Table 9 A-E presents the average scores of each department or workgroups on the items in the safety culture perception survey, along with corresponding figures. Table 10 and 11 presents the average scores on each of the five IAEA safety culture domains by type of work (hands-on plant-related or office/administrative) and position (non-managerial or managerial) and their corresponding figures respectively.

TABLE 6: AVERAGE SCORES BY DEPARTMENT/WORKGROUP

Department/Workgroup	Safety is a clearly recognized value	Leadership support for safety is clear	Accountability for safety is clear	Safety is integrated into all activities	Safety is learning driven
Nuclear Engineering	5.84	5.54	5.52	5.82	5.85
Engineering	4.95	4.92	5.05	5.21	4.52
Maintenance	5.24	4.85	5.50	5.11	5.68
Operations	6.43	5.51	5.29	5.84	5.60
Services	5.45	3.68	4.73	4.63	5.23
Administration	5.38	5.31	5.51	5.62	5.81
Total	5.72	5.42	5.52	5.31	5.55

FIGURE 2: COMPARSION BETWEEN PLANT AND ADMINSTRATIVE STAFF





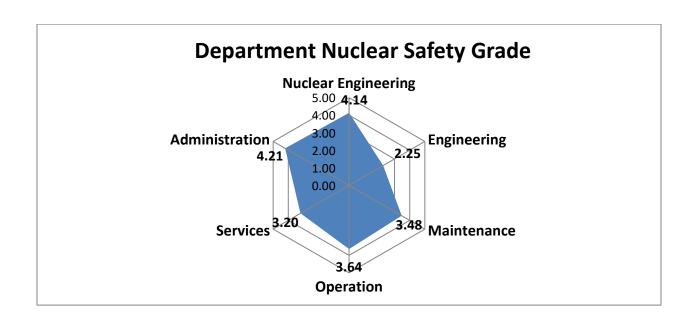


FIGURE 5: PLANT NUCLEAR SAFETY AVERAGE SCORES BY DEPARTMENT/WORKGROUP

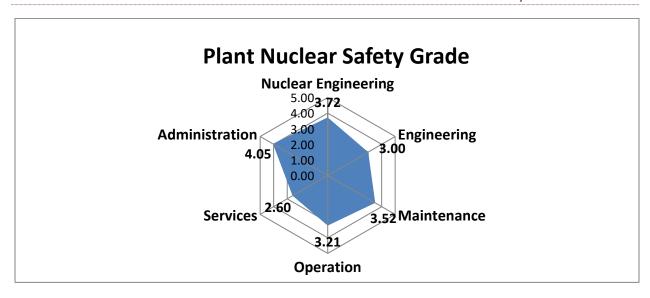


FIGURE 6: NUCLEAR SAFETY AVERAGE SCORES BY TYPE OF WORK

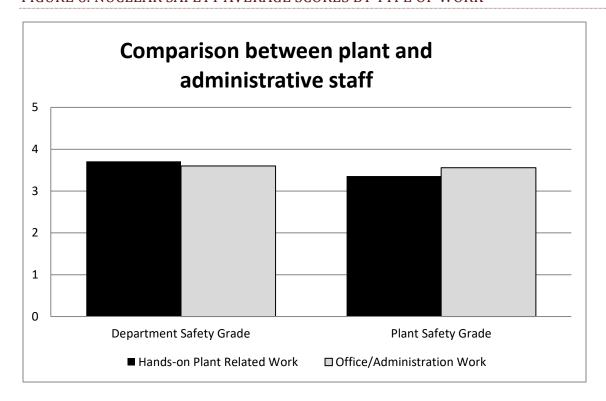
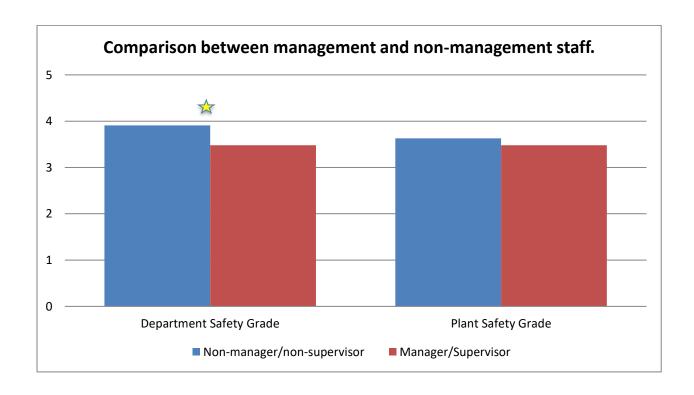
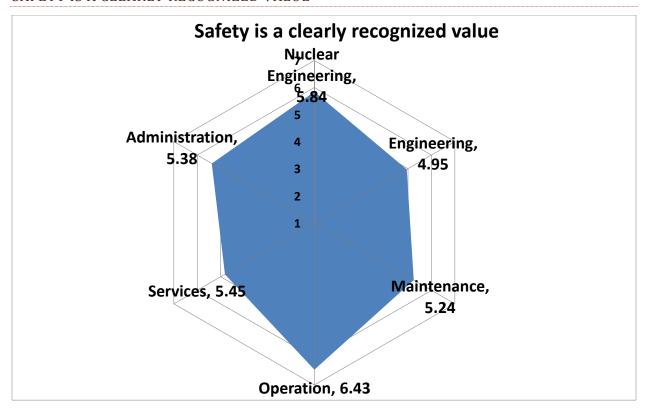
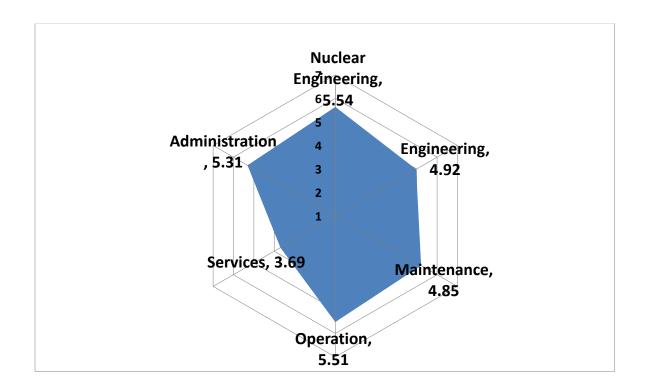


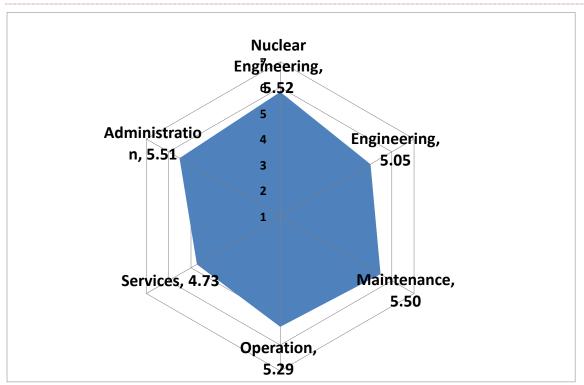
FIGURE 7: NUCLEAR SAFETY AVERAGE SCORES BY POSITION

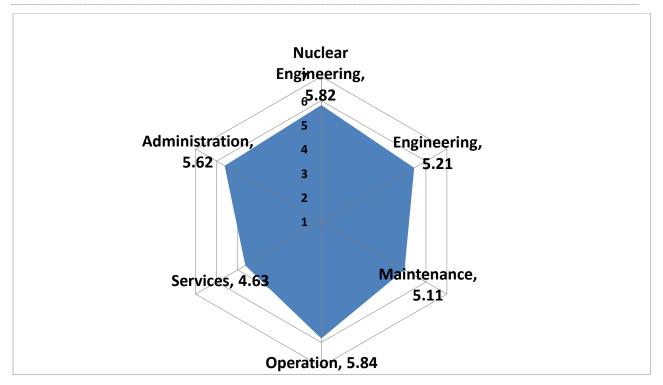






ACCOUNTABLILITY FOR SAFETY IS CLEAR





SAFETY IS LEARNING DRIVEN

