

# A study on Employee Health, Safety and Welfare measures of Petrol Fuel Stations, Visakhapatnam, Andhra Pradesh State

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## ABSTRACT

The present study is to under taken to know the health, safety and welfare provisions of petrol bunk employees Visakhapatnam. For the purpose of the study random sampling method is adopted to carry out the study. The quantitative method of primary source was utilized to collect the data from 80 employees. Five Likert scales questionnaire were used to determine the measure of health, safety and welfare provisions. Statistical packages for social sciences 16 (SPSS) program was used for analysis to the collected data. The statistical tools were aligned with the objective of the research. For this purpose, frequency tables, percentages, means and standard deviations, ANOVA test were computed and substantively interpreted. Finally the study concludes that the employees of petrol bunks in the Visakhapatnam city have positive opinion on the health, safety, welfare facilities provide by the petrol bunks managements.

## 1. Introduction

Labour welfare is an essential part of social welfare. It means the adjustment of the labourers work life, social life and family life in the society. It is an area of social welfare conceptually and operationally. It covers a broad field and connotes a state of wellbeing, happiness, satisfaction, conservation and development of human resources and also helps to motivation and performance of employee. The basic purpose of employee welfare is to enrich the life of employees and to keep them happy and conducted.

Labour has an important role in the industrial production of the country. The personnel management really concerns with the management of the people at work. Management is the art of getting work done by the people. Harmonious welfare facilities will result in increasing efficiency, production and profit which will ultimately lead to higher wages, better working conditions and other fringe benefits to workers.

Labour has a vital role to play in the economic development of the country. This is the day in which we are living, having the concept recognized as "Workers are partners of the company". Gone are those days of ill-treatment of labour and the prosecution of the rights of labour. Labour should be kept satisfied to work for the organization and ultimately the nation as a whole. Hence employers have started expanding welfare activities to their employee's.

### 1.1 Concept of Employee Welfare

It is no wonder that the concept of labour welfare varies from nation to nation and within the same nation; the significance attached to the term may be different from industry to industry and even from undertaking to undertaking. The term "labour welfare" is very ample and includes various types of activities undertaken for the economic, social, intellectual or moral benefits of the labour society.

The Royal Commission on Labour in India (1931) rightly points out that the term welfare as applied to the industrial workers is "one which must necessarily be elastic, bearing a somewhat different interpretation in one country from another, according to the different social customs, the degree of industrialization and the educational development of the worker".

### 1.2 Scope of the Labour Welfare

The scope of labour legislation is very broad which embraces all laws, rules and codes. Laws relating to workers employed in factories, mines, plantation, ports, docks, railways, motor transport, water and air transport, shops, establishments, newspaper and news agencies, beedi and cigar units and also workers of un-organized sector of employment. The scope of the subject matter of labour legislation covers almost all terms and conditions of employment and non-employment.

The scope of labour legislation is based on functional areas of HRM. It reflects that employment training, wages, welfare, health, safety, hours of work, leave with wages, social security and industrial relations areas are covered under the scope of labour legislation. On other words the government enacted various labour laws to guide, regulate and control the various functional areas of HRM.

Another way delineating the scope of labour legislation is legal inputs i.e.

1. Laws or Acts and amendments to them
2. Rules and
3. Case laws.

## 2. Health, Safety and Welfare Provisions

### 2.1 Health Provisions

1. **Cleanliness:** Every factory shall be kept clean and free from effluvia arising from any drain, privy or other nuisance.
2. **Disposal of wastes and effluents:** Every factory should make effective arrangements for the treatment of wastes and effluents.
3. **Ventilation and temperature:** Every factory should work on proper arrangements for adequate ventilation and circulation of fresh air.
4. **Dust and fume:** Every factory should take care of the proper exhaustion of dust, fume and other impurities from its origin point.
5. **Lighting:** Every factory should arrange the lighting every part of the factory where workers are working.
6. **Drinking water:** In every factory effective arrangements shall be made to provide and maintain at suitable points conveniently situated for all workers employed therein a sufficient supply of wholesome drinking water.
7. **Urinals and latrine:** Every factory should be sufficient accommodation for urinals which should be provided at conveniently situated place. It should be kept clean and maintained.
8. **Occupational health:** Provision of occupational health services means carrying out activities in the workplace with the aim of protecting and promoting workers' safety, health and well-being, as well as improving working conditions and the working environment.
9. **Spittoons:** Every factory there should be sufficient number of spittoons situated at convenient places and these should be properly maintain, cleaned and kept in hygienic condition.
10. **Health checkup camps:** Some organizations are organizing a free health and Medical checkup Camps in association with multi specialty hospitals.
11. **Air and sound pollution:** Air and sound pollution affects both health and behavior. Every factory should protect their employees from air and sound pollution.
12. **Safe working conditions:** Generally working conditions covers broad range of topics and issues. (Working timings, hours of work, rest periods, work schedules, remuneration, physical conditions, mental demands as well as Health, Safety and Welfare of employees).
3. **Fire buckets:** fire bucket is a bucket filled with water or sand which is used to prevent or extinguish fires. Typically, fire buckets are painted bright red and have the word fire stenciled on them.
4. **Smoking:** Petrol is a flammable substance which also has a low ignition temperature. The sparks from the cigarette can move towards the petrol which can cause a huge fire which is not easily doused. So, the owner's refused the smoking in the petrol bunk premises.
5. **CC TVs:** Big sums of money. Small number of employees - big distance from the police station.cc cameras protects mainly from burglaries, but not from direct thefts. CCTV images can be used as evidence.
6. **Roofs (Maintenance and repairing):** Almost all the petrol pumps are built with roofs. So the managements should be able to maintain and repair time to time to save employees from rain and summer seasons.
7. **Speed breakers:** Speed breakers typically reduce the vehicle speed and protect employees from accidents.
8. **Safety advertisements':** Every organization should display the occupational safety and health adminstraion posters titled job safety and health in a prominent location instead of a back room or other infrequently used space.
9. **Safety equipments:** Safety equipment will protect workers against health or safety risks on the job. Every factory should provide safety equipments like specific goggles, shoes, earmuffs, helmets, hand gloves safety equipments to their employees.

### 2.3 Welfare Provisions

1. Washing facilities to male and female workers separately.
2. Facility for storing and dry clothing.
3. Sitting facilities.
4. First-aid boxes- one for every 150 workers and the ambulance facility if there are more than 500 workers.
5. Canteen facility if there are more than 250 workers
6. Shelters, rest rooms and lunch rooms if there are more than 150 workers.
7. Crèches, if there are more than 30 women workers.
8. Welfare officer, if 500 or more workers are employed.

### 3. History of Petrol Filling Station

Energy is the lifeblood of economy of a nation; The first gasoline pump was invented and sold by Sylvanus Bowser in Fort Wayne, Indiana on September 5, 1885. This pump was not used for automobiles, as they were not yet being sold. It was instead used for some kerosene lamps and stoves. He later improved upon the pump by adding safety measures, and also by adding a hose to directly dispense fuel into automobiles. For a while, the term bowser was used to refer to a vertical gasoline pump. Although the term is not used anymore in the United States, except as a term for trucks that carry and dispense fuel to large aircraft at airports, it still is used sometimes in Australia and New Zealand.

### 2.2 Safety Provisions

Safety training: An effective training program can reduce the number of injuries and deaths, property damage, legal liability, illnesses, workers' compensation claims, and missed time from work.

1. **Mobiles:** When receive a call or make a call there is a small spark inside the phone. This spark can actually cause fire. So, the owners do not allow the mobiles to speak in the petrol bunk.
2. **Fire extinguishers:** fire extinguishers can be extremely effective in stopping flames before fire grow out of control. Its protect to people and properties from fire.

The oil and gas industry in India dates back to 1889 when the first oil deposits in the country were discovered near the town of Digboi in the state of Assam. The natural gas industry in India began in the 1960s with the discovery of gas fields in Assam and Gujarat. As on 31 March 2015, India had estimated crude oil reserves of 763.48 million tones and natural gas reserves of 1488.49 billion cubic meters.

India is the world's fourth-largest energy user. Petrol and diesel are strategic commodities; they play a vital role in the socio economic development of a country. After Coal, Oil is the biggest energy source for the country with a share of about 30.5% in the primary energy consumption basket.

#### 4. Review of the Literature

- 1) **Prof. Atul R Kadam et. al (2012):** Stated, the Hindalco, Belgaum has adopted a better kind of welfare activities which create an effective working environment and thus better productivity. There is different kind of welfare schemes like medical allowance, death relief fund, insurance, housing and transportation facilities recreation club etc. are provided by the company to the employees to maintain the industrial relation better one. The premises and the departments are maintained healthy. Also proper safety measures have been adopted in the organization. All matters relating to safety, health and welfare of employees are properly implemented.
- 2) **Dr. Usha Tiwari (2014):** Stated that as consistent with the examine average suggest score and percent rating of the overall employee satisfied with the facilities are 64%. The workers welfare facilities provided by the enterprise to employees are satisfied, but still scope of there for further improvement so that performance, effectiveness and productiveness may be improved to accomplish the organization goal.
- 3) **Iheanacho Maryjoan U & Ebitu Ezekiel Tom (2016):** The study analyses the effects of industrial safety and health on employees' job Performance in selected cement companies in cross river State, Nigeria. The study employed a survey research design with the target population comprising of a stratified census sample of 100 members of staff from the organization at different levels. The results of this study overly a positive.
- 4) **Ramazan Kaynak et al. (2016):** The main focus of their study was to examine the employee's safety and health satisfaction level of different private and public sectors of Turkey. sample size 389 of employees at selected organizations. Questionnaire was administered for data collection. The results obtained from analysis of data revealed that health and safety provisions effects on employee's performance.
- 5) **Patrick Gbadago et al (2017):** Their study was oriented to identify the relationship between job satisfaction and its various variables which are health

and safety provisions and socio-economic. The study was conducted among 166 respondents. The data collected from Department of Labour on 'assessment tool for hospital U.S. Study revealed that there was no significant relationship between socio-economic variables and job satisfaction of individuals. Whereas it was also revealed that there was a positive relationship between job satisfaction and organization providing health and safety facilities.

#### 5. Objectives of the Study

1. To study the present health, safety and welfare facilities provided by the Visakhapatnam petrol bunk.
2. To study the degree of awareness of the authorities for the health, safety and welfare provisions in workers.
3. To study the employees' satisfaction on the health, safety and welfare measures and work environment in Visakhapatnam petrol bunks.
4. To make the suggestions for effective implementation of labour health, safety and welfare provisions in the organizations.

#### 6. Need of the Study

Working in petrol bunks is a high risk task. Hence people will interest to work in the petrol bunks if the management provides quality welfare facilities.

Everyone knows that people's health condition affected by petroleum products (petrol, diesel, oil etc). Here our aim is to understand the health provisions to petrol bunk workers by the management in the polluted atmosphere in the petrol bunks.

Also, the petroleum products (petrol, diesel etc...) are highly inflammable. So here we wish to know the safety precautions providing by the managements in the petrol bunks in Visakhapatnam.

#### 7. Scope of the Study

The scope of present study entitled A Study on Employee Health, Safety and Welfare Measures of Petrol Fuel Stations, Visakhapatnam, Andhra Pradesh State. The scope of the study does not permit inclusion of all the Petrol bunks. Thus, the study is confined to only Visakhapatnam city petrol Bunks working employees only.

#### 8. Hypothesis

- H1: Employee health, safety, welfare provisions has no significance on age.  
 H2: Employee health, safety, welfare provisions has a significance on education  
 H3: Employee health, safety, welfare provisions has a no significance on experience.

#### 9. Methodology:

Data collection methods:

This study covers both primary and secondary data.

**Primary data**

The primary data is collected by questionnaire through interview of the petrol bunk employees, Visakhapatnam.

**Secondary data**

Secondary data is collected from various journals, articles, websites, and thesis pertaining to the relevant matters of the subject under study.

**Population and sample size**

The population selected 80 employees from 50 petrol bunks for this particular survey.

**Study area:**

Visakhapatnam, Andhra Pradesh.

**Tools for analysis:**

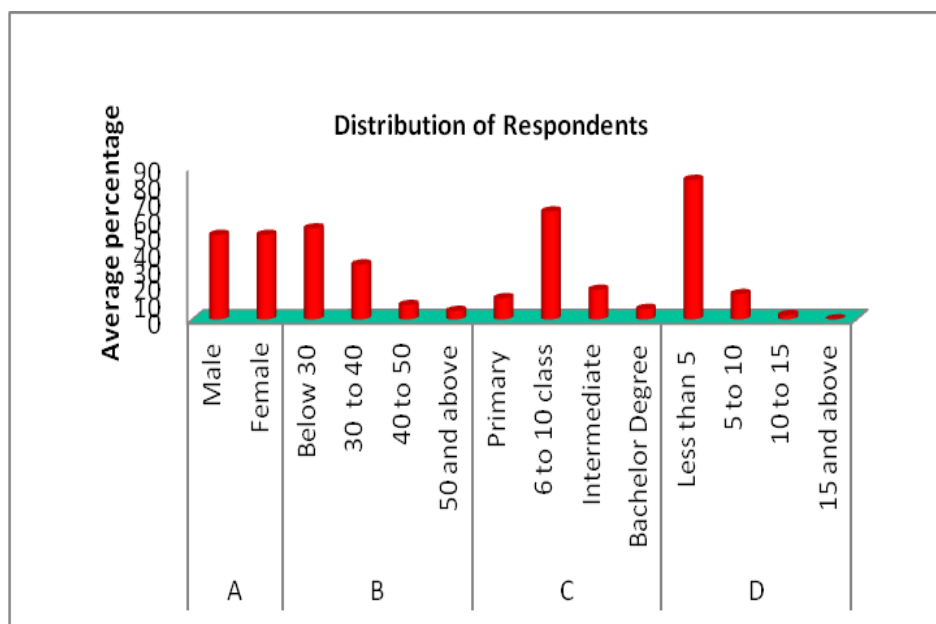
Simple percentage, ANOVA test.

**10. Results and Discussions**

**Table No 1: Frequency Distribution for Demographic Variables(N=80)**

S. No.	Variable	Options	Frequency	Percentage (%)
A	Gender	Male	40	50
		Female	40	50
		<b>Total</b>	<b>80</b>	<b>100</b>
B	Age (in years)	Below 30	43	53.8
		30 to 40	26	32.5
		40 to 50	07	8.5
		50 and above	04	05
		<b>Total</b>	<b>80</b>	<b>100</b>
C	Education	Primary	10	12.5
		6 to 10 class	51	63.8
		Intermediate	14	17.5
		Bachelor Degree	05	6.2
		<b>Total</b>	<b>80</b>	<b>100</b>
D	Experience (in years)	Less than 5	66	82.5
		5 to 10	12	15
		10 to 15	2	2.5
		15 and above	00	00
		<b>Total</b>	<b>80</b>	<b>100</b>

Source: Primary data



The frequency distribution and percentages of the respondents' gender, age, education and experience are shown in table 5. Out of the total sample of 80, it's evident from the data male and female respondents are equal.

Out of the total sample of 80, the majority of petrol bunk employees, 43 (53.8%) belong to age group of below 30 years, 26 (32.5%) petrol bank employees belong to the age group of 30-40 years. It is also observed that, 7 (8.5%) of petrol bank



7	Roofs (repairing and maintenance)	86.2	8.8	5		
8	Speed breakers	77.5	7.5	8.8	6.2	
9	Safety advertisements'	80	7.5	7.5	5	
10	Safety equipments (Cap, shoes, hand)	7.5	90	2.5		
	<b>Average Percentage</b>	<b>46.49</b>	<b>49.04</b>	<b>3</b>	<b>1.5</b>	

Table 3: Depicts the overall opinion of the respondents on the dimension "Safety Provisions". It is observed from the analysis that an average, 49.04 percent of the respondents have highly satisfied to the above said facilities, 46.49 percent of respondents are satisfied the dimension Safety Provisions towards employee's, while 3 percent respondents neutral followed by 1.5 % of the respondents are dissatisfied with above mentioned dimension.

It is observed from the data that out of the total sample of 80, a vast majority of 95.53% are positively opined towards the employee safety provisions, while 1.5 % negatively opined. Further, it may be conclude that the safety provisions in Visakhapatnam Petrol Bunks are good. The pictorial representation is given below.

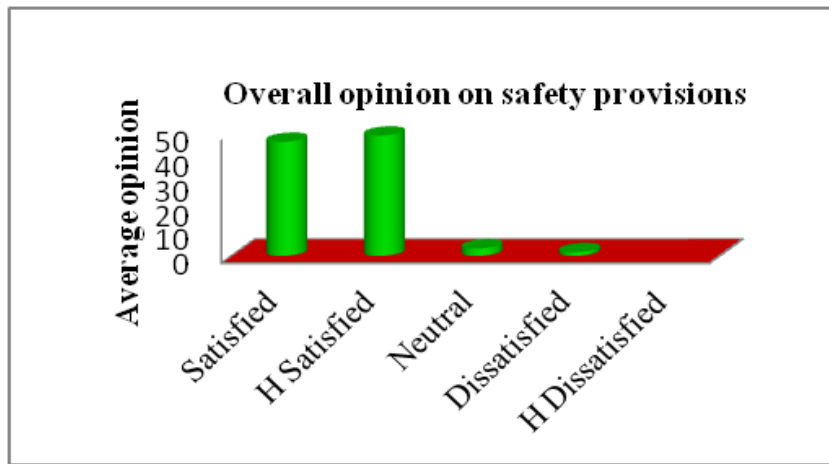


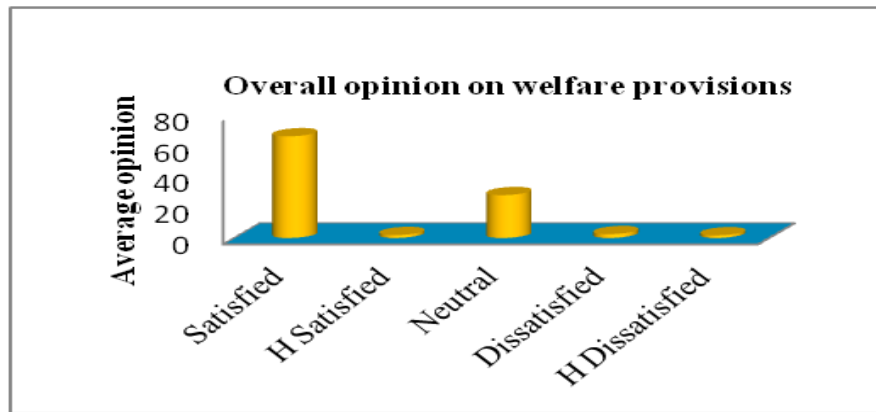
Table No: 4 Overall opinions of the respondents on the dimension welfare provisions. S-Satisfied H.S-Highly Satisfied N-Neutral D-Dissatisfied H.D-Highly Dissatisfied

S.No.	WELFARE MEASURE	LEVEL OF SATISFACTION				
		S	H.S	N	D	H.D
1	Washing facilities	100				
2	Facilities for storing and draying clothes	93.8	3.8	2.5		
3	Facilities for sitting	92.5	2.5	5		
4	First aid boxes	95	5			
5	Rest rooms and lunch rooms	90	5	3.8	1.2	
6	Travelling allowance	31.2		66.2	1.2	1.2
7	Medical facilities	81.2	6.2	5	6.2	1.2
8	Uniforms	100				
9	Loan	7.5		77.5	10	5
10	Festival advances	6.2		83.8	5	5
11	Incentives and bonus	6.2		83.8	5	5
12	Leave facilities	87.5		6.2	2.5	3.8
	<b>Average Percentage</b>	<b>65.92</b>	<b>1.87</b>	<b>27.79</b>	<b>2.5</b>	<b>1.7</b>

Table 4: Depicts the overall opinion of the respondents on the dimension "Welfare Provisions". It is observed from the analysis that an average, 65.92 percent of the respondents have satisfied to the above said facilities, 27.79 percent of respondents are neutral the dimension Welfare Provisions towards employee's, while 2.5 percent respondents dissatisfied followed by 1.87 % of the respondents are Highly satisfied with above mentioned dimension as the remaining 1.7 percent

respondents have highly dissatisfied with the statements of the alleged dimension.

It is observed from the data that out of the total sample of 80, a vast majority of 67.87 % are positively opined towards the employee health provisions, while 10.6% negatively opined. Further, it may be conclude that the health provisions in Visakhapatnam Petrol Bunks are normal. The pictorial representation is given below.



**Table 5: Difference in opinion scores of the respondent's according to their age on all dimensions.**

Dimension	Age(in years)	n	Mean	S.D	S.C-Statement Code		
					F-F value	N-Number of respondents P-P-value	M-Mean D-Decision
Health Provisions	Below 30	43	1.6531	.13841	.634	.595	N.S
	30 to 40	26	1.6987	.12710			
	40 to 50	07	1.6786	.11210			
	50 and above	04	1.6667	.16667			
Safety Provisions	Below 30	43	1.5884	.18285	.328	.805	N.S
	30 to 40	26	1.5885	.18618			
	40 to 50	07	1.6143	.08997			
	50 and above	04	1.6750	.17078			
Welfare Provisions	Below 30	43	1.6376	.14305	10.368	0.000	S
	30 to 40	26	1.7756	.19115			
	40 to 50	07	1.8571	.10446			
	50 and above	04	2.0833	.47629			

From the above table (5) it is observed that the demographic variable age as not significant impact towards the opinion of the respondents in three dimensions except welfare provisions. The welfare provisions dimensions are average opinion score of the respondents belonging to the all categories of age are positive towards the accustomed facilities.

**Table 6: Difference in opinion scores of the respondent's according to their education on all dimensions.**

Dimension	Education	n	Mean	S.D	S.C-Statement Code		
					F-F value	N-Number of respondents P-P-value	M-Mean D-Decision
Health Provisions	Primary	10	1.6917	.14191	4.609	.005	S
	6 to 10 class	51	1.6928	.13384			
	Intermediate	14	1.6429	.07616			
	Degree	05	1.4833	.09129			
Safety Provisions	Primary	10	1.6000	.18257	2.171	.098	S
	6 to 10 class	51	1.6059	.16421			
	Intermediate	14	1.5071	.17744			
	Degree	05	1.7200	.21679			
Welfare Provisions	Primary	10	1.9333	.32347	6.734	.000	S
	6 to 10 class	51	1.7255	.6939			
	Intermediate	14	1.6429	.11050			
	Degree	05	1.5162	.25954			

From the above table (6) it is observed that the education has a significant impact towards the opinion of the respondents in all the dimensions relating to health, safety and welfare

provisions. In all the dimensions the average opinion score of the respondents belonging to the all categories of education are positive towards the accustomed facilities.

**Table 7: Difference in opinion scores of the respondent's according to their experience on all dimensions.**

Dimension	Experience	n	Mean	S.D	S.C-Statement Code		
					F-F value	N-Number of respondents P-P-value	M-Mean D-Decision
Health Provisions	< 5 yrs	66	1.7071	.21890	1.159	.319	N.S
	5 to 10 yrs	12	1.7778	.14794			
	10 to 15 yrs	02	1.9583	.17678			

	15 and above						
Safety Provisions	< 5 yrs	66	1.5818	.17533	1.135	.327	N.S
	5 to 10 yrs	12	1.6500	.16237			
	10 to 15 yrs	02	1.7000	.28284			
	15 yrs and above						
Welfare Provisions	< 5 yrs	66	1.7071	.21890	1.858	.163	N.S
	5 to 10 yrs	12	1.7778	.14794			
	10 to 15 yrs	02	1.9583	.17678			
	15 yrs and above						

From the above table (7) it is observed that the experience has a not significant impact towards the opinion of the respondents in all the dimensions. In all the categories of experience the average opinion score of the respondents is negative towards health, safety and welfare facilities.

## 11. Conclusion

Finally from the above results we conclude that the employees of petrol bunks in the Visakhapatnam city have

positive opinion on the health, safety and welfare provisions provide by the petrol bunks managements.

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