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Job Stress and Risk Management Related to Environmental Pollution Resulting from Electricy Generation Station in Musayyib/Iraq.

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Abstract--- Background: *Environmental pollution has become an issue of concern to all countries of the world, after its high rates of proliferation, which coincide with the degree of technological and industrial development. The study aims at assess the the job stress and risks management concerning environmental pollution; and also, to determine the relationship between job stress and risk management.*

Methodology: *A descriptive correlational study is carried out in the north Babylon Governorate as in Musayyib City. By a non- probability "convenience" account of (100) subjects is selected for the purpose of the present study. A questionnaire as a means for data collection, it consist of demographic data and risks management; and job stress which. By self-administration, data are collected from those who working in the electrical generation plant and analyzed through the used descriptive and inferential approach.*

Results: *Findings reveals that the (55%) are within first age groups (25-35) years old, (78%) male gender, (36%) preparatory educated, administrative work and account (77%), (33%) of workers are training one course. Seventy percent were not available to risks management and Fifty percent were always have job stress. As well as, the job stress has been influence the management at p-value (> 0.01).*

Conclusion: *The psychological aspect is a very important factor in the administrative aspects, the more psychological stress factor, the lower the performance of his work. Discion makers needs to provide the necessary health facilities to staff because of minimizing the negative effects. Also, you must conduct further studies to determine the causes of work stress.*

Keywords--- *Job Stress, Risks Management, Pollution.*

I. INTRODUCTION

Work stress is one of the contemporary challenges facing the human element in any organization or institution of different activity, because of its negative effects, especially in the long term, both for individuals and organizations, and hence, the interest has increased in recent years by Researchers in the fields of medicine, psychology, and organizational behavior are the phenomenon, where work pressures represent the psychological, physiological and behavioral reaction to changes and events in the environment surrounding the individual [1]. Interest in work stress has increased, as specialized studies have shown that workers' pressures in work environments not only affect their health and psychological well-being, anxiety, frustration, and stress, but also reflect on their work performance levels and hence their ability to work. This hinders organizations and institutions in achieving their goals [2]. Successful organizations depend on their growth and prosperity on the performance of their employees, increase

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their productivity, and find that they always seek to neutralize the conditions affecting employees, and try to spare their employees negative influences on them, as this is a direct cause, to develop services, and a key determinant of success, and few Work stress can lead to a positive impact on the behavior of the individual, such as: initiative and problem-solving and creative thinking, and speed in the completion of business and insist on it [3].

Characterized by environmental pollution issue of great importance to all national, regional and global levels. Thus it is a big problem in many societies to varying degrees. The ecosystem has become for many of the planets on Earth victims of environmental pollution due to social activities and methods of untreated [4]. Because of Islam and maintain a comprehensive vision included all the contents of the environment that keeps water, air, and all the contents of the environment and decided to live free of contaminants clean environment [5]. Pollution is a change privity or spontaneous form in the environment caused by human waste or change the natural environment in a way carry with it the risk of the organism [6]. The most important sources of electricity plant truth is that it is considered renewable and has a high environmental footprint, at the levels that were exercised [7]. In fact, some generations of electricity is to increase the population and the change in the overall human culture, industrial, transportation, and consumption of buildings, industrial and commercial needs. In 2009, the "fossil fuel represents 80 per cent of electricity production in the world." It represents a nuclear fuel, coal and natural fuel around (8%, 23%) also (24%) of the total energy consumed in the United States, respectively, "the Atlantic Council of the United States 2010". Coal is used primarily for the production of approximately (50%) of electricity and natural gas to produce approximately 18% of US electricity [8].

II. MATERIALS AND METHODS

Study Design: A descriptive correlation study, using an assessment approach, is conducted to assess work stress and risk management related to environmental pollution; as well, to determine the relationship between work stress and risk management.

Study sample: A non-probability "Convenence" account of (100) workers at generation station.

Materials and methods: A questionnaire as a means of data collection was constructed for the purpose of study. It consisted from two parts, include:

Part I: This part contains demographical data which include (age, gender, education level, nature of work, and training course).

Part II: This part is composed of (26) item and divided into (3) sections. They include: aspects of environmental pollution which composed of (8) items, coordination between the authorities concerned with monitoring the environmental pollution which composed of (8) items, and ways to counter environmental pollution which composed of (10) items.

Part III: this part concerning with job stress which composed of (12) items.

Note: all the above items were masured on 3 level (1 for disagree, 2 for neuteral, and 3 for agree).

Credibility and Stability: Was estimated the credibility of the content of the instrument through a committee of experts, and based on the stability of the elements on the internal consistency of the questionnaire was assessed by Cronbach alpha-account which = 0.70.

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Data analysis: Through analysis of the descriptive approach to the decimal (SPSS) statistical version which includes, frequencies, percentages, average scores, standard separation and graphical presentation of data; and the approach of statistical data analysis deductive which include chi-squared test.

III. RESULTS

Table 1: Distribution of Study Sample by their Demographic Characteristics

Demographic data	*Rating*	*Frequency*	*Percent*
Age (years)	**25-35**	**55**	**55.0**
	36-46	**26**	**26.0**
	47-57	**14**	**14.0**
	58+	**5**	**5.0**
Gender	**Male**	**78**	**78.0**
	Female	**22**	**22.0**
Education	**Preparatory**	**36**	**36.0**
	Institute	**17**	**17.0**
	Bachelors	**32**	**32.0**
	Post-graduate	**15**	**15.0**
Nature of Work	**Administrative Work**	**77**	**77.0**
	Field Work	**23**	**20.0**
	Total	**3**	**3.0**
No. Training Course	**No training**	**33**	**33.0**
	One Course	**30**	**30.0**
	Two Course	**21**	**21.0**
	Three and more	**16**	**16.0**

Distribution of study sample by their demographic characteristics. Results represents the distribution of the workers demographic items in term of frequencies and percentage. Results revealed that (55%) are among the first age groups (25-35 years). With regard to sex, the largest percentages are males, accounting for (78%) of the total study sample. With regard to education, most of the sample preparatory study, accounting for (36%) of the total sample. It is clear that more than one sample of the study is the administrative account and work (77%) of the total number. Finally, the results indicate that (33%) of workers trained one session.

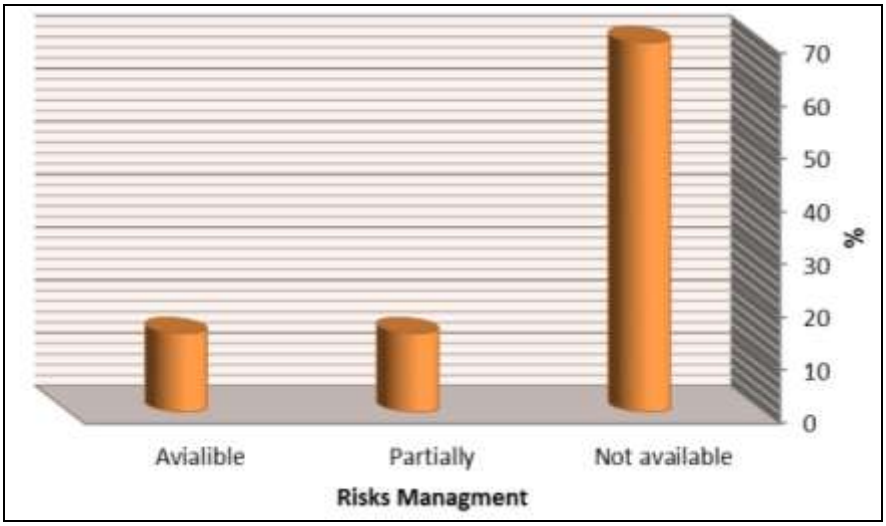

Figure 1: Overall Risks Management Concerning Environmental Pollution

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Figure 2: Overall Job Stress

Table 2: Statistical Association between Overall Job Stress and Overall Risks Management Concerning Environmental Pollution

	Rating	*Risks Management*			*Total*	*d. f*	*Sig*
		Not available	*Partially*	*Available*			
Jib Stress	**Always**	**38**	**9**	**3**	**50**	**4**	**χ^2obs.= 20.978**
	Sometime	**32**	**6**	**9**	**47**		**χ^2 crit.=5.991**
	Never	**0**	**0**	**3**	**3**		**P-value= 0.00**
	Total	**70**	**15**	**15**	**100**		**HS**

"$\chi^2_{obs.}$= Chi-square observer, $\chi^2_{crit.}$ = Chi-square critical, Df= Degree of freedom, S= significant, NS= non-significant, HS= high significant"

Results presents highly significant association between risks management concerning environmental pollution and workers their job stress at p-value (> 0.01).

IV. DISCUSSION

Our results represents the distribution of the workers demographic items in term of frequencies and percentage. Findings reveals that the (55%) are within first age groups (25-35) years old. Regarding gender, the greatest percentages is male, it constituted (78%) out total number of the study sample. Regarding education, most of the study sample are preparatory, it constituted (36%) out total number of sample. It is obvious that the most of the study sample are administrative work and account (77%) out total number. Finally, results indicate that the (33%) of workers are training one course. These results come with a study by bees for risk assessment and management of environmental pollution resulting from the generation of Musayyib station in the province of Babylon. Showing their findings that (52.8%) are among the first age group (25-35 years). The elderly can judge the things better. With regard to education, most of the sample preparatory study, accounting for 33.3% of the total sample, as well as (33.3%) of the study sample graduated. There are many specialized scientific levels in the field of electricity, but

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due to financial crises and inadequate conditions facing the country, the review found some scientific levels that work in the station in terms of scientific progress (certificate). It is clear that most of the study sample is administrative work and calculation (80.6%) of the total number. Because of the lack of work in this area, many workers want administrative work because field work is tired and no allocation has been made due to the circumstances of the country. Concerning the training course, the results indicate that (38.9%) of the workers are training one course. The worker does not want training courses because they are expensive and the reason is due to financial allocations, supportive bodies and monitoring bodies [9].

The aspects of environmental pollution resulting from Musayyib electricity generation station. Results depicts that the (80.5%) are available of environmental pollution. This is evidenced that there are many oils and gases that undergo in a process of electrical generation power, and versus the abundance of smells and the presence of many gases, including nitrogen and hydrogen peroxide and other for the lack of tools or standards for air spills, it is also not available the equipment to measure the level of noise within the stations, and is not equipped with modern technical equipment for air. The study has been investigated the environmental effect due to power plans. Their findings confirm that the plants of generations have been affected the environmental purity of the surrounding region very badly. Environmental deterioration is attributed to emission of large cases of respiratory and related ailments to human beings and animal kingdom. It also impacts of process concerning with photosynthesis, balance of minerals and micro-macro nutrients in the plants, soil strata, structures and buildings get affected due to corrosive reactions, especially for workers and residents near the station [10]..

As being the number of environmental monitors in the company is not commensurate with their functional tasks as well as the non-periodic exchange of reports on the state of environmental pollution resulting from the stations and with others stations, or rather the lack of cooperation of companies concerned with the protection of the environment to reduce the effects of environmental pollution caused by stations, as in general the lack of the of surveillance system and lack of adequate and advanced environmental protection systems.

A clear evidence that scientific and practical methods are not used to take advantage of the solid and liquid waste resulting from the process of generating of electricity, as well as the lack of the necessary health capabilities of the operators at the stations and the prevention of the negative effects of environmental pollution resulting from the stations, and the non-application of international quality standards in the implementation of measures to measure the level of pollution at stations not available to risks management concerning environmental pollution. Due to the limited availability of the station and the lack of rehabilitation of human that workers capable of applying procedures to reduce the effects of pollution and what is produced, and the lack of financial capabilities to establish the necessary systems and equipment to measure pollution rates of all types. In a study has been investigated the load pollution due to power plants. It is confirm that the electric power plants produce various types of pollutions based on sources of pollutants or nature of pollutants. Air pollution, water pollution, soil pollution are the three major types of pollution based on environment, based on sources of pollution they are classified as automobile pollution, agricultural pollution and industrial pollution. Further based on nature of pollutants, pollution is classified as pesticide pollution, plastic pollution, heavy metal pollution, radiation pollution, oil pollution, sewage pollution, noise pollution etc. [11].

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The higher education owners are more aware of the management pollution caused by the station. That most of the sample are graduates of institutes so they carry out executive functions. As for the nature of the work, the members of the sample are administrators, they perform the tasks of supervision. With regard to training courses, the increase in the number of training courses increases the knowledge of the workers at work. This results come with the results that investigated the environmental pollution caused by power plants and its impact on environmental security. Their findings depicts that there is a significant association with the workers level of education at p-value less than (0.01). The result was higher education increasing the degree of education increased the worker's knowledge of protection and management of prevention of pollution[4].

As well as, our findings presents highly significant association between risks management concerning environmental pollution and workers their job stress at p-value (> 0.01). This results agree with Renewable Energy Policy Network [12].

Also, The psychological aspect has an effective role in the performance of work and is directly related to it, which affects the performance of the worker under the supervision of the authorities and the availability of concrete and this is confirmed by a study related feeling of psychological loneliness among wives of martyrs in the light of some social variables in Babylon Governorate/Iraq[13].

V. CONCLUSION

The psychological aspect is a very important factor in the administrative aspects, the more psychological stress factor, the lower the performance of his work. Decision makers needs to provide the necessary health facilities to staff because of minimizing the negative effects. Also, you must conduct further studies to determine the causes of work stress.

A Study Limitation

There is a major problems are faced by the researcher is the lack of national research studies on the phenomenon underlying the present study. Difficulty of getting real information from the workers because participants experience fear of providing information about their management, therefore, many samples are ignored by the researchers.

A Study Relevance

The study will help in identifying the risks management from workers perspective to achieve the better recommendations, so we can reduce environmental pollution caused by industrial companies as generation plants powers.

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