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Analysis of Occupational Safety and Health at Oil Plus Filling Station Installations: Literature Review

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ABSTRACT

Background: Public Fuel Filling Station Installation which is an installation for distributing fuel oil into motor vehicle fuel tanks, with a significant risk of danger. The number of work accidents that occur at fuel filling stations continues to increase from 2018-2020. Program Safety and health need to be pursued to protect workers from the possibility of accidents and work-related diseases.

Objective: This research aims to determine potential dangers and prevent accidents and occupational diseases among fuel station workers.

Method: This research uses the "PRISMA" literature review method (Preferred Reporting Items for Systematic Reviews and Meta-Analyses Guidances and The data source for this research comes from literature search results on the internet from databases from Science Direct and ResearchGate. Using keywords “Occupational health and safety for fuel filling installation workers” “Occupational health and safety for Hydrogen and Gas Refuelling Station” “Occupational health and safety for Electrical Vehicle” published in the last five years, from 2019 to 2024, which are indexed Q1, Q2 and Q3.

Results: As many 5,657 journals were found, but 10 journals were selected that met the inclusion and exclusion criteria. Potential dangers that threaten fuel station workers include: physical factors namely physical fatigue and noise and hearing problems. Chemical factors namely toxic gasses, dangerous liquids and BTEX gas (benzene, toluene, ethylbenzene, p-xylene, o-xylene, dan m-xylene). Physiological factors, psychological fatigue and quality of work life. Safety climate as an effort to prevent accidents and work-related illnesses by implementing management safety priority and ability, management safety empowerment and management safety justice.

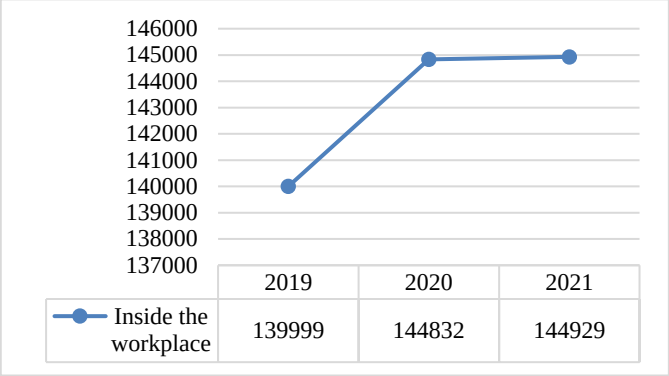
Conclusion: Potential dangers that threaten fuel station workers are: physical factor, chemical factor and psychological factor. Safety climate by implementing safety management priorities and capabilities, management safety empowerment, and management safety justice, as well as compliance with occupational safety and health regulations such as the use of personal protective equipment to reduce the risk of danger and thus reduce the occurrence of work accidents.

Keywords: Occupational Health and Safety; Fuel Filling Stations; Potential Hazards

INTRODUCTION

Efforts to increase protection to create worker productivity need to be carried out by every company (1). Decreased work productivity has an impact on usage cost which is less effective and loses company profits as a result of decreased productivity (2). Bearing in mind that workers are the most valuable asset for a company, human resources are resources that are able to organize and manage other resources (3).

Occupational safety and health are efforts to protect workers from possible work accidents that occur in the workplace (4). The high number of work accidents shows that the performance of work safety programs is not yet optimal. Based on data from the Ministry of Manpower of the Republic of Indonesia for 2022, which is contained in (5), it shows the number of work accidents and work-related illnesses that occur based on the location of the incident, which can be seen in Figure 1, as follows.



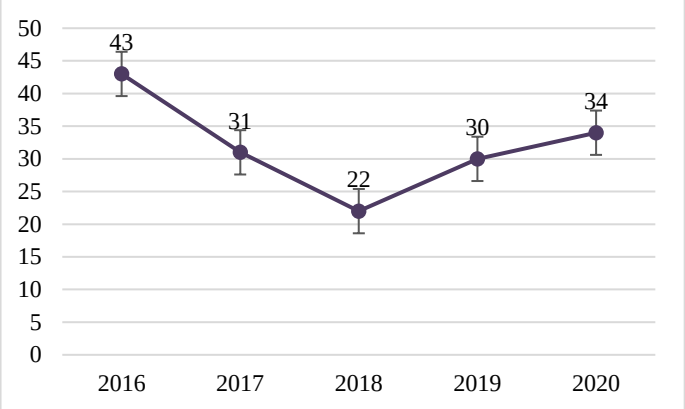
Source: BPJS Ketenagakerjaan dalam Kemenaker RI 2022.

Figure 1 Cases of Work Accidents and Occupational Diseases from 2019-2021

Referring to Figure 1, the incidence rate of work accidents and work-related illnesses shows an increasing trend from 2019 to 2021. It can be seen from the number of work accidents and work-related illnesses in 2019 that there were 139,999 incidents and in 2021 there were 144,929 work accidents. This shows that the occupational safety and health program is not optimal.

Apart from that, occupational safety and health are efforts to protect workers from the possibility of accidents and work-related diseases (6). The many potential health hazards (e.g. noise, ergonomic problems and volatile organic compounds) in production processes, work procedures and work environments can result in workers' vulnerability to various diseases such as hearing loss, musculoskeletal disorders, low back pain, headaches, dizziness and building-related diseases (7) (8) thus having a negative impact on workers' health, quality of life, and work efficiency (4). Prevention of accidents is very complex involving workers, top management, machines and the environment. Cooperation from all parties is needed so that work accidents and work-related diseases can be reduced (9).

Public Fuel Filling Station Installation which is an installation for distributing fuel oil into motor vehicle fuel tanks or other permitted packaging located on land (10). The possibility of work accidents and occupational diseases is very large for workers who work at fuel filling stations (11). It can be seen from the high incidence of accidents that occurred at fuel filling stations from 2016-2020 in Indonesia, which can be seen in Figure 2, as follows



Source: Ministry of Energy and Mineral Resources, 2021

Figure 2 Cases of Work Accidents in Fuel Filling Station from 2016-2020

Based on the graph above, the number of accidents that occurred at fuel filling stations fluctuated from 2016 to 2018. The number of accidents decreased from 2016 with 43 incidents in 2016, to 2018 with 22 accidents. However, it has increased until 2020 with the number of accidents occurring at 34.

Workers who directly work with the operation of filling pumps are easily exposed to benzene gas and other dangerous gases which pose a health hazard (12) and these gases easily trigger explosions and fires (13) (8). The factors causing the explosion were triggered by flammable gas and the behavior of workers using cellphones and heat sources within a 1.5-meter radius of the filling pump (12). Precautions with the use of personal protective equipment as an effort preventive keep workers in the potential danger (11) (8) of smoking and away from heat sources to prevent potential explosions and fires (13). Where are the serious impacts of work accidents at fuel filling stations apart from lost working hours and decreased productivity (14).

METHOD

This research uses the "PRISMA" literature review method (Preferred Reporting Items for Systematic Reviews and Meta-Analyses Guidances) (Helbach et al., 2023) (Moher et al., 2010). In the journal search is done on database science direct and Google Scholar. The journals chosen are journals published in the last 5 years, to obtain more recent and accurate information regarding research topics. The next step, screened namely selecting the title, abstract, year of research and the research methods used. Screening carried out must meet the inclusion and exclusion criteria. The inclusion criteria in this research are journals related to occupational safety and health among fuel station workers published from 2019 to 2021, quantitative research methods, as well as articles published by reputable international journals. The exclusion criteria used in this research were research published before 2019, as well as research whose research flow was unclear. The data source for this research comes from literature, search results from database ScienceDirect And Google Scholar, using the keywords “Occupational Health and Safety”,” Fuel Filling Stations Workers” And” Potential Hazards”. Stages in conducting research using methods Preferred Reporting Items for Systematic Reviews and Meta-Analyses Guidances, can be seen in Figure 2, as follows.

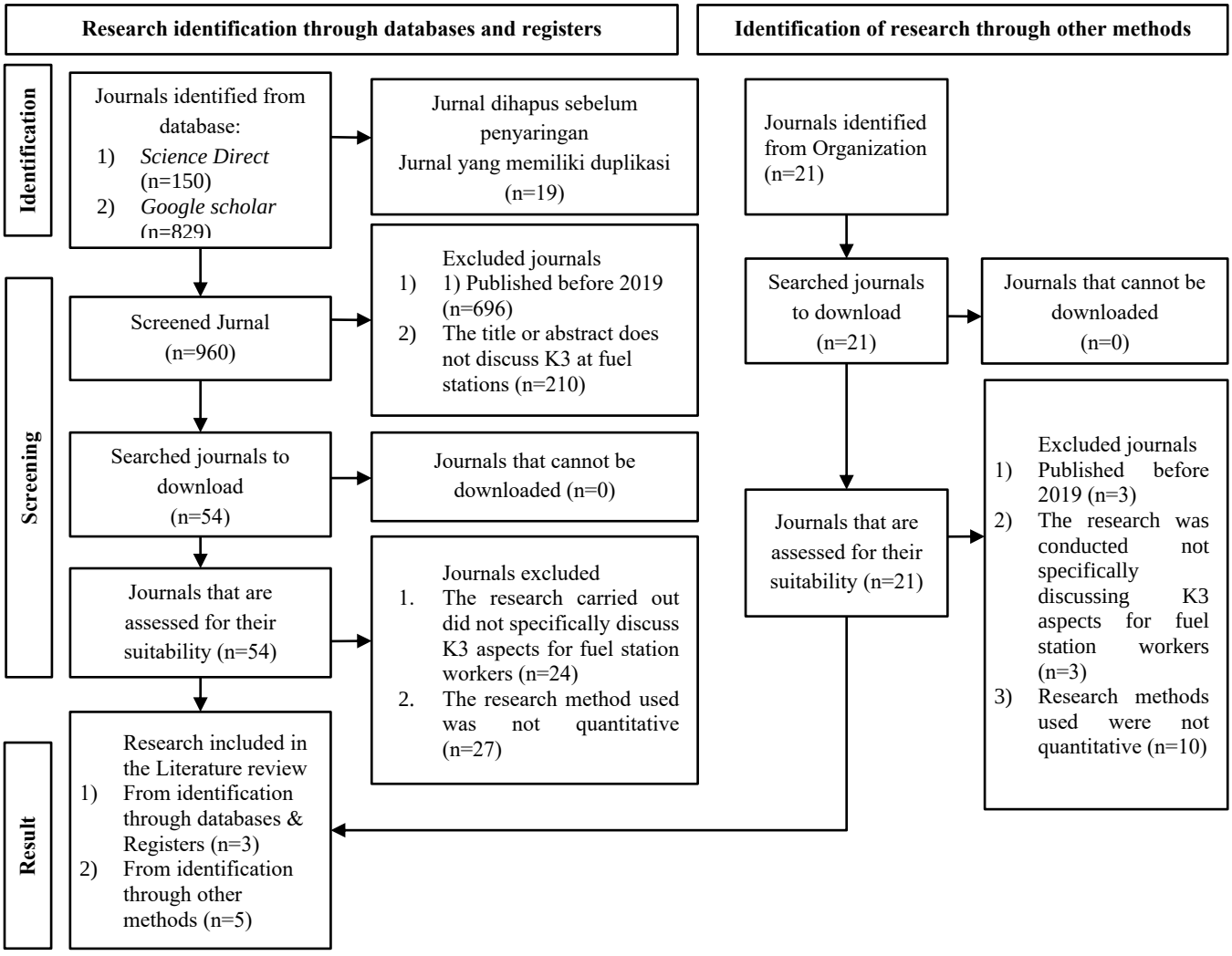


Figure 3 Research Step With “PRISMA” Method

Based on Figure 2, the number of journals identified from the database is a total of 979 journals, consisting of 150 journals from database Science Direct and 829 journals from database Google Scholar. Journals were removed before filtering because they had 19 duplicate journals. The screening process referring to the exclusion criteria resulted in 905 journals, because 696 journals were published before 2019, and journals were excluded because the title or abstract did not discuss potential dangers and steps to prevent accidents and occupational diseases or other related terms, totaling 210 journals. So the reports searched for full text download are 54 journals. Further filtering by paying attention to the inclusion criteria resulted in 54 journals, 24 journals were excluded because the research was not specifically conducted on fuel station workers, and 27 journals did not use quantitative methods. So the journals selected after the screening process were 3 journals.

The number of journals identified using other methods was 21 journals, which came from organizational journals National Library of Medicine. All of these journals can be downloaded and filtered by paying attention to the exclusion criteria. The exclusion criteria resulted in 3 journals, because the journals were published before 2019. And the inclusion criteria resulted in 13 excluded journals, consisting of non-specific research conducted on fuel station workers totaling 3 journals. , and the research methods carried out did not use quantitative methods in 10 journals. So the journals selected after the screening process were 5 journals.

RESULTS

The total number of journals selected in this study was 10 journals that met the inclusion and exclusion criteria, 2 journals indexed Q1, 5 journals indexed Q2 and 3 journals indexed Q3. The following is a summary of previous research journals, which can be seen in Table 1, as follows.

Table 1. Summary of Previous Research Journals

No	Research Name and years	Title	Research Method, Instrument	Result	Interprestation
(1)	(2)	(3)	(4)	(6)	(7)
1	Aryo Wibowo, Fatma Lestari, Robiana Modjo, 2023	Safety Climate Assessment in Fuel Stations in theWest Java Region	Cross-sectional approach, questionnaire	P-value 1) 0.001, 0.005, 0.001, 0.001 2) 0.001, 0.001, 0.001, 0.001 3) 0.001, 0.006, 0.003	Shows that the safety climate consists of 1. Safety management priorities and abilities, influenced by: Age, Gender, Position, safety training; 2. Empowerment of safety management, influenced by: age, position, experience, safety training; 3. Fairness of safety management, influenced by: age, position, work experience, safety training.
2	PalathotiSR1,Al-AghbariA, Otitolaiye VO, 2023	Effect of Long Extended Working Hours on the Occupational Health and Safety of Oil and Gas Workers in the Sultanate of Oman	Kuantitatif deskriptive, kuesioner dengan skala likert	1) 77%; 2) 69%; 3) 68%.	1) As many as 77% of respondents responded that long working hours had the impact of respiratory problems due to toxic gas; 2) As many as 69% of respondents responded that long working hours had an impact on family life; 3) As many as 68% of respondents responded that long working hours had an impact on reducing performance.
3	Sahrani, Syamsiar S. Russeng, Masyitha Muis, Furqaan Naiem, Yahya Thamrin, Wahiduddin, 2024	Employee And Management Preparedness in Facing Fire Disasters at Public Fuel Filling Stations in Pinrang District	Cross-sectional approach, questionnaire	P-value 1) 0.00; 2) 0.00; 3) 0.00; 4) 0.00.	1) Emergency response team management influences disaster preparedness; 2) Warning systems influence disaster experience; 3) Availability of Mobilization (fire trucks) influences the disaster experience;

No	Research Name and years	Title	Research Method, Instrument	Result	Interprestation
(1)	(2)	(3)	(4)	(6)	(7)
					4) Employee preparedness influences the disaster experience.
4	Sunisa Chaiklieng, Pornnapa Suggaravetsiri, Herman Autrup, 2019	Risk Assessment on Benzene Exposure among Gasoline StationWorkers	Interviews and on-site observations.	There was a risk of respiratory hazards to health (Hazard Quotients (HQ) >1) in 51.33% of workers. Cancer risk increased from 1.35 10¬8 to 1.52 10-4, and 70.67% of workers had a lifetime risk of cancer (>Inhalation Unit Risk (IUR): 2.2 10¬6)	A significantly higher risk was found in workers who refuel compared to cashiers, and workers at gas stations in inner-city zones (suburban and urban), compared to rural areas. All risk estimates are based on a single measurement in an eight-hour working period, which is assumed to be the average shift length of all working days in a year (250 days).
5	Fatma Lestari, Robiana Modjo, Aryo Wibowo, Riza Yosia Sunindijo, 2023	Influence of Safety Climate on Safety Performance in Gas Stations in Indonesia	Cross-sectional approach, questionnaire	The P-value for the influence of safety climate on safety performance is, a) 0.001; b) 0.001; c) 0.001.	1) Gas stations have good safety climates. From the six dimensions of safety climate, management commitment, safety communication, supportive environment, and training. 2) Safety climate influences safety performance, with influence a) Management commitment has a significant effect on safety performance; b) Communication has a significant effect on safety performance; c) Personal Accountability has a significant effect on safety performance.
6	Simone Mariotti Roggia, Aline Gomes de França, Thais C Morata, Edward Krieg, Brian R Earl, 2021	Auditory System Dysfunction in Brazilian Gasoline Station Workers	Cross-sectional approach, questionnaire	The most common hearing symptoms reported by workers are 1) Difficulty communicating in noisy places (59.7%) 2) Difficulty in communication (20.8%) 3) Vertigo (11.7%) 4) Tinnitus (11.7%) 5) Hearing loss (6.5%), 6) Ears feel full (5.2%) 7) Sensitivity to loud sounds (1.3%)	The results showed that gas station workers had peripheral and central hearing dysfunction which was a result of gas station noise

No	Research Name and years	Title	Research Method, Instrument	Result	Interprestation
(1)	(2)	(3)	(4)	(6)	(7)
				8) Earache (1.3%)	
7	Sunisa Chaiklieng, 2021	Risk assessment of workers' exposure to BTEX and hazardous area classification at gasoline stations	Cross-sectional approach, questionnaire	Nilai P-value 1) 0,02 2) 0,02	Factors that correlate with the hazard index (HI) of BTEX exposure in workers at fuel stations 1) Daily gasoline sold has an effect on the danger index; 2) The number of gasoline dispensers influences the danger index.
8	Barbara Rodrigues Geraldino, Rafaella Ferreira Nascimento Nunes, Juliana Barroso Gomes, Isabela Giardini , Paula Vieira Baptista da Silva , Élida Campos, Katia Soares da Poça, Rocio Hassan , Ubirani Barros Otero., Marcia Sarpa, 2020	Analysis of Benzene Exposure in Gas Station Workers Using Trans, Trans-Muconic Acid	A quantitative, questionnaire	Nilai P-value 1) 0,05 2) 0,047 3) 0,045	The danger of benzene gas being inhaled by fuel station workers, namely. 1) Body weakness; 2) Inflammation of the nasal cavity; 3) Psychic.

DISCUSSION

Referring to the research results published in journals consisting of 10 journals with 2 journals indexed Q1, 5 journals indexed Q2, and 3 journals indexed Q3 regarding "Analysis of Occupational Safety and Health at Oil Plus Fuel Filling Station Installations". It was found that the implementation of occupational safety and health is an effort to prevent accidents and work-related diseases (4). The research that has been carried out shows the potential dangers that exist at fuel filling stations, which can be seen in Table 2 as follows.

Table 2 Potential Hazards at Fuel Filling Stations

Physical	Chemical	Phycological
1) Physical Fatigue (14) (15)	1) Poisonous gas (15) (17)	1) Psychological fatigue (14)
2) Noise and hearing disorders (16)	2) Dangerous liquids (18)	2) Quality of work life (15)
	3) BTEX Gas (17) (19)	

Potential dangers that arise that threaten refueling workers include physical dangers (18) in the form of physical fatigue (14) (15) as well as noise and hearing disturbances (16). Physical fatigue is a condition that often appears in workers with feelings of tiredness, tiredness and lack of energy (20) and increases the occurrence of work stress (14). Of course, this has an impact on the possibility of accidents occurring at work due to lack of concentration when doing a job (20) (1). The fatigue felt by workers is caused by multifactors, one of which is the length of working hours and marital status (14) (15). Excessive work time involves reduced rest time. Insufficient recovery time for the body to renew energy after working with large loads can worsen the physical fatigue felt by workers. Planning work schedules by paying attention to ergonomics and not allowing excessive working hours can be done as an effort to avoid fatigue felt by workers (14) to avoid the possibility of work accidents (1). Other potential physical dangers that arise for fuel station workers include noise and hearing disturbances (16). The noise arises from the dispenser pump which is run while the filling process is in progress, which is most felt by the operator who operates it. Based on research that has been conducted, the most common hearing symptoms reported by workers are difficulty communicating in noisy places (59.7%), difficulty in communication (20.8%), vertigo (11.7%) tinnitus (11.7%) , hearing loss (6.5%), ear fullness (5.2%), sensitivity to loud sounds (1.3%) and ear pain (1.3%) (16). Factors that cause hearing loss and noise problems are behavioral factors and compliance in using personal protective equipment (21).

Chemical factors are the greatest potential hazard, which allows accidents and occupational diseases for fuel station workers (18). The danger that threatens fuel station workers is exposure to toxic gas containing the element BTEX (benzene, toluene , ethylbenzene, p-xylene, o-xylene, dan m-xylene) (15). The initial symptoms that are felt when exposed to BTEX gas are weakness, inflammation of the nasal cavity and mental health (19). More seriously, exposure to BTEX gas threatens the respiratory system, the most serious of which is increasing the risk of cancer (17). Research reveals that as many as 77% of workers say that long working hours can increase the risk of respiratory problems due to toxic gases (15). Fuel is a chemical substance that easily explodes when there is a heat source approaching (18) ambient temperature and leaking explosive gas (22). This risk threatens the lives of fuel station workers due to accidents due to explosions. Anticipating the occurrence of this incident needs to be done by providing safe distance signs that can trigger heat, such as not smoking or using cigarettes cellphone around the filling pump (18). Training and team building emergency response, danger warning systems and worker readiness training need to be carried out as a ceremonial corrective in case of fire and explosion (23) so that it can be dealt with immediately.

Another risk that threatens refueling workers has an impact on worker psychology. Psychological fatigue as an effect felt by workers (14) which has an impact on the quality of work life (15). This is related to the number of hours worked by fuel station workers with a 12-hour and 24-hour shift system, feeling more psychological fatigue compared to 8-hour shifts (14). Shifts of 12 hours and 24 hours have less rest time and lower sleep quality. Plus less time spent with family worsens the condition (15). Minimize work accidents and resulting illnesses by implementing work safety and health programs, compliance with work safety and health regulations such as the use of personal protective equipment to reduce the risk of danger, thereby reducing the occurrence of work accidents. Many accidents have a negative impact, namely a decrease in work productivity which has an impact on use cost which is less effective and loses company profits as a result of decreased productivity (2). Safety climate needs to be enforced as an effort to protect workers from work accidents and work-related diseases. The research that has been carried out supports the company in its commitment to provide a sense of security with implementation management safety priority and ability, management safety empowerment and management safety justice (24).

CONCLUSION

This research concludes that the potential dangers that threaten gas station workers include physical factors, namely physical fatigue and noise and hearing problems. Chemical factors are toxic gases, dangerous liquids and BTEX gas (benzene, toluene, ethylbenzene, p-xylene, o-xylene and m-xylene). Physiological factors, psychological fatigue and quality of work life. Safety climate by implementing safety management priorities and capabilities, management safety empowerment, and management safety justice, as well as compliance with occupational safety and health regulations such as the use of personal protective equipment to reduce the risk of danger and thus reduce the occurrence of work accidents.

SUGGESTION

From the results of this research, it was found to determine the risk factors, impacts, and steps to prevent work accidents at fuel filling stations. Management commitment, compliance with work safety and health regulations and awareness of the importance of using personal protective equipment are further improved in reducing the risk of danger and the possibility of work accidents.

REFERENCES

1. Putra GA, Badruzaman J, Supriadi A. Effect of Training, Job Stress, and Motivation on Work Productivity with Unsafe Actions as An Intervening Variable. Review on Islamic Accounting. 7 Maret 2024;4(1). Doi: https://doi.org/10.58968/ria.v4i1.440
2. Cheng CW, Leu SS, Lin CC, Fan C. Characteristic analysis of occupational accidents at small construction enterprises. Saf Sci. Juli 2010;48(6):698–707. Doi: https://doi.org/10.1016/j.ssci.2010.02.001
3. Sinambela LP. Manajemen Sumber Daya Manusia. Jakarta: Bumi Aksara; 2016.
4. Pu W, Raman AAA, Hamid MD, Gao X, Buthiyappan A. Development of comprehensive healthier process plants based on inherent safety concept. Process Safety and Environmental Protection. April 2024;184:804–22. Doi: https://doi.org/10.1016/j.psep.2024.02.017
5. Indonesia KKR. Profil Keselamatan Dan Kesehatan Kerja Nasional Indonesia Tahun 2022. Jakarta Selatan; 2022.
6. Kisi KP, Kayastha R. Analysis of musculoskeletal pains and productivity impacts among hispanic construction workers. Heliyon. 15 Januari 2024;10(1):e24023. Doi: http://dx.doi.org/10.1016/j.heliyon.2024.e24023
7. Crook B, Burton NC. Indoor moulds, Sick Building Syndrome and building related illness. Fungal Biol Rev. Agustus 2010;24(3–4):106–13. Doi: https://doi.org/10.1016/j.fbr.2010.05.001

8. Dohare P, Dandotiya D, Toppo M. To Study Occupational Hazards And Knowledge Of Safety Measures In Filling Attendants At Petrol Pumps Of Bhopal City. Indian J Appl Res. Januari 2019;
9. Reese CD. Industrial Safety And Health For Infrastructure Service. New York: Crc Press; 2009.
10. Menteri ESDM Republik Indonesia. Menteri ESDM Republik Indonesia. Peraturan Menteri Energi dan Sumber Daya Mineral Republik Indonesia Nomor 32 Tahun 2021, 32 Indonesia; 2021.
11. Adekunle ED, Alex OT, Adedayo OJ. Knowledge of Occupational Hazards and Safety Practices among Petrol Station Workers in Ibadan Metropolis, Oyo State, Nigeria. Journal of Materials Science Research and Reviews. 2023;6(4). Doi: http://dx.doi.org/10.13140/RG.2.2.34547.71203
12. Chaiklieng S, Dacherngkhao T, Suggaravetsiri P, Pruktharathikul V. Fire risk assessment in fire hazardous zones of gasoline stations. J Occup Health. 17 Januari 2020;62(1). Doi: https://doi.org/10.1002%2F1348-9585.12137
13. Ma G, Huang Y. Safety assessment of explosions during gas stations refilling process. J Loss Prev Process Ind. Juli 2019;60:133–44. Doi: https://doi.org/10.1016/j.jlp.2019.04.012
14. Motlagh Ms, Motamedzade M, Mahdavi N, Garkaz A, Soltanian Alir. The Relation between Shift Lengths and Occupational Fatigue Dimensions in Filling Station Operators. International Journal of Occupational Hygiene [Internet]. 30 September 2015;7(3). Tersedia pada: https://ijoh.tums.ac.ir/index.php/ijoh/article/view/143.
15. Palathoti S, Al Aghbari AHM, Otitolaiye VO. Effect of Long Extended Working Hours on the Occupational Health and Safety of Oil and Gas Workers in the Sultanate of Oman. Int J Occup Saf Health. 19 Juli 2023;13(4):419–28. Doi: http://dx.doi.org/10.3126/ijosh.v13i4.48968
16. Roggia SM, de França AG, Morata TC, Krieg E, Earl BR. Auditory system dysfunction in Brazilian gasoline station workers. Int J Audiol. 3 Agustus 2019;58(8):484–96. Doi: https://doi.org/10.1080/14992027.2019.1597286
17. Chaiklieng S. Risk assessment of workers' exposure to BTEX and hazardous area classification at gasoline stations. PLoS One. 15 April 2021;16(4):e0249913. Doi: https://doi.org/10.1002%2F1348-9585.12137
18. Cezar-Vaz MR, Rocha LP, Bonow CA, Da Silva MRS, Vaz JC, Cardoso LS. Risk Perception and Occupational Accidents: A Study of Gas Station Workers in Southern Brazil. Int J Environ Res Public Health. 3 Juli 2012;9(7):2362–77. Doi: https://doi.org/10.3390%2Fijerph9072362
19. Geraldino BR, Nunes RFN, Gomes JB, Giardini I, da Silva PVB, Campos É, dkk. Analysis of Benzene Exposure in Gas Station Workers Using Trans,Trans-Muconic Acid. Int J Environ Res Public Health. 23 Juli 2020;17(15):5295. Doi: https://doi.org/10.3390/ijerph17155295
20. Tong Y, Jia B, Bao S, Wu C, Sethuraman N. The difference in physical and mental fatigue development between novice young adult and experienced middle-aged adult drivers during simulated automated driving. J Safety Res. Desember 2024;91:165–74. Doi: https://doi.org/10.1016/j.jsr.2024.08.011
21. Vionnetta SS, Tanumihardja TN, Kristian K. Healthy Lifestyle Behaviors and Sociodemographic Characteristics Among Medical Students in Indonesia During the New Normal Era: A Cross-Sectional Study. Kesmas: Jurnal Kesehatan Masyarakat Nasional. 31 Agustus 2023;18(3):160. Doi: http://dx.doi.org/10.21109/kesmas.v18i3.7128
22. Ma Q, Guo Y, Zhong M, Ya H, You J, Chen J, dkk. Numerical simulation of hydrogen explosion characteristics and disaster effects of hydrogen fueling station. Int J Hydrogen Energy. Januari 2024;51:861–79. doi: https://doi.org/10.1016/j.ijhydene.2023.05.129
23. Sahrani, Russeng SS, Muis M, Naiem F, Thamrin Y, Wahiduddin. Employee and Management Preparedness in Facing Fire Disasters at Public Fuel Filling Stations in Pinrang District. Revista de Gestão Social e Ambiental. 15 Juli 2024;18(3):e07321. Doi: https://doi.org/10.24857/rgsa.v18n3-197
24. Wibowo A, Lestari F, Modjo R. Safety Climate Assessment in Fuel Stations in the West Java Region. Safety. 19 Februari 2023;9(1):9. Doi: https://doi.org/10.3390/safety9010009