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# ANALYSIS OF TEMPE TOFU HOME INDUSTRY STANDARDS ON OCCUPATIONAL SAFETY HEALTH (K3) ASPECTS IN PURWODADI VILLAGE, KUALA PESISIR DISTRICT, NAGA RAYA REGENCY

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**Abstract**

*Tofu and tempeh are foods derived from a variety of processed soybeans which have been famous foods among the public for a long time because the tariffs are relatively affordable and widely consumed by the public from various groups. Its existence has long been known and recognized as a healthy and nutritious food. A micro and macro industrial business must have K3 guidelines and K3 standards, although micro-enterprises such as tempeh tofu must also have standards that have been set Industrial work standards which refer to the K3 Law regarding K3 standards. This study focuses on analyzing the standards of the tempeh tofu home industry on occupational safety health (K3) aspects in Purwodadi village, Kuala Pesisir district, Naga Raya regency. This research describes a qualitative type of research. The sample in the study consisted of 14 informants accumulatively broken down from 7 main informants and 7 transmission informants. The measuring equipment used is in the form of literature studies, observations and interview guidelines. The data were analyzed using qualitative analysis whose results were presented in the form of a narrative(descriptive). The results of the study showed that applying assessment standards to buildings has not met the qualifications of businessworthy buildings. Conclusions of the study; each business is required to apply home industry standards and K3 aspects so that work productivity is good and guaranteed from work accidents.*

***Keywords***: ***K3 Aspects, Home Industry Standards, Tofu and Tempeh***

## 1. INTRODUCTION

Tofu and tempeh are referred to as processed soybean variation foods that have been very popular among the public for a long time because the price is relatively affordable and many people consume them from various groups. Produced since and already known and recognized as a high nutritional and healthy food. Tofu is a type of food with a mixture of soybeans and has a high protein value and can be consumed into food to improve nutrition. Amino acids in tofu are relatively high, namely by 85%-98% (Widaningrum, 2015). based on SNI tofu is a food that has a soft surface and is in the form of solids using processed preparations that are carried out using step-by-step instructions to encourage soy protein (Glycine species) and the expansion of jewelry ingredients must be allowed food ingredients (UTARI, 2019).

Many are found in every region of Indonesia, the tofu and tempeh industry. Generally, the tofu and tempeh industry is classified as a medium to bottom (small) industry that is processed by the community. The processing stage of tofu and tempeh is said to be relatively traditional and mostly utilizes human labor. The tofu and tempeh manufacturing industry can greatly improve in rural areas as well as urban areas. In general, small industries such as the home industry of tofu and tempeh use tools / materials and simple stages of production. However, when viewed from the environmental aspect, the advancement of small industries at the household level has a dangerous risk to the life of the community environment, because in the family business, to be honest, they do not see the factory format or the waste disposal framework (Sayow et al., 2020). Tofu and tempeh industry remembered for the classification of small and small businesses (Hakim & Subekti, 2015).

In general, the Aceh region is the westernmost province in Indonesia. Aceh has an area of 58,375.63 km2, which is between 20 to 60 north latitude and 950 to 980 south latitude. The Aceh

area has 119 islands, 73 large rivers, and 35 mountains. The Aceh area has an average height of 125 meters above sea level. The temperature averages 25°C with an average humidity of 85% and rainfall each year averages around 3.0 to 245.9 mm. Aceh Province is directly adjacent to the Strait of Malacca to the north, to the east there is North Sumatra Province and to the west and south there is the Indian Ocean. Aceh has 23 regencies/cities, 276 sub-districts and 6,486 villages/gampong/kelurahan with a total population of + 4,597,308 people.

According to data obtained from the Aceh Provincial Statistics Center Agency 2017 stated that the source of the aceh provincial labor indicator in August 2017 regarding the number of workers based on the type of work, one of which was the type of industrial worker carried out based on male sex was recorded at 1,921, while based on female sex as many as 942 so that it could be totaled as a whole of 2,863 industrial workers with male orientation and woman. However, for urban areas there were 1,836 industrial workers and in rural areas there were 1,422, bringing the total to 3,258 industrial workers in urban and rural areas(Mikro & Kecil, 2013).

The tempeh found in the West Aceh market is tempeh obtained from the Kuala area, Nagan Raya Regency, because the Kuala Pesisir area is bordered by the West Aceh Regime. Based on BPS Nagan Raya 2017 stated that the number of tempeh industries in Kuala Pesisir District, Nagan Raya Regency was recorded at 43 tempeh industries (Susanto et al., 2020). As a result, it can be concluded that Kuala Pesisir District is one of the districts in Nagan Raya Regency by being ranked the 2nd most in the tempeh tofu industry after Darul Makmur District which numbered 43. People in Kuala Pesisir Subdistrict use the residences they occupy to carry out tempeh production activities with the intention of increasing income. Tofu and tempeh are family affairs. Despite the fact that including household businesses, they already have regular consumers who support their business continues until now. This business is carried out if there are staples available in the market, but if the price of staples in the market increases and is difficult to obtain, it can affect the effect on tempeh production activities.

A home industry business of tofu and tempeh factories employs 9-15 people in its production stage. The home business of the tofu and tempeh factory industry absorbs enough for labor problems starting from the stage of making products to the distribution stage which means also as a service provider. Workers in the home industry business of the tofu and tempeh factory have not obtained occupational health and safety (K3) guarantees according to standards referring to aspects of occupational health and safety (K3). When viewed from the risk of work accidents in the home business industry of tofu and tempeh factories, it also has risks that endanger its workers, such as the risk of diseases that often occur generally, for example injuries, respiratory skeleton problems and muscle problems (UTARI, 2019). This happens because of potential hazards such as hot work climate, sporadic design of creation equipment, and depiction of substances can cause skin disorders (UTARI, 2019).

The word related to welfare, welfare and security are measures that can be taken to avoid the expected accident, in particular by eliminating dangerous hazards to achieve the purpose of creation (UTARI, 2019). under SMK3 articles 86 and 87 (Law No.13 of 2003) carefully reading "every specialist/worker gets security for welfare and welfare related to the word". Whereas in article 87 reads "every organization must organize SMK3 and must bear the labor costs of those who have had an accident"(Nur, 2019) . then there is a need for standards in the home industry business of tofu and tempeh factories which refer to K3 in accordance with the K3 management system. the standard in question is in sync with Permenaker No. 5 of 2018. Permenaker No. 5 of 2018 is the new K3 standard. This regulation replaces the previous regulations, namely the Regulation of the Minister of Labor No. 7 of 1964 concerning the state of welfare, tidiness and lighting in the work environment, and the Guidelines for The Pastor of Labor and Immigration Number 13 of 2011 concerning Limit Values (NAV) for physical and substance factors in the work environment climate. The guidelines convey new rules with respect to Edge Values (NAV) derived from physical elements and compounds, norms

for organic variables, ergonomics and brain science and hygiene and disinfection prerequisites. The K3 guidelines are also set on indoor air quality, to produce healthy, comfortable, and safe working air so that higher work efficiency without stopping can be recognized successfully.

Any employer and or owner who does not agree to the arrangements in this Ministerial Regulation Guidelines may be subject to punishment referring to Regulation no. 1 of 1970 concerning the Word related to Security and Regulation no. 13 of 2003 concerning the Provision of Labor. Work safety is a step to make a plan and control an opportunity for work accidents to occur, but in Indonesia itself the guarantee is still at the lower level (Upy et al., 2021). Personal Protective Equipment or known by the abbreviation PPE which means to be a number of safety equipment used by workers so that they can protect themselves from potential accidents in the worker's environment (Faishol et al., 2013) Work accidents are conditions that have the opportunity to arise from occupational diseases, damage to tools and even environmental pollution. In order to reduce work accidents, it is necessary to carry out evidence of hazards that can be recognized using the HAZOP technique (Faridah et al., 2020).

Hazard and Operability Study (HAZOP) is a well-being study that intentionally has a complex process of security assessment and control (Kotek & Tabas, 2012). HAZOP has the task of exploring the causative factors that have the potential for work accidents, choosing the results / misfortunes caused by accidents and conveying recommendations to minimize the occurrence of hazards (Juniani et al., n.d.). After it is known that there is a potential danger, then it can be analyzed using Job Hazard Analysis is an act of assessing the operation process (Li dkk., n.d.). Home industry which as the object of this research is a home business of tofu and tempeh located in Kuala Pesisir district, Nagan Raya area, Purwodadi city. Kuala Pesisir area is one of the sub-locals located in Nagan Raya Regency which has an area of 76.34 km2. Kuala Pesisir Subdistrict is bordered to the north with Kuala District, bordered on the south with Samudra Indonesia, bordered on the east with Tadu Raya District and bordered on the west side with West Aceh Regency (BPS Nagan Raya, 2015). Purwodadi Village is a village located in Nagan Raya Regency with an area of +150 Ha which is divided into five (5) hamlets, namely Sidomukti Hamlet, Sukaramai Hamlet, Sidodadi Hamlet, Karang Anyar Hamlet and Sidomulyo Hamlet. The majority of the land in Purwodadi Village is used as a plantation area. Purwodadi village borders on the north with Gampong Jatirejo, borders on the east with Gampong Purwosari, borders on the south with Gampong Arongan and borders on the west with Gampong Teuku Ben. Purwodadi village has a population of 1,607 spirits with male gender and above from 790 spirits and female gender and above from 817 spirits. For the accumulation of the number of families in Purwodadi village, there are 495 families. The average resident in Purwodadi village has a job as a garden farmer with a total of 50 people, for those who work as grocery traders as many as 28 people, who work as vegetable traders as many as 15 people, who work as street vendors as many as 31 people, work as breeders as many as 70 people, work as drivers as many as 12 people, who work as household industries as many as 20 people, as many as 5 people work as workshop workers, as many as 20 people work as civil servants / TNI-POLRI, etc. So that the purpose and purpose of this study was carried out to analyze the standards of the tempeh tofu home industry on occupational safety health (K3) aspects in Purwodadi village, Kuala Pesisir district, Naga Raya regency.

## 2. RESEARCH METHODS

### 2.1 Research Approach

This research is a descriptive qualitative research. Qualitative research is research that is natural, research that does not use mathematical, statistical or personal computer models (Kurniawan, 2012, p.22). Descriptive research is designed using systematic, factual and accurate descriptions, images or paintings about the facts, properties and correlations between the studied (Nazir, 2003, p.54). The type of data in this study is qualitative data. Qualitative data means data derived from research that is natural, research that does not use mathematical, statistical or personal computer models (Kurniawan, 2012, p.22). The qualitative data used in this study came from information from the home industry of tempeh tofu. data sources in this study used primary data as well as secondary

data. Primary data is data obtained by field surveys that use all original data collection methods (Sugiyono, 2009, p.216). The primary data in this study is in the form of interview answers with informants about the profile of the home industri tofu tempeh, the state of the internal and external environment of the home insdustri tahu tempe (Tandian & Praptiningsih, 2013).

**2.2 Population and Sample**

In this qualitative study, the population and samples taken were claimed to be informants. Research informants are people who really know or are perpetrators who are directly involved with research problems. The expected informant criteria include: building standards, management standards, and standards for home industry workers tofu tempeh. This research was conducted at the tempeh tofu home industry located in Purwodadi Village, Kuala Pesisir District, Naga Raya Regency. there are as many as 7 home insdustri tahu tempe and 14 accumulative informants consisting of 7 main informants and 7 transmission informants.

**2.3 Types and Sources**

This kind of Examination Information is a subjective exploration. A subjective examination is an exploration that has in-depth examples in which information and explanations can be obtained from the consequences of field relationships between specialists, the items under study and individuals in the place of the scientist. The data sources used in this examination consist of 2 kinds of information, namely: (1) Important information is information obtained through direct perception of home businesses tofu and tempeh (2) Optional information is information obtained from the Purwodadi city office or book or diary.

**2.4 Data Collection Techniques**

In obtaining data from predetermined informants, there are several ways that can be done, including: (1) Research writing, especially research led by utilizing reading and concentrating on related books, (2) observational exploration, namely the collection of specific information carried out methodically by paying attention to and recording the side effects explored, (3) interviews, especially the question and answer process to informants directly in the research in the research in the field.

**2.5 Analysis**

Information obtained is then identified regarding the occupational safety and health security of its workers and can then be identified using a risk inspection strategy based on the AS/NZS 4360: 2004 standard. The first step taken is to pay attention to the cycle of tofu and tempeh creation as well as the norms of household industry development, then do a way to distinguish the dangers and dangers of K3 which is based on the Job Hazard Analysis (JHA) where JHA is used to decide the dangers and dangers of words related to safety and welfare as well as the control that is resolved in tofu and tempeh home businesses. Then, at that time, use quatrained exam strategies to break up the labor accident gamble (Rozenfeld et al., 2010). To facilitate research, in the process of analyzing various data, this research uses 2 approaches, namely:

1. Analysis before in the field

The process of subjective examination takes place before the analyst goes into the field. In this review, before going into the field, the analysts dissected various information related to the Tampe Tofu Home Industry Standard and the oddities that occurred during the tampe tofu manufacturing process.

2. On-the-ground analysis using Miles and Huberman's model

Miles and Huberman (2009:69) state that the exercises in the examination of information in subjective exploration are intelligently conducted and occur consistently to completion. The information investigation exercise as revealed combines 3 components, to be more specific (Aji Santoso et al., 2021).

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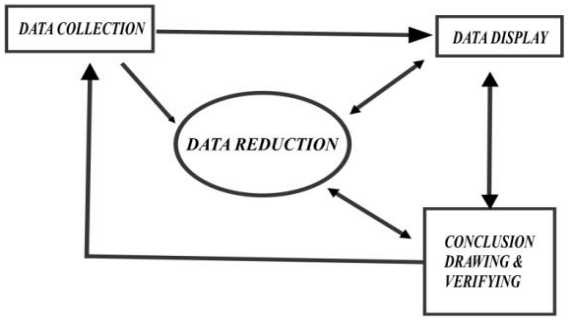


**Picture 1.** Interactive Model Data Analysis

## 3. RESULTS AND DISCUSSION

### 3.1 Home Industry Standards

Home industry in Purwodadi village produces tempeh tofu using traditional tools so the production process takes a little long. But on the other hand, a home industry is developing rapidly with a variety of special superior products in each region. Nonetheless, the home industry is experiencing a variety of challenges and problems that usually do not require serious strength from home business owners/people to solve them. One of the problems experienced is about the quality of goods. The lack of normalization of nearby goods assessed could complicate business visionaries for commodities or market their goods outside the district. This is still seen as a very challenging challenge for all financial specialists because of the different deterrents they experience. Especially for quality standards, MSME business visionaries in general only apply simple strategies related to the selection of standard materials, the use of harmless foodstuffs, imperfect production cycles, the certainty of the size of the product are also based on the murmurs of the sellers. the heart of the entrepreneur (Midayanto & Yuwono, 2014).

Given Regulation Number 3 of 2014 on Industry, it makes sense for Article 1 to state that a standard is something special or something normalized, including techniques and strategies drawn according to the agreement of all important meetings taking into account the prerequisites for well-being, security, well-being, climate, improvement of science and innovation and experience, the turn of events in the future. at this time and in the future to get the greatest profit. A business must meet the standards of industrial places and must also have standards for industrial places that are used as a reference for the development of management and services, facilities and infrastructure, environmental management and corporate social responsibility as referred to in article 54 paragraphs (1) and (2) related to industry venue standards (Presiden Republik Indonesia, 2014).

Any household industry cannot be separated from the assessment of the structure of the territory of the movement of the business. As a rule, structures are used as a place where human training is carried out, and this work is of great importance in the implementation of efficiency, and the development of the human personality. Building activities should be managed and sought for the harmony and improvement of life and make the building solid, adapted, pleasant, and become one with its current state as indicated by the norm. This structure is recognized as one of the types of actual use of the room. Thus, the structure game plan actually refers to spatial actions as per legal guidelines.

Regulation of the State Organization of the Republic of Indonesia Number 36 of 2005 and Regulation of the Implementation of Law Number 28 of 2002 concerning Institutions, it stands to reason that in order to guarantee confidence and demand in building organizational standards, each building must meet the authoritative needs as well as special prerequisites of the structure. It plans to create an organized structure of executives, both officially and in real terms, to create a structure that is practical, extreme, and guarantees safety, well-being, tranquility, comfort, and kinship and blends into the current state of affairs. so that the fulfillment of special prerequisites for each building

ability becomes stronger and more proficient. The elements of this structure are collected on the basis of the degree of complexity, the degree of lasting quality, the degree of fire risk, the drafting of seismic earthquakes, the area, the level, as well as the ownership. for the authoritative prerequisites in question, namely so that the people know in more detail the managerial needs expected to build a building, both regarding the clarity of land status, clarity of ownership status of the building, and legal certainty that the building to be built has received approval from the joint government for the building to be made. structure. Meanwhile, the technical requirements in question are more regulating the design of the building and the quality of the building that is unshakable, so that the public in building the structure clearly knows the special needs that must be met in order for the structure to ensure the safety of clients and the climate, can engage in a protected, sturdy, fun and open way. so that in general it can ensure the recognition of a structure that is practical, bearable, self-effacing, and useful, and friendly and as one with their current state. Structure guidelines depend on standards of value, safety, balance, and conformity of current structures and circumstances (INDONESIA, 2021).

Based on the results of interviews and observations related to home industry business buildings, the home industry knows tempeh in Purwodadi Village has applied assessment standards to buildings and meets the qualifications of business-worthy buildings, although from the entire home industry there are some home industries that do not apply assessment standards to buildings. However, there is one important aspect that is not applied, namely air circulation according to standards. Thus, it will certainly affect workers who will experience physical hazard disturbances such as abnormal temperatures due to air circulation being too small and even non-existent. In addition, the condition of the business place is partially unkempt and maintained environmental cleanliness, resulting in potential work accidents and an impact on occupational diseases caused. This needs to be improved again for the owner's evaluation material to pay more attention to things such as slippery floors, unavailable ventilation, poor work environment and so on. In the absence of improvements to the place of business, employee productivity will decrease if there are disturbances in the work process and health and safety aspects (K3) will also be disturbed, and vice versa if there is an improvement in the place of business, employee productivity will increase if there are no disturbances in the work process and health and safety (K3) aspects will also be maintained properly.

### 3.2 Aspects of K3

In the regulations of the occupational safety and health law (Law No.1 of 1970) it is explained that workers are obliged to maintain their safety and health while working to prevent work accidents. This is due to factors that influence the onset of work accidents. As for factors affecting the level of work that is not determined by the quality of workers, for example the absence of individual capacity/increase, erroneous registration of workers, extreme fatigue due to tiring working hours, and the absence of supervision of workers (Fadhilah et al., 2013).

However, it is necessary to control work accidents that can be done using various approaches, one of which is the existence of a special approach. Where the specific methodology is connected with the state of existence, hardware, materials, processes and hazardous workplaces. In order to minimize the anticipation of accidents is special, more precisely using welfare measures which include: 1) Safety configurations are adjusted to specific prerequisites and related guidelines to ensure the reasonableness of the company or work devices. 2) Welfare framework on the device or company to prevent accidents in the activity of the device or enterprise(Cookson & Stirk, 2019).

Work safety aims to provide protection in the workforce so that the workforce uses safety to carry out their work in order to be able to improve work results and work efficiency. With this technique, workers are expected to get a guarantee of security and welfare (K3) in every implementation of daily work (Fridayanti & Kusumasmoro, 2016). A work accident is a completely undesirable and often erratic event that can cause loss of time, property or property as well as casualties that occur in the modern work process or related to it. Practically speaking, work accidents

in industry can be divided into two (2) classifications, namely the classification of modern work accidents and the class of local work accidents (Putra, 2017).

According to the results of interviews with transmission informants to see aspects of occupational health and safety (K3) in home industry workers, it can be explained that home industry workers know tempeh in Purwodadi Village have implemented one of the K3 cultures such as the use of Personal Protective Equipment (PPE). Almost all home industry workers know tempeh in Purwodadi Village wear Personal Protective Equipment (PPE) when working. Knowledge is one of the factors that suggests workers on the use of Personal Protective Equipment (PPE). If the worker has good information, then, at that time, the worker will wear Personal Protective Equipment (PPE) using good use as well (Prasetyo, 2019). by providing Personal Protective Equipment (PPE) facilities to workers, it will make them feel safe and comfortable from the risk of danger that will occur. The government must also convey the procedure for using PPE in home industry workers because there are still some workers whose knowledge is still lacking in understanding the use of Personal Protective Equipment (PPE).

A work accident is an event of work accidents that occur caused by workers at work time and are also caused by other factors or potential hazards related to each other (Ridlo, 2019) . Based on the results of interviews and observations, several dangers were found in the home industry environment including physical hazards, biological hazards and psychological hazards. Of the overall dangers that occur, biological hazards have a very high risk of occurring such as being bitten by harmful insects, biological environments that are not hygienic, and so on. This can happen due to the lack of environmental cleanliness and regular care so that organisms such as insects can interfere with humans while working. The physical dangers that also occur and have the possibility of accident risks to be caused by tempeh tofu home industry workers in Purwodadi Village such as falling on slippery lancai, burns to bruises and so on. In addition to work accidents that occur in the home industry environment, there are also occupational diseases experienced by home industry workers tofu tempeh such as back pain, muscle cramps, aches and so on. It also relates to the existence of an actual working environment climate requirement in which workers complete daily exercises that contain many direct and indirect dangers to the welfare and strength of workers (Rizqi Septiana et al., 2017). however, it is used to ensure the safety and health of workers and others in the work environment, as well as the beginning of creation, the creation cycle, and the workplace in a protected condition. Furthermore, it is necessary to implement words related to the management framework (SMK3). The security and well-being associated with the word should be monitored also with different parts of the organization. Angle K3 cannot run without the authority of the board with standards of effort to supervise it (Waruwu & Yuamita, 2016).

## 4. CONCLUSION

Occupational safety and health, which is commonly known as K3, is an important thing to pay attention to. because each field of work has different levels of work risks. Neglect of K3 can pose a risk of work accident cases that will later harm workers and owners. Home industry workers know tempeh in Purwodadi Village is already good in the application of K3 aspects in the world of work. This can be observed using individual use of personal protective equipment (PPE) while working, but there are still work accidents that often occur in the home industry workers tofu tempeh due to unfavorable environmental and workplace conditions. To overcome this, it is necessary to take steps to increase the owner's understanding of the home industry standards for the tempeh tofu business. The improvement of home industry standards and K3 aspects in home industry owners and workers is important for workers in increasing knowledge and application that can be done to increase work productivity. One of the possible ways is through counseling/socialization activities to owners and also home workers who know tempeh in Purwodadi Village. After the socialization of home industry standards and K3 aspects as well as the availability of adequate PPE facilities, it is hoped that it can reduce the high number of work accidents that occur in workers.

**REFERENCES**

Aji Santoso, R., Nyoman Ruja, I., Purnomo, A., Pramesthi, R., & Maulidiyah Azzahroh, P. (2021). Social changes in fishing communities in Cupel Village, Negara District, Jembrana Regency. Journal of Integration And Innovative Harmony Of The Social Sciences, 1(8), 915–926. https://doi.org/10.17977/um063v1i82021p915-926.

Cookson, M. D., & Stirk, P.M. R. (2019). Industrial Sanitation K3, issue 3 2018, 256.

Fadhilah, N., Suryanto, & Ulfah, N. (2013). Factors Affecting Work Accidents in the Die Casting Process at PT. X Cikarang Barat Regency Bekasi West Java. Journal of Kesmasindo, 6(2), 135–142.

Faishol, M., Hastuti, S., Ulya Agricultural Industry Technology Study Program, Faculty of Agriculture UTM Correspondence, M., & Raya Telang Kamal Bangkalan, J. (2013). Redesigning the Layout of the Srikandi Junok Bangkalan Tofu Factory Production Facility. Agrotechnology, 7(2), 57.

Faridah, R., Fatoni, R., & Wicaksono, I. (2020). K3 Aspect Analysis and Redesign of tofu Industry Layout in Sragen Regency. Proceedings of The URECOL, 106–116.

Fridayanti, N., & Kusumasmoro, R. (2016). Application of Occupational Safety and Health at PT Ferron Par Pharmaceuticals Bekasi. Journal of Office Administration, 4(1), 211–234.

Judge, L., & Subekti, P. (2015). Design a Mini Steam Boiler With A Standard Approach To Palm Shell Burning. Aptek, 7(1), 1–8.

INDONESIA, P. P. R. (2021). Government Regulation of the Republic of Indonesia Number 57 concerning National Education Standards. National Standards of Education, 102501, 1–49. https://jdih.kemdikbud.go.id/arsip/Salinan PP Number 57 of 2021.pdf.

Juniani, A. I., Handoko, L., & Firmansyah, C. A. (n.d.). Implementation of the HazOp Method (Hazard and Operability Study) In the Process of Hazard Identification and Risk Analysis Pad .

Kotek, L., & Tabas, M. (2012). HAZOP study with qualitative risk analysis for prioritization of corrective and preventive actions. Procedia Engineering, 42(August), 808–815. https://doi.org/10.1016/j.proeng.2012.07.473.

Li et al., 2019. (n.d.). No Title. SAFETY AND HEALTH ANALYSIS FOR WORKERS AT THE MOJOSONGO TOFU PLANT.

Midayanto, D. N., & Yuwono, S. S. (2014). AS AN ADDITIONAL CONDITION IN THE INDONESIAN NATIONAL STANDARD Determination of Quality Attribute of TofuTexture to be Recommended as an Additional Requirement in Indonesian National Standard. Food And Agroindustry, 2(4), 259–267.Mikro, I., & Kecil, D. A. N. (2013). *I ndeks Produksi Triwulanan*.

Nur, M. (2019). ANALYSIS OF WORK ACCIDENTS USING THE HAZARD AND OPERABILITY STUDY (HAZOP) METHOD (Case Study: PT. XYZ). Journal of Integrated Industrial Engineering, 2(2), 30–37. https://doi.org/10.31004/jutin.v2i2.480.

Prasetyo, A. E. (2019). The Relationship between K3 Knowledge Level and Attitude Towards the Use of Personal Protective Equipment (PPE) on Workers at the Iron Pande Industrial Center, Padas Village, Karanganom District, Klaten Regency. Faculty of Health Sciences, University of Muhammadiyah Surakarta.

President of the Republic of Indonesia, P. R. I. (2014). Law No. 3 of 2014 concerning Industry. In Cell (Vol. 3, Issue 4, pp. 1–15).

Son, P. P. (2017). Application of Occupational Safety and Health Inspections as an Effort to Prevent Occupational Accidents. Higeia Journal of Public Health Research and Development,1(3), 84–94. https://journal.unnes.ac.id/sju/index.php/higeia/article/view/15976

Ridlo, M. S. (2019). Efforts to Improve K3 Culture in the Sambi Village Community, Boyolali Regency. 1–4.Rizqi Septiana, N., Widowati Kesehatan dan Keselamatan Kerja, E., Ilmu

Kesehatan Masyarakat, J., & Ilmu KeolahragaanUniversitas Negeri Semarang, F. (2017). *73 Higeia 1 (1) (2017) Gangguan Pendengaran Akibat Bising*. *1*(1), 73–82. http://journal.unnes.ac.id/sju/index.php/higeia.

Rozenfeld, O., Sacks, R., Rosenfeld, Y., & Baum, H. (2010). Construction Job Safety Analysis. *Safety Science*, *48*(4), 491–498. https://doi.org/10.1016/j.ssci.2009.12.017.

Sayow, F., Polii, B. V. J., Tilaar, W., & Augustine, K. D. (2020). Analysis of Tofu and Tempe Rahayu Industrial Waste Content in Uner Village, Kawangkoan District, Minahasa Regency.Agri-Socioeconomics,16(2),245.https://doi.org/10.35791/agrsosek.16.2.2020.28758

Susanto, H., Yanto, J., & Wahyudin, W. (2020). Design of Traditional Tofu Cutting Tools for Home Industry in Nagan Raya Regency. Mekanova's Journal: Mechanical, Innovation And Technology, 6(1), 20. https://doi.org/10.35308/jmkn.v6i1.2211.

Tandian, F. R., & Praptiningsih, M. (2013). Management and Development of Tofu Production Business at Ud Family Company.Tofu Saudara Factory In Surabaya. Agora, 1(2), 1–6.

Upy, J. I. E., Health, A., Pada, O., Work, A., Production, L., Lebu, C. V, & Jaya, B. (2021). Jie.upy. 1(1), 17–22.

UTARI, N. F. (2019). Safety And Health Analysis For Workers In Mojosongo Tofu Factory. 1–10.

Waruwu, S., & Yuamita, F. (2016). Analysis of Occupational Health and Safety (K3) Factors That Significantly Affect Work Accidents In The Student Castle Apartment Construction Project. Industrial Spectrum, 14(1), 63. https://doi.org/10.12928/si.v14i1.3705.

Widaningrum, I. (2015). Environmentally Friendly (Waste-Free) Tofu Making Technology. Journal of Dedication, 14–21.

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