

Comparison Study of The Investigation of Reporting Regulations on The Accidents of Construction Work in Malaysia, Singapore, Philippines, and Indonesia

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ABSTRACT

Occupational safety and health is one of the important issues for workforce activities, especially among the member countries of the Association of Southeast Asian Nations (ASEAN). Reporting construction work accidents is one of the important things in the construction sector which is an important topic considering that construction has become the most dangerous sector, one of which is due to its unique, dynamic, and temporary nature. The purpose of this study is to get a comparison of the reporting regulations, especially in terms of the regulations of the relevant institutions, the reporting time and the reporting flow of construction work accidents in several countries in the ASEAN region. The International Standard used is the ILO code of practice (ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases 1996). Meanwhile in Indonesia there is a Work Safety Act (Law No. 1, 1970) with its main agency being the Ministry of Manpower of the Republic of Indonesia. Malaysia has a 1994 Occupational Safety and Health Act with its main agency being the Department of Occupational Safety and Health (DOSH). Singapore has a Workplace Safety and Health Act 2006 with its main agency being the Occupational Safety and Health Division (OSHD). And the Philippines has an Occupational Safety and Health Standards (As Amended 1989) with its main agency being the Department of Labor and Employment (DOLE). Further in-depth literature study on reporting patterns of regulation (time, flow, and regulation) investigation of construction work accident in each of these countries. This is very much needed as a basis for comparison in the context of developing patterns of investigation of construction work accident in Indonesia in the future. The research method used is in analyzing secondary juridical normative data. In this study, it was concluded that Malaysia, Singapore, the Philippines did not explicitly separate reporting patterns of work accident investigations between construction and non-construction work accidents, and in their regulations only involved one institution at the ministerial level and or more than one department but still within one related ministry reporting workplace accident investigations from both the construction and non-construction sectors. Malaysia, Singapore, and the Philippines in the preparation of regulations and legislation related to reports on workplace and non-construction work accident investigations refer to ILO regulations. While the conditions in Indonesia, the data obtained that Indonesia has several investigative institutions under several ministries (Construction Safety Committee, National Transportation Safety Committee, Labor Inspector and others). In Indonesia also does not yet have legislation or framework that integrates the work coordination, authority and responsibility of all investigative institutions of some of the ministries mentioned above. The accuracy of the reporting regulations for construction work accident investigations is expected to be the initial capital in order to get the roots of the problems of construction work accidents and the initial step for the development of further research, especially regarding the framework of construction work accident investigation in Indonesia.

Keywords: Reporting Regulations, Accidents of Construction Work

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INTRODUCTION

Occupational safety and health performance in construction projects is still running poorly [9]. One indicator of the poor performance of occupational safety and health is that there are still causes of workplace accidents in the construction sector which are often not properly investigated. The person in charge of the workplace is often reluctant to do the reporting because they do not want to add to the problems with administrative hassles (1). Nancy J. Leppink, 2014 (Chief Labour Administration, Labour Inspection and Occupational Safety and Health Branch) (2) stated that construction work accident reporting has become a very important topic in the world. Therefore, effective investigations are needed. Investigation is needed to find out the immediate

causes and root causes of the problem. Then an appropriate risk control step is identified so that it can be applied to reduce the likelihood of the accident returning. Because all hazards in construction cannot always be identified and eliminated, effective accident investigations can identify the root causes of the accident (3). Previous studies have been written about recommendations for approaches to investigation, although further research shows that the emphasis is on physical methods of accident investigation, such as how to retrieve and archive evidence, how to photograph accident sites, or how to interview participants and witnesses to accidents (4). In 2011, the construction work accident rates in Malaysia, the Philippines and Singapore were 3.4, 5.65 and 3.87 cases per 1,000 workers. The death rate due to work between

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Malaysia, the Philippines and Singapore is 6.2, 4.0

and 2.3 cases per 100,000 workers, in the same year (5).

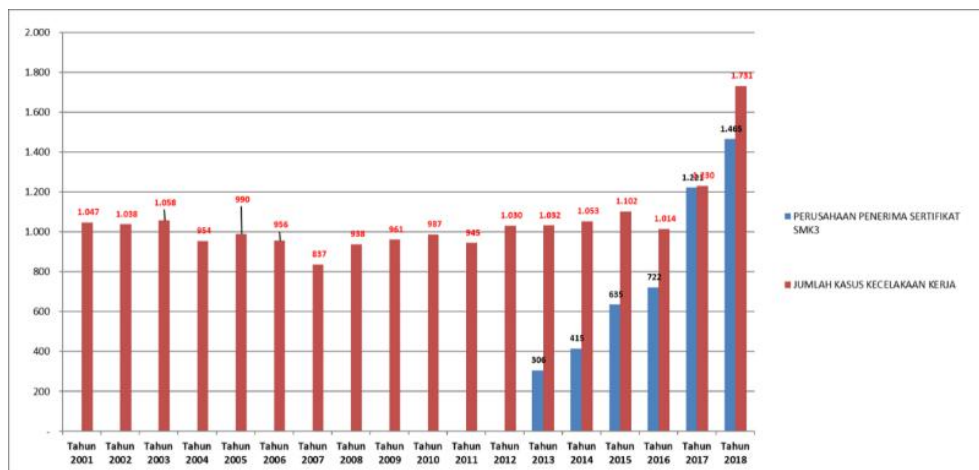


Figure 1. Data on Construction Work Accidents in Indonesia (2001-2018) (6)

Based on BPJS TK data (Masrully, 2019) in figure 1, it shows that the number of construction work accident cases in Indonesia in the last twenty years has not been able to show any significant improvement. The construction sector is known to be the largest contributor to the number of construction work accident cases in Indonesia at 32% and followed by the manufacturing industry sector at 31%, the transportation sector 9%, forestry 4% and mining 2%(7). This construction work accident can be reduced by implementing good safety regulations and identifying the strengths and weaknesses of the safety regulations (8).

In the process of investigating and reporting construction work accidents, it is possible to involve several agencies and agencies investigating construction work accidents. If there is no framework arrangement that is holistic and integrated, then it can cause its own problems (16). Not to mention the involvement of law enforcement institutions in the accident investigation process in Indonesia. The police institution sometimes seems rushed in drawing conclusions about a cause of an accident. In conclusion, it usually leads directly to the human object involved as the main cause of the accident (9). In fact, the majority of accidents occur due to a system that does not work optimally. There are indeed human factors, but these factors do not always become dominant, a similar opinion was expressed by Professor Norihiro Goto (10)(18). An accident in the construction sector can occur due to a lack of OHS regulations, understanding OHS regulations and overseeing OHS regulations. The causes and mechanisms of accidents need to be identified and understood through effective

analytical processes to prevent a recurrence in the future (11) (17).

Analysis of the development of legal aspects for the reporting of construction work accidents provides a corridor in the legislation in the context of reporting construction work accidents. Information was collected from all the laws and regulations of the ASEAN countries that were used as a reference in this study. The intended laws and regulations are those relating to construction work accidents in the construction sector as well as the implementation in the implementation of K3 legislation on construction.

MATERIAL AND METHOD

This research covers the regulatory and policy aspects of reporting and implementation based on laws regarding occupational safety and health in Indonesia, Malaysia, Singapore and the Philippines. Sources come from online access to government documents and articles published in journals.

International Standards

The International Labor Organization or abbreviated as ILO is a US tripartite organization that since 1919 has brought together governments, employers and workers from 187 member countries to set labor standards, develop policies, and develop programs that promote decent work for everyone. The ILO has 187 member countries and is unique among other UN agencies because its tripartite structure places the government, employers' organizations and trade unions in an equal position in determining programs and the policy making process. By inviting the government, employers and workers to jointly formulate labor regulations, supervise their implementation, raise awareness, and develop policies and plan programs, the ILO wants to ensure that these efforts are based on the needs of all workers.



Figure 2. ILO documents related to construction work accident reporting

In the ILO publication namely Improvement of National Reporting Data Collection, and Analysis of Occupational Accidents and Diseases (12) there are a number of basic principles in effective reporting, data collection and evaluation, as follows:

(1) Involvement of the social partners

Employers and workers have an important role in data collection on construction work accidents. Therefore, both employers, workers and their respective representatives must be involved in the design process of investigation, reporting and data collection from the start and must be involved in the system itself.

(2) Design of the reporting system

When designing systems for national accident data collection and analysis, all relevant aspects must be considered in ensuring a sustainable system. It is not recommended to have two systems, such as one for construction work accidents and one for occupational diseases. It would be better if a comprehensive system was formed to accommodate construction work accidents, occupational diseases, and travel accidents. In practice in several countries, information related to construction work accidents is often collected and reported to different ministries at the national level. The best way to manage reporting, data collection and evaluation is to create a tripartite controlled body. The advantage is that the system can work, develop, and be optimal without being affected by many political changes (for example: changes in the number and scope of ministries)

(3) Institutional and administrative arrangements

Before making a decision, it's good to analyze which organizations are in the best position, not only to get data from the workplace, but which agencies have an interest in continuously improving data quality and providing the best information services for those who need data for safety and health in workplace. To motivate employers to report construction work accidents, in addition to obligations and legal consequences, there is another mechanism, namely a two-way reporting system. Apart from the report form submitted by the employer, the doctors and hospitals involved in the treatment of injuries will inform the authorities when submitting medical bills. In this way, even in cases where the employer forgets to report, information will be available and will be found in the construction work accident database.

Workers and their representatives need to report workplace accidents to the employer. In accordance with national regulations, they can also report to the

authorities and accident insurance. A copy of the report form will be sent to labor inspection to obtain information about planning for audit activities. Regarding occupational diseases, there must be a national list that indicates specific diseases that are recognized as occupational diseases. This national list must be regularly reviewed and updated to consider the latest list of occupational diseases attached to the ILO Occupational Disease Recommendation List, 2002 (No. 194).

Regarding the reporting of construction work accidents to the authorities, many countries use a definition that excludes small accidents to be reported, so only accidents that cause more than three days of work absence must be reported. Conversely, a construction work accident that requires less than three days' absence is considered an accident that cannot be reported. The purpose of regulations such as this so that there is a clear definition of work accidents, reduce the number of accidents reported, reduce the amount of bureaucracy for employers and increase revenue for reporting tasks and the resources needed for data entry and analysis can also be reduced. For this reason, it is recommended to focus on more severe cases when collecting and evaluating, such as accidents that cause a loss of time of more than three days. For prevention purposes at the company level, employers still need to record accidents that are not required to be reported to the authorities and take steps to protect workers against these accidents.

The most comprehensive way Of course, by collecting every accident, but this can not always be practiced at the national level. Priority lies in the recording and reporting of cases that can be legally verified. A standard form is, of course, recommended to get comparable information about cases that can be reported

(4) Maintenance and improvement of a comprehensive national database

Every system for reporting, data collection and evaluation must cover all sectors of economic activity including non-commercial public services, and all sizes of companies, including entrepreneurs. For developing countries, the most important thing is to involve casual workers, artisans and agricultural sector workers in the reporting strategy. Because there is a risk of work accidents similar to them at work. Many countries also involve children and students in all educational institutions in their reporting systems to get a complete picture of the accident situation in the country.

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New requirements and challenges to reporting and data collection systems arise from recent changes in the form of modern labor, e.g. contract workers, loan workers, self-employed, casual workers, migrant workers, traveling workers and long-distance workers. New concepts are needed to motivate this group of workers to report workplace accidents and diseases. The better these people are covered by social accident and insurance schemes, the greater the chance of incidents affecting this group being reported, allowing their workplaces to also be protected by prevention activities. There is an 'eleven golden rules' approach to building or improving national systems for data collection and analysis of occupational accidents and diseases.

1. Determine the role of stakeholders, who is involved and responsible?
2. Set the statutory basis for reporting, data collection and evaluation
3. Install the national body (statutory accident insurance, fund or agency)
4. Build up the personnel, financial and technical capacities
5. Clarify definitions and obligation for reportable data
6. Develop the required tools for data collection (report forms, electronic platforms, classifications)
7. Define and evaluate procedures and combine the data with relevant economical data
8. Publish the national report on occupational accidents and diseases (number, severity, type, cause, cost, frequency rates)
9. Set up the different prevention measures from the results
10. Compare the situation with other countries or sectors (benchmarking)
11. Don't forget the steps for quality control and be acceptable!

A systematic approach to data collection can ensure the comparability of data to be collected thereby reducing errors in reporting and analysis. This, if properly designed, will have an impact on efficient reporting. And will be a barrier for reporting if the form is too complex.

(5) Legal requirements for systematic data reporting

To get good data, we need complete knowledge about all accidents that occur at work. The basis for realizing this must be a national legislative

framework, which requires key stakeholders to systematically report all incidents, and determine the minimum range of data to be recorded. There are two types of framework in systematic data reporting.

Legislative Framework

Overall, the legislative framework needs to involve employers, doctors and hospitals which are the first parties as a source to obtain information related to accidents. Involving workers is advised to fill information gaps, such as in cases where businesses fail to report, do not receive information, and where no professional medical practitioner intervention has been implemented.

Notification Framework

Data must be reported to the designated agency, which should not be commercial in nature. Depending on the state structure, it can be an insurance agency for accidents, with copies of each report sent to the labor inspectorate as a sample during the audit. If this does not apply, data can be collected at the Ministry of Manpower or labor inspection center unit. In any case, the agency must react to incidents such as preventive measures, and / or compensation and rehabilitation.

The law and regulations must precisely define what cases must be reported, who is required to make the report and who should receive the report. Deadlines must be determined for the report, for example 'no later than three days after the incident' or 'immediately if a fatal accident occurs'. It is recommended to set different deadlines for different severity. Fatal accidents and things that endanger the public must be reported immediately.

(6) Sources and Parties for data reporting

Workplace accidents are often reported to various stakeholders. Thus, many parties involved can provide data and need to be involved in the reporting process. The following stakeholders must be considered as potential sources of relevant data when defining or optimizing a reporting system to ensure that a person gains knowledge of all accidents that occur. In designing or improving any reporting system, the most appropriate stakeholders must be selected and given legal obligations in connection with reporting responsibilities.

A well-proven system requires initial reports on accidents from employers and in parallel from medical doctors. Information from all other stakeholders will be used as additional information to validate the information received.

Table 1. Parties that need to be considered as sources of reporting information

Parties	Explanation
Employer	The employer is the first source for reporting. They are usually directly involved in the accident scenario and investigation process. Their job is to report an accident. Workplace accidents directly affect business performance and are very important for employers to determine the cause.
Accident and occupational illness insurance	Insurance companies, mandatory or private, are important data sources. Because of the nature of their business, they collect comprehensive information about each reported case submitted to produce compensation for medical expenses, rehabilitation, pensions and further benefits.
Labor inspectors	Labor inspectors will usually investigate high-risk accidents. In addition, regular visits to facilities and companies can provide insight into accidents and diseases that were not previously reported or reported.

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Parties	Explanation
Social insurance companies (health insurance, pension funds)	Providers of health and old age funds also receive relevant information about the consequences of occupational diseases, especially those with long latency times such as silicosis, and also the long-term effects of work-related injuries.
Doctors, nurses, hospitals and medical personnel	Appropriate information can be obtained from health professionals who carry out medical treatment after an accident and diagnose potential work-related causes, such as hospitals or doctor's offices.
Compensation funds	Compensation funds aside from social insurance companies, this will be another potential source of relevant data in the case.
The worker	Workers are directly affected by accidents and injuries to health and by workplace prevention and protection measures. As such, employees are a valuable source of information regarding their individual situations and also in terms of their coworkers.
Trade Unions	Employee welfare is the main concern of trade unions, including social aspects and occupational safety and health issues. Often unions collect data about workplace accidents and diseases in their respective industries.
Police officers and emergency services	Law enforcement agencies and emergency services are the first point of contact to get help when an accident occurs and are involved in workplace investigations for the causes of severe accidents in many countries. They are also involved in physical violence at work and accidents involving community members. Negligence and responsibility are also considered by public prosecution.

(7) Prerequisites and recommendations for an efficient reporting system

As explained earlier, an important element for successful reporting and data collection is the involvement of all stakeholders and establishing a legal obligation to report comprehensively, systematically, and guaranteed quality. This legislative framework must be communicated clearly, simply and concisely to all those affected by this system.

Design a redundant system

If more than one party is obliged to report it may result in redundancy. This is acceptable for accurate and comprehensive data, but requires clear identification of any accident or disease to avoid double counting. The best identification will be a unique element such as a social security number or personal ID; if not available, the appropriate combination of name, date of birth, location and date of accident, and appropriate employment information will fulfill that purpose.

Involve the social accident insurance system

A social security system or social insurance, structured with universal coverage will ensure comprehensive and valid data, given that all cases of any type of benefit such as medical bills, rehabilitation costs or compensation will be recorded, this basis will establish effective protection without or with reporting. This is even more true for social security systems that cover aspects such as pension funds, health insurance, and construction work accident insurance. Each link has the potential to send data about accidents and occupational diseases.

Use the 'perpetrator pays' principle

A clear definition of the parties who bear the costs will help ensure comprehensive data. Most workplace accidents lead to direct costs for medical intervention and in some cases, compensation and pensions. The principle of 'perpetrator pays' will not only motivate all stakeholders to enforce effective prevention, but also offer a basis for obtaining

statistical data relating to workplace accidents and illnesses by linking claims with quantifiable incidents. Joint financing systems, such as compensation funds or accident insurance funds, distribute accident expenses and accident-related costs to protected stakeholder groups as opposed to a system where individual actors pay all costs resulting from accidents. Such policy holders also offer a better basis for accident and disease statistical data and reduce the risk of not reporting accidents, bearing in mind that individual responsibilities from unique companies can cause managers who aim to avoid economic consequences by not reporting fully incidents, or not reporting at all.

Sanction non- or under-notification

If there is something that is lacking or not reported, it must be subject to sanctions, because it will narrow the relevant database and thus negatively affect effective prevention. Moreover, if there is anything that is lacking or not reported will deduct workers from claims after the accident with their work.

One face to the customer

To avoid obstacles from many institutions that report accidents and occupational diseases, a system that offers 'one face to the customer' is the right thing to do. Various fragmented institutions, e.g. Labor and health inspectorates, insurance companies, individual industry trade authorities, law enforcement agencies and more, will slow things down and make it especially difficult for small and medium-sized businesses and informal economy entrepreneurs. Exceptions can be defined for really severe incidents such as fatal accidents, accidents that affect many workers and / or the community, so that immediate action is needed to be taken by various enforcement and supervisory bodies.

BEST PRACTICE MALAYSIA

The Occupational Safety and Health Act 1994, issued in February 1994, is the main law governing occupational safety and health in Malaysia. The main objectives of this Act are to develop the health, safety

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and welfare of workers so as to keep away from the dangers of work activities, protect the health and safety of people at work, and adapt the work environment to meet the physical and mental needs of workers, and offer measures to develop regulations and codes related to this law to establish and improve occupational health and safety standards.

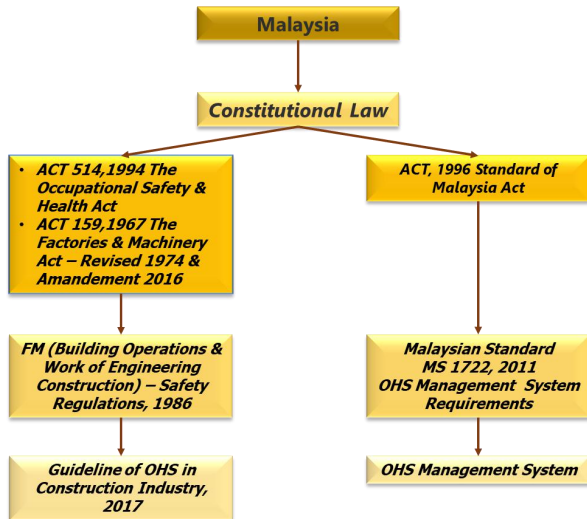


Figure 3. Malaysian Regulations relating to Construction Work Accident Reporting

There are several departments under the Ministry of Human Resources in Malaysia that are responsible for occupational health and safety. The National

Council of Occupational Safety and Health (NCOSH) is the main institution for occupational health and safety in the form of a tripartite board. This institution provides basic guidance and direction on occupational health and safety standards and activities and focuses on improving the administration and enforcement of occupational safety and health laws. The Department of Occupational Safety and Health (DOSH) is the main institution responsible for national OSH regulation and enforcement. The main functions of the National Institute of Occupational Safety and Health (NIOSH) are OHS training and education, OHS promotion and OHS research. While the Ministry of Health is responsible for the prevention and management of occupational diseases.

SINGAPORE

The Workplace Safety and Health Act (WSHA) is the main regulation for occupational safety and health in Singapore. This regulation requires all parties to be proactively involved in providing and maintaining occupational safety and health to protect workers. The main principle of this regulation is to minimize the danger from the source, to invite industry to adapt the culture of occupational safety and health, and use penalties to prevent construction work accidents. This law places responsibility for safety at work on all stakeholders, focuses on health and safety systems at work and its results, facilitates effective law enforcement through issuance of corrective orders, and imposes heavier penalties for non-compliance and risk behavior.

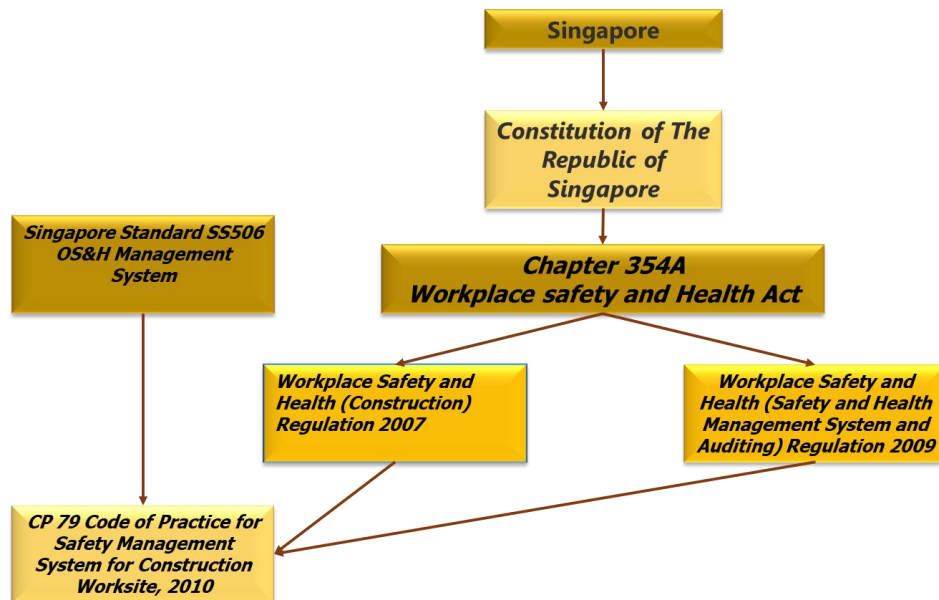


Figure 4. Singapore Regulations relating to Construction Work Accident Reporting

The Occupational Safety and Health Division (OSHD) is the main national OSH institution in Singapore. OSHD's strategy is to reduce mortality and work-related injuries, integrate OSH as part of business, make Singapore a Center of Excellence for occupational health and safety, and build a culture of occupational health and safety in Singapore. There are four departments within OSHD, the Information and Corporate Services Department that are responsible for making policies, strategies, effective information systems, personnel training and OSH-

related education; OSH Inspectorate responsible for inspection, supervision and law enforcement in the workplace; OSH Specialist Department, which offers specialist support in developing OHS standards and best practices, investigating complex accidents and occupational diseases, and conducting research; and the Work Injury Compensation Department that manages the Work Injury Compensation and Incident Reporting System. The Workplace Safety and Health (WSH) Council consists of 18 industry leaders, governments, trade unions and professionals. This

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council helps the government to develop a national strategy for occupational health and safety. Its main function is to improve the industry's OSH capability, promote occupational safety and health and recognize industry best practices, and establish acceptable OSH practices.

THE PHILIPPINES

The main regulation related to occupational safety and health in the Philippines is the Occupational

Safety and Health Standards (OSHS). This regulation provides guidance and enforcement for workplaces involving training of personnel for health and safety, safety and health committees, illness and accident records of construction work, control of work and environmental hazards, personal protective equipment, safe use of materials and machinery, fire protection and occupational health services.



Figure 5. Philippine laws and regulations relating to construction work accident reporting

The Department of Labor and Employment (DOLE) is the main OSH institution responsible for the prevention of diseases and accidents in construction work, law enforcement, rehabilitation and compensation. The Occupational Safety and Health Center (OSHC) is responsible for occupational health and safety research, training and dissemination of information and technical services. The Department of Health (DOH) chairs the Inter-Agency Committee on Environmental Health (IACEH). IACEH is responsible for protecting all people from exposure to all kinds of occupational and environmental hazards by implementing public and environmental health interventions.

INDONESIA

The Indonesian government has laws and regulations related to construction work accident reporting. Through a review of the legislation literature, there are ministries as shown below:

Ministry of Public Works and Public Housing

The Ministry of Public Works and Public Housing (PUPR) has several regulations related to construction work accident investigation and data collection, namely:

1. Law Number 02 Year 2017 concerning Construction Services.
2. PUPR Minister Regulation Number 21 / PRT / M / 2019 concerning Guidelines for the Construction Safety Management System.
3. Regulation of the Minister of PUPR Number 02 / PRT / M / 2018 Year 2018 concerning Amendment to the Minister of Public Works Regulation No. 05 PRT / M / 2014 concerning SMK3 Guidelines for Construction in the Field of Public Works.
4. Regulation of the Minister of PUPR Number 05 / PRT / M / 2014 of 2014 concerning Guidelines for SMK3 Construction in the Field of Public Works.

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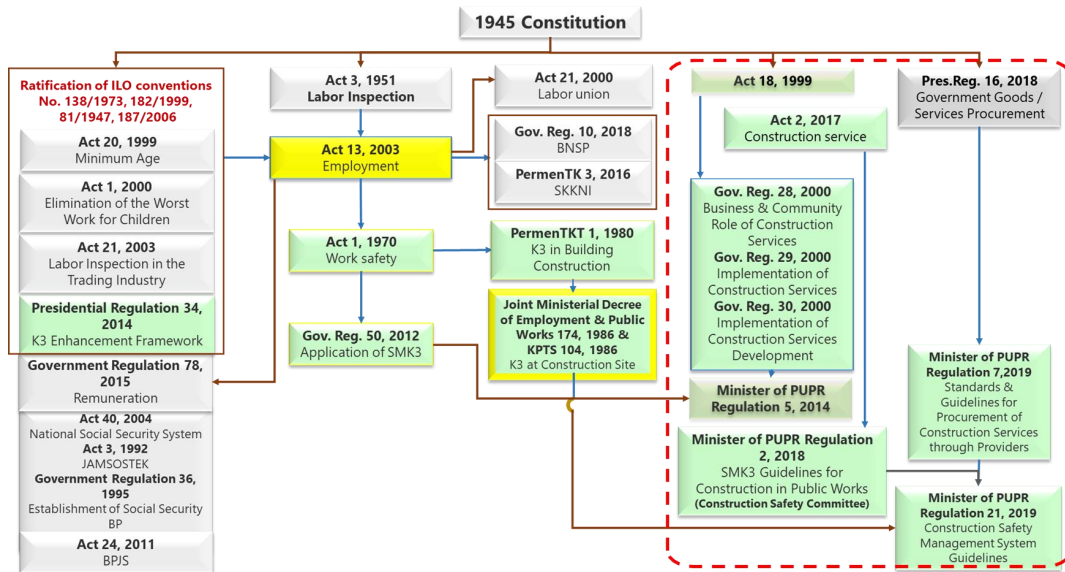


Figure 6. Regulations of the Ministry of Public Works and Public Housing related to K3 Construction (13)

MINISTRY OF EMPLOYMENT

The Ministry of Employment has several regulations related to construction work accident reporting, namely:

1. Law Number 13 of 2003 concerning Employment

2. Permenaker No. 03 / MEN / 98 concerning Procedures for Accident Reporting and Inspection
3. Permenaker Number 26 of 2014 concerning Implementation of Assessment of the Implementation of Occupational Safety and Health Management Systems

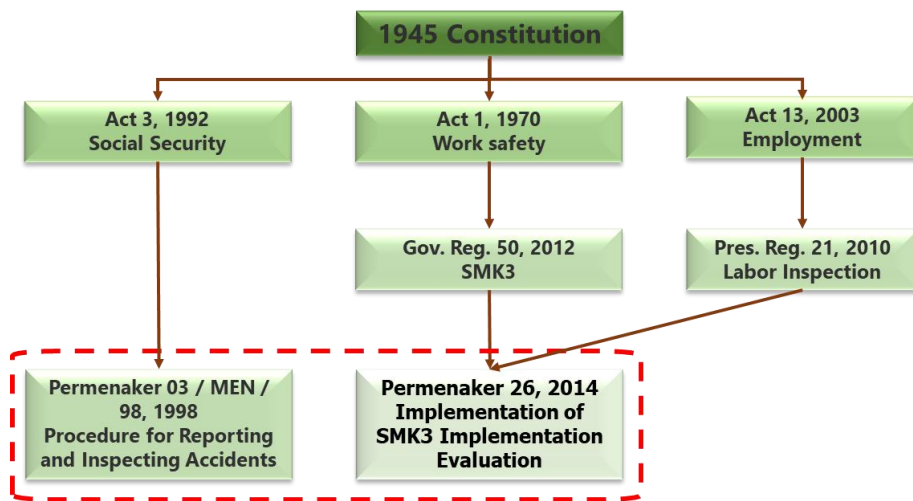


Figure 7. Regulation of the Ministry of Manpower regarding K3 Construction (13)

MINISTRY OF TRANSPORTATION

The Ministry of Transportation in its regulations related to Investigation and Data Collection on Construction Work Accidents, has a National Transportation Safety Safety Committee formed because "Presidential Regulation No. 02/2012 concerning the National Transportation Safety Committee" refers to the following rules.

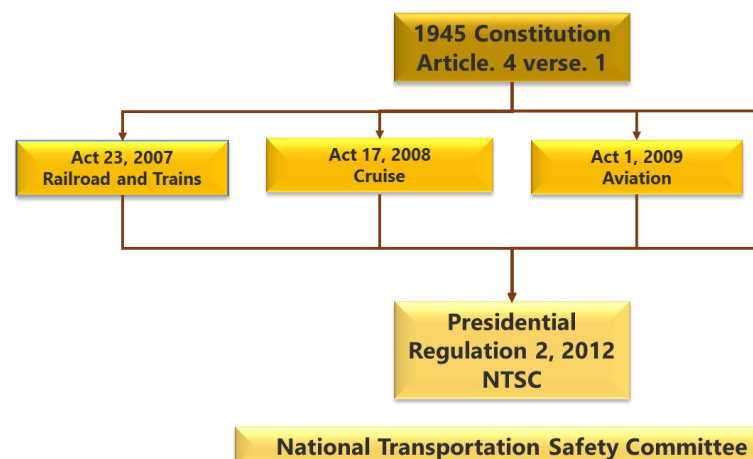


Figure 8. Regulation of the Ministry of Transportation regarding NTSC

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MINISTRY OF ENERGY AND MINERAL RESOURCES
The Ministry of Energy and Mineral Resources (ESDM) in its work has a Construction Services Business that is a Support for Oil and Gas Activities. Construction Work Accident Investigation and Data Collection.

Regulations related to this Supporting Business are stipulated in "Minister of Energy and Mineral Resources Regulation No. 14 of 2018 concerning Oil and Gas Supporting Business Activities".

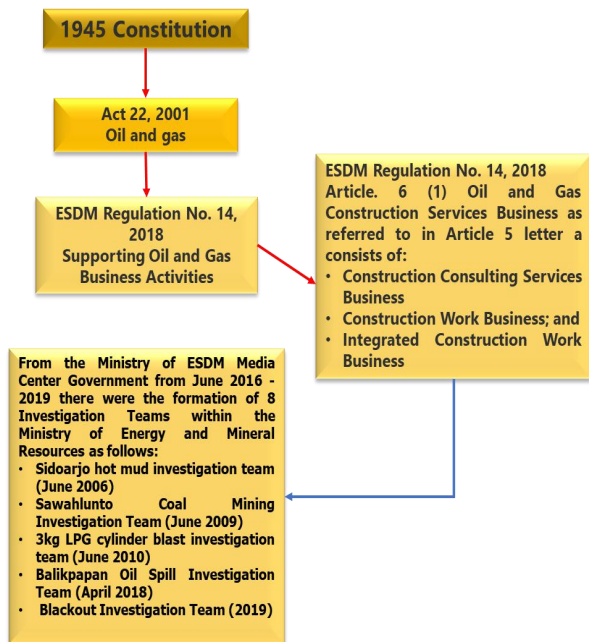


Figure 9. Regulation of the Ministry of Energy and Mineral Resources related to Construction Services

RESULTS AND DISCUSSION

3.1. International Labour Organization (ILO) (14)

In the ILO 'code of practice on Recording and notification of occupational accidents and diseases' there are several important things that need to be done in Reporting construction work accidents.

Table 2. Government Scope Investigation Practice Code according to ILO

Point	Explanation
10.1.2	Arrange for an investigation to be carried out by a labor inspectorate or other official agent.
10.1.3	Employers 'and workers' representatives in companies need to have the opportunity to accompany investigators, except based on general instructions from the authorities that can adversely affect the performance of their duties.
10.1.4	If an investigation is not given to an institution authorized by the government, arrangements must be made for the participation of the most representative organizations of employers and workers.
10.1.5	Conduct investigations and publish reports that reflect serious situations in terms of actual or potential risks to workers or the public.
10.1.6	Obliging employers to investigate construction work accidents and report on actions taken to prevent the recurrence of the incident.
10.1.7	Ask the employer to assist in investigating.

Table 3. Company Scope Investigation Practice Code according to ILO

Point	Explanation
10.2.1	Investigate all reported construction work accidents
10.2.2	Ensuring that competent human resources are determined by competent authorities to carry out investigations in the company
10.2.3	If the employer does not have the expertise needed in the company to conduct an investigation, he must ask for expert help from outside the company.
10.2.4	Set the location of construction work accidents or hazardous events so as not to be disturbed before the start of the investigation.
10.2.5	In an emergency and need to change the scene before the start of the investigation, the employer must arrange for competent human resources to make a record of the incident, including if necessary photos, pictures and eyewitness identities before any

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Point	Explanation
	intervention.
10.2.6	Ensure that it is immediately possible to determine what accident occurred, determine the cause of the incident; and identify the steps needed to prevent a recurrence.
10.2.7	Ensure that there are arrangements in the company for immediate investigation of construction work accidents.
10.2.8	Ensure that required reports are sent to the competent authority in the fastest way that can be practiced.
10.2.9	Make the results of investigations available to workers and their representatives with a view to preventing similar incidents and so that they can assist employers in implementing more effective policies on occupational safety and health.

Whenever the employer investigates based on this code of practice, workers' representatives must have the necessary rights, facilities and time, without

losing wages, to participate in the investigation (10.3.1) and in their work must assist the employer and the person acting on his behalf. in the investigation of construction work accidents (10.3.2).

Table 4. Code of Practice for Collecting Data on Government Scope according to ILO

Point	Explanation
5.1.1	National regulations need to require employers to make and keep records of construction work accidents
5.1.2	To ensure that all necessary data and information are systematically collected, and there is a methodology for investigating construction work accidents, national regulations must determine which data and information should be recorded
5.1.3	The information needed to be recorded at the company level must include at least the information that will be reported
5.1.4	National regulations must specify additional information that employers must record, although it does not need to be reported
5.1.5	National regulations must establish: <ul style="list-style-type: none"> a. Data content and format data collection, b. The time period for data collection must be made, c. The data collection time period d. Such data must be obtained and maintained in such a way as to maintain the confidentiality of personal and medical data in accordance with national laws and regulations, conditions and practices, and consistent with paragraph 6 of the Occupational Health Services Recommendation, 1985 (No. 171), e. Employer regulations need to prepare competent human resources to prepare and store data; and f. Collaboration in data collection procedures in which two or more employers are involved in the activities simultaneously in one workplace.

Table 5. Code of Practice Data Collection on Company Scope according to ILO

Point	Explanation
5.2.1	The employer in conducting data collection in accordance with national law or regulations
5.2.2	This data collection needs to include: <ul style="list-style-type: none"> a. Prepare competent human resources in preparing and storing data according to national regulations b. Collaboration in data collection if two or more employers are involved in the work simultaneously in one workplace
5.2.3	The employer needs to ensure that data is available and ready to be used when needed
5.2.4	If there is an accident to more than one worker, data collection is made for each injured worker
5.2.5	Workers' compensation reports and accident reports are accepted as data collection if all the facts needed are needed for data collection or supplement
5.2.6	For the purpose of auditing, representative information on workers and health services, the employer needs to prepare data within a certain period of time determined by the competent institution, but it is better not more than six days after the reporting is done
5.2.7	Workers in carrying out their work must cooperate with employers in conducting data collection
5.2.8	The employer needs to provide information to the worker and his related representatives: <ul style="list-style-type: none"> a. Data collection b. Competent HR appointed by the employer to receive and record construction work

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Point	Explanation
	accident information
5.2.9	Employers need to provide information to workers and their representatives for all construction work accidents

Regarding reporting according to the ILO, all work accidents must be notified in accordance with national law or regulation, to the competent authority, labor inspectorate, the appropriate insurance agency or other body immediately after reporting an occupational accident that caused death and within the time specified for work accident others (Points 6.3.1.1.).

Reporting must be made within the allotted time, and in a specific form determined, such as an accident report for the labor inspectorate, a compensation report for the insurance agency, a report for the statistical producing agency; or a single form containing all important data for all entities (Point 6.3.1.2).

MALAYSIA

In Malaysia, the contractor needs to make a construction phase plan (15), This document consists of K3 preparation during the construction work stage, workplace regulations, and actions in the event of a construction work accident. This document is stored in a form that is easily distributed and safe. This document will be the main source of the Department of Occupational Safety and Health officers in investigating accidents.

In investigating construction work accidents, the Director General may appoint an inquiry to the occupational safety officer and health officer. The Director General may appoint one or more persons from engineering, medical or other skills or expertise who are suitable to serve as assessors in each of these investigations. Any person who does not become a public official who acts as an appraiser in an investigation can be paid an allowance in the amount determined by the Minister.

For any accident arising from work that causes death or injury that prevents attending work for more than four days at work, the employer must notify the nearest Occupational Safety and Health Department immediately and in less than 7 days after the accident sends a report in the format according to regulations. If the worker as a result of an accident has suffered an injury or a condition that is reported to cause death within one year from the date of the accident, the employer must notify the Director General in writing of the death after it is known. For entrepreneurs, the accident does not need to be reported immediately but applies for the entrepreneur to report to the office of the labor department for reports less than 7 days after the accident and must comply with regulations if the entrepreneur makes arrangements to be sent to the Office of Occupational Safety and Health by someone else.

Every registered medical practitioner or medics within 7 days will report work-related illness to the Director General and at the same time notify the employer. Every employer and entrepreneur must record and maintain data, in an approved form, of all accidents and dangerous events that have occurred. Records must be stored at the relevant work place. if this cannot be done, in the usual place the entrepreneur or entrepreneur keeps the data and is kept for at least 5 years from the date of

manufacture. The employer or entrepreneur, depending on the situation, must send to the Director General before 31 January each year of the annual construction work accident report.

SINGAPORE

In Singapore, construction work accident reporting is regulated in the Workplace Safety and Health (Incident Notification) Regulations. If there is a construction work accident on an employee at work that causes death, the employer reports to the Commissioner of the accident. As for accidents in people who are not working or casual workers who cause death, occupants of the workplace who report to the Commissioner of the accident. The report was submitted no more than 10 days after the accident occurred.

Reporting construction work accidents that cause injuries is reported to the Commissioner of the Accident,

(a) In the case of workers being given sick leave for more than 3 days by registered medical practitioners regarding an accident the report is given no more than 10 days from the 3rd day since sick leave

(b) In the case of workers being hospitalized for at least 24 hours for observation or treatment, reporting must be made no more than 10 days after the accident

If an injured worker at the workplace dies, the employer reports to the Commissioner of the death. If the person is not at work or a casual worker, the occupants of the workplace report to the Commissioner of the accident. If the worker suffers from work-related diseases in the Second Schedule to the Act at a workplace, and the employer of the worker receives a statement from a registered medical practitioner regarding the diagnosis of the disease, the report is given no more than 10 days from the diagnosis to the commissioner.

In the construction work accident data store, the employer and occupants of the workplace store data for 3 years from reporting. And provide the data to the Commissioner whenever needed. Reports made by employers or occupants of the workplace are sent to the website <http://www.mom.gov.sg/ireport>.

PHILIPINES

Occupational Safety and Health Standards are regulations that regulate K3 in the workplace. In the event of a construction work accident, a report made by the employer is provided to the local Manpower Office or authorized representative. Reports made cannot be accepted as evidence in court proceedings. Because the reports made will not be published publicly or are subject to public inspection except for prosecution for violations under this Regulation.

All construction work accidents at the workplace must be reported by the Employer to the local Manpower Office or authorized representative in duplicate and supplementary documents. Formal reports must be submitted by the employer on or before the 20th day of the month after the date of the

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accident and the investigation report must be submitted by the Regional Office or authorized representative before the 30th day of the same month.

If an accident results in death or total permanent disability, the employer in addition to the required written report, must notify the local Manpower Office or authorized representative within 24 hours after the incident using the fastest available communication means. All deaths and total permanent disability must be investigated by the Regional Office or authorized representative within 48 hours of receiving the initial report from the employer, prepared in duplicate. Any dangerous event specified in this regulation must be investigated and reported by the employer when it occurs to the local Manpower Office or authorized representative in duplicate.

The employer must maintain and keep a record of the accident which can be opened at any time when needed for an audit or inspected by authorized personnel which contains the following minimum data:

- a. Date of accident or illness;
- b. Name of injured or sick employee, gender and age;

- c. Employee work
- d. The cause of the accident
- e. Level and nature of disability;
- f. Disability period (actual and / or charged);
- g. Does the accident occur damaging the material, equipment or machinery, the type and extent of damage, including actual estimates or costs; and
- h. Initial notification data and / or report to the local Manpower Office or authorized representative.

The employer must complete the annual Accident Construction work report in duplicate which will be submitted to the local Manpower Office or authorized representative on or before the 30th day of the final month of each calendar year.

INDONESIA

Ministry For Public Works and Human Settlements (PUPR)

Referring to the Minister of PUPR Regulation No. 21 / PRT / M / 2019 regarding Guidelines for the Construction Safety Management System, there are several parties involved in reporting work accidents, namely as follows:

Table 6. Parties involved in reporting work accidents at the Ministry of Public Works and Housing

Parties	Job Description
Construction Safety Committee	Article 33 paragraph (2) a. carry out monitoring and evaluation of Construction Work which is estimated to have a large Construction Safety Risk; b. carry out construction accident investigations; c. provide advice, considerations, and recommendations to the Minister based on the results of monitoring and evaluation of Construction Work with a large Construction Safety Risk and / or construction accident investigation in order to realize Construction Safety; and d. carry out other tasks given by the Minister.
Service Provider	Appendix Application of SMKK 4.4.3 Investigation of Emergency Events Service Providers must report serious accidents, death cases and dangerous events to relevant parties (Manpower Office, Construction Safety Committee, etc.) within 2 x 24 hours for further investigation. 8. Service Provider (d. Construction Service Provider) f. report to PPK and the Department in charge of local employment regarding hazardous events, construction accidents and illnesses caused by construction work in the form of monthly reports;
Commitment Officer	Appendix Application of SMKK 7. Commitment Officer i. evaluating occupational accidents and occupational diseases for repairs and reports to the Head of the Work Unit; j. in supervising the implementation of the RKK and evaluating SMKK performance, PPK can be assisted by K3 Construction Experts / Construction Safety Officers from internal and / or external PPK organizations; r. make analysis, conclusions, recommendations and follow-up plans for reports on construction accidents and diseases resulting from construction work received from the Service Provider.
UKK Leaders	A.2 UKK Duties and Responsibilities Table Conduct Construction Safety inspections at work Coordinate with related parties
Officer Construction Safety	A.2 UKK Duties and Responsibilities Table Conduct Construction Safety inspections at work Reporting incidents either in the form of incidents or accidents to the Construction Safety Manager / Coordinator
Emergency Response Officer	Reporting emergency response events to the Construction Safety Manager / Coordinator

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Parties	Job Description
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MINISTRY OF EMPLOYMENT

In the Minister of Employment Regulation No. 03 of 1998 concerning Procedures for Accident Reporting and Inspection, regulates several matters related to construction work accidents. The employer is required to report any accidents that occur at the workplace they lead. This obligation applies to employers who have and have not included their work in the labor social security program under Law No. 3 of 1992.

The employer reports in writing a construction work accident to the Head of the local Office of the Department of Labor within no more than 2x24 hours from the time of the accident. Submission of reports can be done verbally before being reported in writing. After receiving the report, the Head of the Department of Labor orders the supervisory staff to carry out an inspection and study of accidents in accordance with labor legislation.

Head of Manpower Department Office based on the results of accident examination and assessment at

the end of each month. Compile analysis of accident reports in his jurisdiction and submit report analysis to the Head of Regional Office of the Department of Manpower at the latest on the 5th of the following month. The Head of the Regional Office of the Department of Manpower based on the analysis of accident reports compiles an analysis of accidents in his jurisdiction which is made for each month. Then it must immediately submit an accident analysis to the Minister or designated Officer.

The Director General of Industrial Relations Development and Labor Supervision based on the analysis of accident reports compiles an analysis of the frequency and severity of accident reports at the national level.

MINISTRY OF TRANSPORTATION

Referring to Presidential Regulation No. 02/2012 concerning the National Transportation Safety Committee, there are several parties involved in reporting work accidents, namely as follows:

Table 7. Parties involved in reporting work accidents at the Ministry of Transportation

Parties	Duties and Authorities
NTSC	Article 3, (1) NTSC is a non-structural institution that is under and is responsible to the President. Article 4 NTSC has a duty: a. carry out transportation accident investigations; b. provide recommendations on the results of transportation accident investigations to related parties; and c. provide suggestions and considerations to the President based on the results of the investigation of transport accidents in order to realize transportation safety.
Investigator	Article 14, To support the smooth implementation of the NTSC's tasks in investigating transportation accidents, NTSC is assisted by a number of investigators. Article 16, The investigator is not a NTSC member and cannot act on behalf of the NTSC member.
Experts	Article 18 (1) If deemed necessary, the NTSC can appoint experts with special competence and expertise, to carry out the task of investigating transportation accidents. (2) The experts referred to in paragraph (1) are ad hoc and only to help carry out certain transportation accident investigation tasks.

MINISTRY OF ENERGY AND MINERAL RESOURCES (ESDM)

Referring to Presidential Regulation No. 02/2012 concerning the National Transportation Safety

Committee, there are several parties involved in reporting work accidents, namely as follows:

Table 8. Parties involved in reporting work accidents at the Ministry of Energy and Mineral Resources

Parties	Duties and Authorities
Minister c.q. Director General	Article 12, (1) Guidance and supervision of Oil and Gas Supporting Businesses are carried out by the Minister c.q. Director General. (2) The Minister c.q. Director General is obliged to foster capacity building of companies' or individuals who carry out Oil and Gas Supporting Businesses including labor competencies, quality, capital, marketing and management. Article 15,

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Parties	Duties and Authorities
	<p>(1) Based on the report referred to in Article 12 and in the context of enhancing the ability of Oil and Gas Supporting Business actors, the Director General conducts an evaluation through a compliance audit of the Company or individual holders of SKUP Oil and Gas Supporting Business Capability.</p> <p>(2) Compliance audits as referred to in paragraph (1) are carried out on: g. evaluation of aspects of occupational safety and health and engineering.</p>
Company or Individual	<p>Article 12, (3) Companies or individuals in Oil and Gas Support Business activities guarantee safety and security in oil and gas business activities. Article 14, Companies or individuals who have obtained Oil and Gas SKUP are required to submit reports on the implementation of Oil and Gas Support Business activities to the Director General every 6 (six) months or at any time if necessary.</p>

From the explanation above, as a comparison in this study, Indonesia refers to the Ministry of Manpower, considering that Malaysia, Singapore and the Philippines refer to one ministry in order to get a

better comparison. The following is a comparison of work accident reporting in Indonesia, Malaysia, Singapore and the Philippines.

Table 9. Comparison of Work Accident Reporting

Country	Explanation
Malaysia	<p>Institution: Department of Occupational Safety and Health (DOSH)</p> <p>Rules: The Occupational Safety and Health Act 1994 Occupational Safety and Health (Notification of Accident, Dangerous Occurrence, Occupational Poisoning and Occupational Disease) Regulations 2004</p> <p>Timing: If the problem is related to an accident problem, the reporting process must be made no later than 7 days from the first day of the accident.</p> <p>Reporting Flow: Employer (Accident Report)> DOSH Employer (Annual Report)> Director General</p>
Singapore	<p>Institution: Occupational Safety and Health Division (OSHD)</p> <p>Rules: Workplace Safety and Health (Incident Notification) Regulations</p> <p>Time: If the worker is hospitalized for at least 24 hours, then report 10 days after the accident</p> <p>Report Flow: Employer (via http://www.mom.gov.sg/iReport)> commissioner of the accident</p>
Philippines	<p>Institution: Department of Labor and Employment (DOLE)</p> <p>Rules: Occupational Safety and Health Standards (As Amended 1989)</p> <p>Timing: Reports are no later than the 20th of the month and the investigation report is submitted to the Labor Office before the 30th day of the same month.</p> <p>Reporting Flow: Employer> Local Manpower Office</p>
Indonesia	<p>Institution: Indonesian Ministry of Employment</p> <p>Rules: Minister of Employment Regulation in 1998 concerning Procedures for Accident Reporting and Inspection</p> <p>Time: 2 x 24 hours since the accident occurred (Submission of reports can be made verbally before reported in writing)</p> <p>Report flow: Employer> Head of Depnaker> Supervisory Officer (Investigation)> Head of Depnaker (Analysis of Accident Reports)> Head of Regional Office of Depnaker (Accident Analysis)> Minister or appointed official</p> <p>Analysis of Accident Reports> Director General of Industrial Relations Development and Labor Inspection (Analysis of accident rates and severity at national level)</p>

Under ILO provisions, all work accidents must be reported in reference to state law or regulation, to the competent authority, labor inspectorate, insurance agency or other body. For work accidents that cause death to be reported immediately after the event and for accidents which do not cause death in accordance with the time specified in the rules (Point 6.3.1.1 in [14])

CONCLUSION

Some basic conclusions obtained from this research literature, are as follows:

1. Malaysia, Singapore, Philippines and the ILO do not explicitly separate reporting patterns of work accident investigations between construction and non-construction work accidents.
2. Malaysia, Singapore, the Philippines, and the ILO in its regulation only involve one ministry level agency and or more than one department but still in one ministry for reporting work accident investigations from both the construction sector and the non-construction sector.
3. Malaysia, Singapore and the Philippines in the preparation of regulations and legislation related to reports on workplace and non-construction work accident investigations, refer to ILO regulations.
4. Indonesia has several investigative institutions under several ministries (Construction Safety Committee, NTSC, Labor Inspection and others)
5. Indonesia does not yet have legislation that integrates the authority and responsibilities of all investigative agencies of the various ministries mentioned above

5. Suggestion

1. Further in-depth research needs to be done with a concentration on the existence of efforts to develop institutional and legal frameworks for the investigation and data collection of construction work accidents in Indonesia.
2. Further research on point. 1 should refer to and consider the regulations of the ILO as well as the best practices of several countries in Southeast Asia that have similar cultural areas such as Singapore, Thailand, Vietnam, the Philippines and Malaysia.

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