

Analysis of the Implementation of *the Contractor Safety Management System (CSMS)* in the Implementation Phase at PT X Ogan Komering

Syifa Aqila¹, and Muchamad Rifai²

1,2Ahmad Dahlan University, Jl. Prof. Dr. Soepomo, S.H., Janturan, Yogyakarta 55164

1.syifa1900029016@webmail.uad.ac.id 2.muchamad.rifai@ikm.uad.ac.id

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ABSTRACT

The high intensity of the project and stages of work at PT X Ogan Komering, so it requires contractors and subcontractors to operate in the area. Overall at PT X there are 70% of workers from contractors, so work accidents are more prone to occur in contractor workers, so it is important to ensure that contractors prioritize aspects of Occupational Safety and Health (K3). One approach to achieving this goal is to implement a CSMS, which ensures that contractors include OSH aspects in the project being undertaken. The implementation of CSMS often faces challenges, such as contractors' limited understanding of CSMS, for which efforts are needed to overcome these obstacles and prevent errors among workers that can cause incidents. The design of this study uses a descriptive qualitative method with a case study design with data collection from interviews, observations and document reviews. The Contractor Safety Management System (CSMS) consists of 2 Phases, namely Administration and Implementation, in the Implementation Phase consists of Pre-Work Assessment (PSB), Running Assessment (PB), and Final Assessment (PA). In general, the implementation of CSMS has gone well, this can be seen from the availability of SIKa, SIM-L and there is also Safety Induction as a step to minimize the risk of accidents. The supporting and inhibiting factor in the implementation of CSMS is the awareness of all parties involved. If awareness in the implementation of CSMS is lacking, its implementation will be hampered. The implementation of CSMS has been well underway and has succeeded in increasing OSH awareness and reducing work incidents, but it needs to increase supervision and socialization of contractor workers, especially in high-risk jobs.



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1. Introduction

Occupational Safety and Health (K3) is very important for job organizers to increase company productivity by ensuring worker welfare, the occurrence of absenteeism, disability, and work accidents can be minimized, thus leading to a healthy and productive workforce. K3 itself is divided into 3 main components, namely work capacity, work environment, and workload (Atmojo & Koesyanto, 2019). The number of Work Accidents (KK) and Occupational Diseases (PAK) that resulted in deaths in 2020 reached a total of 3,410 people, while in 2021 the number of deaths increased to 6,552 people. Based on data on KK and PAK cases in the mining sector in the BPJS

Work Accident Insurance Program, there were 2,494 cases in 2019, 3,131 cases in 2020, and 6,565 cases in 2021 (Directorate General of Binwasnaker & K3, 2022). According to the annual report of the Special Task Force for Upstream Oil and Gas Business Activities (SKK Migas), the *Incident Rate (IR)* for upstream oil and gas business activities in 2021 is 0.18, while the *Key Performance Indicator (KPI)* targeted for *IR* by SKK Oil & Gas Set as ≤ 0.9 (SKK Oil & Gas, 2021). Besides that Total sum hour work Recorded 326 million, with 88% contribution Comes from Field Work. But, pada tahun 2022, terjadi peningkatan 0.23, with a total number of working hours reaching 341 million. SKK Migas, 2022).

There are various ways to prevent unwanted things, one way that can be done is by holding an Occupational Health Safety Management System (SMK3). SMK3 is part of the company's overall management system in the context of controlling risks related to work activities in order to create a safe, efficient and productive workplace (PP No. 50, 2012). The implementation of SMK3 can prevent, reduce, and even minimize the risk of work accidents (*zero accidents*).

In total, PT X Ogan Komering employs 22 partners, due to the high intensity of the project and the stages of work in the exploration and exploitation sector that requires cooperation with contractors. A contractor is a person or company that is contracted to perform a specific job, usually for a short period of time, such as building something or providing services (IOGP 423-01, 2017). Overall, 70% of workers at PT X are contractor workers and 90% of the victims of work accidents that occur at PT X are contractor workers. It is necessary to have an upua in reducing the rate of work accidents in contractors, one of which is by using CSMS. There are often obstacles in the implementation of CSMS, such as the contractor's lack of understanding of CSMS. Further efforts are needed to prevent these obstacles that can lead to negligence in workers that can lead to incidents. CSMS can help create a safe, comfortable, efficient, and productive work environment while reducing the number of work accidents (Pradani et al., 2021).

2. Materials and Method

The design of this study uses a descriptive qualitative method with a case study design. A case study is a research by means of information about a phenomenon or case at a time and activity such as a program or process. In the case study, detailed and in-depth information was collected using various data collection procedures in a certain period of time. The data acquisition in the case study method was obtained from interviews with employees of PT X HSE section, Senior Supervisor Technical Support, Superintendent Field, Junior Officer Asset Management, and HSE officer contractor, observation and archives from related documents. In this study, data collection will be carried out by interviews, observations and document reviews to analyze how the implementation of *the Contractor Safety Management System (CSMS)* at PT X Ogan Komering in the Implementation Phase.

3. Results and Discussion

Results

Implementation of Contractor Safety Management System (CSMS)

3.1.1.1. *Pre-Employment Assessment (PSB)*

The Contractor Safety Management System (CSMS) can increase productivity and increase awareness and awareness about *the HSSE aspect*. CSMS is an integrated system to oversee the consistency of the performance of Partners in implementing HSSE aspects during the employment contract period in the work environment. To ensure that all workers at PT X Ogan Komering understand the HSSE aspect, socialization and supervision of contractors are needed. Based on the results of interviews with Key Informants (A1), and Main Informants (B2), it was obtained about CSMS socialization to partners as follows:

"We (PT X Ogan Komering) have a central socialization in the zone called vendor day, so partners gather in the zone later in socialization, if the socialization field is during the monthly meeting" (Informant A1)

"... there is socialization or reminders, yes, during monthly meetings, yes with HSE with contractors, but at a higher level, SCM holds such as vendor days and coaching clinics from SCM in the same zone in the Regional" (Informant B2)

This shows that the contractor PT X Ogan Komering has been socialized by CSMS. Based on the results of the interview, it was decided that *Supply Chain Management Zone 4* held a *Vendor Day program*. *Vendor Day* is a program held by vendors or contractors in collaboration with PT X with the aim of increasing collaboration between the company and providers of goods and services which serves as a reminder and socialization of PT X to its partners about compliance with aspects of health, occupational safety, and environmental protection. Socialization in the field to contractor workers was carried out during *the Monthly Meeting*. *Monthly Meeting* is a meeting or meeting between users, contractor workers, and HSSE to remember the K3 aspect or to assess findings while doing work. Based on the results of interviews with the Main Informants (B1) and (B2) regarding the criteria and preparation in the Pre-Employment Assessment (PSB) stage, the following results were obtained:

"... here there is a minimum MCU, besides that the workers themselves must not exceed the age of 54 years, so the maximum working here is 56 years old." (Informant B1)

"... The equipment specifications are according to the contract, the main power must be in accordance with the contract, and the work supervisor is continued. Now there is also a SIM-L requirement, so before SIM-L, they (contractors) have to complete their MCU and Basic Safety Training" (Informant B2)

To prepare for the Pre-Work Assessment (PSB), contractor workers must undergo a *Medical Check Up (MCU)* and meet the standards set by PT X. In addition, the partner must meet the requirements of PT X's *TKO CSMS*, including supporting infrastructure, equipment specifications, and worker certification. All workers are required to take *Basic Safety Training (BST)*. *BST* is an introductory activity about the K3 elements at PT X. Workers are given material and an overview of the K3 program at PT X, and then workers are given an explanation in the *Demo Room*.

Workers from the contractor must recognize the risks and hazards that exist in the work area, for this reason *Safety Induction* is needed so that workers recognize their work area. Based on the results of interviews with Key Informants (A1), Main Informants (B3), and Supporting Informants (C3) regarding *Safety Induction* in workers before entering the site, as follows:

"... first the screening is from the MCU, then HSE Induction is carried out. And now there is a SIM-L to control people who enter this area to be screened in terms of medical and knowledge" (Informant A1)

"... Every contractor wherever they (contractors) are must have a safety induction, the goal is to introduce this red area, green area, this is a red area whose production permits are also different" (Informant B3)

"... If you enter PT X Ogan Komering there are documents that must be prepared, namely SIM L, location entry permit. In SIM L, there is an obligation to fulfill the MCU Workers" (Informant C1)

The results of the interview showed that every worker who entered the PT X Ogan Komering area must follow the *Safety Induction*. *Safety Induction* is an introduction to hazardous areas and zones and how to handle hazards. All workers must have a driver's license, which is also known as an Environmental Entry Permit which is categorized based on the risk of their work such as high, medium and low. To obtain a SIM-L, workers must meet the requirements of the MCU standard and have taken *Basic Safety Training (BST)*.

Based on the results of the interview, there is a *T-Card Station* for data collection of employees who enter the PT X Ogan Komering area. The purpose of *this T-Card* is to monitor anyone entering the area, making it easier to collect data and evacuate when there is an emergency or disaster. The documentation of the *T-Card Station* is as follows:



Figure 1. Documentation of T-Card Station at PT X Ogan Komering

The high danger and risk that can occur in the work process in the upstream oil and gas sector, it is necessary to have supporting medical facilities so that if an incident occurs, it can be handled immediately. Based on this, the researcher conducted interviews with the Main Informants (B1) and (B2) regarding the availability of medical facilities for partners and obtained the following results:

"... so every time they do work at a height or confined space (working in a confined area), they (contractors) are obliged to go there (PT X Ogan Komering clinic), so those who have blood pressure above normal are not allowed to work at height and work in a limited place" (Informant B1)

"... from each partner does not provide medical facilities, yes, they (contractors) only provide P3K boxes. So if there is an unwanted incident such as a work accident, it will be referred here (OK clinic). If it cannot be handled here, it will be referred again to Prabumulih or Baturaja" (Informant B2)

The results of the interview showed that the medical facility at PT X Ogan Komering has a clinic that can be used by employees from partners in the event of an emergency. The clinic is also available for routine blood pressure checks for sick employees and for employees who work in confined spaces or in places with a high level of risk. In addition to conducting in-depth interviews, the researcher also observed and reviewed documents at the Pre-Run Assessment (PSB) stage. The following are the observation results obtained, as follows:

Table 1. Observation Results of the Implementation of Pre-Work Assessment (PSB) in PT X Ogan Komering

It	Aspects observed	Yes	Not	Information
1	Are Health, Safety, Security and Environment (HSSE) issues	Yes		Yes, the requirements for partners in participating in CSMS must have an HSSE Plan that is in accordance with the provisions of PT X. If it is not

It	Aspects observed	Yes	Not	Information
	included in the program or work procedures?			in accordance with it, the K3LL plan will be adjusted
2	Is there a written procedure for critical work before the partner commences work?	Yes		Yes, when PSB is carried out, the partner is required to show procedures for critical work, if it cannot be shown, it cannot be continued to the next stage
3	Are facilities such as residences, warehouses, material and field equipment stations, etc. provided by PT X?		Not	Yes, workplace facilities are the responsibility of the partner but for some contractors to provide housing adjust the contract.
4	Is there data collection and permission to enter the location of PT X Ogan Komerling?	Yes		Yes, there is a Location Entry Permit (SIM L) and a T-Card for data collection of people in the PT X Ogan Komerling area.
5	Are there health facilities for first aid for partners?	Yes		Yes, each partner is required to provide P3K, for first aid there are also medical services available at PT X Ogan Komerling and there are guard doctors and medical officers.
6	Do you understand emergency procedures? (alarm system, safety route, gathering point, etc.)	Yes		Yes, every worker who enters the PT X Ogan Komerling area has received a <i>safety induction</i> and has participated in <i>Basic Safety Training (BST)</i> .

Based on the results of the observations listed in table 1, it is known that *the HSSE* problem has been included in the work procedures that will be carried out by the contractor, to find out the suitability of these points, the K3LL Plan Amendment is carried out. PT X Ogan Komerling also ensures that *the contractor's HSSE* plan has important procedures in place in the work during the *Bridging Document process*. In addition, in the observation sheet it was found that although the facilities required by the contractor were provided by the contractor, medical facilities and first aid were provided by PT X Ogan Komerling, as supported by the statement given in the above interview. In addition, it was found that partners who enter the PT X Ogan Komerling area must be provided with Safety Training, take *Basic Safety Training (BST)*, and have a driver's license.

3.1.1.2. Running Assessment (PB)

The work carried out by contractors, especially in high-risk jobs, requires supervision to minimize the occurrence of incidents. Based on the results of interviews with the Main Informants (B1) and (B3) regarding the supervision of work carried out by partners, the following results were obtained:

"... For each job, there is a supervisor for each job. That's why every contractor is required to have Performance Authority (PA) training." **(Informant B1)**

"If PSB is supervised by their supervisors, because they are supervised day by day by their respective supervisors" **(Informant B2)**

"... there is SIKA, and there is also a toolbox talk before starting work" **(Informant B3)**

The results of the interview show that the user supervises the contractor's work and that there is a Safe Work Permit (SIKA) as proof or documentation of work with medium or high risk. In addition to interviews, the researcher also made observations with the following results:

Table 2. Observation Results of the Implementation of the Running Assessment (PSB) in PT X Ogan Komerling

It	Aspects observed	Yes	Not	Information
1	Is there a system to monitor the potential for accidents in partners?	Yes		Yes, there is a <i>HAZOBS (Hazard Observation) Audit Checklist</i> and a Safe Work Permit (SIKA) as a tool for workers to observe the safety of other workers.
2	Do the partners receive instructions on the emergency response system during the course of the work?	Yes		Yes, every worker who enters the PT X Ogan Komerling area has received a <i>Safety Induction</i> which is an induction regarding dangerous and safe areas, evacuation steps against disasters, and the location plan of PT X Ogan Komerling, In addition, workers are required to take part in <i>Basic Safety Training (BST)</i> which is carried out in Zone 4, Prabumulih, <i>BST</i> is an educational <i>training</i> on the K3 aspect by providing material and there is also <i>Demo Room</i> .
3	Is there a <i>safety meeting</i> ?	Yes		Yes, a <i>Monthly Meeting</i> was held with the contractor, namely socialization and meetings between the user (<i>user</i>), <i>HSSE</i> and also the contractor regarding the contractor's performance.

The results of the researcher's observations show that *the HAZOBS (Hazard Observation) Audit Checklist* form is available and can be accessed by all employees at PT X Ogan Komerling if a hazard is found. The form is also available in almost every place, such as offices, messes, and dining rooms, so that every employee can fill out the form if they find danger.



Figure 2. Availability of HAZOBS in the mess area and dining room

Based on the results of the observation, it can be concluded that for supervision of contractors, a *HAZOBS Audit Checklist* is available which can be filled out by all workers. In addition, there has also been a safety meeting in the form of a *Monthly Meeting*, there is a *Safety Induction* and there is supervision with SIKAS (Figure 2).

3.1.1.3. Final Assessment (PA)

After a repeated Running Assessment, a Final Assessment is conducted at the end of the contract term to assess how the contractor acted during the contract term and to determine whether the contract should be continued. In the Final Assessment, the contractor must have responded to the results of the previous Current Assessment. As a result of interviews with Key Informants (A1) and Supporting Informants (C1) regarding partners who have not met the standard scores on the Final Assessment (PA), the following items were identified:

"If you get a low PB, there will be improvements for all major findings from the results of the PB inspection, so we will see if they have action, if the results of the major investigation are not fulfilled, they will be given a reprimand. For example,

if we have partners who have never participated in monthly meetings, then we give them a reprimand because they are not active" (Informant A1)

"... so later it will appear later as a record and findings, later it will be billed for repairs, because the nature of this CSMS is coaching so that the contractor is more aware of safety. If you have got the minimum score, the partner will also have a long time to make improvements, if it is below, then you have to quickly make improvements" (Informant C1)

After the work period is completed, an inspection must be carried out by the contractor regarding the results of the work. This is based on the following information from interviews with the Principal Informant (B2) and Key Informant (A1) regarding the checks carried out after the completion of the work:

"Well, if after the contract there is a PA and there is a scoring, there will be a category of red items or green items based on those points. Now PA usually after the end of the contract, sometimes also before the contract expires. Because if it's over, it's difficult to meet him again" (Informant A1)

"Yes, if the CSMS stage, we (the owner) have a risk assessment, so the user does a risk assessment for the work done. After that, there are qualifications, selection, PSB, PB, now the last one is asked about Final Evaluation. Now this PA, we (the owner) recap what it is like during the contract, whether there is indeed a special note such as when the contract is ongoing there is a minor accident or something, there is a special note there" (Informant B2)

Based on the results of the interview, it was obtained that for the Final Assessment there is a scoring that determines the CSMS process by assessing the Final Assessment Form (PA) and HSSE Performance Form. In addition, the Final Assessment is one of the determinants for the next contract. Based on the results of interviews with Key Informants (A1), Main Informants (B2) and (B3) regarding the determination of the contract period, the following results were obtained:

"The average contract is 3 years, if the risk level is determined to be the same as the contract period of the user. If the determination of who wins is not from the usual user. So there are 3 types of contracts, the first is appointed directly by the user, and the second is a direct selection of 2 offers, the same general one is that many vendors will participate later but the decisive one is from the SCM (Supply Chain Management) side." (Informant A1)

"... Heavy equipment contracts, chemical contracts, it is usually 3 years or more. Now if the procurement process is long, so that it is not too fast, it is at least 3 years, because the process can be up to 6 months, so everyone" (Informant B2)

"Depending on the need, for example, we need repairs if something is damaged, so it is according to the class and function. So it depends on the request of the mba user" (Informant B3)

Based on the results of the interview, it was found that the determination of the contract period depends on the request from the user. In addition, for the determination of contracts, there are 3 types, namely direct appointment, appointment from 2 options, and general election

Supporting and Inhibiting Factors of CSMS

The Contractor Safety Management System (CSMS) is an important aspect in ensuring the safety performance of contractors in various industries. Analyzing the implementation of CSMS is important to identify shortcomings or shortcomings in the system. Factors such as

poor participation in safety management practices, poor safety culture, and tight project schedules can hinder the effective implementation of CSMS. However, when implemented correctly, CSMS can be effective in reducing the number of accidents and improving safety performance. Based on the results of interviews with Key Informants (A), Main Informants (B1) and (B2) were obtained regarding the level of work accidents in Ogan Komering after CSMS was carried out as follows:

"... In PT X Ogan Komering itself, with CSMS reducing incidents, thank God it has been 10 million working hours since the last incident in 2015. Well, that's one of the results of the CSMS, because it's constantly being monitored" (Informant A1)

"... from 2015 until now there are no work accidents" (Informant B1)

"... if there has never been a Major Accident at PT X Ogan Komering, it is proven by the existence of safe working hours of more than 10 million safe working hours" (Informant B2)

In addition, the researcher also conducted a document review regarding reports on work accidents that occurred at PT X Ogan Komering, and obtained the results of safe working hours of 10,34,200 (as of September 2023). This shows that CSMS is one of the factors that supports the occurrence of "Zero LTI" at PT X Ogan Komering. *Lost Time Injury (LTI)* is an injury that occurs in the workplace to an employee, resulting in the loss of productive work time. CSMS can be carried out well if it has undergone according to what is listed in the TKO, but there are often obstacles or challenges that can be obstacles to the implementation of the CSMS process. Based on the results of interviews with the Main Informants (B1) and (B2) regarding the obstacles or challenges found at the Pre-Work Assessment (PSB) stage, the following results were obtained:

"... It's just a matter of time. The point is that if the company is not ready to do the work, we are delayed in time. So no matter what, they are not allowed to work before they pass the PSB" (Informant B1)

"PSB is a challenge for new contractors, because this is a remote area, new contractors have to prepare messes and accommodation for their offices (contractors), it is a bit of a long process. So later it will affect the backward work schedule" (Informant B2)

Based on the results of the interview above, it can be concluded that the obstacles and challenges that occur at the Pre-Work Assessment (PSB) stage are the implementation time, often the preparation for implementation is lacking, so that the PSB is late in implementation, and the work schedule is late. In addition, there are challenges when carrying out contracts with new contractors because there must be preparations such as *messes* and so on that cause work to be delayed. After the implementation of the PSB, workers are allowed to enter the PT X OK area. For monitoring the performance of these workers, a regular Running Assessment is needed to ensure that contractors continue to comply with *the HSSE Plan*.

Based on the results of interviews with Key Informants (A1) and Main Informants ((B2) regarding obstacles or challenges found in the Running Assessment (PB) stage, the following results were obtained:

"... indeed user awareness to do PB according to the schedule we determined, now that's what must be improved, HSE as a reminder," (Informant A1)

"... If I prefer to an existing contract assisting, yes, so for example, the specifications of the tool are not appropriate or the number of personnel required in the contract is inadequate, yes, that's in terms of contracts. Sometimes, yes, certification training has not been achieved" (**Informant B2**)

Based on the results of the interview above, it can be concluded that the obstacles and challenges that occur at the Running Assessment (PB) stage are the implementation time, even though HSSE has provided a schedule to carry out PB regularly, often the implementation is delayed due to the busyness of users and contractors.

The implementation of the Final Assessment is the final result of the contractor's performance. In the final assessment, it can be seen how serious the contractor is in carrying out the work in accordance with the *HSSE Plan* that has been agreed. Based on the results of interviews with Key Informants (A1) and Main Informants (B2) regarding obstacles or challenges at the Final Assessment (PA) stage, as follows:

"Yes, that's the problem is that PSB, PB, PA are usually in the user must be reminded again, if it is about PA, there is usually no schedule at least the same concern for the user" (**Informant A1**)

"If the challenge in PA is in my opinion, for example, the contract runs for 3 years, the records from the user are sometimes unstructured, for example, a contractor has an MCU (Medical Check Up) whose workers are late or expired, or for example, the competency training is late. Such small things should be recorded, so that later when the final assessment is made, we can open it and it can be recorded" (**Informant B2**)

Based on the results of the interview above, it can be concluded that the obstacles and challenges that occur at the Final Assessment (PA) stage are the implementation time, even though HSSE has provided a schedule to conduct PA, often the implementation is delayed due to the busyness of users and contractors, especially if the implementation time is close to the end of the contract. After the Final Assessment is carried out, the results are input into PT X's e-CSMS Based on the results of observations regarding e-CSMS, the following results are obtained:

Table 3. Observation Results of the Implementation of Final Assessment (PA) in PT X Ogan Komerang

It	Aspects observed	Yes	Not	Information
1	Is there an online portal system for CSMS?	Yes		Yes, E-CSMS is already available but some data and stages have not been done online

Based on table 3, it can be concluded that an online portal for CSMS is available, but the implementation has not been carried out properly.

Discussions

Implementation of Contractor Safety Management System (CSMS) Pre-Employment Assessment (PSB)

The CSMS serves to ensure that the Partner partnering with PT X has an HSSE management system, meets the HSSE requirements applicable in the PT X Environment, and has the ability to apply HSSE requirements in the contract work carried out. Work contracted to a third party or contracted work must meet the specified requirements. To realize a safe, efficient, and productive work environment, CSMS covers aspects of safety that are

not limited to occupational safety; it also includes the management of occupational safety, environment, and health. The Occupational Safety and Health Management System (SMK3) is part of the company's overall management system and functions to control risks related to work activities. (PP No 50, 2012). With the implementation of CSMS, it can create a workplace that is free from incidents.

Based on the results of the research, it was found that there was socialization to partners, but it was held centrally by Zone 4 in Prabumulih, namely "*Vendor Day*" which was attended by contractor representatives. Meanwhile, negligence in work is often carried out on contractor workers who go directly to the field. So that there has been no comprehensive socialization to all contractor workers about CSMS. On this basis, recommendations for this problem can be by holding socialization to workers about CSMS so that all workers understand and care more about *the HSSE* aspect and can always be applied at work. This is in line with research (Basri et al., 2019) stating that communication is one of the factors that has a significant influence on the implementation of CSMS.

If the worker has participated in Basic Safety Training and meets the requirements of *Medical Check Up*, the worker is allowed to enter the PT X Ogan Komerling area by obtaining a driver's license. Based on the results of the study, it was found that there is a SIM-L (Location Entry Permit), which is divided based on the contractor's job risk. It is in accordance with (IOGP 432-01, 2017) in Clause 2.2.9 that the contractor should consider issuing an identity badge to its personnel. This badge can be used to control access to the contractor's location as well as a means of assurance to distinguish contractor line workers.

If the worker has participated in Basic Safety Training and meets the requirements of *Medical Check Up*, the worker is allowed to enter the PT X Ogan Komerling area by obtaining a driver's license. Based on the results of the study, it was found that there is a SIM-L (Location Entry Permit), which is divided based on the contractor's job risk. It is in accordance with (IOGP 432-01, 2017) in Clause 2.2.9 that the contractor should consider issuing an identity badge to its personnel. This badge can be used to control access to the contractor's location as well as a means of assurance to distinguish contractor line workers.

Based on the results of the study, it shows that workers who enter the PT X Ogan Komerling area already have a Location Entry Permit (SIM-L), so it can be ensured that all workers from the contractor have participated in *Basic Safety Training (BST)* which makes workers have an understanding and concern for *the HSSE* aspect, workers must be educated to work safely (Ramli, 2013). Each workplace, work environment, and type of work has different characteristics and requirements for OSH. Knowledge about K3 cannot arise by itself in workers, so K3 must be instilled and built through coaching and training. In running machines or work tools safely, it requires appropriate training, it is mandatory to be able to make workers with a K3 culture absolutely carried out through coaching and training.

Running Assessment (PB)

The Current Assessment (PB) stage aims to supervise and monitor the implementation of contractor duties that include HSSE elements. The results of the study revealed that the implementation of PB has been running smoothly, as evidenced by the existence of Safe Work Permits (SIKA) and *Hazard Observation (HAZOBS)* which are currently operating. This is in line with (ISO 45001, 2018), supervision means supervising and guiding workers to ensure they work safely and avoid accidents. Good supervision helps prevent injuries and health problems by ensuring workers follow safety rules.

Based on the results of the research, a *Toolbox Meeting* has been held which aims to discuss topics such as workplace hazards and safe work practices in an informal environment. During the implementation of *the Toolbox Meeting*, often only a few workers

actively participated. Recommendations for improving *Toolbox Meeting* include regular evaluations, inviting worker representatives for feedback, and ensuring effective and efficient communication. The success of K3 is determined by example, especially from leaders from the supervisory level to top management by providing examples and a firm commitment to K3. (Ramli, 2013) SMK3 requires the commitment of all elements in the company. Thus, the OSH aspect will be carried out and implemented in all functions within the company which includes all activities, functions, and departments or sections. The K3 aspect will certainly not succeed if it is only carried out by certain functions, for example the K3 function and K3 experts. However, the implementation of PB does not always go well, as in the research (Santoso et al., 2015) that was obtained, the implementation at the PB stage is still not running well, judging from the fact that there are still violations of *the unsafe act*, namely not using PPE and *unsafe man machine-interaction*, namely there is no *HSSE Sign* done by the contractor can cause work accidents. This happens due to a lack of reporting and supervision, for this reason all forms of incidents that occur must be reported to find solutions to common problems.

The implementation of PB periodically can be a reminder for contractors to continue to implement the K3 culture and carry out work according to *the HSSE Plan* that has been agreed. For this reason, this PB is carried out at least 2 times a year, or even more depending on the level of risk of the job. According to (Ramli, 2013), the success of K3 is determined by example, especially from leaders from the supervisory level to top management by providing examples and firm commitment to K3. SMK3 requires the commitment of all elements in the company. Thus, the OSH aspect will be carried out and implemented in all functions within the company which includes all activities, functions, and departments or sections. The K3 aspect will certainly not succeed if it is only carried out by certain functions, for example the K3 function and K3 experts.

Final Assessment (PA)

The Final Assessment is an evaluation stage for the implementation of the *HSSE* aspects contained in the *HSSE Plan* after the contract work is completed as a feedback material to the Partners and Employers for improvements in future work. The implementation of PA is carried out based on the previously agreed *HSSE Plan*, the implementation of the *HSSE Plan* by the Contractor during the PSB and PB stages, the achievement of the Contractor's *HSSE Performance Indicators*, the Contractor's *HSSE* performance interim evaluation report, and also the response to the contractor through improvements and follow-up of findings during the implementation of the work. The Final Assessment is carried out through a value weighting system from the results of *the Final Inspection Checklist* which is the same as PB and there is also the achievement of *the Contractor's HSE Performance Indicator*. The results of the PA will be a reference for the enactment of awards & sanctions which are also regulated in the Guidelines for the Procurement of Goods and Services which will be managed in the *CIVD* so that it affects its participation in the next procurement of goods and services.

Based on the results of the research, it was found that the implementation of the Final Assessment (PA) was well implemented, because at this stage the promise was collected for improvements from the findings obtained at the PB stage. In line with research (Suaery & Kurniawan, 2016) which states that the implementation of *CSMS* is also a program of the management itself. Commitments and policies in contracts must be realized in written form, clear and easy to understand. At this stage, it is also a determination for the value and sustainability of the contract so that the contractor strives to get the best results for the PA stage as a form of good commitment in carrying out *the HSSE* aspect.

Supporting and Inhibiting Factors of CSMS

PT X Ogan Komering has taken 10 million safe working hours (*Safe Man Hours*). Based on the results of the interview, it was found that CSMS is one of the supporting aspects in the realization of *Zero Loss Time Injury (LTI)*. Therefore, it can be concluded that the implementation of CSMS at PT X Ogan Komering has been effective in keeping workers always concerned about K3 and implementing it. With the existence of CSMS, it can reduce the number of work accidents and prevent work accidents appropriately in order to create a safe, comfortable, efficient, and productive work environment (Pradani et al., 2021). CSMS can be a control over aspects of OSH management for contractors who work in all areas of the company's operations (Handayani & Modjo, 2016).

The implementation of K3 can be carried out well if in the organization is the participation and involvement of all parties in K3. All elements from the lowest workers to the top management have roles and responsibilities regarding K3 that are proportional to their respective positions. SMK3 emphasizes the importance of this responsibility and responsibility to be understood, understood, and carried out by all parties in the company (Ramli, 2013). In this study, the implementation of CSMS has been good, this is supported by the availability of Organizational Work Procedures and HSSE performance to implement CSMS has been structured. But in its implementation, users and contractors are often late in the implementation of both PSB, PB and PA. This causes the CSMS activity schedule plan to not run appropriately, in addition to the work system for users at PT X Ogan Komering is 14:14, so there is often a time *gap* in this shift change which causes the implementation of CSMS to be delayed. The recommendation of this problem can be by doing a reminder that is connected to each account of the party involved in *the CSMS*, the reminder should be connected to every electronic device such as *cellphones* and laptops. So that if the assessment time is approaching, but there are obstacles, the HSSE team can immediately handle it and reschedule it as soon as possible.

In addition, contractor workers' understanding of CSMS is also lacking, so that workers' concern in the implementation of OSH aspects is also lacking, this can have the potential for work accidents. Factors that can cause work accidents are human and organizational errors, such as operator/human errors, safety system errors, errors in mixing hazardous production materials, communication errors, errors or shortcomings in repair and maintenance efforts tools, doing work that is not authorized or not in accordance with safe work procedures, and others (Tarwaka, 2014). Although there has been a *Vendor Day* held by Zone 4 Prabumulih, the meeting was only attended by the leaders of the contractor so that often the information obtained was not detailed to the workers. For this reason, the recommendation of this problem is to conduct a *Vendor Day* in each work area, so that all contractor workers can understand more about CSMS which will later increase workers' awareness in doing their work and adhere to the K3 aspect.

4. Conclusion

Based on the results of the analysis of the Implementation of *the Contractor Safety Management System (CSMS)* in the Implementation Phase at PT X Ogan Komering, it can be concluded that the Implementation of *the Contractor Safety Management System (CSMS)* has been running well and has succeeded in increasing awareness of *Health, Safety, Security, and Environment (HSSE)* and reducing work incidents. In general, the implementation of CSMS has gone well, this can be seen from the availability of *HAZOBBS*, *SIM-L* and also *Safety Induction* as an important step in minimizing the risk of accidents. The factor that supports and hinders the implementation of CSMS is the awareness of all parties involved. Lack of awareness about the implementation of CSMS will hinder its implementation, and conversely, high enthusiasm and understanding will encourage its implementation.

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