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IMPLEMENTATION OF CONSTRUCTION PHASE RISK MANAGEMENT IN FIRE EXTINGUISHER PROJECT IN KEPULAUAN SERIBU REGENCY

Reynaldo Pratama, Arman Jayady, Fitri Suryani
University of Persada Indonesia-YAI, Jakarta
Email: reynaldo.pratamajakarta@gmail.com, armanjayady75@gmail.com, suryani.fitri21@yahoo.com

ABSTRACT:
DKI Jakarta is one of the regions in Indonesia and the Archipelago A thousand that lies within the territory of the State Capital over specifically the district Island One thousand, which consists from islands coral as many as 113 pieces by the total land area of 8.7 km². Study of existing islands in area archipelago become Power pull alone for researcher, because need public to area settlement nor Power pull tour so that Lots agency must sufficient need functional from building the state building myself, for one the building of the Office of Mitigation Fire And Rescue, in the form of a fire station fire For anticipate to risk the disaster that was in slowly inhabited islands and Rescue. Countermeasures Department Fire and Rescue is one agency government is very important and necessary attention special For sufficient fulfillment building building government. Purpose of study This are : 1. Identify possible risk occurs in phases construction on the Fire Post Development Project Fire in the County Island one thousand ; 2. Define risk main What only possible occurs in phases construction on the Fire Post Development Project Fire in the County Island one thousand ; 3. Plan response to risk main phase construction on Project. Construction of a Fire Post Fire in the County Island thousand.

Keywords: Implementation, Management Risk, Fire Station Project Fire, Island Tidung Subdistrict Island South Thousand

INTRODUCTION

Indonesia is an archipelagic country the biggest in the world. Indonesia has more of the 17,000 islands, where only about 7,000 inhabited islands "Glance About Indonesia" Accessed July 7,2023. https://kemlu.go.id/ (A. M. Wulandari & Purba, 2021). DKI Jakarta is one of the regions in Indonesia and the Archipelago A thousand that lies within the territory of the State Capital over specifically the district Island One thousand, which consists from islands coral as many as 113 pieces by the total land area of 8.7 km².

Study of existing islands in area archipelago become Power pull alone for researcher, because need public to area settlement nor Power pull tour so that Lots agency must sufficient need functional from building the state building myself, for one the building of the Office of Mitigation Fire and Rescue, in the form of a fire station fire For anticipate to risk the disaster that was in slowly inhabited islands and Rescue.

Countermeasures Department Fire and Rescue is one agency government is very important and necessary attention special For sufficient fulfillment building building government (Umum, 2007). Along with function building building government, building post fire fire This is one method government For anticipate and cope possible risks happens that needs to be managed since early (Adiyoso, 2018).

Management Risk carried out in the construction phase of the construction of the fire station Island Fire Tidung. Analysis management risk done with identify variables risk general, variable risk main and response risks in the construction phase of the construction of a fire station Island Fire Tidung (S. Wulandari et al., 2019). In each stages will produce in the form of lists of risks that have value probability and value of impact on the Construction Phase of the Fire Station Development Island Fire Tidung, so variable risk main have probability and a large impact (High *Risk*) can responded with as good maybe. Response research risks This expected can become response variable risk as *Risk Avoid, Risk transfer,* the following *Risk Reduction Sharing* risk and Mitigation In the construction phase of the construction of the fire station Island Fire Tidung (MARSELINO, 2019).

Party or the agencies involved must capable respond variables potential and impact risks big so that management risk can implemented in the Construction Phase of the Fire Station Development Island Fire Tidung and become consideration management risk phase construction or implementation development in the District Island A thousand, more to readiness anticipation

Risk Avoid or *Risk Reduction* on the project construction on the islands.

RESEARCH METHODS

The methodology used in writing This that is with method qualitative. Methodology study is something method or technique For get information and data sources to be used in research. Information or this data Can in form What course, literature, like journals, articles, theses, books, and so on. Besides that, methodology study can also be obtained through electronic media like television or radio, even data sources can also be obtained from surveys, investigations, interviews and so on.

The method used in gather designed For obtain information about Implementation Management Risk in the Construction Phase of Fire Station Development Fire on the Island Tidung. Study descriptive is something trying research answer existing problems based on data. Process analysis in study descriptive namely, presenting, analyzing, and interpreting. Study descriptive is intended research For investigate something conditions, circumstances, or incident else, then result will exposed in form report research (Rahmilia & Ardian, 2022)(Arikunto, 2013). The descriptive meant is the drawing process from investigation between understanding phase phenomena construction, next researcher do classification according to number probability and impact as the next risk value, researcher call in stage *risk assessment* which is the result validated with method *Focus Group Discussion* (FGD).

RESULTS AND DISCUSSION

Expected results from study This is, process identification of variables relevant principal to phase risk construction, analysis variable I risk calculation probability and, computation impact as well as solution from risk response (*High Risk*) that occurs in the Construction Phase of Fire Station Development Fire especially on the Island Tidung.

A. Profile Subdistrict

Subdistrict Island South Thousand is one Districts that are in the Regency Island One thousand, conditions mainland many islands used as settlement, place business, land governance and objects tour.

B. Profile Project

Administrative data received project For object study This is Fire Post Construction Project Fire in the County Island A thousand were done by PT. Ariska Work Independent development project This needed because it is really needed for the Response Office Fire and Rescue (Gulkarmat Sub-agency) in the Islands Thousands and the community.

Execution time project study This in accordance with contract between contractor and owner project This must finish work for 140 (One hundred Four Ten) days calendar plus maintenance for 6 (six) months. Completion work needed consists on stage implementation in that time can held project the.

C. Identification Risk

Identification risk This previously obtained from studies literature and review process as illustrated in the methodology diagram For ensure is There is relevance risk beginning from literature with project fire station construction fire as an object of study early stages then conducted a preliminary survey.

In the preliminary survey study This respondent requested give assessment is variable the risks involved from studies literature This have relevance with project fire station construction ever fire handled respondent. Respondents requested For give input on variables possible risk happened on phase fire station construction no fire yet contained in the questionnaire list the.

Respondents from the preliminary survey This is consultants, contractors, supervisors field, PPK SDCKTRKS.

Question interview to the 5 sources given to each respondent everything stated results from question they can be validated internally by researchers, each respondent give evaluation variable given risk. The variable is given each other own relevance to Fire Station Construction Phase Fire.

D. General Risks of Construction Phase

In the identification process previously researcher get parameters as well activity general that will chance and will impact on phase construction,but that will researcher focus on stage This is determine risk main phase relevant construction with object study that is Fire Post Construction Project Fire in the County Island thousand. In relation researcher involved in the phase implementation construction so source person give policy For do internal validation according to the observation and survey process at the Fire Station Project Island Fire Tidung.

Identification results variable risk general with method questionnaires and interviews in accordance studies literature that is relevant to the object of study and has agreed, furthermore researcher can collect similarity understanding to phenomenon, with do discussion focus on phase construction and search variable specific and

categorization based on relevance phase next construction will check back for its relevance with object study, variable shared become three classification main among other factors Planning and Design, Nature and Execution. The output of this stage is 165 general variable lists, 28 risk categories after internal validation and 56 general risk variable lists, 6 categories after external validation.

is consultants, contractors, PPK SDCKTRKS, Technical Executors and Supervisors Treated field project.

E. Main Risks of Construction Phase

Determination variable risk variable general previously temporary can be set as variable research that is used, because variable the need done value risk is variable the Already in accordance with object study this. Participant expert give decision to researcher For do analysis based on phenomenon already lived together. List of respondents in study This

After done validation external, stage furthermore can continued to stage furthermore that is look for mark risk, excitement This involving 5 focused participants with the Construction Phase of the Fire Station Development Fire on the Island Tidung of 18 variables.

F. Calculation of Probability Value

Based on results preliminary survey analysis analyzed with use *severity index* (SI) goal is get results combination evaluation probability and impact risk. Furthermore determine scale mark this safety index converted to evaluation probability. Following This Analysis results from evaluation probability with using the severity index.

1. Calculation of Impact Value

Criteria determination scale impact This done by the parties themselves researcher. criteria the based on ratings respondent to scale level later events will influence smoothness the way project in phase construction, next determine scale this severity index value converted to evaluation impact.

2. Risk Analysis Against Probability and Impact

Valuation analysis on probability and impact, calculation This done with method map evaluation to aspect probability with impact risks that have done before, stage This can called with determine mark risk, accordingly with question theoretical that mark something risk is results multiplication between opportunity incident with the resulting impact.

G. Plan Response Risk

Main goal from researcher do discussion related relevance results variable on phase construction among other things, According Indrizal (2014), *Focus Group Discussion* (FGD) is increasing Lots used as methods, techniques and instruments research, incl For activity assessment, assessment, planning, implementation, monitoring and evaluation development as reported by Alfaqi et al. (2020), para plan response phase risk construction expected result in phasing This is a list of plans response phase risk construction That itself, which will encourage experts This For reach agreement together in accordance The Phenomenon of the Construction Phase of the Construction of a Fire Station Fire on the Island Tidung.

One group discussion can consists from 4 to 8 individuals (Kitzinger, 1996; Twin, 1998) or 6 to 10 individuals (Howard, Hubelbank, & Moore, 1999). The variable in response specific to the risk category *extreme, high,* and *medium* are available in the response list risk, variable is risk with possibility the highest occurrence and the greatest impact. On research This expert with criteria experience in the Construction Phase of Fire Station Development Island Fire Tidung give input in determination response to variables risk main high risk, party already expert dabbling with the world of construction on the islands one thousand specifically building DKI Jakarta government 5 – 10 years especially in phase implementation construction.

I. Response Results Risk

For know How response specified at a risk done with questionnaires and interviews with contractors, consultants and owners (SDCKTRP-KS). a number of respondents who have chosen previously listed in the table following, variable response risk only on the risk on the category extreme, high, and medium are possible happening large and greatly impact the phase construction fire station construction fire.

Discussion Response Risk

Variable results risk main based on response from mark risk and already validated in a manner object - focused discussion studies so researcher do judgment to opportunity events and values relevant impact with variable risk main in the Construction Phase of Fire Station Development Island Fire Tidung Subdistrict Island South Thousand. Based on results analysis on so there is a number of possible risk responded by each participant on the high risk variable with scale Extreme,High and Moderate and must get processing risk, so risk become under control.

Mitigation of the Risk Response List (High Risk)

Mitigation way This will related with a risk strategy That myself,in need deep strategy handling, mitigation disaster is all effort For reduce risk disaster. mitigation program disaster can done through development in a manner physique nor enhancement ability face threat disaster. In condition This appropriate strategy is needed with phase construction as follows:

Table 1

Risk Response (*High Risk*)

No	Variable Risk	Response Risk	Response Type
1	Ocean Waves that don't can predicted in the construction area (R3)	Condition nature is very becoming chances are not can controlled by the parties involved in the phase construction and conditions This can exacerbate impact from time work moment phase construction	Avoid,Avoid Risk, Survey or Request data from the meteorological and geophysical agency local if needed, additional ship trip time, or do delivery with similar category of materials together
2	Lack of ability personnel field general in look for service expedition experienced barge to Island Outermost (R10)	All material approval is required done on land, so it takes the process of loading and unloading material before done delivery as well as arriving location must do the same process	Mitigate, Reduce Risk, Do number of ship trips more Lots in accordance ship's gross ton capability, shipping notice condition weather and conditions wave sea
3	Delay material delivery due Warehouse capacity no adequate (R14)	The process of loading and unloading must be done every will do material delivery due access the most relevant submissions is sea, capacity also, must appropriate with progress need field, besides That No	Transfers, Moves Risk, to sub contractors logistics delivery of materials or taking into account the volume of shipments in accordance with condition progress field and more approval beginning

		provided storage temporary or on the wharf for the material so loading and unloading must be done quick from party delivery plus Again No exists dock special delivery of construction materials in each island.	with estimate proper progress.
4	Submission request agreement delayed material mobilization filed (R15)	Condition This often occurs in phases construction If method implementation No understood in a manner both by the parties, for case This can become problem big If occurs in phases construction on the islands because source material is not can be obtained in the area, conditions delivery must be done from another place to be consider time costs and risks trip.	Avoid,Avoid Risk, do testing more beginning in accordance weight progress in phases construction
5	Slow down inspection laboratory about suitability of the material spec so that submission late material sample (R16)	Condition This often happen Because position inspection nor laboratory testing No can be found around construction all condition must done on land including materials testing	Avoid,Avoid Risk, do testing more beginning in accordance weight progress in phases construction

Source: Own, 2023

CONCLUSION

Referring to the results of the risk analysis in the construction phase of building a fire station on Tidung Island, Pulau Seribu Selatan District which was carried out in the previous chapter. The author can draw conclusions regarding the determination of the risk scale from "extreme", "high" and "moderate".

Based on the results of this study obtained 3 main conclusions, namely. A list of 165 common risk variables was identified after the internal validation phase construction on the Fire Post Development Project Fire in the County Island one thousand. Identified 56 variable lists risk general after validation external to the phase construction on the Fire Post Development Project Fire in the County Island one thousand.

Identified 18 lists of main risk variables in the phase construction on the Fire Post Development Project Fire in the County Island One thousand will be responded based on the *high risk level* ; Based on evaluation risk with the *Probability Impact Matrix* Method (PIM) obtained 18 responses risk For handling risk with nine 5 risk (*High Risk*) for anticipation risk The main thing that happened in the Fire Station Development Project Fire in the County Island one thousand.

Based on evaluation risk with the *Probability Impact Matrix* Method (PIM) obtained five 3 *risk avoid,* generally variables that impact on nature, second 1 *risk transfers,* generally those that have an impact on delivery implementation and 1 *risk mitagate,* in general impact on personal workers that occur in the Fire Post Development Project Fire in the County Island thousand. The results of this study can be used as a reference in the implementation of risk management in similar projects in the district Island thousand.

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