

Hazard Control Working at Height at PT Wijaya Karya Bangunan Gedung Tbk. Halim High-Speed Train Construction Project

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Abstract

PT Wijaya karya Bangunan Gedung Tbk. Halim High-Speed Train Project is a company engaged in construction, investment, and concessions. Engaged in the construction sector certainly has a high potential for danger and danger factors. One of them was an accident caused by working at a height. Therefore, it is important to control the danger of working at height to prevent and control the danger of height. This study uses field observation methods, literature studies, and interviews to determine how the hazard control program works at height. The hazard control program for working at height at PT Wijaya Karya Bangunan Gedung Tbk, Halim High-Speed Train Project has been by the regulation of the Minister of Manpower No. 9 of 2016, among others. *Fit to work, toolbox meeting* inspection, *Scaffolding* and *Full Body Harness*. At PT Wijaya Karya Bangunan Gedung Tbk, The halim high-speed train project has procedures related to the Control of work hazards at height, namely the height work safety procedure No. WIKA-BG-PDSMM-IK-26. PT Wijaya Karya Bangunan Gedung Tbk. Halim High-Speed Train Project, but there are still problems related to the lack of supervision of work safety equipment and lack of training for workers related to high-altitude work.

Keywords: Danger, Altitude, Control

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INTRODUCTION

PT Wijaya Karya Bangunan Bedung Tbk Halim High-Speed Train Project is engaged in construction, which, has a very high potential for danger. One of them is the danger of working at height. Therefore, it is important to control the danger of working at height to prevent and control the danger of working at height.

Based on data from BPJS Ketenagakerjaan, the number of work accident cases in 2020 reached 221,740. This figure increased to 234,370 cases in 2021 and 265,334 cases in 2022. Fatal problems and accidents that often occur when working at height:

1. Falling from *scaffolds*, stairs, or vehicles;
2. Falls while walking on roofs;
3. Falling into excavations or holes that are not protected by fences;
4. Material Falls from a height.

Based on the Regulation of the Minister of Manpower of the Republic of Indonesia (Febriantia & Sa, 2015), Number 9 of 2016 concerning Occupational Safety and Health in Work at Altitude, working at height is a work activity or activity carried out by workers in places on the ground or water surface where there is a height difference. It has the potential to fall which causes injuries or death of workers or other people at work or causes property damage. Currently, the rule has evolved to not provide height restrictions and focuses more on height differences and potential falls. With this renewal, of course, it is hoped that it will reduce the number of work accidents in Indonesia. But in reality, until now, the number of work

accidents in Indonesia has been high and tends to increase from year to year (Maulina et al., 2021).

Permenaker Number 09 of 2016 requires entrepreneurs and/or administrators to implement K3 in working at height. The implementation of K3 can be done by ensuring the following:

1. Planning (Done appropriately in a safe and supervised manner)
2. Work Procedure (To perform work at height)
3. Safe Work Techniques
4. PPE, Fall Protective Devices and Anchors
5. Manpower (competent and the existence of K3 Section)

At the planning stage, it must be ensured that the work can be carried out safely with adequate ergonomic conditions through the access or egress that has been provided (Oakley et al., 2020). Then, it is still in the planning stage of the entrepreneur and or the mandatory management:

1. Provide work equipment to minimize fall distances or reduce the consequences of labour falls
2. Implement a work permit system at height and give instructions or do other things related to work conditions

Work procedures must also be present to provide guidance to workers, and this procedure must ensure that workers understand the content well. Some of the things that must be in the procedure of working at height include:

1. Techniques and Ways of Fall Protection
2. How to manage equipment
3. Techniques and ways to carry out work supervision
4. Workplace security
5. Emergency preparedness and response.

Hazard control working at height according to ISO 45001:2018 includes:

1. Elimination is an effort to eliminate potential hazards originating from materials, processes, operations, or equipment.
2. Substitution is the attempt to replace materials, processes, operations, or equipment from hazardous to non-hazardous.
3. Technological Engineering is an effort to separate the source of danger from workers by installing a safety system on tools, machines, and/or work areas.
4. Administrative Control is an effort to control workers' side so they can do their work safely.
5. Personal Protective Equipment (PPE) is an attempt to use PPE that isolates part or all of the body from sources of danger.

RESEARCH METHODS

This study aims to find out the Hazard Control Working at Height program at PT Wijaya Karya Bangunan Gedung Tbk. Halim High-Speed Train Development Project. This type of research is quantitative research. Data obtained from the results of interviews, field observations, documentation, company records or related sources will be processed and compiled systematically and compared between laws and regulations related to Hazard Control at Height.

RESULTS AND DISCUSSION

This research covers the scope of Hazard Control Working at Height at PT. Wijaya Karya Bangunan Gedung Tbk. Halim High-Speed Train Development Project. Based on the results of an interview with a *safety officer* regarding the Control of hazards when working at height

at PT, Wijaya Karya Bangunan Gedung Tbk has several hazard control programs for working at height, including:

1. Fit to work (Health Check)

The fit-to-work *program* at PT. Wijaya Karya Bangunan Gedung Tbk, carried out by a paramedic team in the form of checking blood pressure, temperature and saturation, is carried out every day in the morning and night before doing work to all workers working at high altitudes.

The Work at Height Hazard Control Program, such as *fit to work*, has been in accordance with Permenaker No. 9 of 2016, article 4, paragraph 2, concerning ensuring that working at height is only carried out if the working situation and conditions do not endanger the safety and health of the workforce.

2. Toolbox meeting

The toolbox meeting *program* at PT. Wijaya Karya Bangunan Gedung Tbk is carried out every day in the morning at 8.00 am and at night at 7.00 pm. The material presented at the *morning and evening toolbox meetings* related to work methodologies and K3L implementation problems carried out before starting work was delivered by *safety officers* to all workers.

The *toolbox meeting program* has been in accordance with Permenaker No. 9 of 2016, article 5, paragraph 3, concerning administrators obliged to take appropriate and adequate steps to prevent work accidents. Inspection of work tools and personal protective equipment.

3. The Work Tools and Personal Protective Equipment

The Work Tools and Personal Protective Equipment Inspection Program has been implemented by *the safety officer* once a month for *scaffolding*, which is inspected, namely the strength of *the scaffolding* and the condition of the scaffolding platform. PPE inspections, including *full body harnesses*, are carried out once a month for *full body harnesses* that are inspected, namely the condition of webbing, lanyards and absorbers in good condition or if there is damage. The sign that *the scaffolding* or *full body harness* has been inspected and is safe to use is from the tagging and colour. The green colour means it is safe to use, while the red colour means it is not suitable for use.

The inspection program for work equipment and personal protective equipment has been in accordance with Permenaker No. 9 of 2016, article 15, paragraph 1 and Article 22, paragraph 1, concerning the use of *full body harness* and *scaffolding* in accordance with K3 requirements. However, there are still problems related to the lack of supervision of occupational safety equipment and the lack of training for workers related to work at height.

CONCLUSION

PT Wijaya Karya Bangunan Gedung Tbk, Halim High-Speed Train Project, already has a procedure related to the Control of work hazards at height, namely the Altitude Work Safety Procedure NO. WIKA-BG-PDSMM-IK-26, which is in accordance with the Regulation of the Minister of Manpower No. 9 of 2016. PT Wijaya Karya Bangunan Gedung Tbk. Halim High-Speed Train Project has implemented all programs related to the Control of work hazards at height, including *Fit to Work*, *Toolbox Meetings*, *Scaffolding Inspection* and Personal Protective Equipment. However, there are still problems related to the lack of supervision of work safety equipment and the lack of training for workers related to high-altitude work.

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