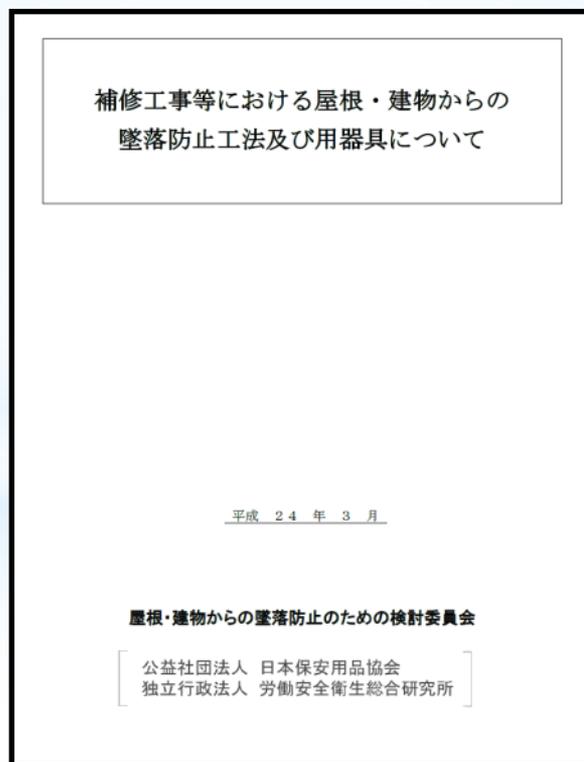




- (1) This accident occurred on the roof after a rainfall.
- (2) A blue sheet was covering a damaged roof, but a part of the sheet was torn free by the rain and the wind.
- (3) The worker began to repair the sheet on the roof.
- (4) The roof was wet and slippery.
- (5) The worker slipped and fell.
- (6) The worker fell from the roof and hit his head and died.

By Hiroki Takahashi,
Member of JNIOOSH

National Institute of Occupational Safety and Health, Japan (JNIOOSH) and Japan Safety Appliances Association (JSAA) collaborated and made committee,
“Committee for Study on Fall Prevention from Roofs and Structures”.
As a results, the committee published a report in 2012,
“Fall Prevention Method and Appliances from Roofs and Structures during Repair Works”.



The MHLW entrusted to the JCOSHA with revision of the report including the latest fall prevention method.

The JNIOOSH and the JSAA member joined the revision work.

As a results, a safety manual was instituted in 2014,

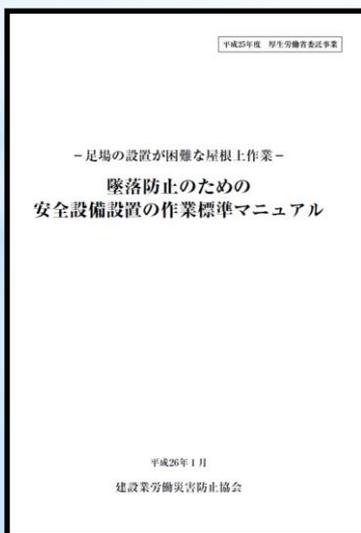
“Work standard manual on installation of safety appliances for fall prevention - during works on roofs with having difficulties of scaffolds erection - ”.

Manual:

<http://www.mhlw.go.jp/new-info/kobetu/roudou/gyousei/anzen/140526-1.html>

Leaflet:

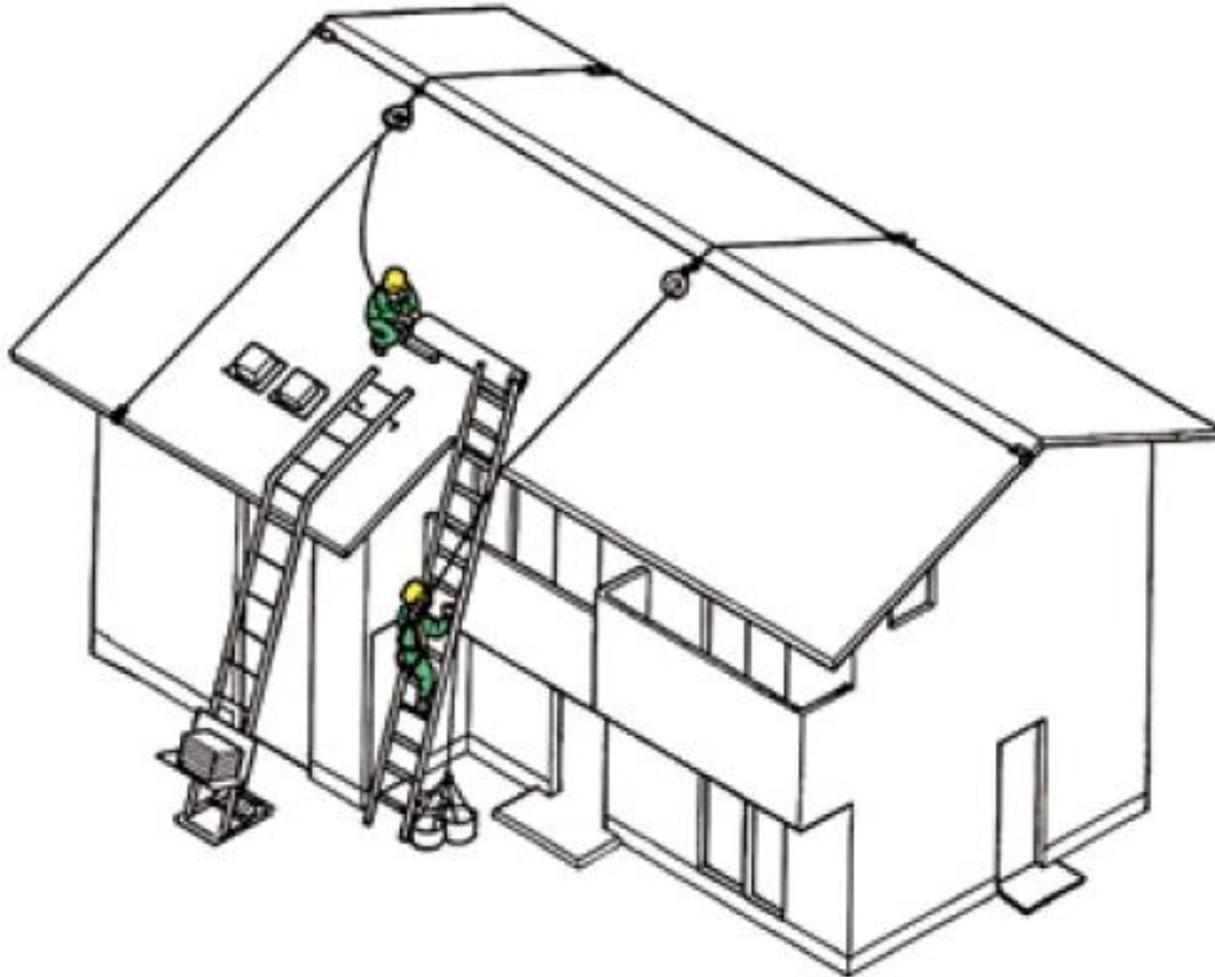
<http://www.mhlw.go.jp/new-info/kobetu/roudou/gyousei/anzen/dl/140805-1.pdf>



Manual

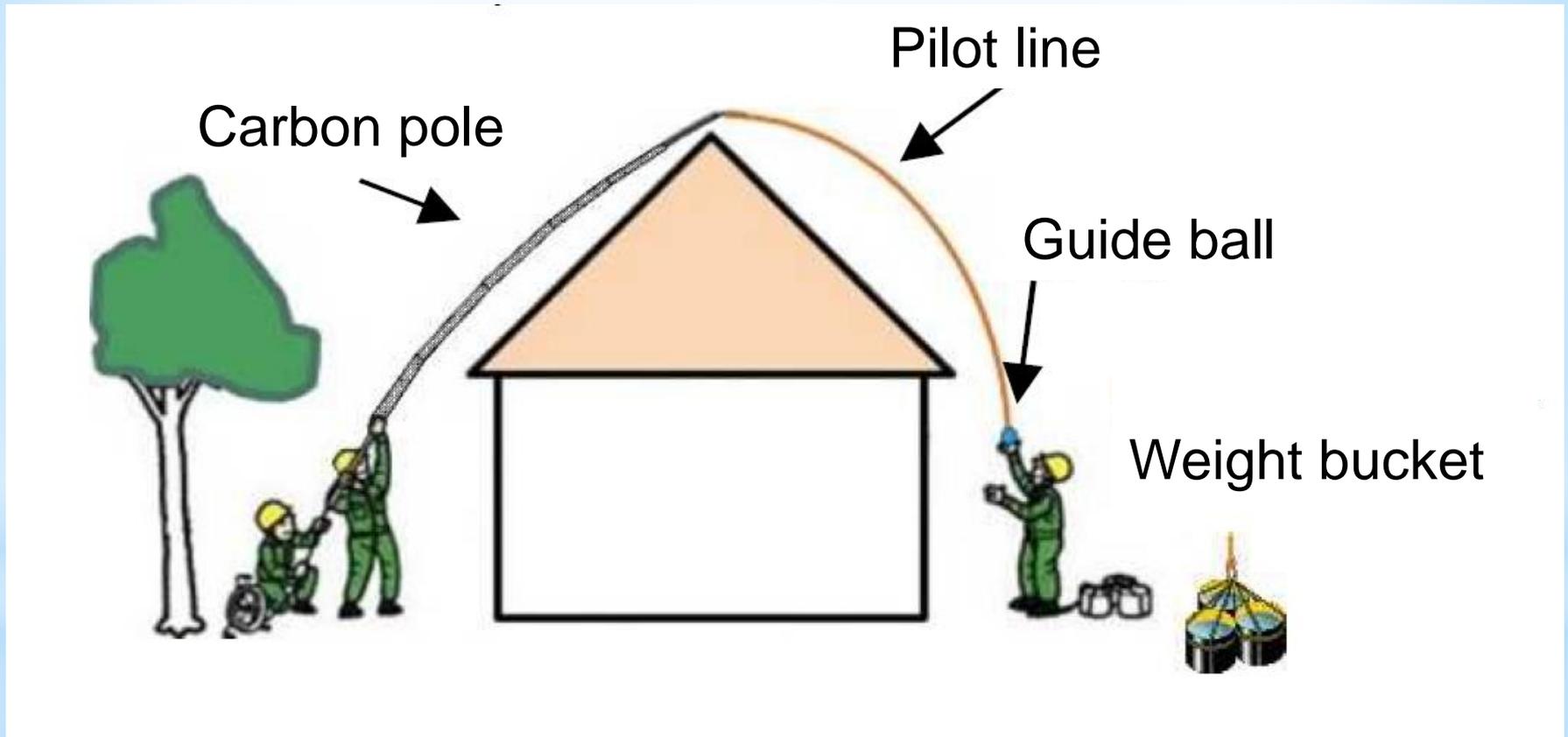


Leaflet



Works on the roof by recommended method (rope access)

How to install the ropes safety?



1. Use carbon pole

Nylon ropes for the retracting lifeline connected to the ladder columns

Retracting lifeline (with shock-absorber)

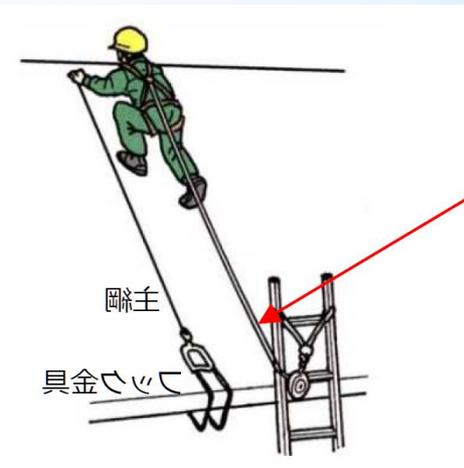
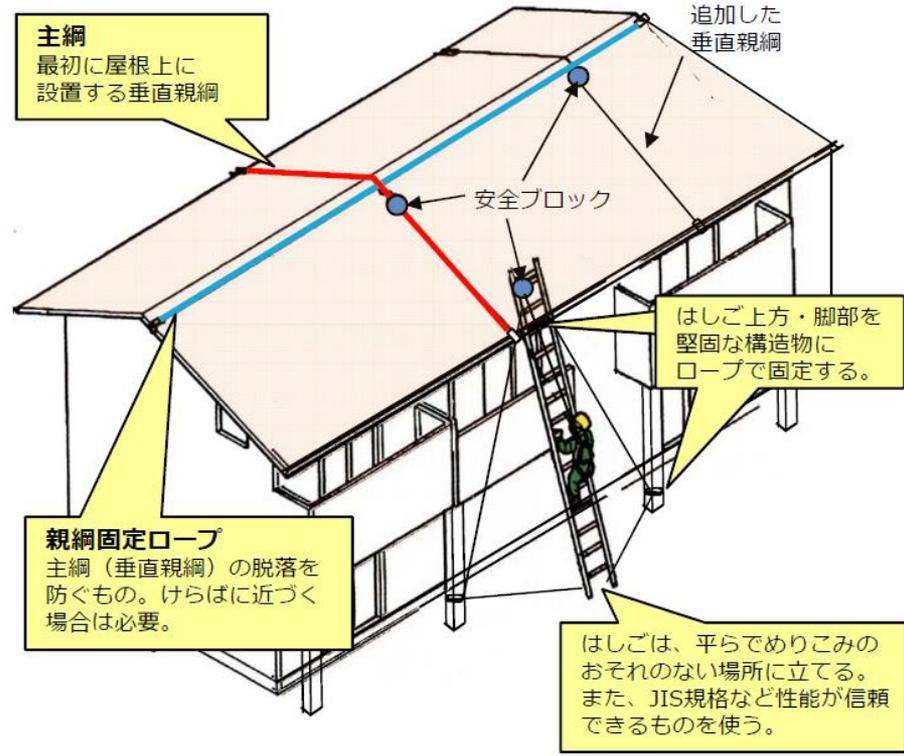
Nylon rope connected to the ladder just under the eaves

Portable Ladder

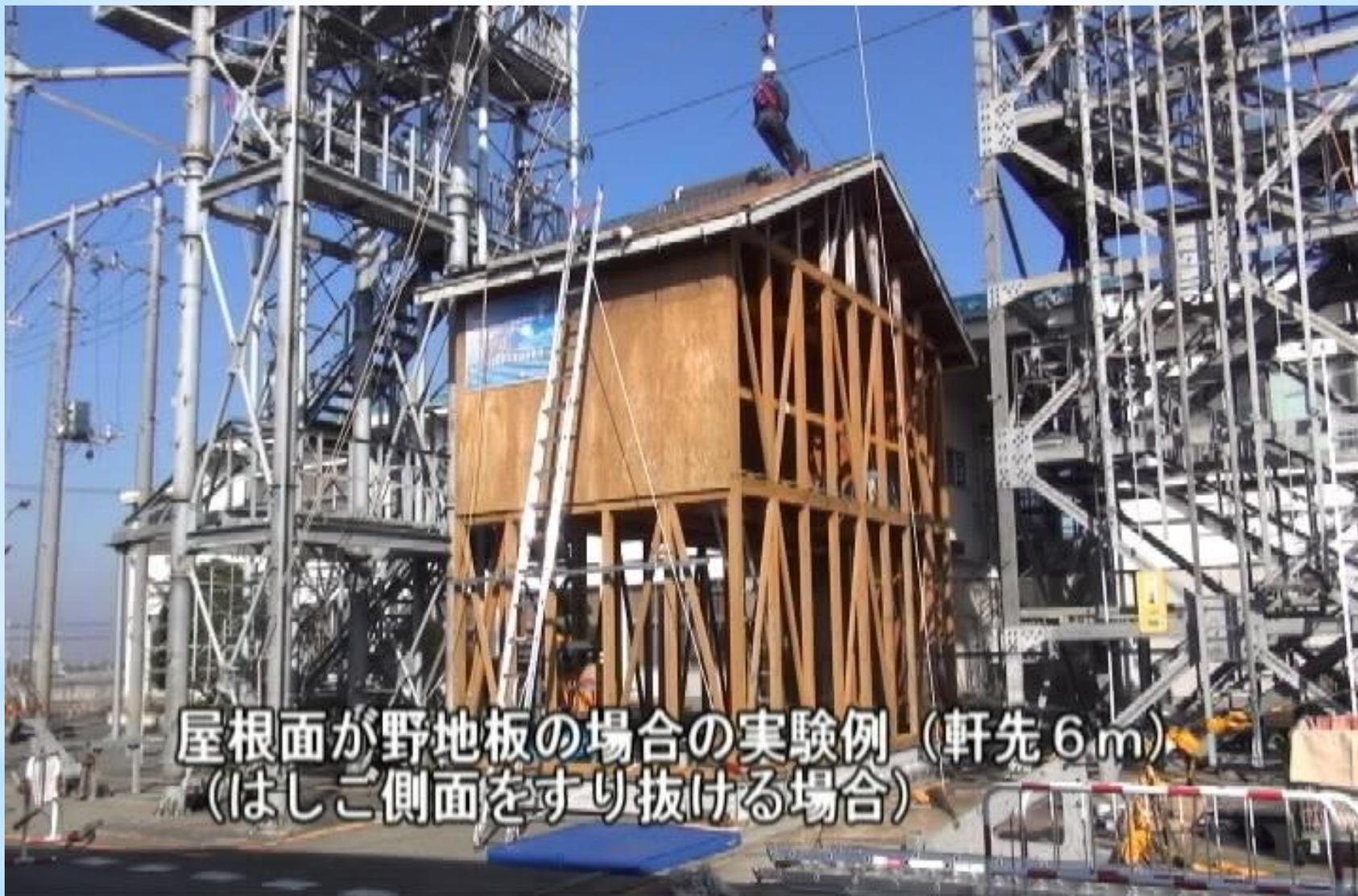
Nylon ropes for connection between ladder and rigid structure

Connection with rigid structure

Connection with rigid structure



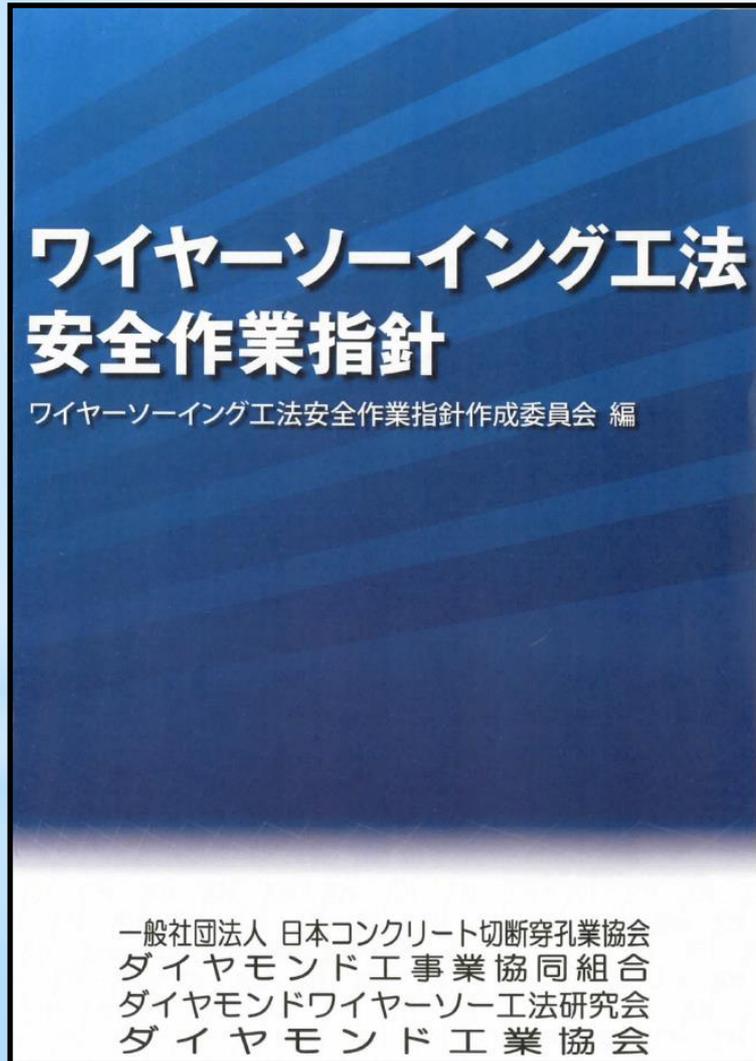
2. Use ladder





Lecture for spread the method

(4) Institution of guideline for safety work of Wire Sawing Demolition Methods by related four associations



Japan Concrete Sawing & Drilling Association
Diamond Construction Association
Diamond Wiresaw Structure Society
Industrial Diamond Association of Japan

Wire Sawing Demolition Methods





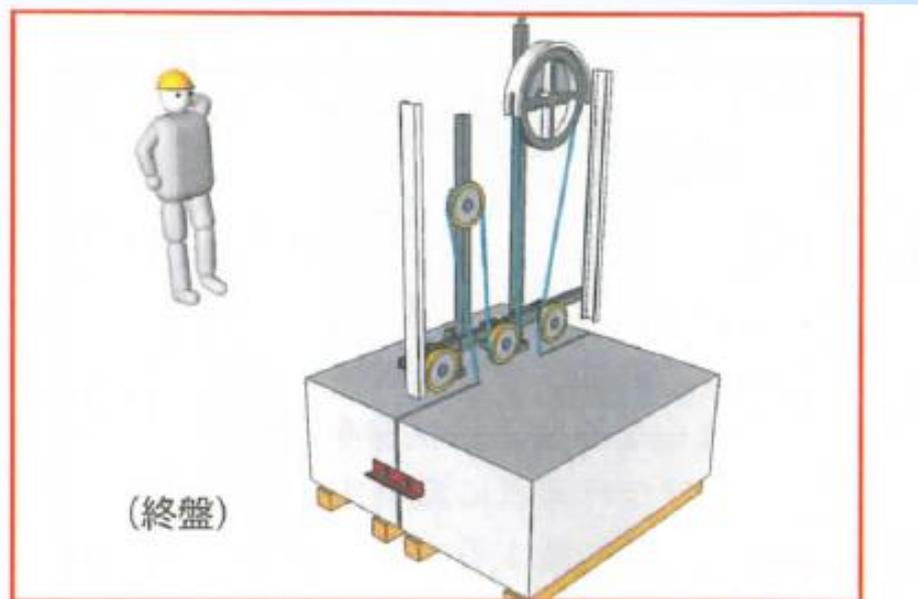
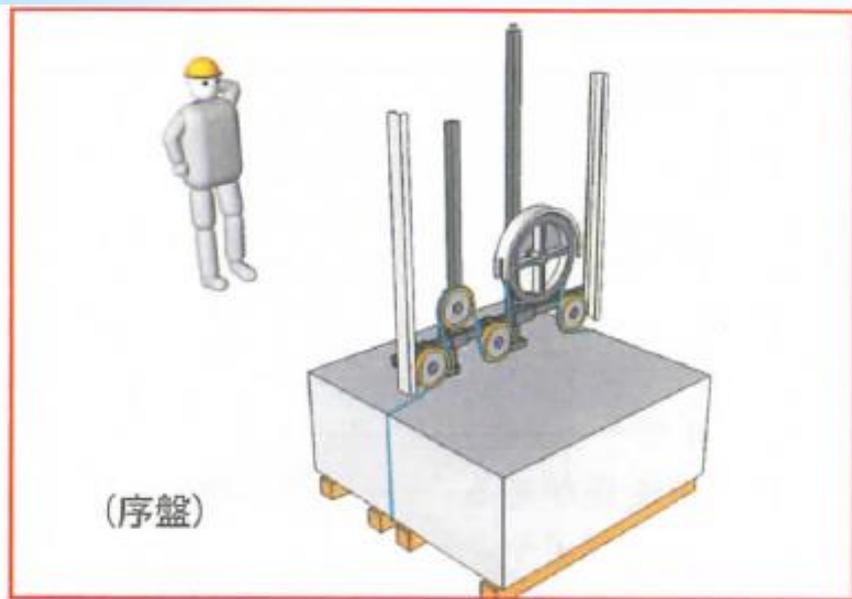
JNIOSH

National Institute of Occupational Safety and Health, Japan

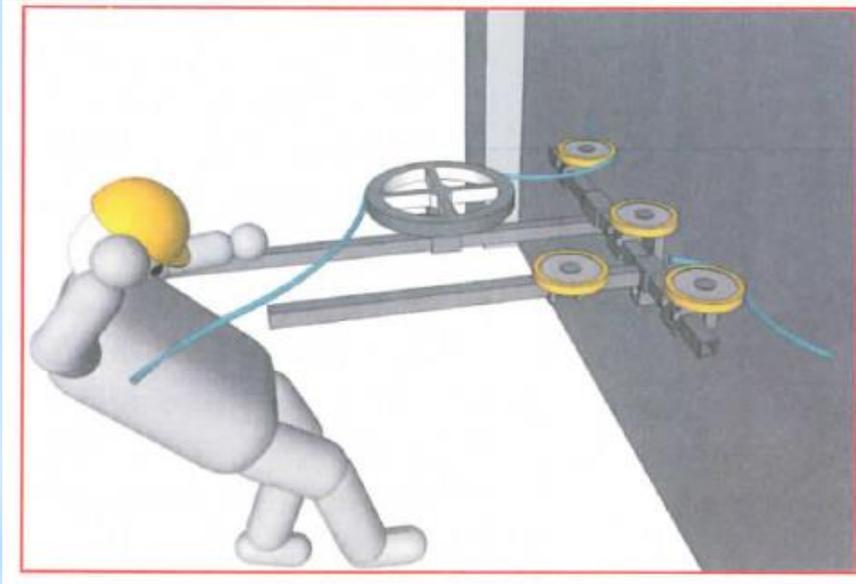
1.1 歴史・背景



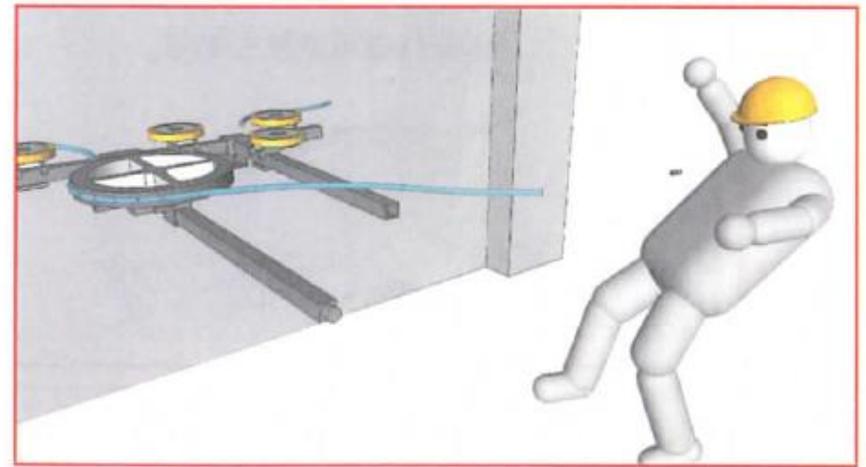
Wire Sawing Demolition Methods



Fatal accidents were happened during demolition works due to break of the wire.

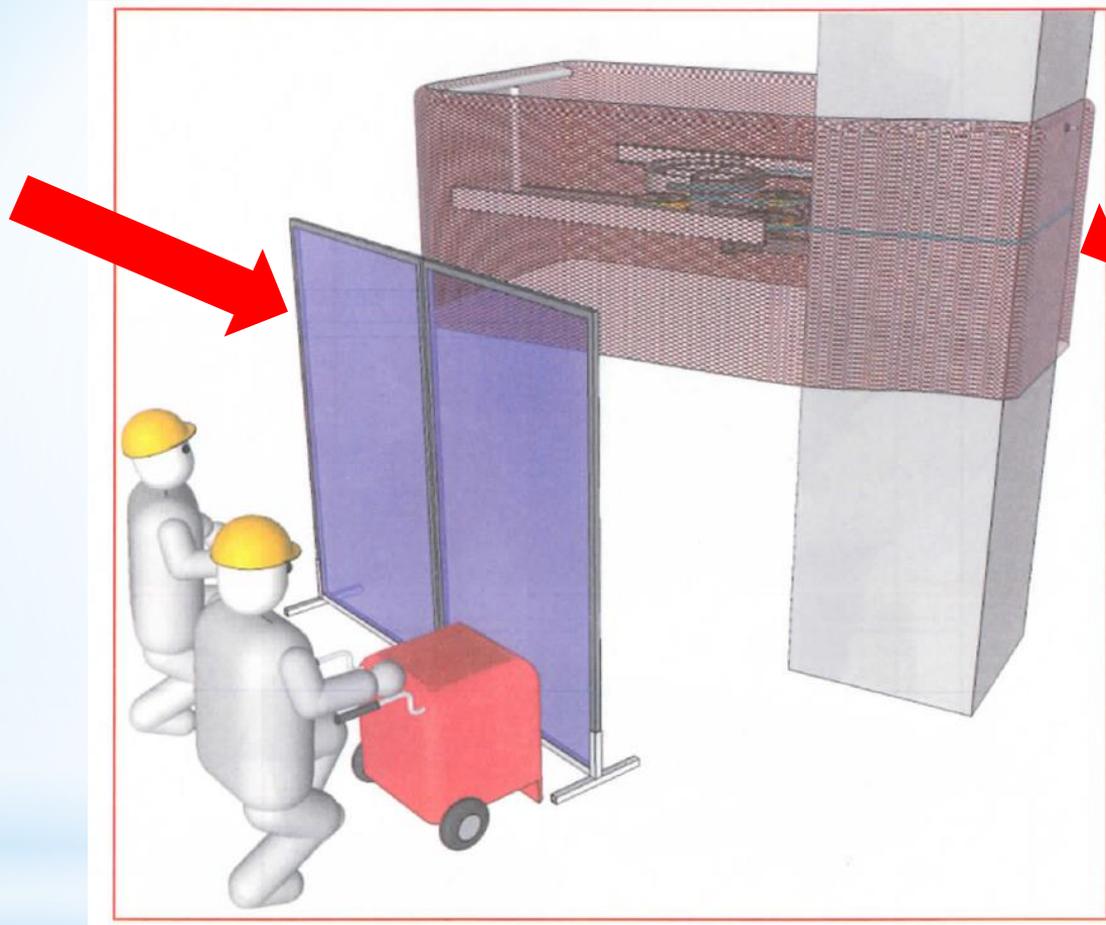


Hit wire



Hit sleeve connecting two wires each other

Panel



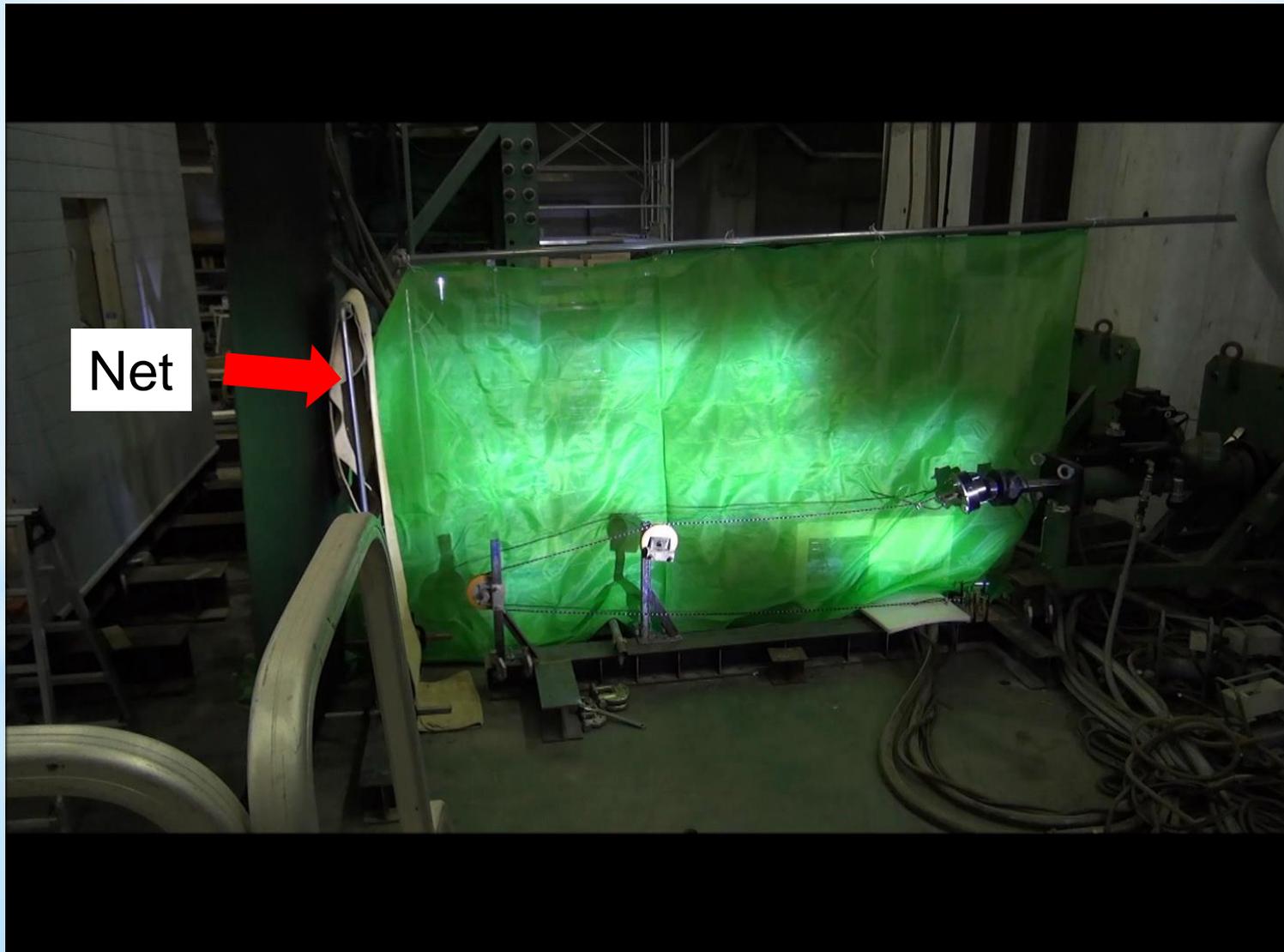
Net

Protection methods from flying of breaking wire and sleeve, etc., were proposed.

But, the effect of the protection by this methods were not clear.

Nets or panels may be broken by flying wire and sleeve. 78

The effect of the protection by this methods were confirmed experimentally at the JNIOOSH.





JNIO SH

National Institute of Occupational Safety and Health, Japan



Protected by the net during wire sawing demolition works



3. Activities in Private Company

Example of visible safety activities

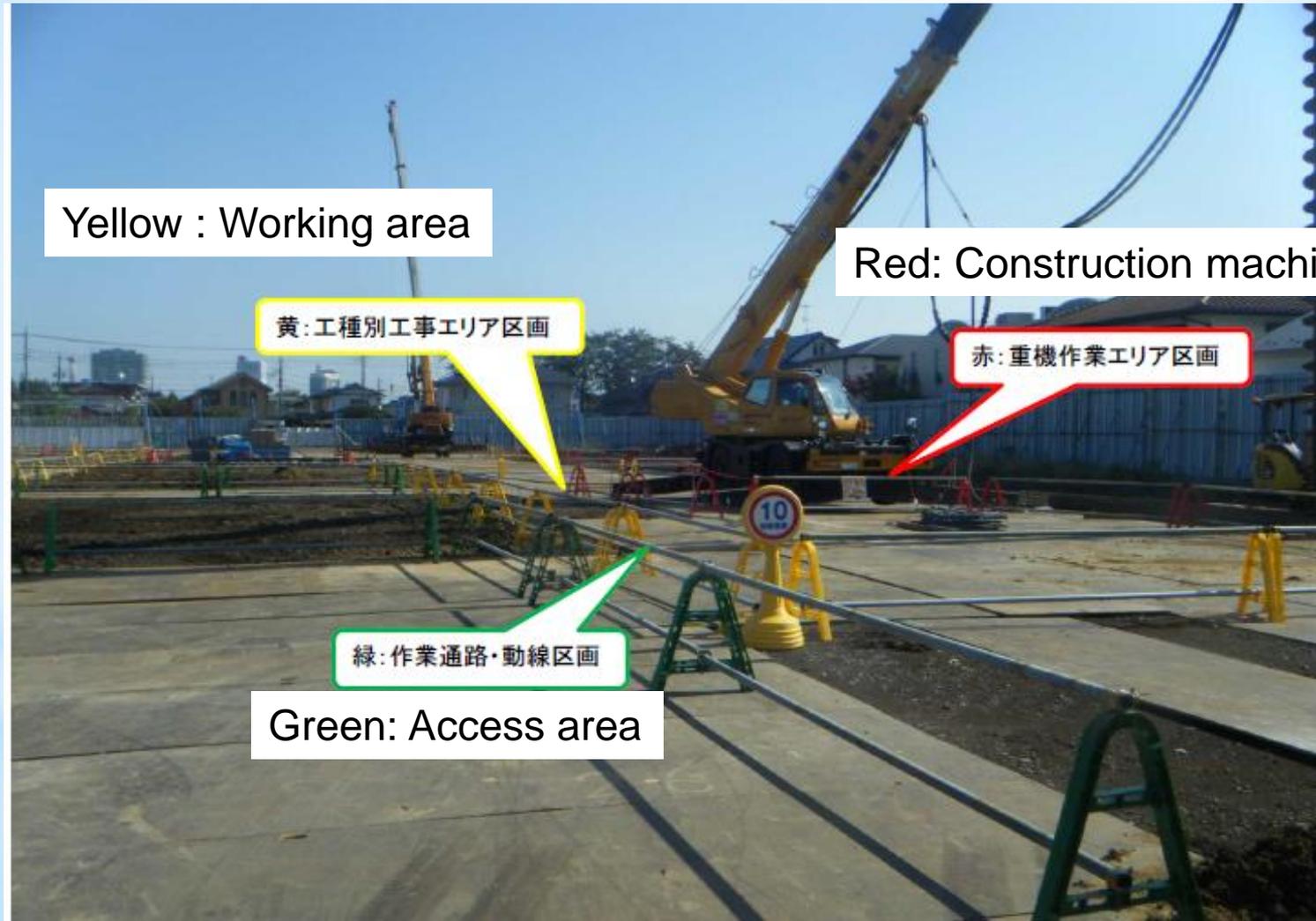
Contest on visible safety activities

This contest is executed in the theme,
“Support of revitalization of safety activities in companies”,
based on the strategy “**Raise spirits from safety**”, 2011.

- To revitalize the safety activities in companies, introduce the good practices in other companies.
- For this purpose, invite the practices on visible safety activities, e.g. visualization of safety working procedure.
- Select the excellent practices by a vote from the people, etc.
- Publish the best practices in the web pages.

<http://anzeninfo.mhlw.go.jp/anzenproject/concour/2013/result.html>

Visualization by color



Visualization by tape



①通路の視認性の向上のため蛍光色テープ貼り



①通路の視認性の向上のため蛍光色テープ貼り



④枠組足場に保護、視認性向上のためのトラカバー設置+手掛部に養生テープ貼り

おもいやり

Thoughtfulness



②突起、障害物へ蛍光色テープ貼り



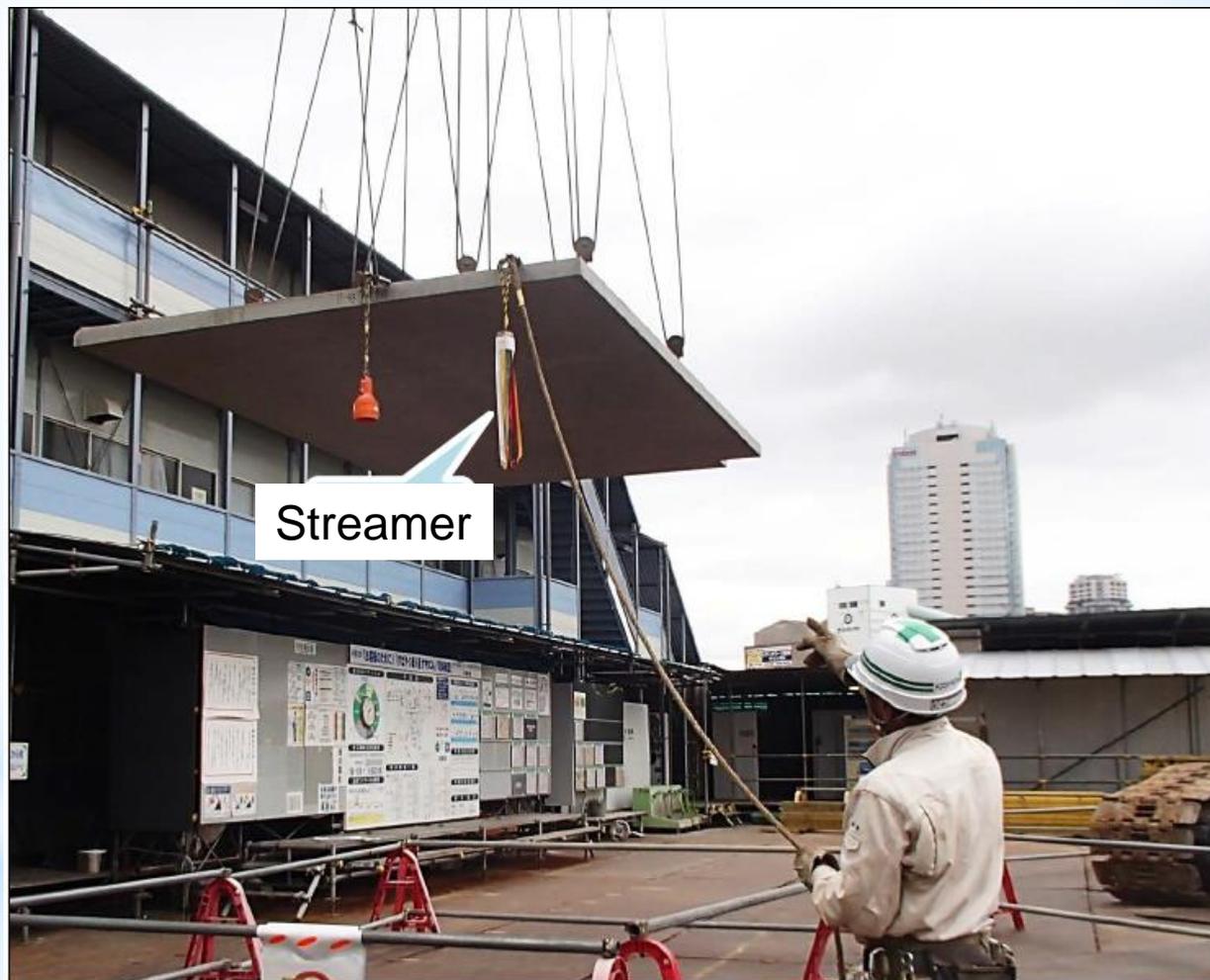
③狭小部位に注意喚起表示



②突起、障害物へ蛍光色テープ貼り

Indication by pink tape at risky point, such as projection

Visualization by streamer



Hang load with streamer by crane
Wind flow can be confirmed

Visualization by medal

安全衛生活動の「見える化」

② オリンピック制度



- 作業員一人一人の無災害延労働時間(目安)の『見える化』
- 「現場への思いやり・やる気・責任感」等のモチベーションを高める。

1000 hours no accident

(職工員)

1250 hours no accident

(上級職長認定者が条件)

500時間達成

500 hours no accident

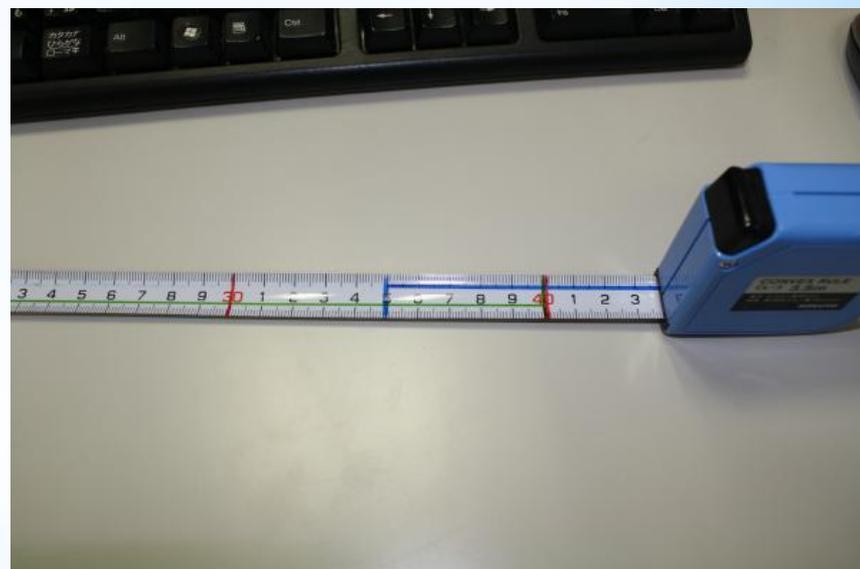
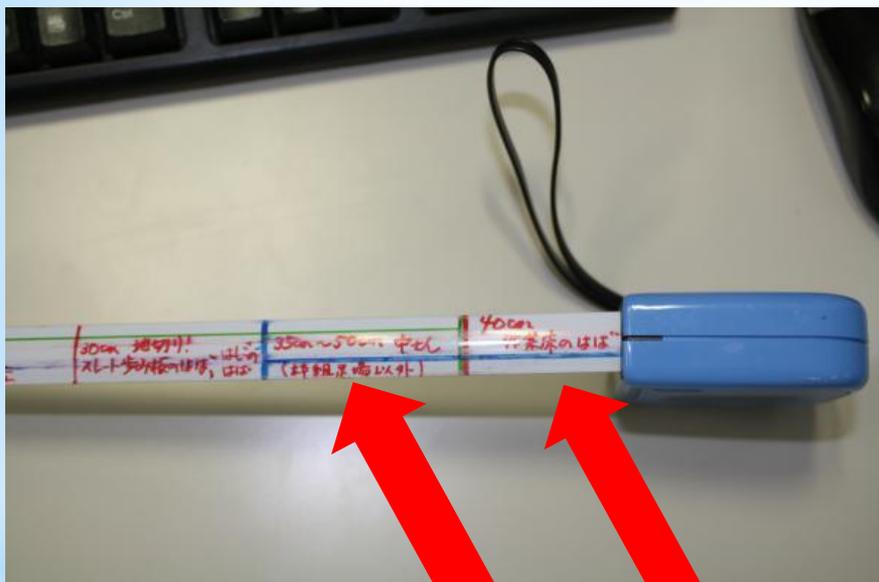


オリンピック制度
イメージ図

→お守りシールの色に反映し『見える化』

Increase of motivation

Visualization of numerical value of regulation by scale



With of platform, 400mm
Height of mid-rail, 350-500mm

Visualization of Safety Work Cycle

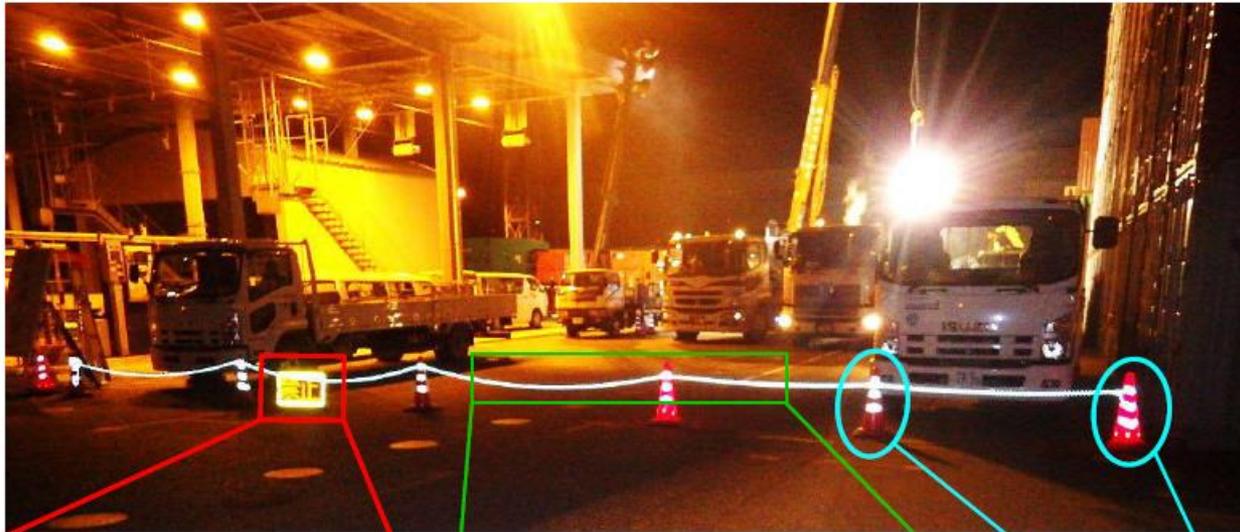


Visualization of Three Major Causes of Accidents



Visualization by lights for pedestrian

第三者への作業エリア明示



Keep out



光るトラロープ

Lighting rope



カラーコーン
(照明付)

Visualization by check sheet



御スギヤマ 熱中症予防チェックシート 25 7月16日

※ 上記の項目で該当していれば○、該当しない場合は△、該当しない場合は×を入れてください。

点検項目	午前		午後		午後		午後	
	朝	中	朝	中	朝	中	朝	中
氏名	朝	中	朝	中	朝	中	朝	中
小田ハル	○	○	○	○	○	○	○	○
久保 聖	○	○	○	○	○	○	○	○
松本 幸	○	○	○	○	○	○	○	○
丸山 博	○	○	○	○	○	○	○	○
吉原 博	○	○	○	○	○	○	○	○
香川 太	○	○	○	○	○	○	○	○
中村 和	○	○	○	○	○	○	○	○
宇野 健	○	○	○	○	○	○	○	○
藤本 拓	○	○	○	○	○	○	○	○
木下 智	○	○	○	○	○	○	○	○
大津 淳	○	○	○	○	○	○	○	○
森田 英	○	○	○	○	○	○	○	○

この「チェックシート」は、作業員の方が各自で毎日体調をチェックするための「チェックシート」です。

Check sheet for prevention of heat illness

Visualization by camera

Guide by interphone



Camera



Control room



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National Institute of Occupational Safety and Health, Japan



Thank you for your attention



JNIO SH