**Project Research** 

# Study Report on the Guidelines for the Management of Safety for Construction Works in Japanese ODA Projects

**Final Report** 

# Samples of Practical Tool for Safety Construction Management on Site

< Volume 3/3 >

# July 2013

# Japan International Cooperation Agency (JICA)

The Overseas Construction Association of Japan, Inc.

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#### **Composition of the Outcomes**

The outcomes of the Project Research: "Study Report on the Guidelines for the Management of Safety for Construction Works in Japanese ODA Projects" are composed of the 3 volumes shown below.

This volume is the "Samples of Practical Tool for Safety Construction Management on Site" of the reports. See each report, other than this, for the "Main Text," and "Guidelines (Preliminary Draft)."

First of the 3 volumes:

Main Text	
Introduction	Background of Working out the Guidelines (Preliminary Draft)
Chapter 1	Outline of the Field Study Results
Chapter 2	Current Status of Safety Management in Construction Works in Advanced
	Countries
Chapter 3	Review on Other Guidelines
Chapter 4	Outline of the Guidelines for the Management of Safety for Construction
_	Works
Chapter 5	Considering the Operation Policy on the Guidelines

#### Second of the 3 volumes:

Guidelines (	preliminary draft)
Chapter 1	General Rules
Chapter 2	Basic Policies for Safety Management
Chapter 3	Contents of the "Safety Plan"
Chapter 4	Contents of the "Method Statements on Safety"
Chapter 5	Technical Guideline for Safe Execution (by the Type of Work)
Chapter 6	Technical Guideline for Safe Execution (by the Type of Accident)

Third of the 3 volumes: This document.

	Sam	ples of Practical Tool for Safety Construction Management on Site
	1.	Risk Assessment Form
	2.	Operating Instructions
I	2	Descend of Mastings

- 3. Record of Meetings
- 4. Weekly & Monthly Report
- 5. Site Inspection Check Sheet
- 6. Occupational Safety & Health Management System
- 7. Partnership with Locals etc.

### Project Research Study Report on the Guidelines for the Management of Safety for Construction Works in Japanese ODA Projects

### Final Report

### Samples of Practical Tool for Safety Construction Management on Site

<Volume 3/3>

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### Preface

This Safety Construction Management Booklet is the sequel to the educational material for construction workers drawn up in the Study on Safety Management for ODA Construction Work in Japanese ODA Project, February 2012.

This booklet is to be available to personnel concerned with ODA construction projects, especially the Contractors and the Engineers for the purpose of improving site control, periodical checkout and mitigating risks in order to ensure safety management. It is expected to be used mainly as a reference material to overall controllers, personnel in charge of safety measures and head offices of contractors and engineers.

We wish all entities concerned with the projects to utilize the booklet for enhancing safety management awareness and promoting safety management activities in ODA construction works.

July, 2013

#### 1.1 Case Example 1-1

#### 1) Outline

All possible hazards are listed for each type of work. Considering the effect to each stakeholder (including the Employer, the Contractor, the public, visitors, and young people), degree of seriousness is reckoned in numerical value. Then, degree of seriousness is multiplied by frequency rate to calculate the total risk of each type of work.

Additionally, the risk rate after taking corresponding measures on risk control is re-calculated. If the risk rate is greater than the standard rate, this type of work cannot be launched due to the site regulations.

#### 2) Case Example

The Case Example 1-1 is on the following page.

Risk Ass	essn	nen	t Form											Ca	se	E	xample 1-1
				After Control		C F											
			SEQUENCE®XF REQUENCY(F)) RK PROCEED RK PROCEED ORK MUST NOT START ORK MUST NOT START	Dick Control Maconing	Risk Control Measures												
			TING (CONS FICANT WC TABLE WC ANTIAL W ERABLE W			RR		_		+	+						
I PLAN		ARED BY	RR)RISK RA 1-4 INSIGN 5-8 ACCEP 3-12 SUBST 13-16 INTOL	Before	L	<u>н</u>		+		┥	┥	_					
ABILITATION		AENT PREPA				DIHER (					Ī						
СТ Y and REH	SMENT	K ASSESSI				д А											
PROJE TH, SAFET	KISK ASSES	RIS	requienc) Bligible Likely Ely Bable		017	VIS						_					
ONAL, HEAL			(F) F 1 NE 2 UN 3 LIK 4 PR	cted		ON PUE		+	+	+	+	_					
OCCUPATIONA			QUENCE	People affe		с ц											-
		ENT	MENTAL CONSE CT FFECT FFECT SIBLE		Consequence												J People
		THOD STATEM	(C)ENVIRON E1 NO EFFEI E2 MINOR EF E3 MAJOR E E4 IRREVER	1	Hazard												VIS : Visito YP : Young
		APPLICABLE ME	. SAFETY CONSEQUENCE LE/NO EFFECT JURIES S		Activities												er tractor lic
			(C)HEALTH 8 S1 NEGLIGIBI S2 MINOR IN. S3 MAJOR IN S4 FATALITIE		Reference												E : Employe CON : Con PUB : Publ

#### 1.2 Case Example 1-2

#### 1) Outline

This is a feedback from the Contractor to the risk assessment prepared by the Engineer, an extract from the occupational safety and health documents which the Contractor submits to the Engineer. The Engineer's request to manage occupational safety and health suitable for local regulations and environment is granted by the Contractor who states that the Safety Plan Document is reviewed accordingly.

This is the case example, which shows both the Engineer and the Contractor acknowledge the importance of risk assessment and perform in coordination with each other.

#### 2) Case Example

The Case Example 1-2 is on the following page.

sk Asse	ssment Form			Case Example 1-2							
RFA N	umber [ ] Trans	smittal Ref:									
				Date : Rev.:							
		REQUEST F	FOR APPROVAL (RFA)	KIA Type.							
To : The Engin	eer		From : The Contractor								
Reference in (	Contract :	RFA Title :	-								
Work Package S/C RFA No :	:	<b>I</b>	Company : Representative :								
Submitted by EH	S MEP	QA/QC	Engineering								
Note: The attac	hed Health and Safety Plar	n has been updated as p	er the comments received on Rev	<i>r</i> ision C of the same.							
RFA has been	produced by :		Expected Work Start on :								
RFA has been	approved by PM :		Signed :	Signed :							
We enclose (1	) set for your comments	/approval									
Received Date	e & Sign										
		ENGINEER'S APP	PROVAL / COMMENT (EA	.C)							
Engineer's Rep Name :	presentative		Signed :	Date :							
Engineer's Ass Name :	sistant		Signed :	Date :							
Approval State A Approved, r B Approved v and/or con C Rejected, in	us : no exception taken. No re vith Comment, incorporat struction. ncorporate comments and	e-submittal required. e comments, resubmi d re-submit. Do not p	Proceed with manufacture fabri t within 7 days. Proceed with n roceed with manufacture, fabric	ication and/or construction. nanufacture, fabrication cation and/or construction.							
ITEM	· · · · · · · · · · · · · · · · · · ·	COMME	NTS	STATUS							
1											
2											
3 A											
5											
6											
7											

# Case Example 1-2

# PROJECT NAME

#### PROJECT HEALTH & SAFETY PLAN

#### JV REPLY TO COMMENTS ON REV C

Please note the following in response to the comments received on revision C of MAR -0038. We have revised the previously submitted documents as noted below and have enclosed the revised extracts for your review and approval.

ITEM	COMMENTS	JV RESPONSE
1	Person in-change of Emergencies on Site	Project Emergency Contact List updated and attached in Section 19 of PEHSP
2	Dust Prevention should be added under this section.(Appendix 1 – EMP Section 8)	Please see additional to Section 8 (8.1 & 8.2)
3	User of phrase "if practicable" shall be deleted under this section. (Appendix 1 – EMP Section 12)	Has been deleted.
4	Any description that can be expressed more concretely shall take way. Eg. Wheel washing roller or spray nozzle (Appendix 1 – EMP Section 12)	Wheel washing facilities (Wash Through) included with washing jet spray has been specified. We have thoroughly reviewed and updated the document and addressed the specific example.
5	Water pollution mitigation-Surface Run-off - Additional	Section 12.2 Environmental Control Details has been added as requested and reiterated on control measures in surface run off.
6	The word remain 'marine', Marine shall be deleted.	The word 'marine' has been removed from the Risk assessment as shown in Appendix 1 Project Environmental Management Plan.
7	Section 13-Risk Assessment Requested to re-examine the RA based on construction content and local condition	These have been reviewed and updated, please see Appendix 1 Environmental Management plan section13.
8	You are requested to submit revised "Work Method Statement for Environmental Monitoring Works together with revised Project Environmental Management Plan.	Attached Revised "Work Method Statement for Environmental Monitoring Works" and revised Project Environmental Plan Rev D.

# Case Example 1-2

# PROJECT NAME

### PROJECT HEALTH & SAFETY PLAN

ITEM	COMMENTS	JV RESPONSE
9	The Environmental Manager has still not been confirmed as of today. When can this key person be on board	The resume of Environmental Manager has been approved by XXX on 02 <sup>nd</sup> . July 2012. Refer to XXX No:

Rev.	Amendment	Submittal date	Approval Date	Approval Status		
А	First Draft for 9 comment	22 Mar 12	9 Apr 12	С		
В	Revised with changes incorporating comments from XXX and amendments to JV operational health and safety procedures.	7 Apr 12	4 May 12	С		
С	Revised with changes incorporating comments from XXX and amendment to JV to JV operational health and Safety procedures.	12 June 12	25 June 12	С		
D	Revised with changes incorporating comments from XXX and amendments to JV operational health and safety procedures.	4 July 12	ТВА	ТВА		

#### ISSUE AND REVISION COPNTROL

#### 1.3 Case Example 1-3

#### 1) Outline

First, all hazards are identified for each category of work (Excavation and Backfill, Working at Height, Operations for Heavy Machinery and for Electricity). Then, the effects of the hazards are considered to rank risks of each type of work. Contents of specific measures such as wearing Personal Protective Equipment (PPE) or devising work procedures are to be filled in the last column (Case Example 1-3-1).

Moreover, near miss incidents (i.e. potentially serious incidents) are also to be reported likewise more serious accidents in the same format (Case Example 1-3-2). Near miss incidents, which are more likely to occur, as subjects, more data will be collected for conducting an analysis on risk assessment.

#### 2) Case Example

The case examples 1-3-1 and 1-3-2 are on the following pages.



sk Assess	smen	t F	orm						Са	se	Exa	mp	le 1-3	3 - 1
Project name Health and Safety Plan					Recovery Measures									
	nd Management				<b>Control Measures</b>	(PPE, Procedures, etc.)							Title:	Title:
	ssessment al				Risk	Ranking								
	Risk As	Country:	Contract No.		Hazard effect	(if the Hazard is released)							Signature:	Signature:
		Project:	Contractors Name:	Task: Working at Height	Identify Hazard	(Potential to do harm)							Approved: Name:	Prepared: Name:



Case Example 1 - 3 - 1

				Project name Health and Safety Pla
	Risk A	Assessment an	ld Management	
Project:	Country:			
Contractors Name:	Contract N	lo.:		
Task: Heavy Lifting Operat	tions			
Identify Hazard	Hazard effect	Risk	Control Measures	Connect Management
(Potential to do harm)	(if the Hazard is released)	Ranking	(PPE, Procedures, etc.)	recovery measures

Risk Ass	essn	nent	For	m			Cas	se Example 1 - 3 - 1
Project name Health and Safety Plan				Recovery Measures				
	and Management			Control Measures (PPE, Procedures, etc.)			Title:	Title:
	ssessment a			Risk Ranking				
	Risk A: Country:	Contract N		Hazard effect (if the Hazard is released)			Signature:	Signature:
	Project:	Contractors Name:	Task: Electricity	Identify Hazard (Potential to do harm)			Approved: Name:	Prepared: Name:

							ia Jaiety Pla
							FR: IAR-1/
Apper	ndix 4: Accident /	Near Miss	Report				
			INCIDENT /	ACCIDENT	REPORT		
To:					F	ile No.:	
Detail	s (To be complet	ed by site e	engineer in char	ae within 24	l hours)		
Droio			<u> </u>				
Contr	actors Namo:		0	Contract No			
Locati	ion of Incident:		(		•	Time	
Woatk	per Condition: El			раке <u>.</u> 1 нотг 1		i iiie	
Visihil	ity.				mneratur	2	
* 131011				16	mperature	<u> </u>	
Name	of Injured:			N	ationality:		
Dale o	of Birth: Dav	Month	Year	· I	D NO.:		
Sex: N	Male[ ] Female		unation:				
		dont:					
A ( 11 V II	y at time of Accid	Jent					
Sever	ity of Injury: F	Fatal[ ] Parts of Boo	Referred to Ho	spital[ ]	Sent Hor	ne[] Return to Wor	,
Sever	ity of Injury: F	Fatal[ ] Parts of Boo	Referred to Ho	spital[ ]	Sent Hom	ne[] Return to Wor Types of Injury	·k[]
Sever	ity of Injury: I F Head Eves	Fatal[ ] Parts of Boo [ ]	Referred to Ho dy Injured Torso	spital[ ]	Sent Hor	ne[] Return to Wor Types of Injury Crush Fracture	[] / []
Sever	ity of Injury: F F Head Eyes Ears	Fatal[ ] Parts of Boo [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen	[]	Sent Horr	ne[] Return to Wor Types of Injury Crush Fracture Dislocation	rk[ ] / 
Sever	ity of Injury: I F Head Eyes Ears Face	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever	[] / [] [] [] []
Sever	ity of Injury: I F Head Eyes Ears Face Neck	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration	rk[ ] / [ ] [ ] [ ] [ ]
Sever	ity of Injury: F F Head Eyes Ears Face Neck Shoulder	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound	rk[ ] / [ ] [ ] [ ] [ ] [ ]
Sever	ity of Injury: I F Head Eyes Ears Face Neck Shoulder Arm	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion	rk[ ] / [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Sever	ity of Injury: F F Head Eyes Ears Face Neck Shoulder Arm Elbow	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise	k[ ] / [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Sever	ity of Injury: F F Head Eyes Ears Face Neck Shoulder Arm Elbow Wrist	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee Foot	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise Sprain / Strain	rk[ ] / [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Sever	ity of Injury: F F Head Eyes Ears Face Neck Shoulder Arm Elbow Wrist Hand	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee Foot Ankle	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise Sprain / Strain Electric Shock	k[ ] / [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Sever	ity of Injury: F F Head Eyes Ears Face Neck Shoulder Arm Elbow Wrist Hand Finger	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee Foot Ankle Toe	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise Sprain / Strain Electric Shock Burn	rk[ ] / [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Sever	ity of Injury: F F Head Eyes Ears Face Neck Shoulder Arm Elbow Wrist Hand Finger Chest	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee Foot Ankle Toe	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise Sprain / Strain Electric Shock Burn Multiple	k[]]       []]
Sever	ity of Injury: F F Head Eyes Ears Face Neck Shoulder Arm Elbow Wrist Hand Finger Chest Other:	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee Foot Ankle Toe	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise Sprain / Strain Electric Shock Burn Multiple Other:	k[ ] / [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Sever	ity of Injury: F Head Eyes Ears Face Neck Shoulder Arm Elbow Wrist Hand Finger Chest Other:	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee Foot Ankle Toe	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise Sprain / Strain Electric Shock Burn Multiple Other:	rk[ ] / [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Sever	ity of Injury: F F Head Eyes Ears Face Neck Shoulder Arm Elbow Wrist Hand Finger Chest Other:	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee Foot Ankle Toe	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hor	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise Sprain / Strain Electric Shock Burn Multiple Other:	rk[ ] / [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Sever Sever Witne: Name	ity of Injury: F F Head Eyes Ears Face Neck Shoulder Arm Elbow Wrist Hand Finger Chest Other:	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee Foot Ankle Toe	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Horr	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise Sprain / Strain Electric Shock Burn Multiple Other:	[]         []
Witnes	ity of Injury: F F Head Eyes Ears Face Neck Shoulder Arm Elbow Wrist Hand Finger Chest Other: Ss	Fatal[ ] Parts of Boo [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Referred to Ho dy Injured Torso Back Abdomen Hip Rump Thigh Leg Knee Foot Ankle Toe	spital[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Sent Hon	ne[ ] Return to Wor Types of Injury Crush Fracture Dislocation Sever Laceration Puncture Wound Abrasion Bruise Sprain / Strain Electric Shock Burn Multiple Other:	rk[ ] / [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

FR: IAR-2/3

### **Risk Assessment Form**

# Case Example 1 - 3 - 2

Project Name:

Health and Safety Plan

#### Appendix 4: Accident / Near Miss Report

How did Accident Occur	
Description:	Sketch(Continued on separate sheet if necessary)

How could this accident have been avoided State:

(mark x one)

- A Requirements / Guidelines not prepared
- B Requirements / Guidelines not appropriate
- C Requirements / Guidelines not complied

-			
А	В	С	Descriptions
			Leadership and Accountability
			Risk Assessment and Management
			People, Training and Behaviours
			Working with Contractors and Others
			Facilities Design and Construction
			Operation and Maintenance
			Management of Charge
			Information and Documentation
			Customers and Products
			Community and Stakeholder Awareness
			Crisis and Emergency Management
			Incident Analysis and Prevention
			Assessment, Assurance and
			Improvement

Dose Incident relate to the one of the following: If Yes, mark appropriately

Emergency Isolation
Ground Disturbance
Confined Space Entry
Working at Height
Lifting Operations
Vehicle Safety
Management of Change

Does Inci	dent relate to D	ropped Objects?
Yes		
No		

#### Action to prevent reoccurrence

No.	Action	Responsible Person	Priority	Due Time
1				
2				
3				
4				
5				
6				

Г

Risk Assessme	ent Form	Case Example 1 - 3 - 2
		Project Name:
		Health and Safety Pla
		FR: IAR-3/
Appendix 4: Accident	/ Near Miss Report	
What Action is being ta	aken to Prevent Reoccurrence?	
State		
	Action: Ye	es[ ] No[ ] Date:
Other Comments:		
Name:	Signature:	Title:
Follow-up Review (To	be completed by the Engineer's Safety De	epartment)
Do all actions taken m	eet the Engineer's satisfaction ?	Yes[ ] No[ ]
If No, please state furt	her actions required:	
Close out: Yes[ ]	No[ ]	Date:
Name	Signature:	Title:
The Engineer's Review	w and Comments	
Report to the Employe	er: Yes[ ] No[ ] Lost Work Days:	Light Duty Days:
Name:	Signature:	Title:
	lover The Engineer Construction Manage	r. Safety Manager

1

٦

#### 1.4 Case Example 1-4

#### 1) Outline

In this case example, all possible types of accidents (including hazards and hazardous components) are identified for each type of work, and then they are considered to rate degree of seriousness. Degree of seriousness is multiplied by frequency rate to calculate the risks (which helps to decide the priorities of the countermeasures to be taken). Finally, after considering risk mitigation plans, they are listed to evaluate the risks after taking measures. It is notable that even with risk mitigation plans conducted; risk will not be zero as possibility of risk still remains. This case example resembles the Case Example 1-1.

This particular format is used for common construction work. Other formats for road construction, bridge construction, etc. are also available. Users can select to use appropriate format depending on the specific type of work and characteristics. It is considered as an example that the head office of corporation which accepted an offer and obtained OHSAS18001 tends to cope with safety management of overseas projects by a group of inspectors/persons in charge visiting applicable construction sites.

#### 2) Case Example

The Case Example 1-4 is on the following page.

17

Who? Re-seriousness: Degree of Re-evulation: Risk remain- a recurrence: b a*b Risk remain-	ters 6 2 12 3				ano 2 2 2 2					ters		ters				•	X (1) 2 0 2 17 2 2 X (1)					ters 6 2 12 3					ters			man 6 2 12 3		ters 6 2 12 3	
PPE : Personal Protective Equipment	safety belis Work				10, And	NID 11				Work		Work					Dately UCID W UIA					Work					Work			Safety belis Forer		Work	
Priority cn aking measures	V	Y	V	EN	v v	~	~	EN	EN	Y	Y	¥	Y	Y	EN	Ţ.		Y	Y	Y	Y	EN	Y	A	EN	EN	Y	Y		V	Ρ	Y	Y
spacey Specific measures for risk miligation (prevention measures of harmfulness/dangerousness)	Refrain from using heavy and lengthy objects during operation	Refrain from operation by kaning for ward	Refrain from operation that generate reflective force	Refrain from using ladders without treads	Avitani from using aducts of the frequent of over 1.000 Deferin from using holders of others and others	Avitant from using address at swips and source Referin from using hidders on the tennorgery crower for onen mits	Av attention to there holes attention onersion	r a raccurate to acce to note over our and government. Refrain from extending less of ladders esteria lly on stens	Ensure to set a blade latch properly	Refrain from carrying huge or lengthy objects while getting on and getting off a lottler	Refrain from jumping off a ladder	Pay attention to skewe holes etc. during operation	Ensure to set a blade latch properly	Ensure three point mountaining of a ladder	Ensure to attach both sides of scaffold boards properly and tightly		Actiant from using neary and actiguty objects during operation	Refrain from operation that generate reflective force	Refrain from bending forw ard during operation	Refrain from having more than 2 persons working on a portable scaffolding	Refrain from stepping onto one portable scaffolding from another	Adjust the length of legs properly, especially when using it on rough surface and at stens	Refrain from using ladders on the temporary covers for open pils	Pay attention to she we holes etc. during operation	Ensure to set a blade latch properly	Refrain from extending legs of portable scaffolling especially on steps	Refrain from getting on and getting off a portable scaffolding with a heavy or knughy object	Refrain from jumping off a portable scaffolding	Recime mexicardina macroso civels as handeally and cafatir nate ato area	тальше рисченых шеались экын ал намы ань запсу ись сы. аг с checked throughly	If preventive measures are not available, ensure to use safety belis	Inspect scaffoldings before starting operation	K as a the total weight allowed on scafficklines below the regulation
niority Emerg	5				,	t				3		3					n					-4				_				5		4	
a*b P	\$				10	5				12		12				s	ş					75					17			<del>9</del>		57	
Degree of E possibility b	~				,	+				2		2					•					4					2			4		4	
seriousness : a	9				4	~				9		9					D					9					9			10		9	
Identification of potential risks (assumed accidents)	Falling of f a ladder				Transfine of a haldes					Falling of f a ladder when getting on and settine off	no Sound and	Breaking of a scaffolling of a ladder					rauing uo wii scario Miligo					Unstable portable scaffoldings and topling					Falling of f a ladder when getting on and getting off	1		Falling of fscaff oldings		Breaking and breaking apart of scaffoklines	
Legisla tion operation													Á1	9] E	2 yıc	W 8	ri bı	6 g 9 1	0 L	e ar 19			V V V										
Risky machinery, tools, materials	Stepladders, ladders, tools																FUITAUE SCALLOMINES, LOUD												framework scaffoldings,	stage planks, ladders, vertical nets. took			
Type of work	Operation on stepladders and ladders etc.															Operations on portable	sca flokings												One en from on from our	scaffoldings			

1. Risk Assessment Form

Case	Example	ə 1 - 4
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2001 2012 2014 2015 2016 2017		r lange of scatnomey wang sent on and geting of from improper steps steps line properties of crane equipment not carried out line properties crane of workers entering into crane operation area and then hinting some other objects Falling of thired back fried back moving back and forth and then hinting some other objects Falling of thired back fried presents break an to the crane prestrim area	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 0 0 0 4 4 0 0	**         12         12         13         **         *         *         *         *	· · · · · · · · · · · · · · · · · · ·	Cet on and ge off a scallolding using proper steps (erfinin from using honces etc.) The came operation took such as: shockles, changs and were proper steps etc. Before operation for steps and under the standard materials. Excite the option came operation and any experiment of a scallolding using proper steps (erfining and were proper attempt of a scale of the standard materials). Evacuate from the working and the fore the launch of operation (leagh shape and weight excit). Evacuate from the working and the fore the launch of operation (leagh shape and weight excit). Evacuate from the working and the fore the launch of operation of the state of the landard is to a state of the landard in the landard state of the landard in the landard in the landard according to the weight of lauds but the state of a state of a state of the landard according to the weight of lauds but the state of the landard according to the weight of lauds but the conter operation rook such and weight of lauds but to the conter operation rook such and weight of lauds of landard according to the weight of lauds but to a state landary evaluation of such a state landary evaluation of the state landard according to the weight of lauds but to evaluation took such as shackles, clamps and over the conter operation rook such as shackles, clamps and over the conte operation rook such as shackles, clamps and over the conter operation rook such as shackles, clamps and over the conter operation rook such as shackles, clamps and over the conter operation rook such as a shackles, clamps and over the conter operation rook such as a shackles, clamps and over the conter operation rook such as a shackles, clamps and over the conter operation rook such as a shackles, clamps and over the conter operation rook such as a shackles, clamps and over the conter operation rook such as shackles, clamps and over the conter operation rook such as a shackles, clamps and over the conter operation rook such as a shackles, clamps and over the conter operation rook such as a sh	E E E E E E E E E E E E E E E E E E E		Workers Person in charge for came pertains pertains Came operator Came operator Came operator Came operator Person in charge for came Person in charge for came	01 01 01 01			m m m
7 2000 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Care Operations	<ul> <li>Inteperation of caller equipment non- carried out</li> <li>Interpropriate crane operations</li> <li>Workless entering into crane operation area</li> </ul>	9 9 9	0 0 0	8 8 8		Cuckers, on the chain operation tools scal as subsets-scalings and ver- prose sets. The theore operation and materials Dispesse of defersive equipment and materials Scherd the proper crante operation process and took that are stabile for arg set basis. In the version are not of operation (length shape and weight ex.). Evacuate from the working radius before the launch of operation Launch of correlation after confirmultion of worker's evacuation that and the confirmultion of worker's evacuation	A EN A A	Safety he lik	resson in clarge for cause operations Person in charge for cause operations Crane operation				
		Lifted bask moving back and forth and then listing some other objects	- IO	-4	<del>9</del>	~~~	Callfor other volder's attention by whicks or microphones. Callfor other volder's attention by whicks or microphones. Set a hold right above tilme basis Check the hubres of tilted hole just after hanging i Re do if unblanced condition is recognized	A A EN		Crane operator	10	-	10	~
		Faling of lifted back Trind persons break-in to crane	10	4	- <del>6</del>		Use assisting tope to minimize juling Ensure to fit filted hack tightly and use appropriate lifting took such as wro-net suck etc. Use a create of appropriate standard according to the weight of back	F IN EN		Crane operator Person in charge for crane	10	_	10	
		opentión area Overturn of a crane	e e e	3 4	2 8		Set an off-immark for the crante operation space Use an appropriate crante (adxultee and plan with 90% of the tetal capacity) Check the ground frist and fully exteral outriggers Sixfold now the safe working that defined at zero buding capacity (crante carrival report	A EN A		operations Person in charge Operations	6	-	9	2

#### ŝ ~ ~ ~ \_ 2 2 10 \_ 2 ~ -\_ \_ \_ 9 01 10 \_ 10 Site conductor Chie f worker Operators Operators ore main )perators Operators Flagmen ne man Workers ore man Fore man ore man Drivers Workers Safety belts and reflective vests for traffic navigator Safety belts and reflective vests for traffic navigator A ¥ EN Ā Y A ¥ ¥ × A EN A ¥ ¥ EN EN ¥ ¥ ¥ ¥ ¥ ¥ Continuous measurement of lifted loads by measuring gauges through the A lways check the warning light and stop operation when its color changes Check the length and angle of the jib and decide the weight of lifted bads 2ay good attention to traffic hazard assessment and study the conveyance Refrain from approaching too close to road shoulders, top of the slopes, or Confirm the signs before starting operation and give the signs in a good Decide the appropria to height of pikes (and the number of steel sheets) then manage them accordingly Follow the proper operations studied for the machine performance, expectingly for the safe working bad etc. Set an off-hair rule for the crane operation space Pertulyft moving back word Set guardraits to prevent automobiles and persons from falling down Set an appropriate tool for geting on and geting off and fix it well Do safety management under the instruction of operation manager Check the stability of natural ground before starting the operation Install a safety motion sensor except small rotating type cranes Install a safety motion sensor except small rotating type cranes teftain from transferring with staying on the rear deck Check on lifting weight properly (crane carrying type) Set an off-Imit rule for the crane operation space follow the direction guided by site conductors Follow the direction guided by site conductors Pollow the direction guided by site conductors Ise a hydraulic shovel with crane function Guide with in the truck driver's visual range Drive only on instructed routes and roads connectable equipment Check on anchor wires etc. Theck on anchor wires etc. Prohbit moving back ward Ibcate site conductors Albeate site conductors rom blue to yellow ight of the driver c cordingly the ditches route well eration Ś Ś ŝ ~ 4 ŝ 4 ~ 4 1 임 1 6 잌 2 6 5 멉 8 97 5 2 ~1 ~ 4 4 ~ 4 4 ~ ~ ~ 10 9 9 0 10 9 9 9 2 9 9 Temporarily-piled steel sheets falling apart equipment falling from rear deck and Equipment falling from rear deck and Collision between a truck and a site nitting workers during conveyance olling down of a hydraulic shovel nitting workers during conveyance Collision with a hydraulic shovel Falling down the rear deck of a Ise of a hydraulc shovel for Collision with a dump truck 'alling into ex cavation a re Falling down of a truck nconsistency of signs Collision with a truck Collision with a crane roper purposes nning vehicle anductor visis Xio W gnibisger 0701 ise Y I.o N WAJ Piling machine, piles of steel shee ts Hydraulic shovel, earth and Trucks (including dump trucks) 'n. Trucks (including dump trucks) Excavation by a hydraulc 8 Installation of steel sheets

**Risk Assessment Form** 

shovel

			Lightweight steel sheets are bent by pressure	10	1	10	3	Refrain from force ful pile driving and adopt wheation driving	S		Foreman				
		Common Operation 5: Movable cranes	Inspection of crane equipment not carried out	6	2	12	3	Check on the crane operation tools such as shackles, clamps and wire ropes etc. before operation	A Safe	ty be hs	Person in charge for crane operations				
								Dispose of defective equipment and materials	H						
			Inappropriate crane operations	9	2	12	3	Select the proper crane operation process and took that are suitable for target back before the hunch of operation (length, shape and weight etc.)	EN		Person in charge for crane operations				
			Workers entering into crane oneration area	9	2	12		Evacuate from the working radius before the launch of operation	¥		Crane operator				
								Launch of operation after confirmation of workers evacuation	Y						
								Call for other worker's attention by whistles or microphones	A						
			Lifted loads moving back and forth and then hitting some other objects	10	4	40	5	Set a hook right above lifting loads	V		Crane operator	10	1	10	
								Check the habace of lifted loads just after hanging it	A						
								Re-do if unbalanced condition is recognized	EN						
						-	_	Use assisting rope to minimize jolning	EN						
		λıa	Falling of lifted loads	10	4	40	5	Ensure to fix lifted hoads tightly and use appropriate lifting tools such as wire-met suck etc.	EN		Crane operator	10	1	10	
		1 s Z						Use a crane of appropriate standard according to the weight of kads	EN						
		W 0 rk	Third persons' break-in to crane operation area	6	2	12	3	Set an off-limit rule for the crane operation space	Υ		Person in charge for crane operations				
		g ni bı	Overturn of a crane	9	4	24	4	Use an appropriate crane (calculate and plan with 90% of the total capacity)	EN		Person in charge	9	1	9	2
		6 2 3 5						Check the ground first and fully extend outing gers	EN		Operators				
		1026						Strictly follow the safe working load defined at zero loading capacity (crane carroine tune)	A						
		118:						Continuous measurement of lifted loads by measuring gauges through the					ľ		
		9 Y						operation	A						
		I. 0 N V						Always check the warning light and stop operation when its color changes from blue to yellow	Υ						
		V A J						Check the length and angle of the jh and decide the weight of lifted loads accordingly	EN						
								Check on lifting weight properly (crane carrying type)	A						
								Follow the proper operation suitable for the machine performance, escretishly for the safe working had etc.	v						
			Collision with a crane	10	4	40	5	Set an off-limit rule for the crane operation space	Y		Chief worker	10	-	10	3
								Prohibit moving backward	A		Operators				
								Follow the direction guided by site conductors	A						
								Install a safety motion sensor except small rotating type cranes	EN						
			Equipment falling from rear deck and hitting workers during conveyance	9	2	12	3	Check on anchor wires etc.	A		Foreman				
Ground excavation	Hydraulic strovels, dump trucks, bulktozers, earth and	Common Operation 6: Rolling down of a	Rolling down of a hydraulic shovel	6	2	12		Refrain from approaching too chose to road shoulders, top of the stopes, or ditches	A Safe A refb	ty bels and ctive vests for	Operators				
	0000							Check the ground stability before the launch of operation	A traffi	ic navigator	Chief worker				
			Use of a hydraulic shovel for improper purposes	6	4	24	-4	Do safety management under instruction of operation manager	Y		Operators	6	5	12	ŝ

								Use a hydraulic shovel with crane function (excavator)	EN		Chief worker				
			Collision with a hydraulic shovel	10	4	05	5	Set an off-limit rule for the crane operation space	Y		Chief worker	10	1	10	3
								Prohbit moving backward	A						
								Follow the direction guided by site conductors	Y						
								Install a safety motion sensor except small rotating type cranes	EN						
			Collision with a dump truck	9	2	12	3	Drive only on instructed routes and roads	Y		Drivers				
								Follow the direction guided by site conductors	Y						
			Inconsistency of signs	9	2	13		Confirm the signs before starting operation and give the signs in a good sield of the driver	Y		<sup>1</sup> lagmen				
			Falling into excavation area	9	2	12	3	Set guardrails to prevent automobiles and persons from falling down	EN		Chief worker				
								Set an appropriate tool for getting on and getting off and fix it well	EN						
		Common Operation 7: Dumn trucks	Collision between a truck and a site conductor	10	4	40	5	Guide within the truck driver's visual range	V	Safety belts and reflective vests for	Site conductor	10	1	10	3
			Rolling down of a truck	9	2	12	3	Albcate site conductors	Y	traffic navigator	<sup>2</sup> ore man				
								Display connectable equipment	Y		<sup>5</sup> ore man				
		<u>λ</u> 1 =						Pay good attention to traffic hazard assessment and study the conveyance route well	V						
		tk Sat	Falling down the rear deck of a running vehicle	9	4	54	4	Refrain from transferring with staying on the rear deck	V		Workers	-	1		-
		o W gr	Equipment falling from rear deck and hittine workers durine converance	9	2	13	~	Check on anchor wires etc.	Y		3 ore man				
		1i b 1	Collision with a truck	9	2	12	.6	Albeate site conductors	Y		Workers				
		689)	Collision with a bulkbozer	10	2	20	4	Refrain from crossing a path just before and after the pass of a bulktozer	Y		<sup>2</sup> cre man	10	-	10	3
		0 /						Clearly design and draw the working space and keep it a off-limit zone	Y		<sup>c</sup> ore man				
		61169	Workers being buried alive by landslides	10	8	08	5	Manage the height of the excavation surface and always maintain the equilibrium slope	Y		Chief worker	10	2	20	4
		Å I				1									
e concrete placing	Concrete pump vehicles, concrete mixing vehicles, vitra tors, concrete	<ul> <li>Common Operation 7: Trucks (substitute traces、準用?)</li> </ul>	Collision between a truck and a site conductor	10	4	9	5	Gaile within the truck driver's visual tange	V	Safety bels and reflective vests for	Site conductor	10	-	10	3
		1	Rolling down of a truck	9	2	12	3	Albeate site conductors	Y	trathe navigator	<sup>c</sup> ore man				
								Display connectable equipment	Y		Gore man				
								Pay good attention to traffic hazard assessment and study the conveyance route well	V						
			Falling down the rear deck of a running vehicle	9	4	24	4	Refrain from transferring with staying on the rear deck	V		Workers	1	1	1	1
			Equipment falling from rear deck and hitting workers during conveyance	6	2	12	3	Check on anchor wires etc.	γ		<sup>2</sup> ore man				
			Collision with a truck	9	2	12	3	Albcate site conductors	Y		Workers				
			Overturn of a concrete pump vehicle	9	2	12	3	Check the ground first and fully extend outiggers	EN	Protective mas ks, protective glas ses and vibration proof globes	) per ators				
			Collision with a bucket	10	-	10	3	Refrain from approaching close to buckets while they are moving	Y		Workers				
rrication and nantling of meworks	Movable cranes, trucks, round saws, boards, timbers	Common Operation 5: Movable cranes	Inspection of crane not carried out	9	2	12	3	Check on the crane operation tools such as sheckles, clumps and wire ropes etc. before operation	Y	Safety belis	Person in charge for crane therations				

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Important         Important         Disson allocation dispersion and d
Improvisive crane operations     6     2     12     3       Workers errening into crane     6     2     12     3       Workers errening into crane     6     2     12     3       Lafferl Insk moviey bek tard from     10     4     20     5       Elling of filed basis     10     4     20     5       Falling of filed basis     10     4     20     5       Overation area     6     2     12     3       Overation area     10     4     20     5       Explorence     10     4     20     5       Diveration file from area     10     4     20     5       Diveration file from area deck of all all all all all all all all all al
Imageroprise cance operations     6     2     12       Workers cancering into cance     6     2     12       Workers cancering into cance     6     2     12       Workers cancering into cance     6     2     12       Unders cancering into cance     6     2     12       Italied loads moning back and forth     10     4     40       Italied loads moning back in to cance     6     2     24       Table persons' break in to cance     6     2     24       Overtunn of a cance     6     4     24       Destinition at and     6     2     24       Destinition at and     10     4     40       Ending runn of a cance     6     4     24       Common Operation 7:     10     4     40       Ending runn of a cance     10     4     40       Ending runn of a cance     10     4     40       Ending runn of a cance     10     4     40       Ending run erat dack and a stat     10     4     40       Ending runder and a tank     10     4     40       Ending runder and a tank     10     4     40       Ending down of a tank     10     4     40       Ending runde
Image optistic came operations     6     2       Nonders catering into came     6     2       Ovorders catering into came     6     2       Intel lands, moving back, and forth     10     4       Overtuin of a came     6     2       Overtuin of a came     6     2       Intervent     10     4       Overtuin of a came     6     2       Intervent     10     4       Common Operation     6     2       Intervent     10     4       Intervent     6     2       Intervent
Impropriet came operations     6       Workers catering into came     6       Workers catering into came     6       Intel loads moving back and forth     10       Effect loads moving back and forth     10       Overnam of a crane     6       Overnam of a crane     6       Effect loads and a set hubback     10
Inappropriate came operations Works se entering into came wwith the set of the indication of the indication of the indication areas and then hindly some other objects. Find proors the shift some other objects. The indication areas and the shift some other objects. Control of a came overtuation of a came control of a came control of a came Control of preation 5. Cullsion with a came Engine of thing, from net dock and Engine of thing. from net dock and Engine of thing. from net dock and Engine of thing. From set do the cane of the indication Fireds. Engine of thing. From set do the cane of the indication Engine of the fired of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane Engine of the cane of the cane of the cane Engine of the cane of the cane of the cane Engine of the cane of the cane of the cane Engine of the cane of the cane of the cane Engine of the cane of the cane of the cane Engine of the cane of the cane of the cane Engine of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane of the cane of the cane Engine of the cane of the cane Engine of the cane
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Varkers	Vorkers	úe conductor	vreman	ùreman		Vorkers	òreman	Varkers	or eman	Vorkers	òreman	Derators	Dperators		'erson in charge for crane perations		terson in charge for crane perations	lane operator			lane operator				lane operator		terson in charge for crane perations	erson in charge	Dperators	
Protective masks, protective glasses and N safety belts	-	Safety bels and reflective vests for	trathc navgator F	H			H	~	Protective masks, protective glasses and v bration proof gbbes	N	H		0		Safety bels 0		4				0				0		H	Ц	0	
Y	A	A	A	A	A	¥	Y	A	A	A	A	EN	ď		Y	EL	EN	Y	A	A	Y	A	EN	EN	EN	EN	A	EN	EN	A
Carry out inspection of blade safety sensors before staring operation	Carry out inspection of working cluthes before starting operation	Guide within the truck driver's visual range	A lbcate site conductors	Display the road shouther	Pay good attention to traffic hazard assessment and study the conveyance route well	Refrain from transferring with staying on the rear deck	Check on anchor wires etc.	Albcate site conductors	Doube check the strength of fake work	Check the condition of concrete form shoring framework	Divide the bads (weight) into several groups	Check the ground first and fully extend outriggers	Wearing protective equipment (gloves)		Check on the crane operation tools such as: shackles, clamps and wire ropes etc. before operation	Dispose of defective equipment and materials	Select the proper crane operation process and tools that are suitable for larget back before the launch of operation (kngth, shape and weight etc.)	Evacuate from the working radius before the launch of operation	Launch of operation after confirmation of workers evacuation	Call for other worker's attention by whistles or microphones	Set a hook right above lithing hads	Check the balance of lifted back just after hanging it	Re-do if unbalanced condition is recognized	Use assisting rope to minimize johing	Ensure to its litted loads tightly and use appropriate it tung tools such as wire-net sack etc.	Use a crane of appropriate standard according to the weight of loads	Set an off-limit rule for the crane operation space	Use an appropriate crane (calculate and plan with 90% of the total capacity)	Check the ground first and fully extend outriggers	Strictly follow the safe working had defined at zero hading capacity (crane carrying type)
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10	1	04	12 3			7 57	13	12	608			51	20 4	-	5		12 3	51			40			╈	40		1	7 12		
-	2	4	2			4	2	2	8			5	2		2		2	2	T		4			T	4		7	4		
10	9	10	6			9	9	9	10			9	10		6		9	6	-		10			T	10		9	6		
Getting a cut by cutting blades	Workers' clothes or gbbes getting entangled in a machine	Collision between a truck and a site conductor	Rolling down of a truck			Falling down the rear deck of a running vehicle	Equipment falling from rear deck and hitting workers during conveyance	Collision with a truck	Collapse of framework structures			Rolling down of a concrete pump vehicle	Workers getting stuck by equipment		Inspection of crane equipment not carried out		lnappropriate cra ne operations	Workers entering into crane oneration area	10 Mar		Lifted loads moving back and forth and then hitting some other objects				Falling of lifted bads		Third persons' break-in to the crane operation area	Overturn of a crane		
		Common Operation 7: Trucks (substitute usate、準用?)							rk Safety	• M	8 ui	bisge	1 0 L	61	Common Operation 5: Movable cranes	1.0	N M Y	1												
		Concrete pump vehicles, concrete mixing vehicles, concrete vihrators													Movable cranes, trucks, building materials															
		Concrete placement													Setting and removal of temporary construction															

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					Chief worker	Operators			Foreman	Site conductor	Foreman	Foreman		Workers	Foreman	Workers	Foreman	Qualified person	Foreman	Qualified person	Foreman	Qualified person		Person in charge for crane one rations	ALL OTHER ALL OF	Person in charge for crane operations	Crane operator			Crane operator
										Safety belts and reflective vests for	traffic navigator													Safety belts						
A	A	EN	A	A	A	A	Α	EN	A	Y	A	Α	A	Y	A	A	A	EN	A	Y	Α	EN	Y	Y	E	EN	۷	A	A	A
Continuous measurement of lifted loads by measuring gauges through the operation	Always check the warning light and stop operation when its color changes from blue to vellow	Check the length and angle of the jib and decide the weight of lifted loads accordingly	Check on lifting weight properly (crane carrying type)	Follow the proper operation suitable for the machine performance, esnecially for the sofe workine had etc.	Set an of f-limit rule for the working space	Prohibit moving backward	Following guides by site conductors	Install a safety motion sensor except smallr otating type cranes	Check on anchor wires etc.	Guide within the truck driver's visual range	Allocate site conductors	Display the road shoulder	Pay good attention to traffic hazard assessment and study the conveyance route well	Refrain from transferring with staying on the rear deck	Check on anchor wires etc.	Allocate site conductors	Using a safety belt properly with a main rope	Checkup with an insulation resistance meter	Check on the inspection record	Check on the setup resistance value	Check on the installation condition	Check on power distribution boards periodically	Display connectable equipment	Check on the crane operation took such as: shackles, clamps and wire trones etc. heftne oneration	Dispose of defective equipment and materials	Select the proper crame operation process and tools that are suitable for target loads be fore the launch of operation (length, shape and weight etc.)	Evacuate from the working radius before the launch of operation	Launch of operation after confirmation of workers' evacuation	Call for other worker's attention by whistles or microphones	Set a hook right above lifting loads
					5				3	5	3			4	3	3	~	4		4		~		3		3		$\left  \right $		5
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					10				6	10	9			9	9	9	9	10		10		9		9		9	9			10
					Collision with a crane				Equipment falling from rear deck and htting workers during conveyance	Collision between a truck and a site conductor	Rolling down of a truck			Falling down the rear deck of a running vehicle	Equipment falling from rear deck and hiting workers during convevance	Collision with a truck	Falling down during fa brication or dismantling of temporary structures	Electrical shock by incomplete coverage		Electrical shock by a lack of an earthing device		Malfunction of a power distribution board		Inspection of crane equipment not carried out	5110 D.47104A	Inappropriate crane operations	Workers entering into crane operation area	0 M + + + + + + + + + + + + + + + + + +		Lifted loads moving back and forth and hitting some other objects
										Common Operation 7: Trucks														Common Operation 5: Movable cranes						
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					10			6											-	10					10	10	10				-	10	10	
					tane operator		terson in charge for crane perations	erson in charge	Dperators		herators	nonmada								Thet worker	Dperators			oreman	oreman	Vorkers	Thef worker			Vorkers		Vorkers	Vorkers	
					0		d o	4	0		0	,									0			H		~			Protective glasses,	masks, gloves for V welding operation,	safety belts	A	A	
		A	EN	EN	EN	EN	¥	EN	EN	Y	¥		Ą	:	EN	-	A	A		A	A	A	EN	¥	A	EN	Ą			ď		EN	A	EN
		Check the balance of lifted loads just after hanging it	Re-do if unbalanced condition is recognized	Use assisting rope to minimize phing	Ensure to fix lifted loads tightly and use appropriate If ting tools such as wire-net suck etc.	Use a crane of appropriate standard according to the weight of loads	Set an off linnis rule at working areas	Using cranes with proper capacities	Check the ground first and fully extend outriggers	Comply strictly with load ratings (crans carrying type)	Continuous measurement of lifted loads by measuring gauges through the	operatión	Always check the warring light and stop operation when its color changes	from blue to ye Ibw	Check the length and angle of the jh and decide the weight of lifted loads	accountry	Check on lifting weight property (crane cairying type)	Follow the proper operation suitable for the machine performance,	espectative for the safe working load etc.	Set an off-limit rule for the crane operation space	Prohibit moving backward	Follow the direction guided by site conductors	Installa safety motion sensor except smal rotating type cranes	Confirmation of slings installment	Appoint and allocate chief workers	Fix short struts and walings with wedges etc.	Usine a safetv belt property with a main rope			Wearing protective equipment (glasses)		Set backfire preventive measure to a gas cylinder	Refrain from placing combustible materials around	Detecting gas kakage by using soap water
					10 5		12 3	12 3								+			•	5 0				12 3	20 4	20 4	1			3	-	20 4	1	
					4		2	2								T				4				2	2	2	6			7		- 7	6	
					10		9	9								T			4	I0				6	10	10	10			6	-	10	10	
					Falling of lifted loads		Third persons' the ak-in to crame operation area	Overturn of a crane					(121	E C	110			0188		Collision with a crane	6 1	1 8 3	I	Equipment failing from rear deck and httinge workers during convevance	Collapse of short struts and fake work by mal-assembly	Falling down of short struts and	Falling from a short strut	×		Eye injury by spark during cutting operation		Gas cylinder catching fre	Fire breakout	
													710]	- 2	1***		ui	r		U L	01		Λ	I V N						Gas welding machines, oxygen, acetylene				

# ple 1-4

EN

Detecting gas leakage by using soap water Avoiding sunlight using coverings etc.

15 Gas welding and meltdown operation

T

### 2 Operating Instructions

#### 2.1 Case Example 2-1

#### 1) Outline

Case Example 2-1-1 is one of the corporate documents which informs persons concerned with the project to suspend the operation until project recommencement approval by the relevant division after taking proper countermeasures.

In relation to the above, this document is used as notification in the case a sort of hazard had been identified through corporate inspection but no countermeasure has been taken yet. This is a final notification to urge whoever in concern to take immediate actions for safety countermeasures within a given deadline (Case Example 2-1-2).

#### 2) Case Example

The Case Examples 2-1-1 and 2-1-2 are on the following pages.

Operating Instructions	Case Example 2 - 1 - 1
Operating Instructions	Case Example 2-1-1

Pause	Notice
Safety Department	No.
Section: Safety production is a basic p your section has a severe haz regulations. This notice is to in ,until approval by pr	rinciple of enterprise management, by inspection, card which is not able to comply with the relevant nform you to suspend your operation on roject department after correction.
c.c	
Date:	

Operating Instructions	Case Example 2 - 1 - 2
Notice of Poter	ntial Risk Correction
Project Department	Safety Serial No.
Unit: '	
Responsibility	
Last inspection found there was a potential haza name of project department with safety ser now. For safety, health and smooth produc action to rectify the present status by the da	ard, and notified you of correction in the ial No,_, but still stay unchanged until stion, this is a final notice of taking prompt ate of
C.c.	
Date:	·

### 2.2 Case Example 2-2

#### 1) Outline

These two case examples show a checklist targeting for cranes operated under mechanized construction (Case Example 2-2-1) and a defect notification form on them (Case Example 2-2-2). The former consists of 12 check items and each check item is supposed to be filled out by a crane operator. Should one fault be found on a crane truck, the latter will be noticed and the crane truck cannot be in operation according to the site regulations. In the latter format, a crane operator should describe a fault found on a crane, for which a manager of lifting operation needs to take countermeasures and describes them in details (such as when, where and what).

#### 2) Case Example

The Case Examples 2-2-1 and 2-2-2 are on the following pages.

# Operating Instructions

# Case Example 2-2-1

RAVE	the set of an end of the local set of the second							
	INSPECTI	ION CHECI	KLIST					
AL B tang	r beginning out the folk	of each shit wing routin	li or working w e checks;	den the en	ar îs îs i	se, he ers	ne operator	renould
1.3	00258-16-110 Unic a terrain	e cranes con e ta vice	an is dien fron	n gresse or	other st	inberk raps	sance, whi	ch tozy
-2 B	com is not t	wisted, sour	ed or dropped.	1.1				
3 A	pparent deb	ects on the sl	ewing toble on	2-222598				
4. H	look block is	e net ersekter	i opined up or	deformed.				
5, 8	afety eatens	en the hook i	a not crucked,	occured up o	a deform	rd,		
6 8	servel ball is	s able to rota	te freely. (If any	<u>y</u> )				
8 10	čieli dnero	cropia ang in analiwineles	sam free free	o tosonor visible defe	ets.			
9. H	ouse keep n	a in the orbi	in is good.	T DELL'EN DELL'EN				
10-A	II safety de	ories inclu	ing warring i	hóm, hóith	ng limit.	switch, in	oleý trali	loviten,
s	eving limit	switches are	deverloading a	formare in	ipid on	king order.		
-11.C	lutch and br	okes are in g	ood working o	rde				
$-\mathbf{F} \cdot \mathbf{C}$	current song	shi blocks are	e properly sited	C				
	1 ( A A		1000					
(11 Melecka	must be me	openly check	ed and anothed.	into record	by the lat	ana operato	1	
and characters			C. Camponed					
Gaon	X Derict	Ng (Poblem)	The Contract of the second	The second second				
Good s	X -Derica hall operation	e the crane i	f any one of it	e above is	not in or	der		
Good io one s aform ti	X -Derici hall operative fifting say	ve (Poblen) e the crone i servisor in-cl	if any one of it large immedia	ie above is: icly:	not in or	der		
-Goos to one s aform th bein	X -Derich hall operation in lifting sup Monday	ve (Poblen) e the crane i craitar in-cl Taeslay	if any one of it large immediat Websivery	ie above is Icly. Tranky	First	der Strog	Suntry	Bennets
-Good to one s nform th hein 1	X -Derica hall operation of fifting sup Manday	ve (Poblen) e the crone i cristian in-cl Tuestay	f any one of it large inmedia Webusey	ie above is icly. Tracky	not in or Firity	der Setucio	Sunky	Beauty
Good io offels aform th hein 1 2	X -Derica hall operation of lifting sup Monday	ve (Problem) e the circute i scrivitari in-cl Tueslay	f any one of fi large incredia Wolwszy	ie above is iels. Tresky	not in or Firiby	der Salarday	Sorthy	Benets
Good to one s aform th hein 1 2 3	X Derici hall operation of lifting sup Manday	te (Poblen) e the ciriate i screistr in-cl Taeslay	f any one of fi leave immedia Webussay	ie above is iely. Tranky	Fi 43,	der Situciy	Sorthy	Bonets
Good fo one s nform the hein 1 2 3 4	X -Derien hall operation in fifting sup Manday	ve (Problem) e the circute i servisor in-el Tricolog	f any one of fi large incredia Webusey	ie above is iely. Tranky	Firsy	der Sidaday	Sunky	Bennis
-Goon to one s aform the hean 1 2 3 4 5	X -Derien hall operation ie lifting sup Monday	e (Poblen) e the criste i scratsor in-cl Taeslay	f any one of H large incredia Websey	ie above is iely. Tresky	FLAX	der Salanday	Sate	Banaria
-Goon in one s aform th hein 1 2 3 4 5 5 5	X -Derien hall operation te fifting sug Monday	ve (Problem) e the circute i scroisor in-cl Taeslay	f any one of fi leave immedia Webussoy	ie above is izly. Tranky	First	der Saturby	Sunky.	Benets
-Goost io one s nform th 1 2 3 4 5 5 5 7 7	X -Derica hall operations and filling say	te (Poblen) e the ciriate i screistr in-cl Tricolay	f any one of fl large incredia Webusey	ie above is iely. Tranky	First	3 dardig	Sorthy	Bonarks
-Goost io one s aform th 1 2 3 4 5 5 7 8 8	X -Derien hall operations sup Monday	te (Poblen) e the cirate i screiger in-cl Tuesloy	Fany one of H harge immedia Webusey	ie above is iels. Tranky	FLAX	Salactor	Sunky	Benniks
-Goost io one s aform th 1 2 3 4 5 6 7 8 9 10	X -Derien hall operation of lifting sug- Monday	ve (Poblen) e the circute i scraisor in-cl Taeslay	Vernesay	ie above is iels. Tresky	First	der Salarday	Suraky	Benets
-Goost io one s aform th 1 2 3 4 5 6 7 8 9 10	X -Derien hall operation te fifting sug Monday	ve (Poblen) e the cirine i scroistr in-cl Taeslay	Fany one of H large immedia Webusey	ie above is izly. Tranky	First	der Situcio	Sunky	Bounds
-Goost io one s aform th 1 2 3 4 5 6 7 8 9 10 11 12	X -Derien hall operation of lifting sup Monday	te (Poblen) e the cirine i screistr in-cl Triesday	Verterson	ie above is izly. Tranky	First	3 dantag	Soriky	Boninks
-Goost io one s aform th 1 2 3 4 5 5 5 7 8 9 10 11 12	X -Derien hall operation is lifting sup Manday	te (Poblen) e the circue i screiger in-cl Tueslay	Verterson	ie above is iels. Tre-Ry	Fr 4.9	3 dardig	Sunky	Beneriks
-Goost io one s aform th 1 2 3 4 5 5 5 7 8 9 10 11 12 12 12 11	X -Derien hall operation of lifting sug Monday	te (Poblen) e the cinite i scroistr in-cl Taeslay	Verterson	ie above is izly. Tresky	FLAX	der Saturby	Sunky	Beautis

# **Operating Instructions**

Case Example 2-2-2

Form 30	Report No:
CRANE FAULT NOTIFICATION FORM	
Name and Signature of Operator: Operator is the measure is Makele Structure Theorem 1 Md Max	
rearre to be oberated; propries (12 with Forwer First Mo.	
lassion of Crane	
Date of Inspection:	
Date of Notification:	
Name of Lifting Supervisor:	
· · ·	
The operator of the above mentioned orane wished to inform you arane has the following faults/defects after my routine check;	(the Lifting Supervisor) that the
Please arrange to make it good.	
REMEMBER ACTION TAKEN BY LIFTING SUPERVISO (State below When What & When were stild action to be dow?)	R
ACTION COMPLETED	
ACTION COMPLETED (State Date & Time)	
ACTION COMPLETIUE (State Date & Time)	
ACTION COMPLETED (State Date & Time)	
ACTION COMPLETED (State Date & Time) Name and Signature of Lifting Supervisor:	
ACTION COMPLETED (State Date & Time) Name and Signature of Lifting Supervisor: 	· 'Time:
ACTION COMPLETED (State Date & Time) None and Signature of Lifting Supervisor:	: 'Time
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ACTION COMPLETIED (State Date & Time) Name and Signature of Lifting Supervisor:	. /Time
ACTION COMPLETED (State Date & Time) Name and Signature of Lifting Supervisor:	: 'Time
### 2.3 Case Example 2-3

### 1) Outline

This form is a sample of work permission based on the statistics that there have been lots of accidents in which many newly-employed workers have been involved (Case Example 2-3-1). The types of dangerous work (such as working in confined space, in high temperature, in excavation, under high-voltage cables, and near public facilities), details of work, risk mitigation measures etc. are listed. A newly-employed construction worker is to sign this document agreeing to work under aforementioned conditions and cancellation of permit.

Similar to the above is a permission of loading operation after temporary construction work (Case Example 2-3-2). It is important as the possibility of accidents under temporary construction work is higher. Listed in this document are check items such as formwork, falsework, strutting, excavation and others. It can be recognized it is a good example in that a number of inspectors simultaneously check the temporary construction works in order to secure the safety.

### 2) Case Example

The Case Examples 2-3-1 and 2-3-2 are on the following pages.

## **Operating Instructions**

Case Example 2-3-1

		Project Name:		
OCCUP	ATIONAL, HEAL	TH, SAFETY and	REHABILITATION	PLAN
		PACKAGE C		
	PE	RMIT TO WORK – I	PF48	
WEIP/PKG <u>/</u> /48 REF*	SITE	PERMIT NO.	DATE	PERMIT VALIDITY ( )DAYS: Max 7 days
PERMIT REQUIRED FOR:				PART 1
CONFINED SPACE HOTWC	RK TO DIG	CLOSE PROXIMITY	CLOSE TO R LINES UTILITIES	OTHER(pls-state)
DETAILS OF WORK TO BE	CARRIED OUT:			
	S TO BE APPLIE		K ASSESSMENT IF N	
SPECIFIC ATMOSPHERE N	IONITORING:			
SPECIFIC ATMOSPHERE N O2(19% min) CH4(air-5	/ONITORING: 5% LEL/0.25 volur	ne) CO(50 ppm)	H2S(10 ppm) NO2	2(3 ppm) OTHER
SPECIFIC ATMOSPHERE N O2(19% min) CH4(air-5 AUTHORIZATION:	/IONITORING: 5% LEL/0.25 volur	ne) CO(50 ppm)	H2S(10 ppm) NO2	2(3 ppm) OTHER
SPECIFIC ATMOSPHERE N O2(19% min) CH4(air-5 AUTHORIZATION: I certify that the location spe been taken. Subject to the s	MONITORING: 5% LEL/0.25 volur ecified and detaile	ne) CO(50 ppm) ed above has been i	H2S(10 ppm) NO2	2(3 ppm) OTHER precautions detailed have
SPECIFIC ATMOSPHERE N O2(19% min) CH4(air-5 AUTHORIZATION: I certify that the location spe been taken. Subject to the s	MONITORING: 5% LEL/0.25 volur ecified and detaile aid precautions be	ne) CO(50 ppm) ed above has been i eing taken, the work	H2S(10 ppm) NO2 inspected and all the detailed can proceed	2(3 ppm) OTHER precautions detailed have
SPECIFIC ATMOSPHERE N O2(19% min) CH4(air-5 AUTHORIZATION: I certify that the location spe been taken. Subject to the s Signed:	MONITORING: 5% LEL/0.25 volur ecified and detaile aid precautions be Date:	ne) CO(50 ppm) ed above has been i eing taken, the work	H2S(10 ppm) NO2 inspected and all the detailed can proceed Print Name:	2(3 ppm) OTHER precautions detailed have I.
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SPECIFIC ATMOSPHERE N O2(19% min) CH4(air-5 AUTHORIZATION: I certify that the location spe been taken. Subject to the s Signed:	MONITORING: 5% LEL/0.25 volur ecified and detaile aid precautions be Date: understood this p Date:	ne) CO(50 ppm) ed above has been i eing taken, the work Time: permit and I shall en:	H2S(10 ppm) NO2 inspected and all the detailed can proceed Print Name: [ sure that the precaution Print Name: [	2(3 ppm) OTHER precautions detailed have 
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SPECIFIC ATMOSPHERE N O2(19% min) CH4(air-5 AUTHORIZATION: I certify that the location spe been taken. Subject to the s Signed: RECEIPT: I certify that I have read and are taken: Signed: CLEARANCE: The work detailed in PART of withdrawn from the area. Signed:	MONITORING: 5% LEL/0.25 volur ecified and detaile aid precautions be Date: Understood this p Date: ONE has been/no	ne) CO(50 ppm) ed above has been i eing taken, the work Time: Time: Time: Time: Time: Time: Time:	H2S(10 ppm) NO2 inspected and all the detailed can proceed Print Name: [ sure that the precaution Print Name: [ and all the equipment Print Name: [	2(3 ppm) OTHER precautions detailed have l. cons detailed in PART ONE and personnel have been
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SPECIFIC ATMOSPHERE N O2(19% min) CH4(air-{ AUTHORIZATION: I certify that the location spe been taken. Subject to the s Signed: RECEIPT: I certify that I have read and are taken: Signed: CLEARANCE: The work detailed in PART of withdrawn from the area. Signed: CANCELLATION: This permit is hereby cancel	MONITORING: 5% LEL/0.25 volur ecified and detaile aid precautions be Date: Date: Date: Date: Date: Date: Date: Date: Date: Date:	ne) CO(50 ppm) ed above has been i eing taken, the work Time: Time: Time: Time: Time: Time: Time: Time:	H2S(10 ppm) NO2 inspected and all the detailed can proceed Print Name: [ sure that the precaution Print Name: [ Ind all the equipment Print Name: [	2(3 ppm) OTHER precautions detailed have ons detailed in PART ONE and personnel have been
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Operating Instructions

Case Example 2 - 3 - 2

Project Name
PROCEDURE NO.16-SAFETY MANAGEMENT
PERMIT TO LOAD/CONTINUE – PF 83
WORKS SECTION/LOCATION: DATE: WEIP/PKG/ REF:
1. TEMPORARY WORKS ITEM (PLEASE TICK)         FORMWORK       FALSEWORK         STRUTTING       EXCAVATION         OTHER (PLEASE STATE)
2. INSPECTION DETAILS A JOINT INSPECTION IS REQUESTED FOR THE ABOVE TEMPORARY WORKS TO ALLOW THE FOLLOWING ACTIVITY OF: TO PROCEED
DATE OF INSPECTION: REQUESTED BY:
3. CONFIRMATION I, CONFIRM THAT THE ABOVE TEMPORARY WORKS HAVE BEEN INSPECTED AND THAT THE FOLLOWING ACTIVITY MAY/MAY NOT PROCEED. (PLEASE REFER TO DETAILS BELOW.) SIGNED
POSITION DATE :
4. COMMEMTS/DETAILS

### 2.4 Case Example 2-4

### 1) Outline

These are illustrations (for operations of soil extraction, slope cutting, masonry work, spraying, retaining walls installation, pavement, placing grid concrete and culverts installation etc.), which visually explain traffic control and safety plan for the site. As the sample is a road construction under severe geological features and weather condition, which leads to a higher possibility of landslides, this document is an outcome of efforts for safety assurance of the project.

One of well-devised points of Case Example 2-4-1 is that the alignment of causeway is changed in rainy and in dry seasons. Case Example 2-4-2 is an easy to understand illustration which depicts expected danger of shotcrete which involves a number of construction machinery. In addition, accidents caused by a third party are common during construction, excavation and banking on current roads. Case Example 2-4-3 thoroughly expresses method of construction and traffic safety measures as well as arrangement of construction machinery in both a ground plan-map and a longitudinal plan-map (Case Example 2-4-3).

### 2) Case Example

The Case Examples 2-4-1, 2-4-2 and 2-4-3 are on the following pages.



**Operating Instructions** 

Case Example 2-4-1





## **Operating Instructions**

## Case Example 2-4-3



### 2.5 Case Example 2-5

### 1) Outline

Having already mentioned that newly-employed construction workers are more likely to encounter accidents, this document (Case Example 2-5-1) is a questionnaire for them, which intends to raise safety awareness. A newly-employed construction worker is requested to fill in ID number, company's name, qualifications and licenses obtained, contact address in emergency case, etc. and sign an oath of safety cooperation such as attending entry education course and wearing PPE etc.

Moreover, Case Example 2-5-2 is a notification form of dangerous material and harmful substances to use, which includes person in charge of handling of hazardous materials, names of hazardous materials, purposes of use, places of use, places of custody, period of use and ventilation. By signing these documents themselves, it is expected that new construction workers will be more aware for securing safety.

### 2) Case Example

The Case Examples 2-5-1 and 2-5-2 are on the following pages.

## **Operating Instructions**

Case Example 2-5-1

										DATE	of new	Entry			No.
										Year		mor	nth	day	
	This question	naire is used	as basic r	naterial o	f where t	o make	e contac	t confir	mation when the	e emergency	such as tl	he injurie	es is ge	nerated an	d main
onti	ractor's mana	gement for sa	afety and s	sanitation	s. Mai	n contr	actor's	person	In keeping prop	erly manages	and kee	ps ut.			
	Project	ID			-				Notes						
	First subco			ntracto	r com	pany'	's nan	ne	Affiliated of	company's	s name	)			
	Compar	Company													
	name									Vea	rs of	_			Γ.
	F	irst Name			Give	n Nam	ie		Occupation	n expe	rience	D	ate of	birth	Age
													/	/	
	Alphabet			Alphal	bet						voare				
ut fail											years		1		
	address											TEL		•	•
litho	ju j	address													
∧ L	ntact i ergen case						r –		Nan	00			P	alations	hin
IIS II	eme CO	TEL							Indi					erations	mp
on ti															
uesti	۵		C	Qualification and license name Acquired yea				ed year	Qualification and license number						
in q	seus														
rson	oil br														
e pe	on ar														
ГЪ	catic														
	Jalifi														
	nr dr														
	۶.														
	ath	I attend	ed the	new er	ntry ed	ucati	on of	this p	project acco	ording to t	he atta	ached	instru	iction m	aterial,
	șn oș	swear to	o work	safety	by obs	servir	ng the	e rule	of the this	project (E	specia	ally, I w	/ear t	he helm	et, the
	ake (	safety s	hoes, a	and the	e reflec	tion v	vest v	vitho	ut fail.), and	l coopera	ting ea	ch oth	er.		
	Ř	date			year		m	onth	day	Signature					
	I	(oninion	.) 								Deput	v			Perco
		(0011101	''							Project Manager	Projec	ct			in
										,	Manag	er			Charg

Operating Instructions Case	Example 2-5-2
-----------------------------	---------------

No.6			Sign		
			(Day)	(Month) (	Year)
No.6       Sign         (Day)       (Month)       (Year)         Notification of pit dangerous material and harmful matter to use         Project office name					
Project office	ename				
Project manage	r name				
		C	Company name		
		-	(Subcontractor)		Sia
		Г	erson in charge		Sig
				de	ecription
				Ű	escription
	Name of Material	Specification	Quantity	Des	cription
Material					
Purpose and					
using location					
Stock location					
Period of service	(Day)	(Month) (Ye	ar) to (D	ay) (Month)	(Year)
Person in charge					-
Control dangerous materials					
Ventilation a way and classify					
Remarks					

(Note)

1 This dangerous material is diesel oil, lamp oil, propane gas, acetylene gas.

2 This harmful matter is organic solvent, specified chemical substance (using coating and waterproof).

### 2.6 Case Example 2-6

### 1) Outline

While there are quite many checklists on safety patrol, checklists on safety instructions such as this Case Example 2-6 is rare and thus valuable. Case Example 2-6 is a very stringent checklist which consists of description and drawing of safety problems, delay from limited date, reasons of delay, instructions for improvement, and limit for improvement date etc.

### 2) Case Example

The Case Example 2-6 is on the following page.

## **Operating Instructions**

Case Example 2-6

					FR: SIR-01
Appendix 9	Project Name				
SAFETY INSTRUCTION REPORT	Date		Date	Month	Year
Place	Reported by				
Subcontractor's Name	Work kind				
Ditto incharged Person's Name	In charged Perso	n's Name			
Safety Problem with Easy Drawing	Instruction for Ir	nprovement			
Time Limit for Improvement Date	Confirmation wh	en Instructed			
Actual Improved Date	Project Manager	Safety Officer	Safety Assistant	In charged Engineer	Subcontractor in charged Person
Delay from Limited Date					
Reason of Delay					
	Confirmation	when Complet	ed		
	Project Manager	Safety Officer	Safety Assistant	In charged Engineer	Subcontractor In charged Person
Penalty of Delay					

### 2. Operating Instructions

### 3 Record of Meetings

### 3.1 Case Example 3-1

### 1) Outline

This document is similar to a daily report format. Each worker of working groups should fill in the plan and the actual result of the daily work so that a comparison between the plan and the actual work done is clearly shown. Additionally, a number of construction machinery and its types should also be added. Attached is a ground map of work site, on which workers mark the sections they have worked. Moreover, instructions on safety, quality and environment and other notes can be added to the last column. If construction workers change day to day, the comparison between the plan and the result may be unclear.

### 2) Case Example

The Case Example 3-1 is on the following page.

### Record of Meeting

## Case Example 3-1



### 4.1 Case Example 4-1

### 1) Outline

This case example is a simple and basic monthly report format, which includes total manpower, a number of safety meetings organized at site, a number of occupational safety awareness programs conducted at site, a number of fatal accidents, a number of other accidents and total working hours spent etc. There are two columns for each item, one for total number of the month, another for cumulative total number. It is also possible to add comments on the format. However, when considering safety management on an individual basis, there is a need to look at other documents such as patrol checklists.

### 2) Case Example

The Case Example 4-1 is on the following page.

## Monthly Report

Case Example 4 - 1

Actual Work start Date: Project: Name of the sub-Contractor: Name of work: ITEM Total Strength (Staff + Workmen)	For the Mo Report Status as on: Name of Designated Safet THIS MONTH	onth of: No: v Officer:
Name of the sub-Contractor: Name of work: ITEM Total Strength (Staff + Workmen)	Status as on: Name of Designated Safet THIS MONTH	v Officer:
Name of the sub-Contractor: Name of work: ITEM Total Strength (Staff + Workmen)	Name of Designated Safet	v Officer:
Total Strength (Staff + Workmen)	THIS MONTH	v Omcer:
Total Strength (Staff + Workmen)		
Total Strength (Staff + Workmen)		COMOLATIVE
No of Safety Meetings organized at site		
No of HSE awareness programs conducted at s	ite	
Whether Workmen health Policy taken		
Whether Workmen health		
Policy is valid		
Whether workmen registered under		
Number of Fatal accidents		
Number of Reportable Accidents (Non Fatal)		
Other accidents (Non Reportable)		
Total no of Accidents		
Total Man Hrs worked		
Incidence Rate		
No of Fire Incidents		
No of First Aid Cases		
No of Near Miss Incidents		
Compensation Cases		
No of Violations of Health and Safety provision		
Remarks, if any		
Date:		
Safety Officer		

### 4.2 Case Example 4-2

### 1) Outline

This case example is a weekly and monthly report format regarding safety management, which consists of name of item, location, inspection result, date of action and signature (Case Example 4-2-1). It can be said that this format is more systematized than the earlier Case Example 4-2-1 as it allows the inspectors to check whether any action of countermeasures are taken on the same page. Case Example 4-2-2 is a weekly safety check sheet, thus there are less items to check. Moreover, Case Example 4-2-3 is a record of issuance of PPE in which types of PPE, name of the worker and his/her signature are to be filled. It is easy to grasp a general view.

### 2) Case Example

The Case Examples 4-2-1, 4-2-2 and 4-2-3 are on the following pages.

ekly	& Monthly I	Report		Case Example	94-2	- 1
		PROJE	PROJECT CT HEALTH & SAFET	NAME <u>Y PLAN</u>		
FORM	S1	Weekly/Mo	nthly Safety Inspection Rej	<b>R</b> oort	eport No:	
Insp	ection Area					
Date	<u>.                                    </u>					
Parti	icipants				SAFET	Y FIRST
SITE	LOCATION CODES	× 6.5 ( TYOY			ACTION	DATE
	DESCRIPTION	LOCATION	CENERAL SITE CONDITIO	OBSERVATION	DATE	ACTIONED & SIGN
1.1	Housekeeping		Satisfactory     Projecting Nail     Debris & Scraps     N/A or Others, please specify			
1.2	Access & Egress		Satisfactory     Blocked     Not Provided     Corrective safety measures to be	taken		
1.3	First-Aid Box		□ Satisfactory □ Insufficient Medical Items □ No list of qualified First-Aid Perso □ No "First-Aid" Mark □ Not Provided	nnel		
1.4	Fire Extinguisher		Satisfactory  Maintenance Period Expired  Improper Hanging Not Provided Net Action please specify			
1.5	Safety Representative Weekly Report		Satisfactory     Not Yet Completed     N/A or others, please specify			
1.6	Notice of Empl. Of Safety Officer Safety Supervisor		Satisfactory     I       Not Posted     I       Others please specify     I	Satisfactory     Not Posted     Others please specify		
1.7	Dangerous Goods		□ Satisfactory □ Not Labeled □ Improper Storage □ N/4 or others places specify			
2.0			LIFTING APPLIANCE & LIFTING	GEAR		
2.1	Mobile Crane		Satisfactory     No Weekly Inspection Report     No SWL clearly posted     No Statutory Test & Thorough Ex.     Use of outriggers     Capacity & Lifting Radius Chart     Use of Signalman     Unauthorized riding of crane     Riding Loads or Hook     Operation Near Overhead Power     Remote Control Status/Battery     Communication Device     Lifting Capacity Warning (Bell)     Travel Warning Device     Broken/Fatigue Failure Wires     NA	amination Certificates Lines		
2.2	Lifting Gear		Satisfactory     Satisfactory     Roken Wires     No Marking     No Statutory Test Certificates     No Statutory Test Certificates     No Atatutory Examination Report     N/A or others, please specify			

## Case Example 4-2-1

			PROJECT NAME		
		<u>PROJE(</u>	<u>CT HEALTH &amp; SAFETY PLAN</u>		
ITEM	DESCRIPTION	LOC	VIOLATION / OBSERVATION REMARKS	ACTION BY DATE	DATE ACTION D & SIG
<u>4.0</u> 4.1	Winch or Lift		PLANT & EQUIPMENT  Satisfactory Communication Device Defective/Malfunction No Statutory Test & Thorough Examination Certificates No Weekly Inspection Report No SWL & Max. Person Notice No SWL & Max. Person Notice		
4.2	Woodworking Machine		Satisfactory     No Safety Guards     N/A or Others, please specify		
4.3	Abrasive Wheel		Satisfactory No Safety Guards No Warning Notice No Warning Notice		
4.4	Arc Welding Machine		ViA of Others, Please specify     Satisfactory     No Earthling     Out Going Cables w/ o Protection     Live Parts Not Insulated     Unsatisfactory.		
4.5	Oxy-Acetylene Cutting		N/A or Others, please specify     Satisfactory     No Flashback Arrestors     Not Labeled (Acetylene)     Not Kept Upright     PPE Not in use.     Not or others please specify		
5.0	ł_		TEMPORARY ELECTRICAL INSTALLATION		· ·
5.1	Distribution Board & Switch		<ul> <li>Satisfactory</li> <li>No ELCB</li> <li>Unlocked</li> <li>No Warning Sign</li> <li>Proper earthing</li> <li>N/A or Others, Please specify</li> </ul>		
5.2	Outgoing Wiring, Plug & Socket		No Protection Against Physical Damage     Satisfactory     No insulation     No Earthing     No Earthing     No Earthing		
5.3	Portable Lighting		No Protection Against Physical Damage     Satisfactory     No earthling     Damaged Bulb/Cover     N/A or Others, please specify		
5.4	Lightning Conductors		Satisfactory     Properly Grounded     N/A or Others, please specify		
6.0		·····	WORK AT HEIGHT	· · · · · · · · · · · · · · · · · · ·	
6.1	Scaffolding		<ul> <li>Satisfactory</li> <li>No Monthly Inspection Report</li> <li>Inadequate Bracing</li> <li>Damaged Scaffolds</li> <li>No Base-Plate</li> <li>Damage Scaffolds</li> <li>N/A or others, please specify</li> </ul>		
6.2	Working Platform (Fixed/Mobile)		Satisfactory     Damaged Scaffolds     No Access     Wheel Unlocked At Work     No Guard rails/toe board     Not Closely Boarded     No Monthly Inspection Report		

## Case Example 4-2-1

		PROJEC	PROJECT NAME		
ITEM	DESCRIPTION	LOC	VIOLATION / OBSERVATION REMARKS	ACTION BY DATE	DAT ACTIC D&S
6.3	Ladder		<ul> <li>Satisfactory</li> <li>Not Secured Its Top &amp; Bottom</li> <li>Damaged Rungs</li> <li>Not Extended 1m At the Landing</li> <li>Unsatisfactory</li> <li>N/A or Other, please specify</li> </ul>		
7.0			WORK PERMIT SYSTEM		1
7.1	Gas Testing Report		<ul> <li>Satisfactory</li> <li>No yet completed/updated</li> <li>So far not introduced</li> <li>N/A or Others, please specify</li> </ul>		
7.2	Communication System/Device		<ul> <li>Satisfactory</li> <li>Not Provided</li> <li>Defective/Malfunction</li> <li>N/A or Others, please specify</li> </ul>		
8.0	General Safety		PERSONAL PROTECTIVE EQUIPMENT & Employee Practices		1
	Gear		<ul> <li>No Safety Helmet</li> <li>Safety jacket</li> <li>No Safety Shoes</li> <li>No Eve Protector</li> <li>No Ear Protector</li> <li>No Safety Belt</li> <li>No Dust Mask/Respirator</li> <li>Unsatisfactory</li> </ul>		
8.2	Employee Practice		Reporting Injuries         Reporting Damage         Housekeeping         Personal Protective Equipment         Personal Protective Devices         Drunkenness         Horseplay         Unauthorized Operation         Unsafe Fueling Equipment         Unsafe Fueling Equipment         Unsafe Erection of Scaffold         Unsafe Lifting         Using Broken tools         Using Unsafe Welding Cable         Using Unsafe Power Tools         Unsafe use of Gas Bottles         Ridding with loads in truck         Under Suspended load         Unsafe Riding of Equipment         Open fires         Failure to bend/remove nails         Unauthorized entry		
<u>9.0</u> 9.1	Explosives		DANGEROUS GOODS HANDLING         Satisfactory         Wooden storage boxes         Detonators         Explosives         Stock book maintained, order and delivery records         Warning labels, "Danger- Detonators" in Eng. + Singhalese         Blasting permit         Transporting of Explosives.         Fitness of the vehicle         Authorized shot firer         Register of blasting operations         N/A or others, please specify		
9.2	Compressed gas		Satisfactory     Designated storage area and proper use of storage     Security of storage area     Labeling     Warning signs     Not Securing gas bottles (up-right)     N/a OR others, please specify		

## Case Example 4 - 2 - 1

			PROJECT NAME		
		<u>PROJE</u>	<u>CT HEALTH &amp; SAFETY PLAN</u>		
ITEM	DESCRIPTION	LOC	VIOLATION / OBSERVATION REMARKS	ACTION BY DATE	DATE ACTION D & SIG
9.3	Corrosive substances		<ul> <li>Satisfactory</li> <li>Warning markings, handling requirements</li> <li>Satisfactory packing</li> <li>Absorbent near-by</li> <li>Ventilation</li> </ul>		
9.4	Others		<ul> <li>Poisonous substances</li> <li>Inflammables</li> </ul>		
40.0					
10.0	Generators	1.	AIR POLLUTION		
		2. 3. 4.	Black smoke     Leaking Oil     Others, Please specify		
10.2	Earth moving equipment	1. 2. 3	Satisfactory Black smoke Leaking oil Note that please specify		
10.3	Vehicles,	1.	□ Satisfactory		
	locomotives,	2.	Black smoke		
	engines	3. 4.	Leaking oil     N/A or others, please specify		
0.4	Dust	1. 2. 3. 4.	Satisfactory     Site dusty     Inadequate spraying     NA or others, please specify		
1.0			WATER POLLUTION		
1.1	General house-		Oil/diesel stains on ground		
	cleaning		□ Garbage scattered all over the site.		
1.2	Maintenance of	1.	□ Odors		
	de-silting tank	2. 3.	<ul> <li>Oil sheen/Visible grease</li> <li>Turbidity</li> <li>Foam</li> <li>Colour</li> </ul>		
			□ Tank full of silt □ N/A or others, please specify		ŀ
1.3	Neutralization Tank	1. 2.	Others, please specify     Odors     Oll sheen/Visible grease     Turbidity     Foam     Colour     Tank full of silt     No neutralization record     No monitoring of waste water pH     Containment of acid storage area     No diverse places area for the specific second		
1.4	Floor drains		IV/A or others, please specify     Signs of pouring oil/diesel into drains     Contaminated with chemicals (e.g. oil, diesel etc.,)     Blocked by debris/garbage     Storage of chemicals nearby		
12			N/A or others, please specify	L	
2.1	Using		□ Oils spills on the ground		
	earthmoving equipment and chemicals		<ul> <li>Chemical spills</li> <li>Dumping waste concrete</li> <li>Used Batteries</li> <li>Plastics bags etc.,</li> <li>Dumping tires</li> <li>Glasses</li> <li>N/A or others specify</li> </ul>		
13		H	ZARDOUS MATERIAL HANDLING AND STORAGE	I	L
3.1	Waste/garbage bins		<ul> <li>Satisfactory</li> <li>Pollutants (e.g. waste chemical containers, rags, and batteries etc., dumped in bins.</li> <li>Recyclables (e.g. metal) dumped in garbage bins</li> </ul>		

## Case Example 4-2-1

			PROJECT NAME		
		PROJE	<u>CT HEALTH &amp; SAFETY PLAN</u>		
ITEM	DESCRIPTION	LOC	VIOLATION / OBSERVATION REMARKS	ACTION BY DATE	DATE ACTIONI D & SIGI
13.2	Chemical dispensing		<ul> <li>Drums/containers not effectively closed</li> <li>No drip pans/trays</li> <li>Extensive spillage on floor/ground</li> <li>Waste chemical on the external surface of the containers</li> <li>No grounding of drums</li> <li>No Warning signs</li> <li>No overhead covering/protection from rainwater flooding</li> <li>Spilled chemicals in drip tray not pumped out</li> <li>No Emergency equipment</li> <li>Funnels not used.</li> <li>N/A or others, please specify</li> <li>Interaction with water</li> <li>Strong supporter of combustion</li> <li>Readily combustible</li> <li>Liable to spontaneous combustion</li> <li>Others</li> </ul>		
13.3	Waste types		<ul> <li>Drums/containers not effectively closed.</li> <li>Not stored in designated drums</li> <li>No drip pans/trays</li> <li>Extensive spillage on floor/ground</li> <li>Waste chemicals on the external surface of the containers</li> <li>No labels on drums</li> <li>No, or ineffective, bonding</li> <li>No varning signs</li> <li>No overhead covering</li> <li>No emergency equipment</li> <li>Funnels not used</li> <li>Maximum volume not posted or maximum volume exceeded</li> </ul>		
13.4	Cleaning solvents	Metal works Hop	No designated storage drums     Drums/containers not effectively closed.     No drip pans/trays     Extensive oil/diesel spillage on ground     Soaking tray placed in heavy traffic area     No emergency equipment     Funnels not used     N/A or others, please specify		=
13.5	Chemical storage		<ul> <li>No, or ineffective, bonding</li> <li>Drums/containers not effectively closed.</li> <li>No drip pans/ trays</li> <li>Extensive oil/diesel spillage on ground</li> <li>Waste chemical on the external surface of the containers</li> <li>No warning signs</li> <li>No overhead covering</li> <li>No ventilated</li> <li>No emergency equipment</li> <li>No maximum storage quantity posted, or quantity exceeded</li> <li>No inventory</li> <li>N/A or others, please specify</li> </ul>		
13.6	Above ground diesel tanks		<ul> <li>Extensive diesel spillage on ground</li> <li>No bending /no drip pans when pumping diesel</li> <li>No drip buckets for dispensing hoses/pump</li> <li>Integrity of tank not satisfactory</li> <li>Leaking pipes/ connectors/ pumps</li> <li>Roof not provided</li> <li>Located too close to storm drain inlets</li> <li>Banding discharge valve not closed</li> <li>N/A or others, please specify</li> </ul>		
13.7	Oil change		<ul> <li>No drip pans / spills / stains / housekeeping</li> <li>Waste oil not poured into designated waste oil drums</li> <li>Dirty oil filters dumped into garbage</li> <li>N/A or others, please specify</li> </ul>		

## Case Example 4 - 2 - 1

ITEM	DESCRIPTION	LOC	VIOLATION / OBSERVATION REMARKS	ACTION BY DATE	DATE ACTION D & SIG
14	<b>I</b>		WASTE MANAGEMENT	I	L
14.1	Waste types		Chemical Toxic Flammable Corrosive Radioactive Construction/ work N/A or others, please specify		
14.2	Storage Containers		Container Integrity not satisfactory     No labeling     Drums/ containers not effectively closed     Waste chemical on the external surface of the containers     Handling Instructions not posted at dispenser.     N/A or others, please specify		
14.3	Housekeeping		Satisfactory     Miscellaneous items are stored here     Improper stacking of drums     Isle too narrow or not cleared of obstacles     N/A or other, please specify		
14.4	Records		<ul> <li>No inventory records</li> <li>No shipment manifests</li> <li>N/A or others, please specify</li> </ul>		
14.5	Storage containers		<ul> <li>Satisfactory</li> <li>Container integrity not satisfactory</li> <li>No labeling -</li> <li>Drums/containers not effectively closed</li> <li>Waste chemical on the external surface of the containers</li> <li>Handling instructions not posted at dispenser</li> </ul>		
14.6	House keeping		<ul> <li>Satisfactory</li> <li>Miscellaneous items are stored here</li> <li>Improper stacking of drums</li> <li>Isle too narrow or not cleared of obstacles</li> <li>Inadequate bounding volume</li> <li>Inadequate ventilation</li> <li>Directly connected to drains</li> <li>Inadequate space for handling waste containers</li> <li>Not provided with a roof</li> <li>Not secured by lock(s)</li> <li>No warming signs/maximum quantity or volume</li> <li>No emergency equipment</li> <li>Not are othere a place a credity</li> </ul>		
14.7	Storage area		Satisfactory     Non-Government approved waste remover     Non-Government approved treatment facility     No shipment manifests     N/A or others, please specify		
SUMN	IARY NOTES			Action to b	e take
14.8	Construction Acti	vities		· ·	

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								- 2
	PROJE	ЕСТ	NAM	E				
	PROJECT HEALTH & SA	<u>FEIY</u>	PLA	<u>N</u>				
FORI	M \$13				R	eport N	lo:	•
WE	EKLY SAFETY CHECK SHEET					:		
Date	: Location:	Office	er In cl	harge.				
Sub	Contractor:		Fro	m			То	
Offi	cer In charge							
Sa	fety Boards (Working in the Public Roads/Places)	Sun	Mo	Tue	We	Thu	Fri	S
1	Sign Boards required according to the work Site							
2	Flag men with Traffic Jackets			1		1		
3	Safety Cones (sufficient number for the site)							1
4	Barricade Tape		-					$\vdash$
Wor 1	king Under the Bridges & Elevated Stages/ Safety ) Safety Nets	Precaut	tions					
2	Standing Rebar Edge Protection							
3	Wooden. Gangway							
4	Guardrails							
5	Foot Bridges							
6	Walk Ways							
7	Safety Belts						_	
8	Safety Helmets /Chin Guard Tightened							
9	Safety Shoes/ Boots							
10	Safety of Ladders							
11	Tools & Equipments are in Good Condition							
Exc	avation Sites/ Collapsible Areas		r	r				
$\frac{1}{2}$	Mechanical Condition of Excavator/JCB	+ +						
2	Cables)							
3	Electricity Cables & Telecom Cables above the site							
4	Condition of Soil is Collapsible							
5	Timber pile sheets are available for Shoring							_
6	Steel Sheet Piles are available for Shoring							_
/	Jacks & Supports							<u> </u>
8	No third party shall enter in to the site							_
9	First aid officer is in the site							
Safe	ty Precaution for Night Works					<u> </u>		
<u>+</u>	Cenerators							
2	Dialing Lights (Woming Lights							
3	Sofety Poords							_
5	Salety Doalus Flag Man / Signal Man to Control the Traffic							
6	Permission from Relevant Authority	+						
7	Inform to Environment Before Commencing Work	+						-
/	Inform to Dalvao mient Delote Commencing Work							

T

## Case Example 4-2-2

### PROJECT NAME

### PROJECT HEALTH & SAFETY PLAN

1	Check Welding Equipment is in Good Working				
	Order				
2	Fire Extinguishers are Available				
3	Check Flammable Liquids or Aerosol Cans are				-
	around				
4	"NO SMOKING" Sign Boards			1	
5	Do not let anybody to watch the Arc of an Arc				
	Welder in Operation				
6	Check Acetylene Regulator Pressures it should never				
	be allowed To exceed 103kp				

### **Check Proper Protective Clothing and Equipments**

1	Leather Gloves				
2	Long Sleeve Shirts or Hand Protector	1			
3	Eye and Face Protector Shield				
4	Goggles				
5	Helmet or Hard Hat				
6	Safety boot or shoe				

#### **Discharge of Excess Soil**

1	Is the Land Approved by the Relevant Authority?				
2	House Keeping				
3	Fire Extinguisher			-	
4	Traffic Control				
5	First Aid				
6	Blasting Communication			_	
7	Explosive Handling				
8	Unsafe Machineries & Vehicles				_
9	Working under the influence of Alcohol				
10	Other Unsafe Activities (Specify)				

### **Special Comments:**

•••••			••••••
••••••			
•••••	•••••••••••••	•••••••••••••••••••••••••••••••••••••••	••••••
•••••	••••••••••••••••••••••••••		••••••
•••••			•••••••••••••••••••••••••••••••••••••••

Safety Officer	Sub Contractor's Officer In charge:
	Name:
	Designation:
•••••	Signature:
	Sub
	Contractor

Comments:

Project Manager

.....

eekly & Monthly	Report	Case Example 4-2-3					
	<u>PRO</u> .	JECT HEA	PRO LTH & S	JECT NA	AME LAN		
form s10 RECORDS OF ISSU	JANCE OI	F PERSONA	L PROTI	ECTIVE E(	QUIPMI	Rep <sup>.</sup> ENT	ort No:
Main Contractor: Record by :							
NAME	EMPL NO	HARDHAT	BOOTS	SAFETY GLOVES	RAIN COAT	SAFETY GOGGLES	SIGNATURE
			· · · · · · · · · · · · · · · · · · ·				
					· · · · · · · · · · · · · · · · · · ·		
				· · · · · · · · · · · · · · · · · · ·			

### 4.3 Case Example 4-3

### 1) Outline

This is a monthly safety report. It is a simple meeting record format for monthly meetings organized by Safety Management Committee. In the format, major events, casualty reports and safety activities (meetings and safety trainings) are to be reported.

### 2) Case Example

The Case Example 4-3 is on the following page.

Monthly Report

Case Example 4-3

				Date of Prep	aration				
				Prepared by					
				Approved by	<u>'</u>				
1.	Maior Event	IV	IONTHLY SAN	-ETT REPOR					
2	Coquelty Depart								
Z.				Subco	ntractor	Гт	otal		
1	Number of person	This	Cumulative	This Month	Cumulative	This Month	Cumulative		
	•	Month							
2	Man hours worked	н							
3	No lost time accident	b							
4	Loss time accident <3days and less	с							
5	Loss time accident >4days and more	d							
6	Fatal accident	е							
7	Man days lost	L							
8	Frequency rate	F							
9	Severity rate	G							
3. 3.1	Safety Activity Safety Meeting	1) × 1,000,000	) G=(L/H)	<b>x</b> 1,000					
				This Mont	th				
No.	Descriptio	ิวท	Date	No. of attendees	Hours of M	eeting	Remarks		
1	General Safety Meetir	ng for Workers							
2	Monthly Progress Mee	eting							
3	Weekly Meeting								
2.2	Cofoty Training								
3.∠ No				This Mont	łh	[			
1	Safety orientation to n	ew worker	Date	No. of	Hours of M	eeting	Remarks		
2	Tool box meeting								
3	Specific safety training	a			1				
2	a)Traffic Accident	, 							
	b)Discuss accident other_project	happen from							
	c)Safety Motivation prior to safety promo	for workers otion							
	d)Others								

### 5 Site Inspection Check Sheet

### 5.1 Case Example 5-1

### 1) Outline

Case Example 5-1-1 is a daily checklist for cranes. The inspection items are for engine, hydraulic system, brake system, driving system, electronic system, and safety devices. Case Example 5-1-2 is scaffold inspection list, which consists of location & description of scaffold, dates & result of inspection and a short checklist for inspection (including baseplates, ground condition, joint condition, bracing, platform, ladder, and guard rail etc.).

### 2) Case Example

The Case Examples 5-1-1 and 5-1-2 are on the following pages.

## Inspection by Patrol

Case Example 5-1-1

DATE:

### CRANE DAILY CHECKLIST – PF 95

WORKS SECTION/LOCATION WEIP/PKG..../.... REF:

EQUIPMENT/PLANT MACHINERY NUMBER	CHECKED BY NAME		DESIGNATION	SIGNATURE	

No.	ITEM		CH	IECK	DON	NE &	DAT	E		COMMENTS
1	ENGINE									
	WATER LEVEL									
	OIL LEVEL & CONDITION									
2	HYDRAULIC SYSTEM									
	HYDRAULIC OIL & CONDITION									
	HYDRAULIC PUMP, MOTORS & CYLINDERS									
	CONTROL VALVE, ROTATING JOINT									
3	BRAKING SYSTEM									
	SWING BRAKE CONDITION									
	BOOM HOIST BRAKE CONDITION									
	BRKE FLUID AND CONDITION									
4	TRAVELLING SYSTEM									
	TRACK AND CRAWLER ROLLERS									
5	ELECTRICAL SYSTEM									
	FLUID LEVEL IN BATTERY									
	ELECTRICAL DISPLAY PANEL									
6	SAFETY DEVICES									
	BOOM OVER HOIST									
	OVERLOAD ALARM IF ANY									
KEY:	X: NOT ACCEPTABLE – REPAIRS	το βε	DON	IE, C	RAN	E NC	то	го в	E US	ED
	: ACCEPTABLE									
	N/A NOT APPLICABLE TO THE CRANE									

### Inspection by Patrol

SHORT CHECK LIST - THIS CHECKLIST MUST BE ATTACHED TO THE SCAFFOLDING BEING INSPECTED AND CERTIFIED AS SAFE OR NOT SAFE TO SIGNATURE OF PEERSON WHO CARRIED OUR INSPECTION ACCEPTABLE(Y/N) OTHER MEMBERS INSPECTION STATE ADDITIONALNOTES DATE RESULT OF INSPECTION STATE WHETHER IN GOOD ORDER OR NOT SCAFFOLD INSPECTION LIST – PF52 ACCEPTABLE(Y/N) ACCEPTABLE(Y/N) DATE NAME: GUARD RAIL COUPLINGS TOE BOARD **PROVIDED** PLATFORM LADDER ACCESS DATE OF INSPECTION PROCEDURE NO.16 – SAFETY MANAGEMENT WORK COMMENCEMENT – DATE ACCEPTABLE(Y/N) ACCEPTABLE(Y/N) LOCATION AND DESCRIPTION OF WORKS SECTION/LOCATION: SIGNATURE: **PROJECT NAME** WEIP/PKG / CONNECTION BASEPLATES CONDITION STANDARS SPACING SCAFFOLD GROUND BRACING USE. JOINT 5. <u>.</u>--REF.

Case Example 5 - 1 - 2

### 5.2 Case Example 5-2

### 1) Outline

In order to thoroughly manage safety at construction site overseas, a safety inspection checklist which is a basic format of safety management system based on the head office's basic principles is prepared by the head office of contractors. Workers at construction sites are requested to select and use applicable items depending on the characteristics of work and conditions. Case Example 5-2 is a checklist prepared for common type of construction which includes items of inspection such as PPE, excavation, scaffold timbering, cleaning, dismantling, traffic safety, crane, and electricity etc. In addition, there are other specific formats for construction which deals with concrete casting, construction which involves electrical work or welding.

### 2) Case Example

The Case Example 5-2 is on the following page.

# Inspection by Patrol Case Example 5-2

	OHS	OCE	CD OPERATIONAL CONTROL PROCEDURE	Sect	ion 2
				5 Feb 09	Rev 2
		Sar	ety inspection	Page	1 of 9
SAFE	ty inspec	TION			
1	PURPO	SE			
	To ider	ntify haza	irdous situations and to impleme	ent remedial	action before
	things o	can deve	lop to a point where injury or oth	er losses can o	DCCUr.
2	SCOPE				
	Applic	able to a	I project operations identified as	hazards.	
3	REFERE	NCE			
	SP-01_6	EHS	Aspects and Hazards analysis		
	OCP-0	8_OHS	Maintenance of Machinery		
4	RECOR	DS			
	Releva	nt safety	inspection records such as;		
	Scaffol	d inspect	tion checklist, equipment inspec	tion checklist,	General safe
	work c	hecklist, e	etc.		
5	PROCE	DURE			
5.1	Respor	nsibility			
5.1.1	Opera	tors are to	o carry out inspection of equipme	ents or plants b	pefore work.
5.1.2	M&E e	ngineer is	to carry out periodical inspectio	ns for M&E eq	uipments and
	plants.				
5.1.3	Site Su	pervisor c	or foreman are to carry out site v	work inspectic	ons and safety
	reports	periodic	ally.		
5.1.4	Safety	officer a	nd his assistants are to carry ou	it site work ins	spections and
F 1 F	sarety i	reports pe	enodically.	onstruction Mr	pagers are to
5.1.5	carry o	ut safety	inspections monthly		anayers are to
	cany 0	arsarery	inspections montally.		
5.2	Genera	al			
5.2.1	In addi	ition to th	e safety maintenance and equip	ment-inspecti	ion program,
				-	

## Inspection by Patrol

Case Example 5-2

	OHS	OCECD OPERATIONAL CONTROL PROCEDURE	Section 2	
	Safety Inspection		5 Feb 09 Rev 2	
			Page 2 of 9	
5.2.2 5.2.3	which is an essential operating practice on every site, regular inspection of the workplace must take place.(refer to OCP-08_OHS Maintenance of Machinery) All inspections, regardless of type, shall be taken place at intervals, as dictated by need. Middle and senior management shall involve themselves in these inspections by taking part in nominated inspections or conducting their own.			
5.3	Safety In:	Safety Inspections		
5.3.1	Wh monthly with end	Where required by contract, the Safety Officer shall on monthly basis prepare and submit the mandatory safety report to the client with endorsement of Project Manager.		
5.3.2	The Safety Officer, Site Supervisor, designated personnel shall conduct various safety inspections with respective subcontractors/site personnel via various inspections checklists.			
.3.3	frequency, checklists, person in charge, etc. Such program shall comprise but not limited to the followings;			
	• G	eneral safe work		
	• Sc	affolding		
	<ul><li>Temporary electrical installation</li><li>Excavation</li></ul>			
	• C	oncreting and formwork		
	• Ho	ot work		
	• Ho	ousekeeping, etc.		
.3.5	Appendi	Appendix-1 shows the typical checklist for general safe work inspections.		
.3.6	The Safety Officer, Site Supervisor or designated personnel shall keep the inspection records.			
.4	Remedial Action			
.4.1	Inspections conducted are to be properly documented in order to specify the corrective actions required, timeframe and responsible person for the actions			
i.4.2	Follow-up is necessary to ensure that remedial works are completed on schedule as committed by the parties concerned.			
Inspection by Patrol	Case Example 5-2			
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	OHS	OCECD OPERATIONAL CONTROL PROCEDURE	Secti	on 2		
		Cofety Incorportion	5 Feb 09	Rev 2		
		safety inspection	Page 3 of 9			
6	ATTACHMENT					
	Appendix 1Sample forsafe work inspection checklist					

Inspection by	/ Patrol		Case Example 5-2			
				•	]	
	OHS	PROCEDURE	NIROL		Section 2	
		Safety Inspection		5 Feb	009Rev 2Page 4 of 9	
Ap Sat	pendix 1 Sa fe Work Insp	ample for General Dection Checklist				
		OHS CHECKLIST FOR PROJECT SITE				
NO		DESCRIPTION	Report of (tick if ob or NA i applica	of visit oserved if not able)	Location & other remarks	
1	Persor	al Protective Equipment				
<u>1a.</u>	Use of	Safety helmets.				
1b.	Provisi	on and use of eye protection.				
1c.	Use of	safety belt.				
1d.	Provisi	on of ear protection.				
2	Excava	ation				
2a.	Excava	tion depth > 5m to provide g sign.				
2b.	Timber 50mm	plank used for piling at least hick.				
2c.	Excava ladder.	tion depth > 1.2m provide access				
2d.	Excava design	tion depth > 4m to provide PE for shoring.				
2e.	Excava mecha design	tion depth > 1.5m with nical digger used, to provide PE for shoring.				
2f.	Position	ning of machinery in dangerous r.				
2g.	Storage the edg	e of material 610mm away from Je of trenches.				
2h.	Failure accorda statem	to protect open cut slope in ance with approved method ent or design.				
3	Scaffo	lding				
За.	No wire	e ties.			<u> </u>	
3b.	Proper	maintenance of scaffold.				
<u>3c.</u>	Minimu	m width of working platform is				

# Inspection by Patrol

# Case Example 5-2

	OHS	PROCEDURE			Section 2		
				5 Feb	09	Rev 2	
		Safety Inspection		Р	age 5	5 of 9	
NO		DESCRIPTION	Report (tick if ol or NA applic	of visit bserved if not able)	Lo oth	ocation & er remarks	
	635mn	1.					
3d.	Sign sl no. of v	now maximum load & maximum workers to be placed.					
3e.	Platfor 50mm thickne	m projection shall not be less than or greater than 4 times of ess of plank used.					
3f.	Plank u secure	used shall be flushed and d.					
3g.	Remov	al of construction debris from n.					
3h.	Provisi	on of access ladder to platform.					
3i.	Provisi platforr	on of guard rail for working n exceeds 3m in height.					
Зј.	Provisi	on of bracing from top to base of ding.					
3k.	Erectio	n on solid foundation or well dated soil.					
4	House	keeping					
4a.	Cause	tripping and cutting hazards.					
4b.	Storag passag	e of material cause obstruction to ge way or place of work.					
4c.	Materia	al to stored or stacked in safe r.					
4d.	Materia to pers platforr	al storage shall not cause danger ons below or close to edge of n.					
4e.	Debris constit	shall not accumulated and ute hazard.					
4f.	Provisi	on of hoarding.					
4g.	Remov which i	al of oil, greese, water etc., in may causes slipping hazard.					

# Inspection by Patrol

	OHS	OCECD OPERATIONAL CO PROCEDURF	NIROL		Sectio	on 2
				5 Feb	09	Rev 2
		Safety Inspection		Р	age 6	of 9
NO		DESCRIPTION	Report ( (tick if ok or NA applic	of visit oserved if not able)	Lo oth	ocation & er remarks
5a.	Proper	method of removal of debris.				
5b.	Provisi of exte than 12 expose	on of catch platform for demolition rior wall or roof from a point more 2m height if persons below are ad to falling objects.				
5c.	Erectic unauth demoli display	n of barricade to prevent orised person(s) entering the tion project site with warning sign				
5d.	Swingi times h with ba	ng weight method to provide 1.5 neight of structure demolition zone rrricade.				
5e.	Clams demoli	hell bucket used to maintain 8m tion zone with barricade.				
6	Traffic	Control & Road Safety				
6a.	Failure and dir	to provide alternative footpath ectional sign for pedestrians.				
6b.	Closing traffic j	g of any road or lanes leading to am of 100m or more.				
6c.	Failure tempoi other ir closure	to display any or adequate rary sign, cone, rotating lamp or ndication for temporary road-lanes a.				
6d.	Failure rotatine	to maintain barricades, blinkers, glamps in good working condition.				
6e.	Failure at strat	to display adequate warning sign egic location.				
6f.	Failure suitabl works highwa	to provide barrication with e warning sign and light when carry out near any roads / nys.				
6g.	Placing debris, manne	g of equipment / machineries, material or thing in such a r as to cause obstruction to				

-

# Inspection by Patrol

# Case Example 5-2

	OHS	HS PROCEDURE			Secti	on 2
				5 Feb (	09	Rev 2
		Safety Inspection		Р	age	7 of 9
NO		DESCRIPTION	Report (tick if ol or NA applic	of visit bserved if not cable)	L oth	ocation & her remarks
	person pedest	s using the public street and rian footway.				
6h.	Failure pothole	to rectify road depression or as immediately.				
6i.	Failure truck m works o and ab	to provide collision attenuator / nounted attenuator (TMA) for on road with speed limit 70kph ove.				
7	Cranes	3				
7a.	Sound	underlying material for footing.				
7b.	Provide	e capacity chart.				
7c.	Indicate corresp sign wh	or for safe working load bond to radius of jib and warning nen radius is unsafe.				
7d.	No trav	el of crane with suspended load.				
7e.	Provisi and sid	on of lifting the Site Supervisor nal man.				
8	Electri	cal				
8a.	Provisi official exists.	on of proper warning sign in 4 languages where electrical circuit				
8b.	Protect damag	ive measures taken to prevent es.				
8c.	Wiring not loo	supported on proper insulator and ped over rails or brackets.				
8d.	No wiri and sh	ng shall be left on ground or floor all be protected.				
9	Safe M	eans of Access				
9a.	Safe m working	eans of access to be provide to glevels above or below ground.				
9b.	Provisi	on of hand hold to ladder.				
90	Ladder	shall not stand on loose bricks or				

# Inspection by Patrol

	OHS PROCEDURE			Section 2		
				5 Feb 09		Rev 2
salety inspection				Р	age	8 of 9
NO		DESCRIPTION	Report (tick if c or NA appli	t of visit observed A if not cable)	L oth	ocation & er remarks
	loose pa	icking.				
9d.	Ladder	shall be securely fixed.				
9e.	No undu	e swaying of ladder.				
10	Piling					
10a.	Piling ha ground i	ammer shall be lowered to f is not in use.				
10b.	Provisio	n of permanent ladders.				
10c.	Warning test pile	sign provided at 50m away from area.				
10d.	Sound for driver.	poting for advancing of pile				
11	Falling	Hazard				
11a.	Open sid	de or opening shall be guarded ed.				
12	Prevent	ion of Fire				
12a.	Provisio	n of fire extinguishers.				
13	First-Ai	d				
13a.	Provide	and maintain First-Aid boxes.				
13b.	Employr more tha	nent of first aider for factory an 25 persons.				
14	Safe Pla	ace of Employment				
14a.	All place passage maintair	es of work, floors, steps, stairs, es, gangways, must be properly led and free from obstruction.				
14b.	Secure f provided more tha fencing,	oothold & handhold shall be I if a person is liable to fall from an 3m; provision of safety belt, net and secured anchorage.				
15	Health I	Requirements				
15a.	Cleanlin	ess – Work place to be kept				

	OHS	COLCO CHERATONAL CON PORT O RE	L (O.	0	section 2
				51650	9 Kev 2
		a dreny trapection		Fr	1,e 9 of 9
NO		DESCRIPTION	Report (tick if o or NA apple	of visit (bserved (if not cable)	Location & Jother remark
15b.	Ventila wors p gases.	tion-Provision of ventilation for add which generate harmful vapours or other impurities			
15c.	Lightin sulf de	g - Provision and maintain nt & suitable lighting.			
15c.	Dra na marte	ge – Provision and proper nance of grainage system.			
150.	Sanita mainta	ry – Sufficient and property Ineditoliet facilities.			
16	Others				
184.	Nor-ca proces	ampliance with approved lures for beam launching work.			
18b.	Feilura like pli granes progali	to control unsafe acts of workers. loning on dumpers / excavators / , moroper use of connectors / or electrical equipments, etc.			
1%.	Lature end by any so boards explose the wo	to comply with any written law alexe, mealencingulations of vommont ministry, statutory or other authorities which are doe concelevent to the execution of rks			
INSPE	CTED A	ND WITNESSED BY:			
lesp: Nam	Inspection done by: Name:		Su Ne Na	ibcontrec. apresental ame:	tor's live (if opolica
Sigra	ahtre; De	ts and Time:	St	gnature, Da	ate & Lime:

#### 5. Site Inspection Check Sheet

# 6.1 Case Example 6-1

(see also Case Example 1-4)

## 1) Outline

This is a copy of a certificate of approval given to a corporation whose Occupational Health & Safety Management System has been certified as International Standard OHSAS 18001. In a similar case, a head office, which has obtained ISO 9000, conducts quality and safety management on construction sites.

### 2) Case Example

The Case Example 6-1 is on the following page.

Г

Occupa	ational Safety & Health Management System Case Example 6 - 1
	Business Assurance
	CERTIFICATE OF APPROVAL
	This is to certify that the Occupational Health & Safety Management System of:
	Company Name
	Address etc.
	has been approved by Lloyd's Register Quality Assurance to the following specification:
	OHSAS 18001:2007
	The Occupational Health & Safety Management System is applicable to:
	Project management including management of design, construction and maintenance of civil engineering structures and buildings.
	Approval Cartificate Nex YKA 4004690 Current Certificates 25 February 2012 Certificate Expire 10 July 2014 A American Sector Guility American Enviced
	Structure       Structure       Box       The document is subject to the privision on the sevene       31 Feature to Structure it is subject to the privision on the sevene       31 Feature to Structure it is subject to the privision on the sevene       31 Feature to Structure it is subject to the privision on the sevene       31 Feature to Structure it is subject to the privision on the sevene       31 Feature to Structure it is subject to the sevene it is subject to the sevene       Structure to Structure it is subject to the sevene it is the sevene it is the sevene it is subject to the sevene it is subject to the sevene it is the s

# 6.2 Case Example 6-2

(see also Case Example 5-2)

### 1) Outline

This is a case where a head office, which has not obtained the international standard, establishes its own standard and conducts PDCA (Plan-Do-Check-Action) cycle based on their own policy.

### 2) Case Example

The Case Example 6-2 is on the following page.

Safety Inspection         5 Feb 09         Rev 2           Page 1 of 9         Page 1 of 9           SAFETY INSPECTION         1         PURPOSE           To identify hazardous situations and to implement remedial action before things can develop to a point where injury or other losses can occur.           2         SCOPE           Applicable to all project operations identified as hazards.           3         REFERENCE           SP-01_EHS         Aspects and Hazards analysis           OCP-08_OHS         Maintenance of Machinery           4         RECORDS           Relevant safety inspection records such as:           Scaffold inspection checklist, equipment inspection checklist, General safe work checklist, etc.           5         PROCEDURE           5.1         Responsibility           5.1.1         Operators are to carry out periodical inspections for M&E equipments and plants.           5.1.3         Site Supervisor or foreman are to Carry out site work inspections and safety reports periodically.           5.1.4         Safety officer and his assistants are to carry out site work inspections and safety reports periodically.           5.1.5         The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.           5.2         General           5.1.1         In addition to the safety m		OHS	OCE	CD OPERATIONAL CONTROL PROCEDURE	Sect	ion 2				
Safety inspection         Page 1 of 9           SAFETY INSPECTION         1         PURPOSE To identify hazardous situations and to implement remedial action before things can develop to a point where injury or other losses can occur.           2         SCOPE Applicable to all project operations identified as hazards.           3         REFERENCE SP-01_EHS         Aspects and Hazards analysis OCP-08_OHS           3         REFERENCE SP-01_EHS         Aspects and Hazards analysis OCP-08_OHS           4         RECORDS Relevant safety inspection records such as: Scaffold inspection checklist, equipment inspection checklist, General safe work checklist, etc.           5         PROCEDURE           5.1         Responsibility           5.1.1         Operators are to carry out periodical inspections for M&E equipments and plants.           5.1.3         Site Supervisor or foreman are to carry out site work inspections and safety reports periodically.           5.1.4         Safety officer and his assistants are to carry out site work inspections and safety reports periodically.           5.1.5         The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.           5.2         General           5.2.1         In addition to the safety maintenance and equipment-inspection program,		1	0 - 1	5 Feb 09	Rev 2					
SAFETY INSPECTION         1       PURPOSE To identify hazardous situations and to implement remedial action before things can develop to a point where injury or other losses can occur.         2       SCOPE Applicable to all project operations identified as hazards.         3       REFERENCE SP-01_EHS Aspects and Hazards analysis OCP-08_OHS Maintenance of Machinery         4       RECORDS Relevant safety inspection records such as: Scaffold inspection checklist, equipment inspection checklist, General safe work checklist, etc.         5       PROCEDURE         5.1       Responsibility si.1         5.1.3       Ste Supervisor or foreman are to carry out site work inspections and safety reports periodically.         5.1.4       Safety officer and his assistants are to carry out site work inspections and safety reports periodically.         5.1.5       The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.         5.2       General         5.2.1       In addition to the safety maintenance and equipment-inspection program,		Page 1 of 9								
<ul> <li>PURPOSE <ul> <li>To identify hazardous situations and to implement remedial action before things can develop to a point where injury or other losses can occur.</li> </ul> </li> <li>SCOPE <ul> <li>Applicable to all project operations identified as hazards.</li> </ul> </li> <li>REFERENCE <ul> <li>SP-01_EHS</li> <li>Aspects and Hazards analysis</li> <li>OCP-08_OHS</li> <li>Maintenance of Machinery</li> </ul> </li> <li>RECORDS <ul> <li>Relevant safety inspection records such as:</li> <li>Scaffold inspection checklist, equipment inspection checklist, General safe work checklist, etc.</li> </ul> </li> <li>PROCEDURE <ul> <li>Responsibility</li> <li>Operators are to carry out inspection of equipments or plants before work.</li> <li>M&amp;E engineer is to carry out periodical inspections for M&amp;E equipments and plants.</li> <li>Site Supervisor or foreman are to carry out site work inspections and safety reports periodically.</li> <li>Safety officer and his assistants are to carry out site work inspections and safety reports periodically.</li> <li>The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.</li> </ul> </li> <li>General <ul> <li>In addition to the safety maintenance and equipment-inspection program,</li> </ul> </li> </ul>	SAFET	Y INSPEC	TION							
To identify hazardous situations and to implement remedial action before things can develop to a point where injury or other losses can occur.         2       SCOPE         Applicable to all project operations identified as hazards.         3       REFERENCE         SP-01_EHS       Aspects and Hazards analysis         OCP-08_OHS       Maintenance of Machinery         4       RECORDS         Relevant safety inspection records such as;         Scaffold inspection checklist, equipment inspection checklist, General safe work checklist, etc.         5       PROCEDURE         5.1       Responsibility         5.1.1       Operators are to carry out inspection of equipments or plants before work.         5.1.2       M&E engineer is to carry out periodical inspections for M&E equipments and plants.         5.1.3       Site Supervisor or foreman are to carry out site work inspections and safety reports periodically.         5.1.4       Safety officer and his assistants are to carry out site work inspections and safety reports periodically.         5.1.5       The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.         5.2       General         5.2.1       In addition to the safety maintenance and equipment-inspection program,	1	PURPOS	SE							
<ul> <li>SCOPE Applicable to all project operations identified as hazards.</li> <li>REFERENCE SP-01_EHS Aspects and Hazards analysis OCP-08_OHS Maintenance of Machinery</li> <li>RECORDS Relevant safety inspection records such as; Scaffold inspection checklist, equipment inspection checklist, General safe work checklist, etc.</li> <li>PROCEDURE</li> <li>1.1 Operators are to carry out inspection of equipments or plants before work.</li> <li>5.1.2 M&amp;E engineer is to carry out periodical inspections for M&amp;E equipments and plants.</li> <li>5.1.3 Site Supervisor or foreman are to carry out site work inspections and safety reports periodically.</li> <li>5.1.4 Safety officer and his assistants are to carry out site work inspections and safety reports periodically.</li> <li>5.1.5 The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.</li> <li>5.2 General</li> <li>5.3 In addition to the safety maintenance and equipment-inspection program,</li> </ul>		To identify hazardous situations and to implement remedial action before things can develop to a point where injury or other losses can occur.								
Applicable to all project operations identified as hazards.         3       REFERENCE         SP-01_EHS       Aspects and Hazards analysis OCP-08_OHS         4       RECORDS         Relevant safety inspection records such as; Scaffold inspection checklist, equipment inspection checklist, General safe work checklist, etc.         5       PROCEDURE         5.1       Responsibility         5.1.1       Operators are to carry out inspection of equipments or plants before work.         5.1.2       M&E engineer is to carry out periodical inspections for M&E equipments and plants.         5.1.3       Site Supervisor or foreman are to carry out site work inspections and safety reports periodically.         5.1.4       Safety officer and his assistants are to carry out site work inspections and safety reports periodically.         5.1.5       The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.         5.2       General	2	SCOPE								
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SP-01_EHS OCP-08_OHSAspects and Hazards analysis Maintenance of Machinery4RECORDS Relevant safety inspection records such as; Scaffold inspection checklist, equipment inspection checklist, General safe work checklist, etc.5PROCEDURE5.1Operators are to carry out inspection of equipments or plants before work.5.1.2N&& engineer is to carry out periodical inspections for M&E equipments and plants.6.1.3Site Supervisor or foreman are to carry out site work inspections and safety reports periodically.6.1.4Safety officer and his assistants are to carry out site work inspections and safety reports periodically.6.1.5The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.6.2General in addition to the safety maintenance and equipment-inspection program,	3	REFERE	NCE							
OCP-08_OHS       Maintenance of Machinery         4       RECORDS         Relevant safety inspection records such as:       Scaffold inspection checklist, equipment inspection checklist, General safe work checklist, etc.         5       PROCEDURE         5.1       Responsibility         5.1.1       Operators are to carry out inspection of equipments or plants before work.         5.1.2       M&E engineer is to carry out periodical inspections for M&E equipments and plants.         5.1.3       Site Supervisor or foreman are to carry out site work inspections and safety reports periodically.         5.1.4       Safety officer and his assistants are to carry out site work inspections and safety reports periodically.         5.1.5       The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.         5.2       General         5.2       General         5.2       In addition to the safety maintenance and equipment-inspection program.		SP-01_E	HS	Aspects and Hazards analysis						
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<ul> <li>5.1.3 Site Supervisor or foreman are to carry out site work inspections and safety reports periodically.</li> <li>5.1.4 Safety officer and his assistants are to carry out site work inspections and safety reports periodically.</li> <li>5.1.5 The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.</li> <li>5.2 General</li> <li>5.2.1 In addition to the safety maintenance and equipment-inspection program,</li> </ul>	5.1.2	M&E er plants.	ngineer is	s to carry out periodical inspectic	ons for M&E eq	upments and				
<ul> <li>5.1.4 Safety officer and his assistants are to carry out site work inspections and safety reports periodically.</li> <li>5.1.5 The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.</li> <li>5.2 General</li> <li>5.2.1 In addition to the safety maintenance and equipment-inspection program,</li> </ul>	5.1.3	Site Sup reports	pervisor o periodic	or foreman are to carry out site v allv.	work inspectic	ons and safety				
<ul> <li>safety reports periodically.</li> <li>The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.</li> <li>General</li> <li>In addition to the safety maintenance and equipment-inspection program,</li> </ul>	5.1.4	Safety	officer a	nd his assistants are to carry ou	it site work ins	spections and				
<ul> <li>5.1.5 The Project Manager or his representative and Construction Managers are to carry out safety inspections monthly.</li> <li>5.2 General</li> <li>5.2.1 In addition to the safety maintenance and equipment-inspection program,</li> </ul>		safety r	eports pe	eriodically.						
<ul> <li>5.2 General</li> <li>5.2.1 In addition to the safety maintenance and equipment-inspection program,</li> </ul>	5.1.5	The Pro	ject Mar	nager or his representative and C	onstruction Ma	anagers are to				
<ul><li>5.2 General</li><li>5.2.1 In addition to the safety maintenance and equipment-inspection program,</li></ul>		carry o	ut safety	inspections monthly.						
5.2.1 In addition to the safety maintenance and equipment-inspection program,	5.2	Genera	al							
	5.2.1	In addi	tion to th	e safety maintenance and equip	oment-inspect	ion program,				

Occupational Safety	/ & Health	Management	System	C

ase Example 6 - 2

	OHS	OCECD OPERATIONAL CONTROL PROCEDURE	Section 2								
			5 Feb 09 Rev 2								
		Safety Inspection Page 2 of 9									
	which is the worl Machine	which is an essential operating practice on every site, regular inspection of the workplace must take place.(refer to OCP-08_OHS Maintenance of Machinery)									
5.2.2	2 All inspect dictated	ctions, regardless of type, shall be taken	place at intervals, as								
5.2.3	3 M inspectio	Middle and senior management shall involve themselves in these inspections by taking part in nominated inspections or conducting their own.									
5.3	Safety In:	spections									
5.3.1	1 Wh monthly with end	ere required by contract, the basis prepare and submit the mandato orsement of Project Manager.	Safety Officer shall on ry safety report to the client								
5.3.2	2 The conduct	The Safety Officer, Site Supervisor, designated personnel shall conduct various safety inspections with respective subcontractors/site									
5.3.3	frequence	r inspection program shall be developed	I to specify the check items,								
5.3.4	4 Such pro	gram shall comprise but not limited to the	followings;								
	• G	eneral safe work									
	• Sc	caffolding									
	• Te	emporary electrical installation									
	• Ex	cavation									
	• C	oncreting and formwork									
	• Ho	ot work									
	• Ho	ousekeeping, etc.									
5.3.	5 Appendi	Appendix-1 shows the typical checklist for general safe work inspections.									
5.3.0	5 The Safe inspectio	The Safety Officer, Site Supervisor or designated personnel shall keep the inspection records.									
5.4	Remedia	I Action									
5.4.	1 Inspect the corre	Inspections conducted are to be properly documented in order to specify the corrective actions required, timeframe and responsible person for the									
5.4.2	2 Follow schedule	Follow-up is necessary to ensure that remedial works are completed on schedule as committed by the parties concerned.									

OHS	OCECD OPERATIONAL CONTROL PROCEDURE	Secti	on 2		
		5 Feb 09	Rev 2		
	Safety Inspection	Page 3 of 9			

Appendix 1 Sample for safe work inspection checklist

	OHS PROCEDURE			Section 2			
	Safety Inspection		5 Feb	09	Rev 2		
			P	age	4 of 9		
Appe Safe '	endix 1 Sample for General Work Inspection Checklist OHS						
	CHECKLIST FOR PROJECT SITE						
NO	DESCRIPTION	Report (tick if ol or NA applic	of visit oserved if not able)	L oth	ocation & er remarks		
1	Personal Protective Equipment						
1a.	Use of Safety helmets.						
1b.	Provision and use of eye protection.						
1c.	Use of safety belt.						
1d.	Provision of ear protection.						
2	Excavation						
2a.	Excavation depth > 5m to provide warning sign.						
2b.	Timber plank used for piling at least 50mm thick.						
2c.	Excavation depth > 1.2m provide access ladder.						
2d.	Excavation depth > 4m to provide PE design for shoring.						
2e.	Excavation depth > 1.5m with mechanical digger used, to provide PE design for shoring.						
2f.	Positioning of machinery in dangerous manner.						
2g.	Storage of material 610mm away from the edge of trenches.						
2h.	Failure to protect open cut slope in accordance with approved method statement or design.						
3	Scaffolding						
За.	No wire ties.						
3b.	Proper maintenance of scaffold.						

OHS	PROCEDURE	NIROL		Secti	on 2	
			5 Feb (	09	Rev 2	
	salety inspection		Р	age	5 of 9	
NO	DESCRIPTION	Report (tick if ol or NA applic	of visit oserved if not able)	L oth	Location & other remarks	
635r	nm.					
3d. Sign	show maximum load & maximum of workers to be placed.					
3e. Platf 50m thick	orm projection shall not be less than m or greater than 4 times of ness of plank used.					
3f. Plan secu	k used shall be flushed and red.					
3g. Rem	oval of construction debris from					
3h. Prov	ision of access ladder to platform.					
3i. Prov platf	ision of guard rail for working orm exceeds 3m in height.					
3j. Prov scaft	ision of bracing from top to base of olding.					
3k. Erec	tion on solid foundation or well solidated soil.					
4 Hou	sekeeping					
4a. Cau	se tripping and cutting hazards.					
4b. Stora pass	age of material cause obstruction to age way or place of work.					
4c. Mate man	erial to stored or stacked in safe ner.					
4d. Mate to pe platf	erial storage shall not cause danger ersons below or close to edge of orm.					
4e. Deb cons	ris shall not accumulated and titute hazard.					
4f. Prov	ision of hoarding.					
4g. Rem	oval of oil, greese, water etc., in h may causes slipping hazard.					

	OHS	OCECD OPERATIONAL COT PROCEDURE	NTROL		Sectio	tion 2		
				5 Feb	09	Rev 2		
		Safety Inspection		Р	age	6 of 9		
			Bonort	ofvicit				
NO		DESCRIPTION	(tick if of or NA applic	Report of Visit ick if observed or NA if not applicable)		ocation & er remarks		
5a.	Proper	method of removal of debris.						
5b.	Provision of exter than 12 expose	on of catch platform for demolition ior wall or roof from a point more im height if persons below are d to falling objects.						
5c.	Erection unautho demolit display.	n of barricade to prevent orised person(s) entering the ion project site with warning sign						
5d.	Swingir times h with ba	ng weight method to provide 1.5 eight of structure demolition zone rricade.						
5e.	Clamsh demolit	ell bucket used to maintain 8m ion zone with barricade.						
6	Traffic	Control & Road Safety						
6a.	Failure and dire	to provide alternative footpath ectional sign for pedestrians.						
6b.	Closing traffic ja	of any road or lanes leading to am of 100m or more.						
6c.	Failure tempora other in closure	to display any or adequate ary sign, cone, rotating lamp or dication for temporary road-lanes						
6d.	Failure rotating	to maintain barricades, blinkers, lamps in good working condition.						
6e.	Failure at strate	to display adequate warning sign egic location.						
6f.	Failure suitable works o highwa	to provide barrication with warning sign and light when carry out near any roads / ys.						
6g.	Placing debris, manner	of equipment / machineries, material or thing in such a r as to cause obstruction to						

	OHS	OCECD OPERATIONAL COT PROCEDURE	NIROL	S	Section 2		
				5 Feb 0	9 Rev	v 2	
		Safety Inspection		Pa	age 7 of 9		
NO		DESCRIPTION	Report (tick if ol or NA applic	of visit oserved if not able)	Location & other remarks		
	person: pedest	s using the public street and rian footway.					
6h.	Failure pothole	to rectify road depression or s immediately.					
6i.	Failure truck m works o and ab	to provide collision attenuator / nounted attenuator (TMA) for on road with speed limit 70kph ove.					
7	Cranes	6					
7a.	Sound	underlying material for footing.					
7b.	Provide	e capacity chart.					
7c.	Indicate corresp sign wh	or for safe working load bond to radius of jib and warning nen radius is unsafe.					
7d.	No trav	el of crane with suspended load.					
7e.	Provision and signature	on of lifting the Site Supervisor nal man.					
8	Electri	cal					
8a.	Provision official exists.	on of proper warning sign in 4 languages where electrical circuit					
8b.	Protect damag	ive measures taken to prevent es.					
8c.	Wiring not loop	supported on proper insulator and ped over rails or brackets.					
8d.	No wiri and sha	ng shall be left on ground or floor all be protected.					
9	Safe M	eans of Access					
9a.	Safe m working	eans of access to be provide to glevels above or below ground.					
9b.	Provisi	on of hand hold to ladder.					
9c.	Ladder	shall not stand on loose bricks or					

	OHS	PROCEDURE	NIROL		Sectio	on 2	
				5 Feb (	09	Rev 2	
		Safety Inspection	Page 8 of 9				
NO		DESCRIPTION	Report (tick if o or NA applic	of visit bserved if not cable)	L oth	ocation & er remarks	
	loose p	packing.					
9d.	Ladder	shall be securely fixed.					
9e.	No und	lue swaying of ladder.					
10	Piling						
10a.	Piling h ground	nammer shall be lowered to if is not in use.					
10b.	Provisi	on of permanent ladders.					
10c.	Warnin test pile	g sign provided at 50m away from e area.					
10d.	Sound driver.	footing for advancing of pile					
11	Falling	Hazard					
11a.	Open s or cove	ide or opening shall be guarded ared.					
12	Prever	ntion of Fire					
12a.	Provisi	on of fire extinguishers.					
13	First-A	id					
13a.	Provide	e and maintain First-Aid boxes.					
13b.	Employ more th	ment of first aider for factory nan 25 persons.					
14	Safe P	lace of Employment					
14a.	All plac passag mainta	es of work, floors, steps, stairs, les, gangways, must be properly ined and free from obstruction.					
14b.	Secure provide more th fencing	foothold & handhold shall be ed if a person is liable to fall from han 3m; provision of safety belt, I, net and secured anchorage.					
15	Health	Requirements					
15a.	Cleanli clean a	ness – Work place to be kept and free from effluents.					

C.	OHS	OCECD OPERATIONAL CON PROCEDURE	IROL	e.	iectic	an 2		
		Safely Inspection		5 Feb (	5 Feb 09 Rev 3			
		·····		P	ige S	of 9		
NG		DESCRIPTION	Report (tick if d or N/ appli	ocation & ar rema <b>r</b> ks				
15b.	Ventila work p gases,	tion-Provision of ventilation for ace which generate harmful vapours or other impurities.						
15c.	Lightin sufficie	g - Provision and maintain nt & suitable lighting.						
15 <b>d</b> .	Draina mainte	ge - Provision and proper nance of drainage system.						
15e.	Sanita mainta	y – Sufficient and properly ined toilet facilities.						
18	Others							
16a.	Non-co proced	mpliance with approved ures for beam launching work.						
16b.	Failure like pill cranec plugs f	to control unsafe acts of workers, ioning on dumpers / excavators / , improper use of connectors / or electrical equipmenis, etc.						
16c.	Failure and by any go boards applics the wo	to comply with any written law slaws, rules and regulations of vemment ministry, statutory or other authorities which are ble or relevant to the execution of ks.						
INSPE	CTED A	ND WITNESSED BY:						
Inspe Nome	etion d s	one by:	Si Re N	ubcontrec epresenta: ame:	tor's tive (	if applicabl		
Signa	ture, De	te and Time:	3	gnature, Da	ate â	Time:		

# 6.3 Case Example 6-3

### 1) Outline

This format is a record for toolbox meeting in which contents of works for the day, attentions on safety, health and hygiene, methodologies for work and signatures of all attendees are to be filled. (Case Example 6-3).

Likewise toolbox meetings, "Three Five-Minute Activity Campaigns": 1) five-minute safety talks before starting work, 2) five-minute safety confirmation at the start of work and 3) five-minute cleaning before ending work, are practiced by this corporation. Samples of documents are omitted in this case.

### 2) Case Example

The Case Example 6-3 is on the following page.

					FR		
					Signature Chữ ki		
	Te Bá	oolbox Mee o cáo an toàn hà	e <b>ting</b> Ing ngày				
Site Công trường			Date (ngày)				
Cooperation		<u> </u>	Foreman Đốc công				
Today's content of we	ork (Nội đu	ng công việc)	Safety	hygiene	attention (Chú ý về an toàn)		
1.							
2.			·····		<u></u>		
3.		<b>M</b> <sup>1</sup> · · · · · · · · · · · · · · · · · · ·					
4.					·····		
5.					· /· /·/ ·/ ·/		
Clean up the working pla	ace 10 minu	utes before ending w	ork. (Don dep cô	ng trường	g thi công 10 phút trước khi ra về).		
We do so. (measures).	Biện pháp	dâm bảo an toàn	Check befor	re it wor	ks (The check is $\circ$ sign. )		
1.			1.	Kiem t	ra trước khi lâm việc		
2,			2.				
			3.				
3.			3.				
<u>3.</u> <u>4</u> .			3.				
3. 4. All workers' signatures		Number of people	3. 4.		Attention		
3. 4. All workers' signatures <u>Chữ kí của tất cả công nhâr</u> 1.	1	Number of peopl Số lượng người	3. 4.		Attention Chú ý • Take proceedings of the safety		
3. 4. All workers' signatures Chữ kí của tất cả công nhậr 1. 2.		Number of people Số lượng người 11.	3. 4. e		Attention Chú ý • Take proceedings of the safety meeting after the morning gathering, and pass the person in charne each foreman		
3. 4. All workers' signatures Chữ kí của tất cả công nhậr 1. 2. 3.		Number of people Số lượng người 11. 12.	3. 4. e		Attention Chú ý • Take proceedings of the safety meeting after the morning gathering, and pass the person in charge each foreman. • Buôi hop an toàn bắt đầu sau k tân thể dục buổi sáng		
3 . 4 . All workers' signatures Chữ kí của tất cả công nhậr 1 . 2 . 3 . 4 .	viên mới	Number of people Số lượng người 11. 12. 13.	3. 4. e	riên mới	Attention Chú ý • Take proceedings of the safety meeting after the morning gathering, and pass the person in charge each foreman. • Buổi họp an toàn bắt đầu sau k tập thể dục buổi sáng. • All worker names are signatures o own handwriting		
3.         4.         All workers' signatures         Chữ kí của tất cả công nhâr         1.         2.         3.         4.         5.	hành viên mới	Number of people Số lượng người 11. 12. 13. 14.	3. 4. e	hành viên mới	Attention Chú ý · Take proceedings of the safety meeting after the morning gathering, and pass the person in charge each foreman. - Buổi họp an toàn bắt đầu sau k tập thể dục buổi sáng. · All worker names are signatures o own handwriting. - Lấy chữ kí của tất cả công nhấ		
3.         4.         All workers' signatures         Chữ kí của tất cả công nhậr         1.         2.         3.         4.         5.         6.	mer Thành viên mới	Number of people Số lượng người 11. 12. 13. 14. 15. 16.	3. 4.	mer Thành viên mới	Attention Chú ý • Take proceedings of the safety meeting after the morning gathering, and pass the person in charge each foreman. • Buổi hợp an toàn bắt dầu sau k tập thể dục buổi sáng. • All worker names are signatures o own handwriting. • Lấy chữ kí của tất cả công nhấ • To newcomers put o sign to the or handwriting signature column. and		
3.         4.         All workers' signatures         Chữ kí của tất cả công nhậr         1.         2.         3.         4.         5.         6.         7.	dewcomer Thành viên mới	Number of people Số lượng người 11. 12. 13. 14. 15. 16.	3. 4.	łewcomer Thành viên mới	Attention Chú ý • Take proceedings of the safety meeting after the morning gathering, and pass the person in charge each foreman. • Buối hợp an toàn bắt dầu sau k tập thể dục buổi sáng. • All worker names are signatures o own handwriting. • Lấy chữ kí của tất cả công nhấ • To newcomers put o sign to the ow handwriting signature column, and them receive the newcomer education.		
3.         4.         All workers' signatures         Chữ kỉ của tất cả công nhậr         1.         2.         3.         4.         5.         6.         7.         8.	c : Newcomer Thành viên mối	Number of people Số lượng người 11. 12. 13. 14. 15. 16.  17. 18.	3. 4.	o : Newcomer Thành viên mới	Attention Chú ý • Take proceedings of the safety meeting after the morning gathering, and pass the person in charge each foreman. • Buối hợp an toàn bắt đầu sau k tập thể dục buổi sáng. • All worker names are signatures o own handwriting. • Lấy chữ kí của tất cả công nhấ • To newcomers put o sign to the ow handwriting signature column, and them receive the newcomer education. • Thành viên mới phải kí vào trong cột chữ kí.		
3.         4.         All workers' signatures         Chữ kí của tất cả công nhậr         1.         2.         3.         4.         5.         6.         7.         8.         9.	c : Newcomer Thành viên mới	Number of people Số lượng người 11. 12. 13. 14. 15. 16. 17. 18. 19.	3. 4.	o : Newcomer Thành viên mới	Attention Chú ý • Take proceedings of the safety meeting after the morning gathering, and pass the person in charge each foreman. • Buối hợp an toàn bắt đầu sau k tập thể dục buổi sáng. • All worker names are signatures o own handwriting. • Lấy chữ kí của tất cả công nhấ • To newcomers put o sign to the ow handwriting signature column, and them receive the newcomer education. • Thành viên mới phải kí vào trong cột chữ kí.		

# 6.4 Case Example 6-4

### 1) Outline

This is another toolbox meeting format which differs slightly from the earlier example, Case Example 6-3-1. It consists of fill-out forms of the work, quality and safety attentions and safety instructions posed by contractors. It also works as risk assessment sheet as it requires each worker to check by him/herself on potential risks, hazards and preventive measures that should be taken on the day.

### 2) Case Example

The Case Example 6-4 is on the following page.

cupationa	al	Safety	&	H	lea	lth	Μ	lar	na	gei	me	nt S	Syst	em	C	ase E	xample 6-
		<u> </u>		. No. Name	21	22 23	24	25						u prevent?)		Duty Safety	Tool Box Meeting
		Person charge		Name ID						ion and notes				easure(How are yo			
	ora	Company name	nd the full name).	ID. No.	16	17	19	20		Safety instruct				2. Preventive Me		Project M	
	BOX MEETING KEC		n handwriting ar	. Name	=	12 13	14	15									
-oo F	1001	Hour	i name (In ow	ID. No								Š		sk today?)		erson in charge	
		ζεŪ	Person's	Name	6	8	6	10		ks		tion, and note		What's the ris		Yes	
		d†noM		ID. No.					g	ription of wor		nental instruc	sment	Risk/Hazard(		y or aving No	
		Year		Jo. Name		3 2	4	5	ntent of meetin	Desc		uality, environn	lay's risk asses	1. Potential		there an injur sickness nor le efore finish time, et	ete
		Date		ID. N					(1) Cor			D	(2) Tod			Where neither work b	N

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# 6.5 Case Example 6-5

## 1) Outline

This is a sample of reviewed Safety Plan Document. This extract of Safety Plan Document is shown as Case Example 6-5.

# 2) Case Example

The Case Example 6-5 is on the following page.

Occupational Safet	y & Health Management System	Case Example 6-5

and improvement.

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## 6. Management Review

#### 6.1 Site safety Management Committee (SSMC)

#### Objective and Function

A Site Safety Management Committee (SSMC) shall be established to review and monitor the implementation of the safety plan, effectiveness of the safety and health measures taken and seeking the co-operation and commitment of staff at all levels. The SSMC meeting will be held every month with participants of Representatives from the Employer and the Consultant, with Contractor representatives.

Other than SSMC meeting the management having weekly progress meeting held on site office every Sunday, during this meeting discussing all weekly safety aspects and correction requirements discuss with management.

#### Terms of Reference:

- 1. To ensure the implementation of project safety plan or the contractor' site safety obligations set out in the contract;
- 2. To review and monitor the effectiveness of the safety and health measures taken on sit and recommend for improvement;
- 3. To review the established safety rules, risk assessments or safe working procedures.
- 4. To discuss hazards associated with the sit operations and necessary safety precautions.
- 5. To co-ordinate the interface safety measures of all subcontractors, utility undertakers or other construction parties working on the site;
- 6. To promote safety publicity and training;
- 7. To discuss and review the emergency and rescue procedures;
- 8. To review accidents those have occurred so as to recommend measures to prevent recurrences;
- 9. To review the accident statistics and safety performance of subcontractors;

#### **Organization:**

Chairman: Project Manager

- To chair the committee meeting and make final decision for opinions or disputes arising from the meeting.

Secretary: Safety Manager / Safety Officer

- To call meetings, professional OHC advices; take meeting minutes and follow-up matters

# 6.6 Case Example 6-6

### 1) Outline

This document shows the amendment process of Safety Plans submitted by a corporation which controls PDCA cycle based on its own standard of safety management.

## 2) Case Example

The Case Example 6-6 is on the following page.

Occupational Safety	& Health Management System	Case Example 6-6
	e near management eyetem	

# SECTION 1 : SAFETY POLICY STATEMENT SAFETY AND HEALTH POLICY

Safe construction is a social commitment that all companies should fulfill. We strive for the consolidation and the improvement of the safety and health environment so that all workfolk can feel secure, and also being accepted from society with the confidence and empathty as the basis of corporate activities of "Thorough Pursuit of Safety First".

#### 1. ELIMINATION OF ACCIDENT AND INJURY

We not only comply with the provisions of Occupational Safety and Health Regulations and Health Regulations and Our Construction Safety and Health Control, but also aim to eliminate all accidents and injuries with responding to the variety situations and managing the adequate safety and health.

Especially to the specified works as "Priority Measures" and "Priority Dangerous Work and Dangerous Work", we attempt to prevent any accident with concentrated efforts.

#### 2. ACCIDENT PREVENTION TO THIRD PARTIES

Accidents to the community must be definitely avoided with every maginable means. Particularly for the construction at urban districts, the construction plan that includes the measures of accident prevention to the third parties as the most important aspect should be drawn up and implemented thoroughly.

#### 3. IMPROVEMENT OF SAFETY AND HEALTH STANDARDS

We strive for the education of safety and health to the project office persons involved and enhance the standard level of safety and health continuously with managing the cycle of "Plan- Do - Check- Act" (=Improvement)approproately Based on "Occupational Health and Safety Management System" that specifies in reducing any risk at the job site steadily.

Under these policies, all employees of and subcontractors should bring together their own management skills and enthusiasm for safety, and strongly develop the compulsory activies of safety and health managemant.

# 7 Partnership with Locals etc.

# 7.1 Case Example 7-1

## 1) Outline

This is an emergency flow chart which shows contact addresses of person(s) in charge of the project and relevant agencies (the Engineer and the Employer). It also includes contact addresses of the police station, the fire station, and the major hospitals.

# 2) Case Example

The Case Example 7-1 is on the following page.





# 7.2 Case Example 7-2

# 1) Outline

In addition to the emergency flow chart, this document is elaborated to use a route map for obtaining easy understanding of conveyance of the injured (the route which should be taken to send injured workers to the hospital) (Case Example 7-2). The main priority and focus of safety management are placed on the workers at construction site. This corporation conducts monthly safety meetings, suggest initiatives and review safety management activities, in order to further develop safety awareness and improve measures of safety management.

## 2) Case Example

The Case Example 7-2 is on the following page.



Partnership with Locals etc.

Case Example 7-2

### PROJECT NAME

## PROJECT SAFETY PLAN

		<ul> <li>appropriate measures to be taken;</li> <li>Review of sub- contractors safety performance.</li> </ul>		
Monthly	Project Manager Construction Managers Chief manager The Engineer The Employer Subcontractors Project Manager	<ul> <li>Present overall safety performance and statistics of the Project;</li> <li>Identify good practice and bad practices;</li> <li>Identify the following months training program;</li> <li>Appraise the participants of the training carried out to date;</li> <li>Proposal of incentives;</li> <li>Open discussion;</li> </ul>	•	Contained in the Monthly Report and presentation material;

## 3.04

### Safety Information and Training

With reference to the OHSRP Section 7, the training and briefing are in principle the same:

#### **Safety Inductions**

All persons that are and shall be engaged on this Project shall be required to undergo an initial Safety Induction. The Safety Induction shall be conducted in English and Vietnamese. The Safety Manager and/or delegates shall conduct the Safety Induction. The Safety Induction is mandatory to any person wishing to visit/enter/work on or within the Project site. The induction shall include but not limited to:

# 7.3 Case Example 7-3

# 1) Outline

This shows an example of safety management plan at the construction site where there is a high possibility of influence from active volcanoes. The plan states own evacuation policy and the monitoring system specified this volcanic environment, which are both mentioned in Safety Plan Document.

# 2) Case Example

The Case Example 7-3 is on the following page.

	Form 12 - Working Safety Plan
13.4.7	Evacuation Plan
13.4.7.1	Introduction
	The project area is located at foot of Mt. Merapi, which is one of the most active volcanoes in Indonesia. Merapi volcano activity is characterized by a very frequent eruption ranging from 1 to 5 years of time duration, (last eruption took place in 2006), and eruption is usually accompanied by the debris flows which occur with intensive rainfall.
	Therefore, in case an eruption or debris flow took place during construction period, evacuation plan shall be prepared properly to ensure workers' lives and the Employer and the JO's properties.
13.4.7.2	Collection of Volcanic, Weather Information
	a) Governmental observatory
	Volcanic and weather information are provided from monitoring post under the control of Volcanologi office established by Indonesian Government for monitoring volcanic activities. There are three monitoring post office around the project area, which are Babadan, Turgo and Balerante. Table 5 shows names of monitoring post and facility codes which are related to nearest monitoring post. Emergency information as to volcano activities and weather is transmitted through HT. In view of this at least one HT shall be allocated each site with specified frequency.
	The JO's supervisors and safety staff shall always pay adequate attention to those information and in case intercepting alert signal they shall make workers and equipments evacuate from site to secure place as soon as possible.

Partnership with Locals etc.	Case Example 7-3

Form 12 - Working Safety Plan

	Table 5. Worktoning Post				
No	Observatory	River	Facility Code		
		Basin			
1	Babadan	Apu	AP-RD2, AP-RD1a		
		Pabelan	PA-RD2, PA-RD5		
		Trising	TR-RD1, TR-RD8		
		Senowo	SE-RD5, SE-RD6a		
2	Turgo	Blongkeng	BL-RD3		
		Putih	PU-RD1 ~7		
		Batang	BA-RD1 ~ 8		
		Bebeng	BE-RD1		
3	Balerante	Kuning	KU-RD2		
		Woro	WO-RD2		

Table 5. Monitoring Post

#### b) The JO's temporary observatory

The JO will establish temporary monitoring observatory to monitor the upstream condition of river such as the change of water flow and level, rain fall and weather. It will provide the information to site as promptly as possible in case debris flow or other disaster caused by intensive rain fall or volcanic activity is likely to take place. A monitoring observatory will be built at three to five kilometers away from uppermost stream site location in each river. A watch man will be stationed at a monitoring observatory while any sites located downstream are under operation. HT will be used as a communication tool.




## 7.4 Case Example 7-4

(see also Case Example 2-4)

### 1) Outline

This is a document (traffic control and safety plan for causeway) which shows safety management in an area where there is a high possibility of landslides due to its geographical features and traffic accidents caused by external automobiles.

### 2) Case Example

The Case Examples 7-4-1, 7-4-2 and 7-4-3 are on the following pages.



# Case Example 7 - 4 - 1





# Case Example 7 - 4 - 1







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tanan. Senati Mari

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TTATTC.